UNIVERSITY OF CAPE COAST

DETERMINANTS OF WORKING CAPITAL MANAGEMENT PRACTICES IN SENIOR HIGH SCHOOLS IN AN ERA OF FREE SENIOR HIGH SCHOOL POLICY IN THE CENTRAL REGION OF GHANA

GORDON ABOAGYE

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BY

GORDON ABOAGYE

Thesis submitted to the Department of Accounting, School of Business, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Commerce degree in Accounting

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:…… Date:……..

Name: Gordon Aboagye

Supervisors' Declaration

I hereby declare that the preparation and presentation of this dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature:…… Date:……

Name: Prof. Joseph Tufuor Kwarteng

ABSTRACT

Free senior high school policy has been one of the educational interventions in Ghana which has been of great benefits to parents, students and other educational stakeholders. However, senior high schools in Ghana have been faced with issues related to working capital management. This study was conducted to assess the determinants of working capital management practices in senior high schools in an era of free senior high school policy in the Central Region of Ghana.The study employed the explanatory design. In all, 162 administrative staff directly involved in working capital management from 41 senior high schools in 8 districts were selected using the proportionate random sampling techniques. Questionnaire was used for data collection. The data collected were analysed using frequency, percentage, mean, standard deviation, correlation, regression techniques, and independent sample t-test. Findings revealed that competency levels had a significant positive effect on working capital management. Experience of practitioners was reported to have a significant positive effect on working capital management practices. Competency levels were also shown to have a positive moderation effect on the relationship between experience of practitioners and working capital management practices. It was recommended that the Free Senior High School Secretariat institute programmes to build administrative staff's capacities to enable them manage working capital effectively.

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DEDICATION

To my wife, Constance A Baidoo and children (Florence, Florencia and Henry)

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CHAPTER ONE

INTRODUCTION

The Free Senior High School (FSHS) programme constitutes a major policy change at the second cycle education level in Ghana. The programme has brought significant changes to several aspects of school administration, especially, the Accounts department of schools and district education offices. This has necessitated the need to pay particular attention to issues relating to the competency levels and experience of practitioners, and working capital management practices to forestall any possible infractions due to the challenges that the policy may have introduced.

The present study, thus, sought to examine the determinants – competency levels and experience of administrative staff – influencing working capital management practices in some selected senior high schools in an era of free senior high school policy in the Central Region of Ghana. The effect of the free-senior school high policy on working capital management was also considered. These determinants were considered as literatures involved with working capital management in high schools in Ghana are of the view that competency levels and work experience of administrative staff seem to influence practices associated with working capital management.

Background to the Study

Working capital management is an inevitable practice in every institution, irrespective of whether the institution is within the public or the private sector of an economy (Kungu, Njui, & Kimani, 2014; Odhiambo, 2016). Economic resources, such as working capital, are scarce and thus must be managed well in order to reduce misappropriation and to ensure value for

money. According to Ross, Westerfield and Jordan (2008), working capital is a business short-term asset such as inventory and related short-term responsibilities such as cash payable to suppliers, among others. Therefore, working capital management, as stated by Dunn (2001), is the management of all features of current assets minus liabilities so as to lessen the possibility of bankruptcy and also take advantage of profits on assets. Working capital management usually revolves around current inventory management, cash management, and receivable and payable management (Simiyu, 2014; Attom, 2014); thus, practices associated with these components make up working capital management practices.

According to Adu Gyamfi Opoku, (2016), irrespective of size and type, every institution has an issue related to working capital management, and educational institutions cannot be exempted. Though educational institutions are not profit-motivated, the need to ensure constant supply of essential commodities for the smooth delivery of quality education requires that working capital is well managed just as profit-motive businesses do (Attom, 2014; Tandoh, 2020; Kieschnick *et al.*, 2006). For instance, in the United States of America, school managers pay attention to working capital as success in its management correlates with the success of the entire school (Mito & Simatwa, 2012).

Also, Magak (2013) is of the view that working capital is vital to educational institutions' progress in Europe; thus, its management should be prioritised. The importance accorded to working capital management is not underrated in Asian educational institutions too, as it has contributed to the overall performance of these institutions (Simiyu, 2014). Stakeholders of

educational institutions in Africa ascribe to the general wellbeing, considering finance and management, of these institutions to good working capital management practices (Maronga, Weda, & Kengere, 2013).

It should be stated that despite the importance associated with working capital, its administration is influenced by determinants which either improve its practices and procedures or hamper its activities (Maronga *et al.*, 2013). Prominent among these determinants are the competency levels of the individuals directly involved in the management of working capital and administrative staff work experience involved in working capital management (Maronga *et al.*, 2013; Kieschnick, Laplante, & Moussawi, 2006). Studies considering the possible influence of these determinants of working capital management were carried out in the developed economies (Obulemire, 2006).

With regards to competency levels, Obulemire (2006) is of the view that persons possessing high competency levels are inclined to put up a good management practices as far as working capital is concerned. Work experience of those directly involved in management activities has also been reported to have influence on working capital management practices Aminu, & Zainudin, (2015). As stated earlier, these studies (Aminu *et al.*, 2015; Obulemire, 2006) focused on developed nations whose educational conditions is diverse from that of developing economies, and thus, it may be difficult to comprehensively apply the outcomes of these studies to the situation of a developing country such as Ghana. This suggests that there is the need for studies to address these aspects of extant literature.

Considering the changing dynamism in Ghana's school management system, due to free senior high school education policy, undoubtedly presents entirely new practices for managing working capital to senior high schools' management in the country (Attom, 2014). This is due to the greater share of senior high school working capital comes in the form of commodities, such as food items. The cash aspect of the working capital also comes as a one-off fund per academic semester from government and at a date the schools have no control over, compared to the system prior to the free senior high school policy where management generated their own funds from school fees received at regular intervals from students (Fusheini, Adam, Kuyole, Ibrahim-Tanko, & Bekoe, 2017). These issues could negatively affect working capital management practices of Ghana's second cycle institution. Hence, working capital management practices are more important now than ever.

Also, the reforms in Ghana's educational system are constantly altering the sources, sizes and frequency of accessing funds for senior high schools, and this requires that the schools' management practices are constantly readjusted to reflect any new changes that result from any new educational reform. The free senior high school policy, for instance, constituted major changes to income sources and their flows to the senior high schools in Ghana (Fusheini *et al.*, 2017), and second cycle institutions in the Central Region cannot be exempted.

Before the introduction of the policy, the schools received significant proportion of their working capital in the forms of payment of utility fess (school fees) by parents or guardians, and subventions from government

(Fusheini *et al.*, 2017). The introduction of the policy has placed the government or the state as the major source of income to schools (Ackom-Wilson, 2016). This means that during the system before the policy, schools were entirely recipients and disbursing almost all the working capital; whilst in the present system, the disbursement is divided between the Free SHS Secretariat and the school management units, where the Free SHS Secretariat does the greater part of the disbursement (Fusheini *et al.*, 2017; Adu, 2015).

Taking into account the change in management activities and procedures brought forth by the free high senior school policy, determinants such as competency levels and experience of those who manage working capital at the senior high schools in Ghana, especially the second cycle institutions in the Central Region, should be investigated; thus, they appear to influence cash management, inventory (food items) management and receivable-payable management which make up working capital management (Adu, 2015; Ackom-Wilson, 2016). The impact of the aforementioned issues on the management of working capital can be justified on the fact that as individuals' competency levels and experience in a given field improve, the practices – in the present case, working capital management practices – they are engaged in are likely to see improvement as well, and the reverse may hold true. Thus, this present research is relevant considering the importance in properly managing working capital.

Statement of the Problem

Managing working capital is critical to organisation success. However, concerns have been raised against working capital management practices in education sector in Ghana. There have been issues of fund embezzlement,

thefts, procurement breaches and pilferages in the educational sector and this could be attributed to ineffective working capital management. Second cycle institutions in Ghana are faced with issues related to working capital management practices, as there have been issues of fund embezzlement, thefts, procurement of low-quality food items, and pilferages (Chanimbe, 2019). Possibly, these undesirable practices may be attributed to the competency levels and experience of working capital management administrative staff at the senior high schools. Considering the fact that government agencies may not adhere strictly to disbursement timelines, which means schools that do not manage their cash and inventory (food items) well risk facing working capital management issues (Tuovila, & Drury, 2020).

Considering the likely numerous consequences of mismanaging working capital of schools with several students to feed and provide for, there is the need to investigate the determinants that are likely to influence working capital management practices in second cycle institutions in the Central Region. However, very few empirical studies related to the free senior high school policy and working capital management are available (Ackom-Wilson, 2016; Peng-Yir, 2016). Also, these available studies focused on determinants other than competency levels, experience of practitioners, and the free SHS policy itself. There appears to be no study assessing the determinants – competency levels and experience of practitioners – influencing working capital management practices in second cycle institutions in the Central Region. Thus, in filling these gaps, the research assessed the influence of these determinants on working capital management practices in senior high schools in the Central Region.

Purpose of the Study

The study's main purpose was to examine the effect of competency levels of those engaged in managing working capital, the effect of experience of managers of working capital, and the moderating role of competency levels on the link between administrative staff' experience and working capital management practices, and the difference in the working capital management practices based on the perception of the administrative staff of pre and post-free SHS policy.

Research Objectives

The subsequent specific research objectives were formulated. The objectives were to:

1. assess the effect of competency levels of administrative staff on working capital management practices;
2. determine the effect of experience of administrative staff on working capital management practices;
3. analyse the moderating effect of competency levels on the relationship between experience of administrative staff and working capital management practices; and
4. to investigate whether there is any difference in perception between the administrative staff of pre-free and post-free senior high school policy on working capital management practices.

Research Hypotheses

Subsequent to stating the research objectives, the hypotheses, below, were formulated and tested.

H_0^1: There is no statistically significant effect of competency levels of administrative staff on working capital management practices.

H_0^2: There is no statistically significant effect of experience of administrative staff on working capital management practices.

H_0^3: There is no statistically significant moderating effect of competency levels on the relationship between experience of administrative staff and working capital management practices.

H_0^4: There is no statistically significant difference in perception between the administrative staff of pre-free and post-free senior high school policy on working capital management practices.

Significance of the Study

Examination of the practices in managing working capital would make available a worth of valuable information for policy making and implementation. The outcome would provide fresh information on the policy on free senior high school to aid policy and decision making to improve smooth running of the programme. It would also bring forth deficiencies in competency levels and working experience of working capital management administrative staff to inform the institution of capacity building programmes by Free Senior High School Secretariat (Ghana Education Service) to build capacities of deserving administrative staff.

Delimitation of the Study

The research was delimited to only the senior high schools in the Central Region, Ghana. The selection of Central region for this study was due to easy access to the needed data and easy access to the schools. The only participants involved were the administrative staff (Domestic Assistance

Head, Bursar (Accountant), Store keeper and the Matron) who were at post before and after the execution of the Free Senior High School policy. The main variables considered were competency levels and experience of managers of working capital as independent variables, and working capital management practices as the dependent variable. All other possible variables that might influence working capital management practices of senior high schools were not considered.

Limitations of the Study

Adopting the survey approach, the questionnaires were used for the data collection. Some of the respondents seemed to have less knowledge about the subject matter of this study; thereby, making the researcher spend more time explaining concepts to some of the respondents in order to ensure that they provided candid responses to the items in the instrument.

Operational Definition of Terms

Working capital management practices: Practices related to cash and inventory (food items) management in senior high schools.

Competency levels: The extent of a practitioner's skills, knowledge and ability to perform a task effectively, acquired through education and training.

Experience: How long, in years, a practitioner has been in the position of executing functions related to working capital management.

Pre-policy: Periods prior to the introduction of free senior high school policy in Ghana. That is, senior high school era before September, 2017.

Post-policy: Periods after the introduction of free senior high school policy in Ghana. That is, senior high school era from 2017 to 2020.

Pre administrative staff: Administrative staff who were with the senior high school management before the introduction of the free senior high school policy.

Post administrative staff: Administrative staff who joined the senior high school management after the introduction of the free senior high school policy.

Organisation of the Study

The research was completed in five chapters. The first chapter covered the background to the study, statement of the problem, purpose of the study, the study objectives, research hypotheses, significance of the study, delimitation, and limitations of the study. The second chapter focused on the examination of existing literature in relation to working capital management practices, among others. Research methods were captured in Chapter Three. Chapter Four presented results and discussion of findings. The fifth Chapter focused on summary, key findings, conclusions, recommendations, as well as suggestions for further studies.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents related literatures on working capital management practices and issues related to the free senior high school policy. The first part of the chapter presents the theoretical review; the second part is on conceptual review which comprises free senior high school policy, working capital management, competency levels and experience of practitioners; the third part reviews related empirical studies; the fourth part presents the conceptual framework, and finally the chapter summary is presented.

Agency Theory

The agency theory attempts to explain relationships and self-interests in organisations (Jensen & Meckling, 1976). The theory describes the relationship between principal/agent and delegation of controls. It describes how best to organise relationships in which a party known as the principal spells out the work and which another party called the agent performs or makes decisions on behalf of the principal (Jensen & Meckling, 1976). The theory also acknowledges that within business organisations, there is the likelihood of the problem of conflict of interest where principals or owners of organisations tend to pursue their own interests and agents or managers of the business tend to satisfy their personal interests too (Schroeder, Greer, & Gaul, 2011).

Consequently, self-interests of agents which might compel them to perpetrate acts such as fund embezzlement and mismanagement may lead to plunging the organisation into difficulties (Schroeder *et al.*, 2011). This

implies that in a situation where working capital management of a senior high school is separated from its ownership, government, the main issue to grapple with when managers and owners are not having their desires met will be conflict of interest. Thus, when working capital management administrative staff with low competency levels and less experience use the school resources, in the forms of cash disbursed by government and food items, to achieve their self-interests, the schools suffer from poor overall working capital management practices. Inferring from this theory, a relationship can be drawn between competency levels and experience of administrative staff, and working capital management practices.

Free Senior High School Policy

The free senior high school (FSHS) is concerned with free admission fee, free tuition, textbooks, library fees, science resource centres fees, fees for ICT, examination fee, utility fee, and boarding and meals (Chanimbe, 2019). As stated in Article 25(1b) of the 1992 Constitution, secondary education in its different forms, including technical and vocational education, shall be made generally available and accessible to all by every appropriate means, and in particular, by the progressive introduction of free education.

Also, Goal Four (4) of the United Nations Sustainable Development Goals (SDGs) states that by 2030, all girls and boys should complete free equitable and quality primary and secondary education leading to relevant and effective learning outcomes (UN, 2015). It has therefore been a priority of the government of Ghana and the Ministry of Education to ensure that education is made free from basic to second cycle to afford more children in Ghana the opportunity to access quality education. In September 2017, the Ministry

achieved a major milestone with the implementation of the Free Senior High School programme (Ministry of Education (MoE), 2018). That year, there was 11% increase in enrolment, breaking records from previous years (MoE, 2018). In the 2017/18 academic year, a new record was set with the highest enrolment ever seen in the country – over 470,000 students enrolled in senior high schools (MoE, 2018).

Bignon, & García-Peñalosa, (2021) are of the view that acquiring literacy and numeracy is a fundamental human requirement, and Pettinger (2012) argued that educating individuals benefits the society more than the individuals as it equips a person with social values that enhance national unity. The heightened demand for secondary education is accompanied by the need to respond to the twin challenges of increasing access to and improving quality education as well as the need for infrastructural development, as this is significant to secondary education. It, therefore, calls for more efficient sources of funding secondary education (World Bank, 2013). These arguments, thus, makes it justifiable for the financing of senior high school education.

In all countries worldwide, a significant portion of national resources, both public and private, are channeled to education (Ackom-Wilson, 2016). The rationale for sustaining this fact is compelling. A quality education, beginning with primary education, is fundamental in endowing individuals with the capacity to successfully pursue their private goals. It also equips them with the knowledge and skills, as well as the values and attitudes, necessary to contribute effectively to the economic, social and political development of their societies (Saavedra & Tschernia (2002). Education in Ghana is mainly

financed from public resources, even though the private sector is also playing an important role (MoE, 2018). Public sources of funding comprise The Ghana Education Trust Fund, the District Assemblies Common Fund (DACF), the Ministry of Education, Youth and Sports (MOEYS), the Student Loan Scheme, and the Scholarship Secretariat (African Development Fund, 2003).

The internally generated funds and loans, grants and donations the government of Ghana gets are used in subsidising the cost of senior high education to improve equal access for all. The government of Ghana launched the progressively free senior high School Education in September 2015, and an amount of GH¢ 12,178,544.00 ($2,744334) was released to the ministry of Education for the first term of 2015/2016 academic year to fund the progressive free senior high school policy (MoE, 2015). The free senior high school education policy pursued currently is supposed to cover the full cost of education. An amount of $100 million (GH¢400 million) by the government was to absorb the cost of senior high education and make it entirely free for the 2017/2018 academic year (MoE, 2017).

Also, the government of Ghana and the World Bank Group signed a $156 million financing agreement to improve equal access to secondary education in under-served districts throughout the country. The fund was to help enroll 30,000 new senior high students, improve learning outcomes for 150,000 students in low-performing schools and communities, and 2000 senior high school teachers, head teachers, and other education officials (World Bank, 2014). Also, since the establishment of the Skills Development Fund (SDF) in 2010, the Danish government has been consistently supporting

Ghana with $15 million every year to give more people access to technical and vocational training (MoE, 2017).

Further, with regards to management of funds and inventory, heads of schools continue to play their traditional roles of managing the day to day affairs of schools. In 2017/2018 academic year, implementation of Day/Boarding placement was in accordance with existing guidelines. Disbursement procedures continue to follow existing guidelines and practices and are based on signed school list and submission of returns and requests backed by appropriate documentations. There are two disbursements in the term – an initial advance is apportioned at the beginning and the remaining upon submission of returns and details on students' information within two weeks after enrolment start date (MoE, 2017). With respect to feeding, Strictly Day Schools: One hot meal is served to each student by food vendors contracted to serve one hot meal at the school; Boarding Schools: Food items are supplied by suppliers that are registered with National Food Buffer Stock Company to supply non-perishable food items to boarding schools (MoE, 2017).

Considering the foregoing, it could be seen the free senior high school policy has associated with many benefits as fees related to tuition, examination, utilities, and feeding have been scrapped off. This has actually helped both parents and students as the parents are able to save more for other things due to the fact that there is no more the need to pay fees, among others, and students are no more going to be sacked from school and be denied of study hours. However, the policy is not free of problems; especially those related to working capital management practices as far as disbursement of

funds, procurement of food items and management of cash and food items are concerned.

Working Capital Management

Every institution takes much interest in managing working capital. This is due to the fact that working capital helps organisations to smoothly run the day-to-day affairs of business activities. Working capital, according to Korankye and Adarquah (2013) investigated the relationship between the management of a company's working capital and the profitability of the company. The financial statements of Ghanaian manufacturing companies that were publicly traded between the years 2004 and 2011 are used to compile the panel data. The research sample consisted of six out of seven manufacturing companies that were quoted on the Ghana Stock Exchange and had complete financial data. As proxies for working capital management and profitability, respectively, this paper uses the working capital cycle and the gross operating profit margin. While leverage, interest cover, and the ratio of current assets to total assets are used as control variables, the total assets to current asset ratio is the most important. The study makes use of descriptive statistics, as well as correlation and regression analyses based on Pearson and ordinary least squares. The findings indicate that the working capital cycle has a significant and negative impact on the profitability of the firm. This indicates that Ghanaian manufacturing firms that are less profitable on the stock market have a longer working capital cycle. The correlation analysis also reveals that inventory turnover period, account receivables collection period, and account payables payment period each have a negative correlation with profitability. These findings come from the study. In conclusion, a significant negative

relationship exists between leverage and profitability; however, a significant positive relationship exists between interest cover and the ratio of current assets to total assets and profitability.

Siew and Ali (2020) is a financial metric representing operating liquidity available to firms, businesses, organisations, or other entities, including governmental institutions. Working capital is usually considered as a part of operating capital. Mathematically, gross working capital is calculated as current assets minus current liabilities; if current assets are less than current liabilities, an entity has a working capital deficiency, also known as a working capital deficit and negative working capital (Peng-Yir, 2016). Positive working capital is required to ensure that a firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short-term debts and upcoming operational expenses.

Management of working capital involves managing inventories, accounts receivable and payables or short-term debt, and cash (Tandoh, 2020; Siew & Ali, 2020). Specifically, decisions relating to working capital and short-term financing are referred to as working capital management. These involve managing the relationship between an entity's short-term assets and its short-term liabilities. The goal of working capital management is to ensure that the entity is able to continue its processes and that it has sufficient cash flow to satisfy both maturing short-term debts and upcoming operational expenses (Kieschnick *et al.*, 2006).

Deloof (2003) is of the view that there is a striking relationship between working capital management and performance. Thus, Deloof stated that business practices, the size of the firm and its growth in the near future,

independent directors, executive compensation, and share ownership of executive officers exert an influence on the working capital management of firms. With regards to the components of working capital management, Siew and Ali (2020) summarised this inventory supervision, cash management, and debt management as the three main components.

Inventory, also known as stock, refers to the goods and materials that a business holds for the ultimate goal of resale, production or utilisation (Pound, Bell, & Spearman, 2014). In the context of a manufacturing production system, inventory refers to all work that has occurred – raw materials, partially finished products, finished products prior to sale and departure from the manufacturing system. In the context of services, inventory refers to all work done prior to sale, including partially process information (Pound *et al.*, 2014).

While accountants often discuss inventory in terms of goods for sale, organisations – manufacturers, service-providers and not-for-profits – also have inventories (fixtures, furniture, supplies, etc.) that they do not intend to sell. Manufacturers', distributors', and wholesalers' inventory tends to cluster in warehouses (Agume, 2017). Retailers' inventory may exist in a warehouse or in a shop or store accessible to customers. Inventories not intended for sale to customers or to clients may be held in any premises an organisation uses. Stock ties up cash and, if uncontrolled, it will be impossible to know the actual level of stocks and therefore difficult to keep the costs associated with holding too much or too little inventory under control.

In relation to the senior high schools in Ghana, inventory is usually in the form of foodstuffs that are procured by the schools' management for the GES-employed food vending staff to prepare and serve to the senior high

school students. These inventories are usually perishable in nature. However, some of the schools also procure durable items that could be classified as part of the schools' current inventory. It should also be stated that these inventories procured are not meant for resale but purposely for use within the schools; thus, issues of receivables are not part of their management activities.

In terms of inventory management, Agume, (2017) referred to it as a discipline primarily about specifying the shape and placement of stocked goods. Inventory management is required at different locations within a facility or within many locations of a supply network to precede the regular and planned course of production and stock of materials. Similarly, in the senior high schools, administrations are required to put up proper inventory management practices to ensure that the right things are done in order to minimise losses, wastage and misappropriation of funds. These are usually done through inventory supervision which involves identifying the level of inventory which allows for uninterrupted production but reduces the investment in raw materials – and minimises reordering costs – and hence increases cash flow. Besides, the lead times in production should be lowered to reduce work in process (WIP) and similarly, the finished goods should be kept on as low level as possible to avoid overproduction (Siew & Ali, 2020).

With respect to practices associated with current inventory management, prior authors stated indicators related to procurement, credit management, waste management, and assessment of quality of stocks, among others Agume, (2017). In the senior high schools, practices such as ensuring that the right inventories are procured, taking into consideration quality and durability, are expected to be undertaken by the schools' management.

Cash management, on the other hand, is to maintain the savings in cash as low as possible whilst operating the business creatively and successfully. This is geared towards reducing knowledge "accrued early and pay late". Therefore, cash management simply refers to the allocation of cash needed for the execution of operations and investing in unused short-term securities which is profitable for secured returns (Siew & Ali, 2020). Debt management also helps identify the appropriate credit policy, credit terms, which will attract customers, such that any impact on cash flows and the cash conversion cycle will be offset by increased revenue and hence return on capital (Siew & Ali, 2020).

It should also be pointed out that working capital management may be influenced by economic policy uncertainties. Uncertainty occurs when the probability of an outcome is not known or cannot be predicted. Uncertainty takes on economic characteristics if the outcome of the uncertain event could significantly affect an economic variable. Economic policy uncertainty, therefore, refers to the likelihood that the outcome of an economic policy could not be predicted explicitly (Tandoh, 2020). Uncertainty is inherently a component of any policy, but the process receives academic attention when the outcome of the uncertainty could cause wide deviations from the expected policy outcome (Tandoh, 2020).

In the traditional profit orientated firms, investment decreases in the presence of high economic policy uncertainty. Firms decrease their investment activities when economic policy uncertainty is high (Bargeron, Bonaime, & Thomas, 2017; Nguyen & Phan, 2017). In the case of not-for-profit organisations, such as sponsored schools, economic policy uncertainty mostly

affects operations of the firms as well as performance by complicating working capital management (Ujah, Tarkom, & Okafor, 2020).

For the specific case of senior high schools under the free senior high school programme, economic policy uncertainty could arise from irregular flow of subvention and reduced credit worthiness. The former, irregular flow of subventions is not political position but an inherent aspect of disbursement of funds to state sponsored institutions. Bureaucratic red tapes and the need to reduce moral and moral hazards always have the tendency to delay release of funds from the Ministry of Finance to deserving state agencies even where there are constitutional mandate to make such payments. Before the introduction of the free senior high school policy, there were several state sponsored policies in education and health that could serve as pointer to what could eventually happen to the senior high school policy in terms of cash flow (Asumadu, 2019). Mention could be made of the School Feeding Programme (SFP) and the Capitation Grants among others at the basic level of education (MoE, 2017).

The issues on moral and moral hazards have to do with the need to introduce mechanism to ensure prudent use of resources including disbursement of funds and proper inventory management (Asumadu, 2019). That is, school administrations have little incentive to be productive with resources when they know they are not to be the major disbursers of funds (moral hazard). Prior to the introduction of the free senior high school policy, the school administration, specifically the heads, were the main fund raisers and disbursers (Asumadu, 2019).

With the foregoing understanding, the school administration has every incentive to manage working capital in a manner so as to appear competent. They had control over funds and could arbitrarily settle a debt once proper documentations exist; hence, the schools were perceived as credit worthy not only by financial institutions but by suppliers as well (Asumadu, 2019). Once the structure of the free senior high school policy displaces the school administration from spending officers into managers of supplies or inventories, with only a fraction of total expenditure to disburse, they have higher tendencies to lose their credit worthiness and commitment to prudent management.

The bottom line is the fact that the introduction of fully funding policy (FSHS) heightened the issues of agency cost and principal agent problem in Ghanaian senior high schools. The state has always been the principal in the school administration with the school management as its agent. However, the fact that school management were the major fund raisers in the form of fees collections and donor programme administrators, align the interest of the agents (school administrators) with the interest of the principal (the state). Removing the fund raising and disbursement options from the school administration could cause wide variations in the interest of the agents and that of the principal since the agent have every incentive now to maximise their private gains than before (Gill & Shah, 2012).

The economic uncertainty, therefore, arise both from policy angle and implementation angle for the sponsored senior high schools. The new arrangements in the schools' fundraising and mode of disbursement are further exacerbated by the limited internal income generation options available to the

schools. Prior to the implementation of the free senior high school policy, schools had other funding option such as PTA supports and bulk fees payment from scholarships among others. According to Schreuder (2001), schools access funds from three major sources: School fees, government funding and special fundraising campaigns.

Van Deventer and Kruger (2003) asserted that the establishment of fundraising projects is a significant component of organising school finances. Anderson and Lumby (2005) indicated that schools in many countries have usually generated additional funds through occasional activities in conjunction with parents' associations, community groups and friends of the school. Activities of PTA, for example, were very significant in senior high schools in Ghana, and they mattered in working capital management by providing additional funds to support recurrent expenditure such as maintenance and other assets acquisition.

Therefore, cutting all these sources and consolidating everything into subventions totally changes the mixed of cash-flow and heightens uncertainty on where to turn to aside the state. The dominant strategy of all school administration, in dealing with uncertainty, is thus to ensure proper working capital management in terms of both cash and inventory (food items). The major empirical question is whether the strength of the staff of the school administrations has the required skill to adopt the complex working capital management practices that the current system demands from them.

Another implication of likelihood of reduce credit worthiness of schools administration is the tendency to access funds at higher cost should it be necessary to fall on external debt to smoothen income when funds are

delayed (Bordo, Duca, & Koch, 2016). Xu, Zhang & Zhang (2017) established that economic policy uncertainty increases the cost of capital and sequentially reducing innovation activities and investment opportunities. Ebben and Johnson (2011), however, revealed that aggressive working capital management practices could reduce the cost of capital in the presence of increase economic policy uncertainty. The major setback in debt financing for schools is the fact that they must pay both principal and interest from subvention in the absence of other income sources. Hence, facing high cost of capital could be detrimental to their working capital management (Tandoh, 2020).

All in all, assessment of working capital management practices is of paramount importance. Prior researchers evaluated working capital management practices based on practitioners' activities revolving around procurement of quality goods, storage activities, goods delivery time management, ensuring expiration of goods are averted, cash control, and credit management practices, among others (Tandoh, 2020; Bordo *et al.*, 2016). Considering this, it is obvious that working capital management practices can be assessed from many dimensions, taking into consideration the institution involved with the issues of working capital management practices. In the present study, working capital management is conceptualised to include cash management and inventory (food items) management, as senior high schools in Ghana do not engage in receivable and payable-related activities due to the free senior high school policy.

Competency Levels

Competency is a set of demonstrable characteristics and skills that enable, and improve the efficiency and performance of a job Bucur, (2013). Competencies are not just skills, although they share some similarities. Competencies are inherent qualities an individual possesses but skills can be learnt. Competencies encompass skills, knowledge and ability to perform a task effectively. A competent person is defined as a person who is appointed or designated by the employer to perform specified duties based on knowledge, training and experience Bucur, (2013).

One of the biggest challenges is to put into words what employees need to possess to make them to be described as competent. That is, as a construct, competencies have several observed aspects but the construct itself remains a latent variable. Bucur, (2013) stated that competencies mostly fall into three categories: Behavioural competencies which are a manifestation of the softer skills involved in an employee's performance; Technical competencies which are usually concerned with the effective use of IT systems and computers, or any hard skills necessary for a job; and finally, Leadership competencies which are a manifestation of the potentials that make a good leader, turned into measurable behaviours.

Competency assessment is the formal procedure of collecting evidence of the competencies (skills and knowledge) a worker has developed through a structured learning environment (DMIRS, 2021), off-the-job training, on-the-job training, and other relevant workplace experience. Verification of competency should consider prior learning, on-site recognition of current competency and the operation's training and development programme

(DMIRS, 2021). Others (Gartner, 2020; Pettinger, 2012) also assessed competency using the academic background of the respondents, their years of experience, professional development and self-efficacy, as well as financial capabilities as perceived by the individuals being considered.

Working Experience

According to Weterings and Koster (2007), experience of managers or a given set of practitioners could be taken as human capital. Weterings and Koster distinguished between firm-specific experience and entrepreneur-specific experience. Firm specific experiences are viewed as specific for certain businesses and practices. Entrepreneur-specific experiences, on the other hand, pertain to the organisational part of an institution; that is, how to run the operations of a business. Working capital management practitioners who have a lot of experience can perform competitively due to their institution-specific social capital, access to information, and thus, are more likely to engage in good practices related to working capital management.

Experience in an institution forms the institution's knowledge resource and influences performance of the institution (Agarwal, Echambadi, Franco, & Sarkar, 2004). Practitioners with experience may have both firm and industry related social capital. They may have access to industry-wide information and also can conduct active search for opportunities. Experience of practitioners allows for establishing their reputation, which in turn could help them attract investors for expansion (Stuart & Sorenson, 2003).

Experience also provides the possibility to hire capable employees (Stuart & Sorenson, 2003). Experienced practitioners are found to be able to select individuals with both business and interpersonal competencies, and are

likely to recruit talented individuals (Blumentritt, Keyt, & Astrachan, 2007). Westhead (2001) also argues that individuals with diverse levels of experience and knowledge are professed to have the ability to develop relevant skills and contacts.

Firm experience has been measured differently by different researchers (Weterings & Koster, 2007; Stuart & Sorenson, 2003). For instance, Weterings and Koster (2007) suggested that interviews be used to solicit data from individuals to determine their level of experience, or survey instruments which assess individuals' knowledge of opportunities, threats, competition and technologies specific to an institution. Also, some of the prior scholars used average number of managerial positions a manager previously held in an industry within which a specific institution being considered is found (Ghosh, 2015). Yet, others considered the total number of years an individual has worked in a particular capacity to be the appropriate measure of experience, as they argued that people become familiar with resources and strategies of a firm and industry players such as suppliers when they stay with a firm for a considerable number years (Kor & Misangyi, 2008; Ghosh, 2015). This present study used number of years a practitioner has functioned in a position related to working capital management.

Position/Grade

Apart from competency levels and experience of administrative staff that may have influence on working capital management practices, demographic variable such as position or grades of administrative staff is likely to influence working capital management practices. This is because the position an individual holds in an institution, in practical terms, may have

some influence on their competency and experience levels, as well as on their management practices; thus, to know the actual effects of competency levels and experience, it is imperative to control for positions of the administrative staff involved in this study.

Competency Levels and Working Capital Management Practices

The issue of financial management has received considerable attention in the literature, though working capital management in its entirety was not the focus of empirical discussion in the Ghanaian context (Asumadu, 2019). This could be due to the fact that schools were at that time not significantly different from a typical firm except the absence of profit motives. Besides, Mpolokeng (2011) added that earlier studies on working capital take liquidity as given and hence focused mainly on financial management of firms instead. That notwithstanding, few studies within Ghana and other developing countries have focused on working capital management in senior high schools but mainly at the tertiary level.

For instance, in Ghana, Attom (2014) lamented that, majority of business owners have no knowledge about cash control plans and, in the event that such cash control plans are available, their implementation is inadequate because of widespread negligence. Attom observed that poor cash management procedures among the enterprises in Ghana had led to the exposure of these enterprises to misuse of cash as a resource and financial impropriety, and this resulted in slow growth of the enterprises. This finding implies that mismanagement of an aspect of working capital, which could be associated with competency levels of management, is likely to lead to adverse effect on working capital in its entirety. Though Attom considered an issue

related to working capital management, the focus was not directly on the effect of competency levels on working capital management practices. This suggests that there is gap in local literature that needs to be filled.

Also, Odhiambo (2016) examined the role of working capital management practices on financial performance of 30 private colleges in Nairobi, Kenya for the period 2013 to 2015. The study employed the descriptive design. Results indicated that efficient working capital management practices increase profitability of private colleges in Nairobi and that proper management of working capital should bring about improved operating efficiencies. Odhiambo bemoans the critical role of infrastructure and staff competencies by recommending their improvement to foster working capital management in learning environment. It could be seen that this author inferred a relationship between staff competencies and working capital management; however, his study was conducted outside Ghana, and the design employed was descriptive; thus, a more rigorous design such as the explanatory research design could be used for the production of results with more insights.

Another study by Simiyu (2014) on the factors affecting cash management in public secondary schools found out that the competence of the board of management greatly influences the management of cash in public secondary schools. Simiyu, just like the foregoing researchers (Odhiambo, 2016; Attom, 2014), employed the descriptive design in his study. This study is relevant to the present study as it studied, to some extent, the relationship between competence and cash management which is an aspect of working capital management. Nevertheless, the study was carried outside Ghana, and

the design employed could have been extended to include inferential statistics to properly examine the relationship between competency levels and working capital management practices.

Further, a study of Maronga *et al.* (2013) found that most public secondary schools in Sameta Division, Kenya, strictly followed suggestions and desirable account management techniques according to the government financial guidelines. The study further identified inadequate monitoring and evaluation on financial utilisation, complicated and long procurement processes, non-availability of opportunities for financial management training, delayed distribution of funds and absence of audit staff in secondary schools as the major setback of the working capital management practices of the public secondary schools. These problems, which appear to be associated with the level of competency of the school administrators, contribute significantly to non-adoption and application of sound financial management practices in the management of funds in public secondary schools. Maronga *et al.* (2013) further observed that compared to private secondary schools, public schools exhibit poor working capital management practices due to factors mostly beyond their control.

After review of related studies, it was realised that no study has yet considered the effect of competency levels of practitioners on working capital management practices in senior high schools in Ghana. Additionally, most of the studies focused on components of working capital management practices, and not the main concept of working capital management practices. Considering these, the researcher deemed it necessary to look at the effect of

competency levels of practitioners on working capital management practices in senior high schools in Ghana.

Working Experience and Working Capital Management Practices

The effect of working experience on working capital management has not really been directly studied by prior researchers; thus, creating a gap in literature. For instance, a related study by Kungu *et al.* (2014) used 42 principals from 42 government technical training institutions in Kenya to examine working capital management in schools. The descriptive research design was employed. The outcome revealed that the management of working capital components in government technical training institutions is moderate. They recommended that the management of working capital in government schools should not be left to intuition or the rule of the thumb, as experience plays major role in management activities.

Also, Kungu *et al.* (2014) asked for written policies on each of the working capital components, by application of techniques and models which include planning, controlling and monitoring of current assets and current liabilities in order to achieve liquidity. Their study suggests that aspects of working capital management such as current assets might influence working capital management in its entirety, due to the possibility that experience levels of those involved in management of these assets might be low. Though this study provides insight into working capital management and experience of managers, the outcome cannot be comprehensively applied to the Ghanaian context; thus, a study is needed within the Ghanaian context.

In another study, Obulemire (2006) surveyed budgeting in secondary schools and noted that the size, in terms of student population, had no effect

on the occurrence of deficit or surplus in the school operations. He noted that the number of students in schools was mostly considered as the key budget factor and most schools did not have a strategic plan to guide them towards achievement of both short and long term objectives. He found that the account officers were not experienced enough to hold their positions in schools because they lacked knowledge concerning idle funds, cost and cash balances. This finding suggests that experience of account officers has influence on their management practices. However, just like the forgoing study, this study was conducted outside Ghana, and the researcher did not test any hypothesis to show whether experience of practitioners has a significant relationship with working capital management practices.

In their study, Mito and Simatwa (2012) studied the challenges that newly appointed principals experience in managing public secondary schools, using the descriptive research design. Poor budgeting was cited as one of the major reasons that derail effective management of schools due to overspending or under spending which can lead to misappropriation and mismanagement of school funds. These are usually attributed to experience of the appointed school principals (Mito & Simatwa, 2012).

Further, Langat (2008) lamented that most of the secondary school principals have account management skill challenges due to low levels of experience and this makes them inefficient to carry out their functions as financial controllers and accounting officers of the schools they are heading. In similar manner, a study carried out later by Magak (2013) noted that school principals lack experience in procurement, adequate and regular auditing, and there are lack of accounting supportive documents and records, and also

inability to prepare end of year financial statements are some of the financial problems facing public secondary schools. All these hinges on the experience of the school management team (Magak, 2013).

After a thorough review of the empirical studies related to experience and working capital management practices, it is worth noting that these studies were conducted outside Ghana with the focus on educational institutions other than senior high schools. In addition, most of the studies focused on components of working capital management practices, and not the main concept working capital management practices. The researcher did not come across any study on the effect of experience of practitioners on working capital management practices, or a study testing whether experience of practitioners has significant effect on working capital management practices. It is against this background that this study is set out to look at the effect of experience of practitioners on working capital management practices in senior high schools in Ghana.

Competency Levels, Working Experience and Working Capital Management Practices

The moderating effect of competency levels on the relationship between experience and working capital management practices has not been explored in literature. This is to say that the researcher has not come across any study examining the effect of competency on the relationship between experience and working capital management practices in senior high schools, both locally and internationally. This means the present study appears to be the first research to have considered the moderating effect of competency

levels on the relationship between experience and working capital management practices.

Nevertheless, inferring from prior studies which considered relationships between concepts related competency and working capital management (Odhiambo, 2016; Attom, 2014; Simiyu, 2014; Maronga *et al.*, 2013), or experience and working capital management practices (Kungu *et al.*, 2014; Obulemire, 2006; Mito, & Simatwa, 2012), it suffices to say that there could be an influence of competency levels on the relationship between experience and working capital management practices. Thus, the relevance of this study cannot be underrated as it sought to assess the moderating effect of competency levels on the relationship between experience of practitioners and working capital management practices in senior high schools in the Central Region of Ghana.

Working Capital Management and Pre and Post-free Senior High School Policy

The issue about difference in perception between pre and post-free senior high school policy administrative staff with respect to working capital management practices in senior high schools in Ghana has not been explored in literature. This may be due to the fact that the policy is still young. However, inferences could be drawn from studies conducted outside Ghana. For instance, Mulera (2005), employing the descriptive design, carried out a study on effect of cash balances on public universities in Kenya. He found that public universities in Kenya face a challenge of financing their operations due to reduced government grant causing delay in payment of recurrent expenditures. This implies that change in policy has the ability to influence

practices, as how things were being done pre-policy are likely not going to be same post-policy. However, Mulera's study was carried outside Ghana; thus, application of his findings to decision making in Ghana may not be realistic.

Also, Ngaba (1990) studied working capital management in secondary schools and noted that the principals were responsible for establishing procedures for collecting overdue debts. No attempt was made to evaluate the credit worthiness of a student. In some cases, the parents were called to commit themselves to pay fee balances by a stated date. Sometimes examination results were withheld for non-payment of fee balances, but it was noted that some students would not come for results slips for O-level examinations even afterwards. Ngaba, however, did not infer any difference in policies, but noted that these were happening due to change in policies where the school principals were required to manage their own cash system. Ngaba then recommended that to make the activities of the heads or principals of schools successful they need to be trained in financial and inventory management.

From the foregoing review, it could be seen that the available empirical studies were carried outside Ghana, and did not directly assess the difference in perception between pre-free and post-free senior high school policy with regards to working capital management practices in the senior high schools. These prior studies are also too old to be used to support decision making. Considering these, it is in the right direction to undertake a study to examine whether there is any significant difference between pre-free and post-free senior high school policy with respect to working capital management practices in order to fill the gap in literature.

Conceptual Framework of the Study

After reviewing theory and related prior empirical studies, the framework in Figure 1 was conceptualised. The conceptual framework for the present study used two independent variables – competency levels and experience – and a dependent variable, working capital management practices, and a moderating factor of competency levels. Competency levels of practitioners were conceptualised to include capabilities, education and training background, professional background, and recognition. Experience was conceptualised as the number of years an individual has functioned as working capital management practitioner in the high school. Working capital management practices was conceptualised to include food items management practices and cash management practices. Free senior high school policy was conceptualised to comprise pre-free and post-free policy.

The first arrow, labelled H_0^1, indicates the relationship between competency levels and working capital management practices. Likewise, the second path, H_0^2, shows the straight-line relationship of experience of practitioners and working capital management practices. The third path, H_0^3, indicates the moderating effect of competency levels on the relationship between experience of practitioners and working capital management practices. The arrow labelled H_0^4 indicates the influence of free senior high policy on working capital management practices; specifically assessing the difference between pre-free and post-free senior high school policies with respect to the working capital management practices in senior high schools. Finally, position or grades of administrative staff was controlled for; thus, expected to influence working capital management practices.

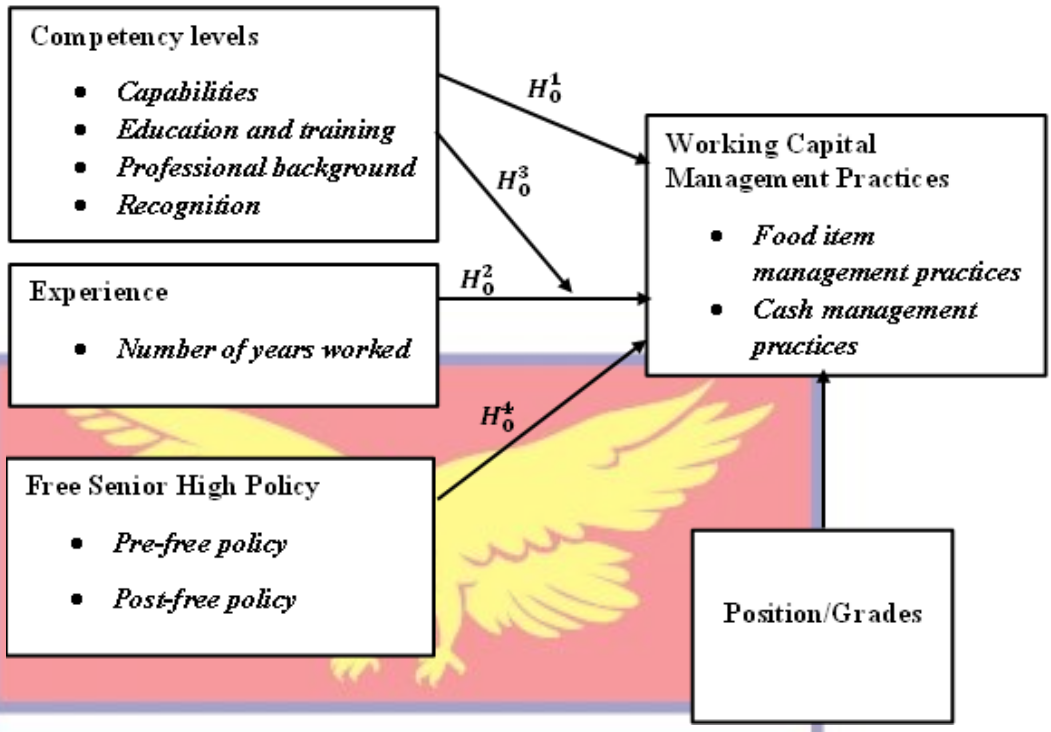

Figure 1: Conceptual framework of the Study

Source: Author's construct (2021)

Chapter Summary

The chapter presented the review of the theoretical and empirical literature. The empirical review pointed to the fact that though a number of literatures have devoted attention to the free senior high school policy, the issue of working capital management has not really been explored, especially in relation with the other variables considered in the present study. The review brought forth a number of gaps, such as nonexistence of empirical studies on the comparison of the working capital management situation before and after the free senior high school policy, among others. These gaps were, thus, considered by the present study.

CHAPTER THREE

RESEARCH METHODS

Introduction

The purpose of the study was to examine the determinants influencing working capital management practices in an era of free senior high school policy in the Central Region of Ghana. This chapter presents the research paradigm, research design, population, sample size and sampling procedure, instrumentation, validity and reliability, data collection procedure, data processing and analysis, ethical considerations as well as chapter summary.

Research Philosophy

The study employed the positivist research philosophy. This view was employed because the study sought to analyse cause-effect relationships between competency levels, experience of practitioners, free senior high school policy, and working capital management practices Riri, J. M. (2019). According to the positivists, trustworthiness of facts is only achieved through observation and measurements (Taylor & Lindlof, 2016). It also makes sure that objectivity is upheld by limiting the researcher to only data collection and interpretation (Wilson, 2017). The researcher's interference is minimised, and the results obtained based on this philosophy are observable and quantifiable Riri, J. M. (2019). These characteristics made the choice of the positivist philosophy more appropriate for the present study considering the study hypotheses.

Research Approach

In line with the foregoing philosophy, the quantitative research approach was used, as the study sought to use quantitative data to assess

relationship between the study variables – competency, experience, free senior high school policy and working capital management practices. Quantitative approach lays emphasis on measurements, and data are analysed numerically to provide descriptions (Taylor & Lindlof, 2016). Also, the design upholds the principles of verifiability of proof, substantiation and confirmation utilising the correct measurement of variables being studied (Creswell, 2014). This approach was adopted as most prior related studies seeking to assess cause-effect relationships between variables employed it (Odhiambo, 2016; Attom, 2014; Simiyu, 2014; Maronga *et al.*, 2013).

Research Design

The explanatory design was employed for this study. The design helps to explain the cause and effect of a given phenomenon (Saunders, Lewis, & Thornhill, 2019). According to Saunders *et al.*, the explanatory design also helps to account for relationships between or among variables. This design was employed because the researcher sought to examine the effects of the factors of competency levels, experience and free senior high school policy on working capital management practices. This design also has imbedded in it descriptive techniques which seek to describe data sets before inferential statistics are performed (Saunders *et al.*, 2019).

Further, considering time limitations, the study used the survey techniques employing the cross-sectional study strategy for data collection. The cross-sectional strategy has a number of advantages including being able to accommodate large sample sizes, and increasing the generalisability of study findings, among others (Hair, Anderson, Tatham, & William, 1995; Taylor & Geldenhuys, 2019). Though the cross-sectional strategy has some

limitations such as lack of ability to thoroughly examine and explain the phenomena under study over a long period of time, the design is appropriate for determining cause-effect relationships among variables, and saves time and cost (Taylor & Geldenhuys, 2019).

Study Area

The study area is the Central Region of Ghana. The region is one of the sixteen (16) administrative regions of Ghana. To the north, it is bordered by the Ashanti and the Eastern regions. It is bordered by the Western Region to the west, Greater Accra Region to the east, and to the south by the Gulf of Guinea. The region has twenty-two (22) districts including the regional capital, Cape Coast. The region is popularly known for its elite higher educational institutions and economy founded on the abundance of industrial minerals and tourism. The region boasts of many tourist attractions including the Cape Coast and Elmina castles, forts; national parks such as the Kakum National Park, among many others (Ghana Districts, 2017).

The region has a population of about 2,201,863 people and a total land area of 9,826km^2, giving a population density of 220/km^2 (Global Data Lab, 2018). The region is rated the 8th most populated region in Ghana, and also as the 8th in terms of land area (Global Data Lab, 2018). The main economic activities of the people of Central Region are dominated by services followed by small scale mining and fishing (Global Data Lab, 2018). Apart from the main economic activities as mentioned above, the local folks also engage in farming; notably, maize farming, and bee-keeping. The region also boasts of offshore crude oil resources at Saltpond. The Offshore Producing Company

Limited and two joint venture partners operate this oil field (Saltpond Field, 2010).

The Central Region is referred to as the hub of education in Ghana. Currently, there are 70 high schools in the region. The senior high schools in the Central Region are beneficiaries of the free senior high school policy, which, among other things, provides students with meals at no extra fees to the students. The schools' administrators and working capital management practitioners are in charge of feeding programmes in these schools as they are involved in procurement activities, among others. The present study focused on the Central Region due to issues of misappropriation that has bedevilled administration of the free senior high school programme at the schools in the Central Region, as far as activities revolving around feeding of students are concerned.

Population

The population of the study comprised all administrative staff directly involved in the working capital management, cash disbursement and inventory (food items) management in the free senior high schools within the Central Region. The Central Region has 22 districts with 70 senior high schools. There were 280 administrative staff from the 70 senior high schools. In each school, there were four (4) administrative staff who were directly involved in working capital management. They were the Domestic Assistant Head, Bursar (Accountant), Store keeper and the Matron (Domestic Bursar). As mentioned earlier, these staff were considered for this study because they were directly connected to working capital management practices at these senior high schools.

Table 1 presents the number of administrative staff in senior high schools per district. Names have been pseudonymised to ensure anonymity

Table 1: Administrative Staff Population Distribution

SN	Districts	Number of High schools	Population
1	A	11	44
2	B	6	24
3	C	6	24
4	D	5	20
5	E	5	20
6	F	4	16
7	G	4	16
8	H	3	12
9	I	3	12
10	J	2	8
11	K	2	8
12	L	2	8
13	M	2	8
14	N	2	8
15	O	2	8
16	P	2	8
17	Q	2	8
18	R	2	8
19	S	2	8
20	T	1	4
21	U	1	4
22	V	1	4
Total		70	280

Source: Ghana Education Service (2021)

Sample and Sampling Procedure

The sample size for the study comprised 164 administrative staff from eight (8) districts in the Central Region of Ghana. There were 22 districts in the Central Region and there was at least a senior high school in each district. A multi-stage sampling technique was employed to select the sample for the study. First, the 22 districts were assigned letters as shown in Table 1, and computer-generated random letters were used to select eight districts: A, B, C, D, E, F, L and R districts. These eight districts represent about (36%) of the total number of districts in the region. This choice was deemed representative

as prior researchers proposed about 10% of the total items being considered, taking into consideration cost elements and time constraints as far as research activities are concerned (Conroy, 2018; Westfall, 2020). Next, the census technique was employed to include all the 164 administrative staff from 41 schools in the eight districts selected.

Also, it should be pointed out that there are a number of senior high schools in each of the selected districts. Some of the senior high schools were private and were not benefitting from the free senior high school policy at the time of this study. Since the focus of the study was on only administrative staff at schools benefitting from the free senior high school policy, it became necessary to purposely select only public senior high schools that fell under this criterion of free senior high school policy in each of the selected districts, and these made up the sample of 164. It should further be stated that this sample was made up of both pre-policy administrative staff (81), and post-policy administrative staff (83).

Data Collection Instruments

The questionnaire was used for data collection. The questionnaire was employed due to its relatively cheap, quick and efficient way of obtaining large amounts of information from a large sample of respondents (Li *et al.*, 2016). The questionnaire comprised four sections – A to D. Section A obtained information on demographics of the study participants; it was made up of four (4) closed ended items and one open ended question on the number of years a participant has been managing working capital (experience of practitioner, measured in number of years worked). Also, position/grades of staff was assessed on a scale of "1" for accountants, "2" for domestic assistant

heads, "3" for storekeepers, and "4" for matrons. Section B examined the competency levels of working capital management practitioners; it consisted of seven (7) close-ended statements. Section C solicited information on working capital management practices, and had seven (7) items. Section D solicited information on inventory (cash and food items) management practices, and had fourteen (14) items.

Items in Sections B to C were anchored on a 5-point likert scale each – from *Strongly Agree* (5) to *Strongly Disagree* (1). Also, the items in B to C were adapted from Fink, Koller, Gartner, Floh, & Harms (2020), Tandoh (2020) and Bordo *et al.* (2016), respectively; and the measurement of experience using years was also adopted from Ghosh (2015). These were adapted as the scales had already been validated; thus, improving the validity and reliability of the items in the instruments.

Validity and Reliability of Instrument

Validity is the degree to which an instrument accurately measures what it is intended to measure (Sarstedt, Bengart, Shaltoni, & Lehmann, 2018). The scale items used in this study have previously been validated by the prior authors -9 NN; Tandoh, 2020; Bordo *et al.*, 2016) from whom they were adapted, as they conducted both exploratory and confirmatory factor analyses. However, for the purpose of this study, a confirmatory factor analysis was carried out again to validate the adapted scales, and all the scale variables – competency levels and working capital management practices – had factor loadings above 0.7; indicating a valid questionnaire (Goforth, 2015).

Further, the questionnaire used was checked for reliability. The Cronbach alpha internal consistency coefficient was conducted. The Cronbach

alpha coefficients for competency levels and working capital management practices were 0.994 and 0.987, respectively. The Cronbach alpha-coefficient rages from 0 to 1. A scale is termed reliable and internally consistent if its Cronbach alpha-coefficient score is not less than 0.70 (Goforth, 2015). Thus, this instrument could be said to be internally consistent and reliable. Summary of the reliability coefficients is presented in Table 2.

Table 2: Reliability Coefficients

Variable	Number of items	Cronbach alpha
Competency levels	6	0.994
Working capital management practices	5	0.991

Source: Field survey (2021) N = 162

Data Collection Procedures

As part of the data collection, a visit was made to the senior high schools in the selected districts to meet with the administrative staff. During this visit, the administrative staff were pre-informed about the purpose of the study and they were also assured of the confidentiality of the data that were to be gathered. Participants were also served with an introductory letter the researcher collected from the supervisor, to enable them have confidence in the data collection process. Also, to protect the anonymity of the participants, they were assured that all names associated with the study would be pseudonymised. The administrative staff who agreed to participate in the study were then given a consent form to sign and a check list to complete.

The actual data collection for the study was then carried out by the administration of the questionnaire to the administrative staff. This included

all the 164 administrative staff from the 41 senior high schools in the selected eight (8) districts in Central Region. The questionnaire gathered information on the staff's demographic information, competency levels and working capital management practices. The staff were allowed enough time in order for them to properly fill out the questionnaire. Out of the 164 instruments administered, 162 were retrieved from the respondents. The entire data collection process took three months – February, 2021 to April, 2021.

Ethical Considerations

Ethics is crucial in research, and every researcher is to adhere to ethics of research. As part of the requirements for conducting research involving human beings, the researcher obtained an ethical clearance from the Institutional Review Board (IRB), University of Cape Coast, before embarking on the study. To ensure the safety of every participant, all ethical issues concerning the study were addressed before the IRB gave the final approval for the study to be conducted. Each instrument for the study was assigned an informed consent form for which participants were made to sign as evidence of their voluntary participation in the study.

The administrative staff were fully informed about the purpose of the study, and were given the chance to ask any question they have prior to agreeing to participate in the study. Names of participants' schools were pseudonymised to ensure anonymity. The administrative staff were made to understand that participation in the study was voluntary and that they had the right to participate or not to participate. Participants were also informed that they have the right to withdraw from participating in the study without any

consequences, and if any participant decided to stop somewhere along the line, they would not be side-lined in any form.

Data Processing and Analysis

The first research objective was on the effect of competency levels on working capital management practices. The quantitative data were used for this objective. The data were analysed using a linear regression technique. The second research objective, which assesses the effect of experience of practitioners on working capital management practices, was also analysed quantitatively using the linear regression techniques. Hayes' (2018) moderation technique was used for the moderation analysis to achieve the third research. The fourth objective was analysed using the two-independent samples t-test.

Also, as a precursor to the linear regression, the Pearson product-moment correlation coefficients were computed between the study variables. A correlation co-efficient of +1 represents a perfect positive correlation whilst a value of -1 indicates a perfect negative correlation. The multiple linear regression model specified below was used for the estimation.

$$WCMP = \alpha + \beta_1 CL + \beta_2 E + \beta_3 (CL \times E) + P + \varepsilon \quad [1]$$

Where:

WCMP = working capital management practices

CL = competency levels of working capital management practitioners

E = experience of practitioners

CL×E = interaction factor

P = Administrative position of working capital management practitioners

α = constant (the intercept, or point where $\beta_1, \beta_2, \beta_3 = 0$)

$\beta_1, \beta_2, \beta_3$ = regression coefficients

ε = Error term

Chapter Summary

The study relied on quantitative data. The positivists' research philosophy was employed, making use of the quantitative approach and explanatory design, respectively. The study area was Central Region of Ghana, made up of 22 districts. The questionnaire, after validation, was used to collect data for the study. The data collected were analysed using regression techniques and independent samples t-test.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of this study was to examine the determinants influencing working capital management practices in an era of free senior high school policy in the Central Region of Ghana.. This chapter presents the results and discussion in relation to the purpose, research objectives and the hypotheses formulated for the study. For the purpose of clarity, the chapter is organised in such a way that all the analyses, corresponding results and the inferences that could be drawn from them, have been presented for the first research objective before directing attention to the next objectives or hypotheses in that order. The chapter begins with the socio-demographic information of the study participants; then results per the study objectives and hypotheses are presented. Finally, the chapter summary is presented.

Socio-demographic Information of Respondents

This section of the chapter covers the participants' gender, age, and position or role at the senior high school, as well as the period an administrative staff joined the high school as a staff. To analyse these pieces of information, the descriptive statistics of frequencies and percentages were used. The results are presented in Table 3.

Table 3: Socio-demographic Information of Participants (n = 162)

Variable		Frequency	Percentage (%)
Gender	Female	76	46.9
	Male	86	53.1
Age	Up to 29years	3	1.9
	30-39years	47	29.0
	40-49years	51	31.5
	50-59years	59	36.4
	60 and above years	2	1.2
Position	Accountants	40	24.7
	Domestic Assistant Head	40	24.7
	Store keeper	41	25.3
	Matron	41	25.3
Period staff joined high school	Pre-policy	80	49.4
	Post-policy	82	50.6

Source: Field survey (2021)

Table 3 shows the socio-demographic information of the administrative staff who participated in the study. In all, 162 administrative staff, made up of 40 (25%) accountants, 40 (25%) domestic assistant head, 41 (25%) storekeepers and 41 (25%) matrons, participated in the study. Out of the total, 76 (47%) of these staff were females whilst 86 (53%) were males. Though the male participants outnumbered their female counterparts, the females were fairly represented. Also, this difference was not surprising as males are mostly found in leadership positions (such as accountants and headship positions), compared to their female counterparts.

Also, most of the administrative staff at the senior high schools in the Central Region were from the ages of 50 to 59years, representing (36%) of the total participants; three (3) of them, representing (2%), were from the ages up to 29years while 47 of the administrative staff, representing (29%), were between the ages of 30years and 39years; 51 (32%) of them were between the ages of 40 and 49years; and finally, two (2) of the participants, representing (1%), were 60years and above. Finally, the administrative staff who were with the high schools before the free senior high school policy was introduced were 80 (49%), whilst those who joined after the policy introduction were 82 (51%).

Normality Test

The normality test was run to check whether the data came from a normal distribution. Since this is a requirement for regression analysis and independent samples t-test (i.e., normally distributed dependent variable), the researcher deemed it necessary to ensure that this assumption is not violated. With regards to the independent samples t-test assumptions, since the number of cases in each subpopulation was greater than 25, normality test might not really be necessary (Van Deventer and Kruger 2003). The null hypothesis is,"data are not normally distributed". The result is shown in Table 4.

Table 4: Normality Test

Variables	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Competency levels	0.171	162	0.410	0.851	162	0.130
Experience	0.126	162	0.070	0.937	162	0.060
Working capital management practices	0.168	162	0.053	0.925	162	0.330

Source: Field survey (2021) N = 162

From Table 4, two test statistics could be seen. Nevertheless, since the dataset was less than 2000 elements, the Shapiro-Wilk test was used to assess normality of the dataset (Tabachnick & Fidell, 2012). From the results, all the p-values produced under Shapiro-Wilk test were greater than 0.05. Thus, the alternative hypothesis that the data are not normally distributed is rejected, and it is concluded that the data came from a normal distribution.

Homogeneity of Variance

Homogeneity of variance test was carried out to check whether the assumption of equal variances for the independent samples t-test was satisfied. The null hypothesis tested was, "Equal variances assumed between pre-free and post-free high school policy with regards to working capital management practices". This was analysed using the Levene's Test for Equality of Variances. The results are presented in Table 5.

Table 5: Levene's Test for Equality of Variances

Hypotheses	F	Sig.
Equal variances assumed	0.21	0.65
Equal variances not assumed		

Source: Field survey (2021) N = 162

From the results, the Levene's Test for Equality of Variances showed a probability value of ($p = 0.65$); this indicates that the variability in pre-policy administrative staff and post-policy administrative staff at senior high schools in the Central Region, with respect to working capital management practices is not significantly different, as the p-value ($p > 0.05$) is greater than the alpha value ($\alpha = 0.05$). In other words, the researcher failed to reject the null hypothesis that equal variances are assumed. Homogeneity of variance

assumption has not been violated; thus, the independent samples t-test can be carried out.

Correlation Analysis

The researcher sought to assess the relationship between competency levels, experience of practitioners, position or grade, and working capital management practices. Though this analysis was not in direct response to the study objectives, it served as a step towards the linear regression analysis required to achieve the study objectives and test the hypotheses formulated. Position of the participants was included to assess whether it correlates with both the independents and dependent variables, so that it could be included in the regression model in order to avoid the issue of omitted variable bias. Practically, position of the administrative staff is likely to contribute to the relationship between competence level and working capital management practices. The correlation coefficients from the computations are presented in Table 6.

Table 6: Correlation Matrix

		Current position/grade	Competence level	Working capital management practices	Experience
Current position/grade	r	1			
	p				
Competence level	r	.178*	1		
	p	.023			
Working capital management practices	r	-.401**	.120	1	
	p	.000	.128		
Experience	r	-.066	.093	.034	1
	p	.405	.240	.670	

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field survey (2021) N = 162

The results displayed in Table 6 showed a positive and weak statistically significant relationship between competency levels and working capital management practices ($r = 0.12$, $p < 0.001$). This result indicates that working capital management practices of free senior high schools in the Central Region are likely to improve as the competency levels of the administrative staff improve. Experience is also likely to improve as competency levels of the working capital management practitioners improve in quality ($r = 0.093$, $p > 0.05$); though this relationship was insignificant.

Further, the results showed a positive and statistically insignificant weak association between experience and working capital management practices ($r = 0.034$, $p > 0.001$). This is to say that as senior high school administrative staff's experience improves, their working capital management practices are likely to increase too, though not significantly. This is not surprising as experience can make practitioners engage, to some extent, in proper working capital management practices; thus, a direct relationship between them should be expected. The covariate, position/grade, also appeared to be correlated with competency level ($r = 0.178$, $p < 0.05$), working capital management practices ($r = -.401$, $p < 0.001$), and experience ($r = -.066$, $p > 0.05$). Nevertheless, only the relationships between position and competency level, and working capital management practices proved significant.

Competency Levels and Working Capital Management Practices

The first study objective sought to determine the effect of competency levels of administrative staff directly involved in working capital management of senior high schools benefitting from free senior high school policy in the

Central Region on working capital management practices. The corresponding hypothesis was to assess whether competency levels have a significant effect on working capital management practices. To achieve this objective, the researcher conducted the linear regression analysis, adjusting for position/grade, shown in Table 8. The results, as displayed in Table 8, present the regression coefficient, standard error, the F-statistic, t-statistics, significance level of the coefficient, the model summary (R, R-square, adjusted R-square) and the collinearity statistics which produced the variance inflation factor (VIF) and tolerance, as well as semi-partial correlations denoted as "Part". However, before presenting the regression output, a summary statistic is displayed in Table 7 to assess competence level across positions.

Table 7 presents means and standard deviations used to assess the average level of competence across positions/grades of the working capital management practitioners. This was to identify which position lacks in competence, as far as working capital management practices is concerned, so as to ensure holistic discussions, and the formulation of appropriate policies to improve the given position or grade.

Table 7: Summary Statistics of Competence Level across Positions

Positions/Grade	Competence level	
	Mean	Standard deviation
Accountant	3.62	.74
Domestic assistant head	3.21	.66
Storekeeper	3.55	.91
Matron	3.96	.51

Source: Field survey (2021)

From the results displayed in Table 7, it could be seen that, on average, matrons had the highest level of competence (M = 3.96±.54SD) in terms of working capital management practices, followed by accountants (M = 3.62±.74SD), then storekeepers (M = 3.55±.91SD), with domestic assistant heads having the lowest competence level in the management practices associated with working capital (M = 3.21±.66SD). This means that, if there should be any capacity building programme for staff across these grades to ensure improved competency level in order to enhance working capital management practices, attention should be particularly given to domestic assistant heads. The succeeding table, Table 8, presents the regression results assessing the effect of competency level on working capital management practices.

Table 8: Regression Results

Models			**1**					**2**						
Variables	*B*	*Std. Error*	*Beta*	*t-value*	*Sig.*	*B*	*Std. Error*	*Beta*	*t-value*	*Sig.*	*Tol.*	*VIF*	*Zero-order*	*Partial*	*Part*
(Constant)	3.80	0.16		23.90	.000	4.056	.146		27.857	.000					
CL	0.10	0.04	0.17	2.5	0.035	.146	.039	.263	3.741	.000	.958	1.043	.166	.284	.258
P	-	-	-	-	-	-.181	.027	-.477	-6.786	.000	.958	1.043	-.424	-.474	-.467
R	0.17					.496									
R^2	0.03					.246									
Adj. R^2	0.02					.236									
F-stats	4.53						25.924								
P-value	0.035						0.000								

Dependent variable: working capital management practices

Source: Field survey (2021) N = 162

Note: CL = competency levels; P = position; Adj. = adjusted

From the results displayed in Table 8, it could be seen that significance of the model persisted ($F = 25.92$, $p < 0.001$) after adjusting for position/grade, and robustness improved as well – from R Square of (3%) to (24%). Thus, the adjusted model (i.e., model 2) is the preferred model to assess the effect of competence level on working capital management practices. Using the adjusted model, R Square value of 0.236 indicates that competency levels appeared to account for about (24%) of variation in working capital management practices of administrative staff directly involved in working capital management of high schools in the Central Region benefitting from free senior high school policy, all things being equal. The remaining (76%) could be said to have been accounted for by factors other than competency levels. This implies that working capital management practices of high schools in the Central Region is, to a considerable extent, dependent on the competency levels of working capital management practitioners.

Further, the results revealed F-statistics of ($F = 25.92$, $p < 0.001$). This indicates that the model was significant at 0.01. This is to say that, the model can be relied on as far as production of valid and reliable results is concerned. It should also be pointed out that the model is devoid of issues of multicollinearity or collinearity, and this was reflected in value of Tolerance which was greater than 0.1, and the Variance Inflation Factor (VIF) statistics which was less than 10. Scholars recommend a minimum Tolerance value of 0.1 and a maximum of 1.0, and a minimum VIF of 1.0 and a maximum of 10 to state that there are no issues of multicollinearity (Hair, Anderson, Tatham, & William, 1995; Neter, Wasserman, & Kutner, 1989), and the results in Table 8 fell within these recommendations.

The results showed competency level to have a positive and statistically significant effect on working capital management practices of public senior high schools in the Central Region, after adjusting for position ($\beta = 0.15$, $t = 3.74$, $p < 0.001$); thus, rejection of the null hypothesis that there is no significant effect of competency levels on working capital management practices in senior high schools in Central Region. This suggests that, holding all other factors constant, a unit change in competency levels of senior high school administrative staff would lead to a 0.15 change in working capital management practices of public senior high schools benefitting from the free senior high school policy in the Central Region. Considering the direction of the relationship or the effect, it could be said that a unit increase or improvement in competency levels of administrative staff would lead to 0.15-unit improvement in the working capital management practices of public senior high schools in the Central Region.

Further, considering the effect size, using Cohen's (1988) effect size classification of $r = 0.10$ indicating a small effect, $r = 0.30$ indicating a medium effect and $r = 0.50$ indicating a large effect, the size of the effect of competency levels on working capital management practices was near medium (*part* = *0.26*) and statistically significant as shown in Table 8 ($p < 0.001$). This implies that the influence of competency levels of administrative staff directly involved in management of cash and inventory (foodstuffs, etc.) on working capital management practices cannot be underrated as it has the ability, though it was small, to influence decision making at the senior high schools' management level.

This finding was not out of the ordinary, as high competency is likely to influence behaviours and practices in a positive manner. Thus, administrative staff who engage in personal development programmes such as further studies in finance, accounting, procurement, management, and attending seminars related to working capital management are likely to improve their know-how and experience which may reflect in their practices as far as management of working capital of senior high schools in the Central Region is concerned. This implies that administrative staff directly involved in managing the senior high schools' cash and inventory (food items), as well as procurement activities need to enhance their competency levels to enable them put up good working capital management practices for the benefit of the senior high schools and the state at large, as this may lead to eradication of pilferages, wastages and fund embezzlements, among others.

This finding is consistent with arguments advanced by Odhiambo (2016) that workers in learning environments should improve their competencies in order to improve working capital management activities. Thus, it was not surprising that Odhiambo found a positive relationship between competencies and working capital management. Additionally, this finding is in line with that of Simiyu (2014) who reported that the competence of board of management at secondary schools in Kenya greatly influences the management of cash at the public secondary schools. This finding also supports Maronga *et al.*'s (2013) and Obulemire's (2006) findings that lack of quality or poor competency could lead to poor management practices; meaning high competency levels could translate into quality working capital management practices. Thus, applying quality competencies can enhance

working capital management practices and lead to getting rid of conflict of interests and agency problems as could be inferred from the agency theory (Jensen & Meckling, 1976).

In summary, it could be said that for senior high schools in the Central Region benefitting from the free senior high school policy to get the most out of their working capital management practices, there would be the need for the administrative staff – accountants, storekeepers, domestic assistant heads, matrons, among others –directly involved in the management of working capital of senior high schools to improve their competency levels by taking further courses related to working capital management, such as procurement courses, accounting and finance courses, among other courses.

Working Experience and Working Capital Management Practices

The second objective sought to determine the effect of experience of administrative staff directly involved in working capital management of senior high schools benefitting from free senior high school policy in the Central Region on working capital management practices. The corresponding hypothesis was to assess whether experience has a significant effect on working capital management practices. To achieve this objective, the researcher conducted the linear regression analysis shown in Table 10. The results present the regression coefficient, standard error, the F-statistic, t-statistics, significance level of the coefficient, the model summary (R, R-square, adjusted R-square) and the collinearity statistics which produced the variance inflation factor (VIF) and tolerance, as well as semi-partial correlations denoted as "Part". However, before presenting the regression

output, a summary statistic is displayed in Table 9 to assess experience level across positions.

Means and standard deviations were used to assess the average level of experience of staff across positions/grades of the working capital management practitioners. This was to identify which position lacks in experience, as far as working capital management practices is concerned, so as to ensure holistic discussions and formulation of appropriate strategies to improve the individuals' capacity in the given position or grade.

Table 9: Summary of Experience across Positions

Positions/grades	Experience	
	Mean (years)	Standard deviation (years)
Accountant	5.87	2.83
Domestic assistant head	5.32	2.86
Storekeeper	5.81	2.74
Matron	5.15	2.76

Source: Field survey (2021)

From the results displayed in Table 9, it could be seen that, on average, the accountants had the highest level of experience (M = 5.87±2.83SD) in terms of working capital management practices, followed by storekeepers (M = 5.81±2.74SD), then domestic assistant heads (M = 5.32±2.86SD), matrons having the lowest experience in the management practices associated with working capital (M = 5.15±5.15SD). This means that, if there should be any capacity building programme to enhance experience of staff across positions, attention should be given to the matrons as they appeared to have the lowest experience, on the average.

Table 10 presents the regression results assessing the effect of experience on working capital management practices.

Table 10: Regression Results

Models			**1**					**2**						
Variables	*B*	*Std. Error*	*Beta*	*t-value*	*Sig.*	*B*	*Std. Error*	*Beta*	*t-value*	*Sig.*	*Tol.*	*VIF*	*Zero-order*	*Partial*	*Part*
(Constant)	2.39	0.37		9.53	0.000	3.583	.192		18.671	0.000					
Exp.	0.12	0.06	0.48	1.96	0.000	.237	.025	-.470	-7.041	0.000	.982	1.00	-.424	-.488	-.466
P	-	-	-	-	-	-.178	.045	.354	5.294	0.000	.982	1.018	.292	.387	.351
R	0.48					.550									
R^2	0.23					.302									
Adj. R^2	0.23					.294									
F-stats	28.44					34.474									
P-value	0.000					0.000									

Dependent variable: working capital management practices

Source: Field survey (2021) N = 162

Note: Exp. = experience; P = position; Adj. = adjusted

From the results displayed in Table 10, it could be seen that significance of the model persisted ($F = 34.474$, $p < 0.001$) after adjusting for position/grade, and robustness improved as well – from R Square of (23%) to (30%); thus, the adjusted model (i.e., model 2) is the preferred model to assess the effect of experience on working capital management practices. Using the adjusted model, R Square value of 0.302 indicates that experience of administrative staff accounts for about (30%) of variations in working capital management practices. The remaining (70%) could be said to have been accounted for by factors not considered within the scope of this study.

The results revealed F-statistics of ($F = 34.474$, $p < 0.001$). This indicates that the model was significant at 0.01. This is to say that, the model can be relied on as far as production of valid and reliable results is concerned. It should also be pointed out that the model is devoid of issues of multicollinearity or collinearity as only one independent variable was considered in the model, and this was reflected in value of Tolerance which was greater than 0.1, and the Variance Inflation Factor (VIF) statistics which was less than 10. Scholars recommend a minimum Tolerance value of 0.1 and a maximum of 1.0, and a minimum VIF of 1.0 and a maximum of 10 to state that there are no issues of multicollinearity (Hair *et al.*, 1995; Neter *et al.*, 1989), and the results in Table 10 fell within these recommendations.

The results showed experience to have a positive and statistically significant effect on working capital management practices of public senior high schools in the Central Region ($\beta = 0.237$, $t = -.7041$, $p < 0.001$); hence, rejection of the null hypothesis that there is no significant effect of experience of practitioners on working capital management practices in senior high

schools in Central Region. This suggests that, holding all other factors constant, a unit change in experience of senior high school administrative staff would lead to a 0.237 change in working capital management practices of public senior high schools benefitting from the free senior high school policy in the Central Region. Considering the direction of the relationship or the effect, it could be said that a unit increase in experience level or years of work of administrative staff would lead to 0.10-unit improvement in the working capital management practices of public senior high schools in the Central Region.

Further, considering the effect size, using Cohen's (1988) effect size classification of $r = 0.10$ indicating a small effect, $r = 0.30$ indicating a medium effect and $r = 0.50$ indicating a large effect, the size of the effect of experience on working capital management practices was near large (*part = 0.47*) and statistically significant as shown in Table 10 ($p < 0.001$). This implies that the influence of experience of practitioners on working capital management practices cannot be undervalued as it has the ability to influence decision making at the high school management level.

This result was not surprising, as increased years of practice in working capital management could easily influence, positively, general working capital management practices as the practitioners involved are likely to have learnt a lot of strategies over the years, which could help them put up good practices as far as working capital management practices are concerned. This is to say that if administrative staff directly involved in the working capital management of senior high schools in the Central Region spend more

years on the practice, practices associated with cash disbursement, cash control and procurement procedures will also be influenced positively.

This finding corroborates the finding of Kungu *et al.* (2014) who reported that experience levels of management influences working capital management. This suggests that when individuals in management positions have many years of experience in working capital management, working capital management practices are likely to improve. Mulera (2005) also argued that school officials who have been in management for a longer period of time are likely to influence the working capital management of high schools in Kenya. Also, as could be deduced from the agency theory (Jensen & Meckling, 1976), good management practices which could be acquired over a long period of time by agents – administrative staff – are likely to affect, positively, other sensitive aspects – working capital management – of the entire management process.

All in all, it can be said that if administrative staff at the senior high schools benefiting from the free senior high school policy in the Central Region have more experience, they may ensure that issues such as wastages, thefts, pilferages, among others are eliminated; activities related to the entire working capital management of the senior high schools will also see improvement, leading to overall efficiency and effectiveness of the schools' administration.

Competency Levels, Working Experience and Working Capital Management Practices

The third study objective sought to analyse the moderating effect of competency levels on the relationship between experience and working capital

management practices of senior high schools in the Central Region. This objective was to analyse whether competency levels significantly improve the effect of experience on working capital management practices in senior high schools in the Central Region. To achieve this objective, the researcher conducted the linear regression analysis which included a statistical interacting factor for moderation, following Hayes (2018) moderation analysis techniques, and the results shown in Table 11. The results, as shown in Table 11, present, for model 1, the regression coefficient, standard error, the F-statistic, t-statistics, significance level of the coefficient, the model summary (R, R-square, adjusted R-square) and same for model 2 including F-change and R-square change, and the collinearity statistics which produced the variance inflation factor (VIF) and tolerance, as well as semi-partial correlations denoted as "Part".

Table 11: Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	*Std. Error*	*Beta*			*Zero-order*	*Partial*	*Part*	*Tolerance*	*VIF*
1	(Constant)	3.583	.192		18.671	.000					
	Position/grade	-.178	.025	-.470	-7.041	.000	-.424	-.488	-.466	.982	1.018
	Experience	.237	.045	.354	5.294	.000	.292	.387	.351	.982	1.018
	R	.550									
	R Square	.302									
	Adjusted R Square	.294									
	F (2, 159)	34.474									
	Sig.	.000									
2	(Constant)	3.649	.184		19.886	.000					
	Position/grade	-.189	.024	-.500	-7.809	.000	-.424	-.528	-.493	.970	1.031
	Experience	.107	.053	.159	2.005	.047	.292	.158	.127	.635	1.574
	Interaction_CL*EX	.170	.041	.330	4.143	.000	.341	.313	.261	.628	1.592
	R	.609									
	R Square	.371									
	Adjusted R Square	.359									
	F (3, 158)	31.043									
	Sig.	.000									
	R Square change	.068									
	F change (1, 158)	17.168									
	Sig. F change	.000									

a. Dependent Variable: Working capital management practices

Source: Field survey (2021) N = 162

From Table 11, model 1 showed R Square value of 0.302 indicating that the model without moderation explains about (30%) of variation in working capital management practices of administrative staff directly involved in working capital management of senior high schools in the Central Region benefitting from free senior high school policy. The second model with the interaction factor showed an improvement by almost (7%) – the R Square change value, and this was significant at 0.01. This indicates that there was a moderation effect. The interaction factor explains approximately (37%), after adjusting for position. The remaining (63%) could be said to have been accounted for by factors other than the interaction of competency levels and experience. This implies that working capital management practices of senior high schools in the Central Region is, to a considerable extent, dependent on the interaction of competency and experience of working capital management practitioners.

Further, the robustness of the model persisted ($F(3, 158) = 31.043$, $p < 0.001$). This is to say that, the second model can be relied on as far as production of valid and reliable results is concerned. It should also be pointed out that the model is devoid of issues of multicollinearity or collinearity as only one independent variable was considered in the model, and this was reflected in value of Tolerance which was greater than 0.1, and the Variance Inflation Factor (VIF) statistics which was less than 10. Scholars recommend a minimum Tolerance value of 0.1 and a maximum of 1.0, and a minimum VIF of 1.0 and a maximum of 10 to state that there are no issues of multicollinearity (Hair *et al.*, 1995; Neter *et al.*, 1989), and the results in Table 11 fell within these recommendations.

The results showed that competency levels have a statistically significant positive effect on the relationship between experience and working capital management practices in public senior high schools in the Central Region ($\beta = .17$, $t = 4.14$, $p < 0.001$); therefore, rejection of the null hypothesis. This outcome indicates that, all things being equal, a unit change in interacting factor would lead to a 0.18 change in working capital management practices in public senior high schools benefitting from the free senior high school policy in the Central Region. Considering the direction of the effect, it could be said that if the interaction predictor improves by a unit, working capital management practices in public senior high schools in the Central Region would improve by 0.17 units. In other words, experience' effect on working capital management practices becomes more positive with improving competency levels. Thus, the influence of experience of practitioners on senior high schools' working capital management practices becomes more significantly positive as practitioners improve their competency levels.

Further, to assess the size of the effect of the interaction predictor on working capital management practices, the Cohen's (1988) effect size classification was employed – where *r = 0.10* indicates a small effect, *r = 0.30* indicates a medium effect and *r = 0.50* indicates a large effect. Thus, per the results in Table 11, competency levels by experience interaction effect was close to medium (*part = 0.*26); further indicating that there was an interaction effect.

Considering the direction of the individual effects of competency levels and experience of practitioners on working capital management

practices, it is simply logical that interaction of both variables would yield a huge positive effect on working capital management practices. This implies that improved competency levels further enhance the positive effect of experience of practitioners on working capital management practices. Thus, administrative staff at the senior high schools should pay attention to skills development to enhance their competency levels to ensure that the good influence of experience on the practices associated with overall working capital management is enhanced.

This finding can be likened to the argument by Mito and Simatwa (2012) that newly appointed public secondary school principals who acquired advanced training improving their level of competency and showed considerable experience are likely to contribute positively to the overall management processes of the institution. This indicates that attention should be paid to both competency levels of administrative staff and their experience, as these, together, have the potential of improving the overall management system of the senior high schools in the Central Region.

In summary, this outcome suggests that the management of senior high schools in the Central Region should ensure that the administrative staff who are directly engaged in the management of working capital in the schools are trained and possess the requite qualifications, and also have appreciable number of years of experience in the management of inventory (food items) and cash. This will ensure that the positive contribution of experience of practitioners to working capital management practices is enhanced by the competency levels of the administrative staff.

Pre and Post-free Senior High School Policy and Working Capital Management Practices

This objective sought to assess whether there is difference in perception of working capital management practices of practitioners in the senior high schools in the Central Region, with respect to free senior high school policy. To achieve this objective, the researcher carried out a two-independent samples t-test. The results produced are displayed in Table 12.

Table 12: Independent Samples T-Test

Variable	SHS Policy	N	Mean	SD	t	df	Sig. (2-tailed)	Mean Diff.
WCMP	Pre-policy	80	3.41	1.15	0.87	160	0.39	0.42
	Post-policy	82	3.83	0.79				

Source: Field survey (2021) N = 162

Table 12 presented results for the independent samples t-test which comprised group statistics and test for equality of means. The group statistics result statistically summarised the overall descriptive results on working capital management practices and free senior high school policy. The results presented in the Table12 showed the basic information about the group comparisons; these included the sample size (*N*), mean (*M*), and standard deviation (SD) for working capital management practices as far as free senior high school policy was concerned. The results showed 80 pre-policy administrative staff and 82 post-policy administrative staff involved in this study.

The mean score for the pre-policy administrative staff was (*M* = 3.41±1.15SD) and that for post-policy administrative staff was (*M* = 3.83±0.79SD). From these results, it could be seen that there was a slight difference between pre-policy administrative staff and post-policy administrative staff at the senior high schools in the Central Region, with respect to working capital management practices. However, considering the 2-tailed significant values ($p > 0.05$), the values produced were greater than the alpha value ($\alpha = 0.05$). This implied that there was no statistically significant difference between the means of pre-policy administrative staff and post-policy administrative staff, with respect to working capital management practices; thus, failure to reject the null hypothesis that, "*There is no Statistically Significant Difference in perception between Pre-and Post-free Senior High School Policy administrative staff on Working Capital Management Practices.*"

From these results, it could be averred that the difference between the mean scores of pre-and post-policy working capital management practices was likely due to a pure chance and not due to manipulation of the independent groups. This was also affirmed by the descriptive results – which, though, showed a slightly higher score in the post-policy group (*M* = 3.83±0.79SD) compared to the pre-policy group (*M = 3.41±1.15SD*), a mean difference of 0.42, t (160) = 0.87, *p* = 0.39.

Inferring from the results presented, it could be stated that with regards to working capital management practices, post-policy administrative staff at senior high schools in the Central Region have slightly higher perception compared to their counterpart pre-policy administrative staff. This is to say

that working capital management practices during the post-free senior high school period appear to be quite improved compared to pre-free senior high school period working capital management practices. Nevertheless, this difference was only due to chance as the results also revealed that this difference was not significant. This means that both pre and post-policy administrative staff at the senior high schools in the Central Region are not different in terms of their perceptions about effectiveness of the working capital management practices of senior high schools benefitting from the free senior high school policy in Central Region. In other words, free senior school policy has not changed, significantly, the practices related to working capital management of senior high schools in the Central Region.

This finding, on one hand, was not surprising; but on the other hand, it was surprising. It was not surprising because both pre and post-policy administrative staff appeared to have similar qualifications with regards to working capital management, such as finance and accounting, procurement and management, among others; meaning, these two groups probably have similar understanding of practices related to working capital management. On the other hand, the insignificant difference between the two policy groups was surprising because post-policy staff were expected to have an entirely different perspective about working capital management practices, as how activities such as those related to disbursement, procurement, and source of funds have taken different forms after the introduction of the policy.

From the empirical studies reviewed, the researcher had not come across any study which specifically focused on assessing the difference between pre-policy and post-policy administrative staff, with respect to

working capital management practices of senior high schools. This made the present study very relevant to existing literature. However, few related studies found no difference between the responses given by employees who joined the institution before a new policy was implemented and those who joined after the policy has been implemented (Mulera, 2005; Ngaba, 1990). Though environmental and economic factors, as well as institutional factors could influence the outcomes of this prior study, due to the fact that the study was carried outside Ghana, its findings could still serve as a reference point to the present study as they both have new policy implementation in place.

All in all, the present study also revealed that, statistically, there was no significant difference in perception between pre-policy and post-policy administrative staff at senior high schools benefiting from the free senior high school policy in the Central Region of Ghana, with respect to working capital management practices; hence, the researcher rejected the alternate hypothesis and upheld the null hypothesis.

Chapter Summary

This chapter presented the results and discussion of the study. Study participants' socio-demographics, descriptive statistics of the study variables and inferential statistics were also conducted. The findings showed that competency levels have significant positive effect on working capital management practices of senior high schools in the Central Region. Also, experience of practitioner showed a significantly positive effect on working capital management practices. Further, the interaction predictor, competency levels by experience, showed a significantly positive effect on working capital management practices of senior high schools in the Central Region.

Furthermore, no statistically significant difference was found between pre and post-policy administrative staff, with respect to working capital management practices of senior high schools in the Central Region.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter summarises the study and presents the conclusions drawn from the analysis. Summary of key findings of the study are also presented. Further, conclusions, recommendations, as well as suggestions for further studies are presented.

Summary of the Study

The purpose of this study was to examine the effects of competency levels, working experience, and their interaction on working capital management practices. This study was conducted in the framework of the free senior high school policy. Despite the various benefits associated with the free senior high school policy, there have been issues of mismanagement and misappropriation of working capital (cash and food items) in some schools in the Central Region. To address this problem, the study set out to assess the possible factors that could influence the working capital management practices of senior high schools in the Central Region, with specific objectives of:

Assessing the effect of competency levels of working capital management practitioners on working capital management practices;

Determining the effect of experience of practitioners on working capital management practices;

Analysing the moderating effect of competency levels on the relationship between experience and working capital management practices;

Investigating whether there is difference between the perception of pre and post-free senior high school policy on working capital management practices

and post-free senior high school policy on working capital management practices, from the perspectives of those who manage working capital.

The study focused on only administrative staff or those who manage working capital in the senior high schools. These staff included accountants, matrons, domestic assistant heads and storekeepers, numbering 164, from 41 senior high schools selected from eight districts in the Central Region were used for the study. The census technique was used to include all the 164 in the study. An explanatory design was employed, and questionnaire used for data collection. Out of the 164 questionnaires administered, 162 were retrieved from the respondents. Data were analysed using descriptive statistics of frequency, percentage, mean and standard deviation, and inferential statistical tools of Pearson Product-moment correlation, independent sample t-test and multiple linear regression techniques.

Key Findings

It was found that competency levels of those who manage working capital had a significant positive effect on working capital management practices in senior high schools in Central Region, with matrons having the highest competency levels followed by accountants, then storekeepers and domestic assistant heads.

A significant positive effect of experience on working capital management practices in senior high schools was found. Also, it was revealed that accountants had the highest working experience, followed by storekeepers, then domestic assistant heads, with matrons having the least experience in working capital management practices.

It was revealed that there was a significant positive moderating effect of competency levels on the relationship between experience and working capital management practices.

The findings showed that there was no significant difference between pre-free and post-free senior high school policy, with respect to working capital management practices.

Conclusions

The study has revealed that competency levels of those who manage working capital had influence on their working capital management practices, and matrons were shown to have the highest competency levels possibly due to the fact that they are mostly involved in inventory (food items) management, compared to the other positions; thus, improved and quality competency levels of all the other individuals involved in working capital management (i.e., accountants, storekeepers and domestic assistant heads) at the senior high schools is likely to lead to proper management of working capital.

Also, it has been shown that working experience improves working capital management practices. Accountants were reported to have the highest working experience, with matrons having the least working experience. Therefore, employing individuals who have many years of working experience related to working capital management, irrespective of position, may highly improve practices associated with working capital management at the senior high schools.

Again, competency levels combined with a considerable number of years of working experience appeared to improve working capital

management practices in the senior high schools. Thus, capacity building programmes to improve the competency levels of those involved in working capital management and employment of highly experienced accountants, matrons, storekeepers and domestic assistant heads will ensure that right management practices leading to acceptable working capital management in senior high schools are upheld.

Finally, administrative staff's perception about practices associated with working capital management remained unchanged, pre- and post-free senior high school policy. This implies that regulations and strategies that could positively influence working capital management practices can be introduced as the understanding of those who are involved in the management of working capital is likely to remain unchanged.

Recommendations

From the findings and the conclusions drawn, the following recommendations have been proposed by the researcher.

With regards to the first key finding and the conclusion drawn thereof, is it recommended that Ghana Education Service organise on-the-job training on accounts and inventory (food items) management for practitioners at senior high schools in the Central Region, as this will help enhance the competency levels of the practitioners directly involved in working capital management practices at senior high schools; hence, improving practices associated with working capital management.

Also, the Free Senior High School Secretariat should institute a special capacity building programme to specifically train domestic assistant heads to effectively and efficiently manage working capital, as according to the

statistics, they appeared to have the lowest competency levels. This will help improve the overall competency levels across grades/positions at the senior high schools in the Central Region; thus, culminating in improved working capital management practices.

Based on the second finding and the conclusion, it is recommended that Government of Ghana, through the appropriate educational agencies, employ only administrative staff or practitioners with a considerable number of years of experience in practices associated with working capital management to manage working capital in senior high schools in the Central Region.

Also, the Free Senior High School Secretariat should institute a special capacity building programme specifically for matrons, as they appeared to have the least working capital management experience. This will help improve the overall positive effect of experience on working capital management practices, as well as improve the positive interaction effect of competency levels and experience on working capital management practices.

Based on the third finding and the conclusion, it is recommended that apart from the Government, through its appropriate agencies, employing experienced practitioners, more focus should also be given to practitioners with both high competency levels and experience, as this may highly enhance working capital management practices in senior high schools in Central Region.

Taking into consideration the fourth finding and the conclusion drawn, it is recommended that authorities of senior high schools in the Central Region in collaboration of the Free Senior High School Secretariat, formulate and implement acceptable working capital management regulations any time they

deem it necessary to ensure that practitioners, irrespective of when they were employed, follow these regulations in order to improve the management of working capital in senior high schools in the Central Region, since the policy seems to have no significant effect on working capital management practices as far as the practitioners are concerned.

Suggestions for Further Studies

From the gaps identified in the literature reviewed and the limitations of this study, a number of potential research opportunities arise which could be explored for further insight on the factors influencing working capital management practices of senior high schools. First, the present study was cross-sectional in nature. It is suggested that a more longitudinal study that will observe administrative staff directly involved in working capital management for at least three consecutive semesters in order to fully appreciate the practices undertaken by the administrative staff in terms of working capital management.

Further, literature related to the difference between pre-policy and post-policy administrative staff, with respect to working capital management practices of senior high schools was uncommon. It is therefore, suggested that further studies focus on free senior high school policy in Ghana by considering how practices related to working capital management differ between pre-policy periods and post-policy periods among senior high schools in Ghana.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

QUESTIONNAIRE ON FREE SENIOR HIGH SCHOOL POLICY AND WORKING CAPITAL MANAGEMENT PRACTICES OF PUBLIC SENIOR HIGH SCHOOLS IN CENTRAL REGION, GHANA

This questionnaire has been developed to assess *Free Senior High School Policy and Working Capital Management Practices of Public Senior High Schools in Central Region, Ghana*. Please, be informed that this study is purely academic and that all information obtained shall be kept with utmost confidentiality. The outcome of this research may be used for academic and general purposes such as research reports, conference papers or books.

For any enquiries, you may contact the Lead Investigator on 0244457717.

Thank you in advance for your co-operation.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Please tick (✔) the response applicable to you.

1. Gender: 1. Male ◯ 2. Female ◯
2. Age group: 1. Up to 29yrs ◯ 2. 30 – 39yrs ◯ 3. 40 – 49yrs ◯
   4. 50 – 59yrs ◯ 3. 60 and above yrs ◯
3. Position: 1. Accountant ◯ 2. Domestic assistant head ◯
   3. Storekeeper 4. Matron ◯
4. Period you joined the school: 1. Pre-free SHS period ◯
   2. Post-free SHS period ◯

SECTION B: COMPETENCY LEVELS OF WORKING CAPITAL MANAGEMENT PRACTITIONERS

In this section, the response to each statement is rated on a scale of 1, 2, 3, 4, & 5. Five (5) is the highest value on the scale; while one (1) represents the lowest.

Please, tick (✔) the response applicable to you.

	STATEMENTS	RESPONSE (please, tick)				
		1	2	3	4	5
		SD	D	U	A	SA
CL1	I have the capability to manage school's working capital efficiently.					
CL2	I have at least 3yearsof working capital management experience.					
CL3	I mostly attend seminars and conferences related to working capital management.					
CL4	I have plans to take further studies in finance/accounting/procurement.					
CL5	My prior academic qualifications were related to finance/accounting/procurement/management					
CL6	I took a professional course related to finance/accounting/procurement/management					
CL7	I have been recognised by my juniors/seniors/supervisors as having the requisite capabilities to manage finance-related processes.					

Key: SD = strongly disagree; D = disagree; U = uncertain; A = agree; SA = strongly agree

SECTION C: WORKING CAPITAL MANAGEMENT PRACTICES

In this section, the response to each statement is rated on a scale of 1, 2, 3, 4, & 5. Five (5) is the highest value on the scale; while one (1) represents the lowest.

Please, tick (✔) the response applicable to you.

STATEMENTS		RESPONSE (please, tick)				
		1	2	3	4	5
		SD	D	U	A	SA
WCMP1	I believe supply of food items to the school was regular and depends on the quantity needs of the school.					
WCMP2	We usually procure durable food items in quantities that can be managed by the school.					
WCMP3	We do not borrow heavily from banks because we have procedures in place to management judiciously any amount of cash made available to the school.					
WCMP4	We have mechanisms in place to control and manage cash-flows.					
WCMP5	We purchase most food items on credit in order to channel available cash into other important school activities.					
WCMP6	We usually give advances to suppliers before delivery of items.					
WCMP7	We ration cash and avoid bulk purchases to ensure efficient inventory and cash management.					

Key: SD = strongly disagree; D = disagree; U = uncertain; A = agree; SA = strongly agree

SECTION D: MANAGEMENT PRACTICES OF INVENTORY (FOOD ITEMS) AND CASH

In this section, the response to each statement is rated on a scale of 1, 2, 3, 4, & 5. Five (5) is the highest value on the scale; while one (1) represents the lowest.

Please, tick (✔) the response applicable to you.

STATEMENTS		RESPONSE (please, tick)				
		1	2	3	4	5
		SD	D	U	A	SA
CIMP1	I always ensure efficient management of food items to ensure that wastage is minimised.					
CIMP2	I regularly assess inventories for quality and durability.					
CIMP3	I only procure perishable goods as and when they are needed.					
CIMP4	I spend less time holding inventory of food items for as long as possible.					
CIMP5	I never recorded significant spoilage of inventory of food items due to storage issues.					
CIMP6	I procure inventory only at the appropriate times to avoid thefts and pilferages.					
CIMP7	I have mechanisms in place to ensure inventory safety.					
CIMP8	We practice FIFO principles to ensure no expiry of food items.					
CIMP9	We sometimes arrange to sell off some old food items in order to avoid expiration.					
CIMP10	We mostly ensure that food items are received on time when school reopens.					
CIMP11	We sometimes trade some food items with other schools to avoid expiration.					
CIMP12	I believe we always put measures in place to avoid storage problems.					
CIMP13	We only procure greater part of perishable goods based on					

	needs.					
CIMP14	We procure perishable goods only in quantities that we can effectively manage.					

Key: SD = strongly disagree; D = disagree; U = uncertain; A = agree; SA = strongly agree

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309
E-MAIL: irb@ucc.edu.gh
OUR REF: UCC/IRB/A/2016/1224
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

7TH FEBRUARY, 2022

Mr. Gordon Aboagye
Department of Business and Social Science Education
University of Cape Coast

Dear Mr. Aboagye,

ETHICAL CLEARANCE – ID (UCCIRB/CHLS/2021/90)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research titled **Free SHS Policy and Working Capital Management Practices of Public Senior High Schools in Central Region of Ghana.** This approval is valid from 7th February, 2022 to 6th February, 2023. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

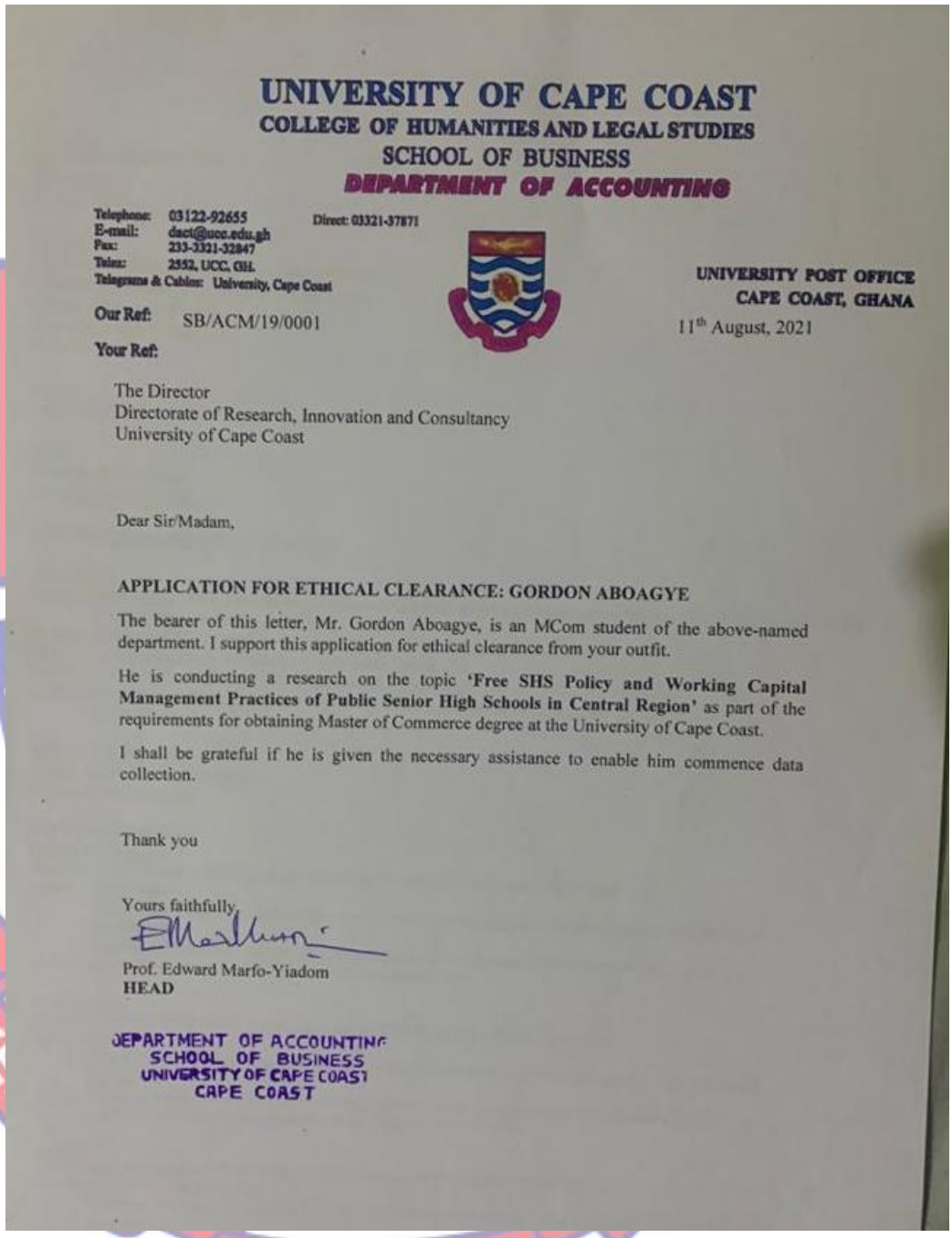
Yours faithfully,

Samuel Asiedu Owusu, PhD
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST

APPENDIX B: ETHICAL CLEARANCE

APPENDIX C: INTRODUCTORY LETTERS



UNIVERSITY OF CAPE COAST
COLLEGE OF HUMANITIES AND LEGAL STUDIES
SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING

Telephone: 03122-92655 Direct: 03321-37871
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Fax: 233-3321-32847
Telex: 2552, UCC, GH.
Telegrams & Cables: University, Cape Coast

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: SB/ACM/19/0001

Your Ref:

11th August, 2021

The Director
Directorate of Research, Innovation and Consultancy
University of Cape Coast

Dear Sir/Madam,

APPLICATION FOR ETHICAL CLEARANCE: GORDON ABOAGYE

The bearer of this letter, Mr. Gordon Aboagye, is an MCom student of the above-named department. I support this application for ethical clearance from your outfit.

He is conducting a research on the topic **'Free SHS Policy and Working Capital Management Practices of Public Senior High Schools in Central Region'** as part of the requirements for obtaining Master of Commerce degree at the University of Cape Coast.

I shall be grateful if he is given the necessary assistance to enable him commence data collection.

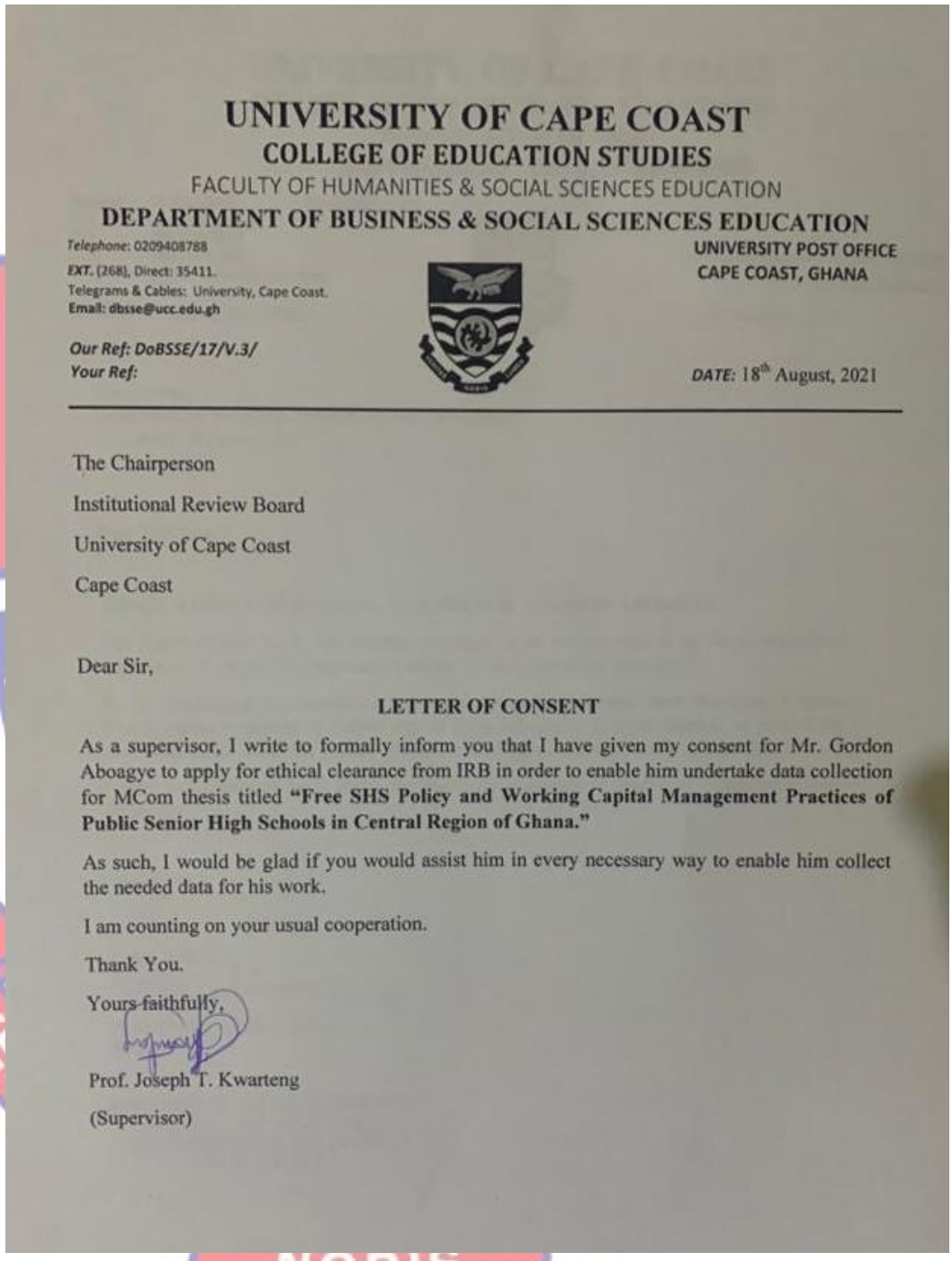
Thank you

Yours faithfully,

Prof. Edward Marfo-Yiadom
HEAD

DEPARTMENT OF ACCOUNTING
SCHOOL OF BUSINESS
UNIVERSITY OF CAPE COAST
CAPE COAST

APPENDIX D: LETTER OF CONSENT



UNIVERSITY OF CAPE COAST
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DEPARTMENT OF BUSINESS & SOCIAL SCIENCES EDUCATION

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Email: dbsse@ucc.edu.gh

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: DoBSSE/17/V.3/
Your Ref:

DATE: 18th August, 2021

The Chairperson
Institutional Review Board
University of Cape Coast
Cape Coast

Dear Sir,

LETTER OF CONSENT

As a supervisor, I write to formally inform you that I have given my consent for Mr. Gordon Aboagye to apply for ethical clearance from IRB in order to enable him undertake data collection for MCom thesis titled **"Free SHS Policy and Working Capital Management Practices of Public Senior High Schools in Central Region of Ghana."**

As such, I would be glad if you would assist him in every necessary way to enable him collect the needed data for his work.

I am counting on your usual cooperation.

Thank You.

Yours faithfully,

Prof. Joseph T. Kwarteng
(Supervisor)