



**Assessment of Teacher-Bursars' Effectiveness in Management of Finances in Public
Secondary Schools: A Case of South West Education Division**

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DECLARATION

I, Victor Pangani Phiri, declare that I am the sole author of this thesis and that during the period of registration it remains as such. This thesis is a result of my own research work, and where other people's research was used, they have been duly acknowledged.

Date..... Signature.....

CANDIDATE

SUPERVISOR ENDORSEMENT

Name..... Date.....

SUPERVISOR

Signature.....

SUPERVISOR

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I would like to thank the Almighty God for giving me the strength, zeal and knowledge to complete my studies. This dissertation could not have been complete without the guidance, assistance and support of people who shared their valued time, knowledge and expertise with me.

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My appreciation goes to Education Division Manager for South West Education Division for allowing me to collect data in the division. Special mention to officers at the Division for warmly and cordially accepting to be involved in this study.

DEDICATION

I would like to dedicate the efforts of this work to my parents, Estere Mulanje and Miction Pangani for the first teaching and encouragement they inculcated in me to never doubt my abilities. With this primal moral support, I have managed to overcome tough and threatening challenges in life – of which without them this dream could not have been materialised.

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ABSTRACT

This study sought to assess teacher-bursar's effectiveness in the management of finances in public schools of South West Education Division. Teacher-bursars' effectiveness in managing financial resources is determined by the way they execute their tasks as required by Ministry of Education, Science & Technology and other established generally accepted accounting practices. However, system theory of management guided the execution of this study.

Explanatory sequential mixed method was used as a research design. As such, it incorporated questionnaires and interviews. In the first phase, questionnaires were administered to head teachers and teacher-bursars. Numeric data from this phase informed the interviews done in second phase, targeting management officers at the division. The division had 118 schools from which a simple random sample of 91 schools was selected. From the sample of 91 schools, 69 head teachers and 65 teacher-bursars were involved. Apart from that, three officers from the division were purposively sampled. SPSS version 20 analysed the study's numeric data while inductive content analysis was employed in analyzing categorical data.

The findings revealed that 81% of head teachers appointed teachers as bursars based on trustworthiness. The study established that 89% of teacher-bursars were incompetent in the management of public funds. In addition, 62% of head teachers demonstrated that teacher-bursars were failing to account for funds allocated to specific vote heads. SWED management collaborated these findings by stating that financial statements produced by teacher-bursars did not give a true and fair view of school's financial position.

This study has recommended Government to revisit the criterion of appointing teachers as bursars. Training of teacher-bursars should be prioritised. Universities and teacher training colleges should consider introducing a course in basic financial management in their curricula in order to prepare individuals for responsibilities such as head teachers and bursars. Finally, this study is of great value to all stakeholders in education sector in enhancing teacher-bursars' effectiveness in managing school finances. This is because the stakeholders can make use of the research findings to intensify in-service trainings at divisional levels to benefit teacher-bursars on the various ways of ensuring effective management of school funds. Further, it is hoped that the findings will be used by the Government in the formulation of education policies which would eventually focus on effective management of financial resources in public schools in Malawi.

GLOSSARY OF ACRONYMS / ABBREVIATIONS

BOD	Board of Directors
CSCQBE	Civil Society Coalition for Quality Basic Education
GAAP	Generally Accepted Accounting Practices
GoM	Government of Malawi
MoEST	Ministry of Education, Science and Technology
PHRMO	Principal Human Resource Management Officer
SPSS	Statistical Packages for Social Sciences
SWED	South West Education Division

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CHAPTER 1: INTRODUCTION TO THE STUDY

1. 1 Chapter Overview

This chapter discusses the background to the study, rationale of the study, problem statement, main research objective, specific research objectives, research questions and significance of the study. The chapter also discusses theoretical framework, limitations, delimitations and definitions of significant terms of the study. It concludes with chapter summary.

1. 2 Background to the Study

1. 2. 1 Concept of Teacher-Bursar in Public Secondary Schools in Malawi

The concept of ‘teacher-bursar’ is not a stand-alone phrase but a combination of meanings from two words, *teacher* and *bursar*. In this regard, defining the terms, *teacher* and *bursar*, provides a better comprehension of the ‘teacher-bursar’ concept. Sinclair (1994) defines a teacher as a person who teaches, usually as a job at school or similar institution. In broader perspective, Senge (2000) defines a teacher as an expert who is capable of imparting knowledge that will assist learners to build, identify and acquire skills that will be used to face the challenges in life. In short, a teacher is a trained specialist mandated to facilitate the transmission of knowledge and skills to students in preparation of their future world of work and business.

However, a bursar of school or college is the person who is in charge of its finances or general administration (Sinclair, 1994). Furthermore, Collins English Dictionary defines a bursar as an official in charge of the financial management of school, college or university (Brookes, 2014). Similarly, in terms of the professional aspect of it, operating as a key member of staff, the bursar is primarily responsible for supporting the head teacher to deliver the financial and commercial aspects of the school’s business agenda (Independent Schools Association of Southern Africa (ISASA), 2017). A synonymous view has been shared by Ministry of Education, Science & Technology (2014) and states that one of the primary role of a bursar is to advise the head teacher on financial and human resource matters. Therefore, it can be

inferred from these definitions that a bursar is a professionally trained officer responsible for financial and human resource management at an institution.

Despite defining the two terms associated with teacher-bursar, there is hence need for a quick look at how this concept came into existence in public secondary schools in Malawi. Government of Malawi (GoM) as a sole proprietor of public secondary schools assigns bursars to its schools to assist head teachers in running the schools especially in areas of financial and human resource management since head teachers have no technical expertise in this area. Nevertheless, until recently, GoM has not deployed bursars to some schools because of inadequate human resource. It hence mandated head teachers to appoint trustworthy professionally trained teachers to work as bursars on top of their usual academic obligations (Ministry of Education, Science & Technology, 2014). Thus, this move led to the creation of teacher-bursar's concept in these schools.

Therefore, a teacher-bursar is supposed to carry out these two tasks simultaneously. On the aspect of remuneration package, there is no salary for doing the extra work of the bursar. "No civil servant may draw a salary for more than one post at the same time" (Government of Malawi, 2015). By extension, this act entails that one can either be a teacher or a bursar to earn a salary.

1. 2. 2 Regional Perspective on Financial Management in Public Schools

School management is critical to fulfillment of objectives and goals embedded in an educational curriculum. This calls for institution of proper measures in the use of material, financial, and human resources to attain the prescribed goals. Therefore, Wakiriba, Ngahu & Wagoki (2014) in their study on *Effects of Financial Controls on Financial Management in Kenya's Public Sector* emphasised that financial resource is considered as an important resource to many institutions and establishments. In this regard, Wakiriba et al. (2014) further explained that financial resources must be effectively and efficiently managed to bring about the needed change and results from the activity the funds have been reserved for. Therefore, secondary schools need to manage finances appropriately for the benefit of students who are key stakeholders.

However, in Kenya, head teachers as controlling officers go through turbulence to streamline school's operations along generally acceptable accounting practices and to place a school on a worthwhile financial position acceptable to various stakeholders. "Although secondary school principals are regarded as financial controllers and accounting officers at school levels, most of them have no professional qualifications to enable them execute their duties effectively" (Nyanyuki, Okiogo, Ojera, Nyabwanga & Nyamwamu, 2011; p. 35). It is therefore not surprising that head teachers rely much on the advice given to them by bursars in schools. School bursars and account clerks are expected to give head teachers assistance in handling accounting or financial matters (Langat, 2008). In this case, the school bursars and account clerks are supposed to use the accounting instructions issued by the Ministry of Education to maintain proper accounting records for all the school's revenue and expenditure (Republic of Kenya, 2003). However, Sigilai & Bett (2013) reported that some head teachers in Bomet County in Kenya stepped down for lack of financial management skills. They feared that failing to manage the funds as required would jeopardise their jobs. This is because they were required to handle all the school accounts with no basic accounting training.

In South Africa, principals and school governing body (SGB) manage the school funds. There were loopholes in the way school funds were managed as reported by (Mestry, 2004). In his article on *Financial Accountability: The Principal or the school governing body*, Mestry (2004) highlighted that principals and school governing bodies have been subjected to forensic audits by the Department of Education due to the mismanagement of funds through misappropriation, fraud, pilfering of cash, theft and improper control of financial records. This problem has been attributed to lack of knowledge in financial management. "There are many principals and SGB members who lack the necessary financial knowledge and skills and are placed under tremendous pressure because they are unable to work out practical solutions to practical problems" (Mestry, 2004; p. 35).

In addition, Vandeyar (2002) stipulates that most SGBs have parents who have little or no financial knowledge and skills. "Most SGBs do not have the required capacity to manage school finances" (Vandeyar, 2002; p. 103). Thus, the common denominator for these two countries remains that the responsibility of managing public funds has been put in the hands of people who did not undergo a specialized training in the field of financial accounting and management. This has been a recipe for gross mismanagement of public funds in schools.

1. 2. 3 Local Perspective: Policy Direction on Financial Management in Schools

In Malawi just like the practice in Kenya, school head teachers are required to provide checks and balances on the management of funds handled by the qualified bursar or accounts clerk. Thus, according to Government of Malawi (GoM) through Ministry of Education, Science and Technology (2014; p. 19), “the head teacher has an overall authority of managing the school finances”.

However, Ministry of Education, Science and Technology in Malawi recognizes that head teachers can barely execute this task without technical support. The ministry outlines that the accounts personnel or bursars are responsible for collecting revenue on behalf of the school and advises the head teacher on financial and human resource matters. Furthermore, the ministry elaborates that financial management activities (for bursars or accounts personnel to execute) involves preparation of budget estimates, collection of money, documentation of financial reports, banking, expenditure or utilization control, reporting or accounting and preparing revenue returns (Ministry of Education, Science & Technology, 2014). This is a clear statement of intent, demonstrating the unparalleled role of accountants in financial management.

In the same manner, Vanstapel (2004) demands that the accountant therefore has to ensure that internal controls are put in place and are designed to address risks and to provide reasonable assurance that in pursuit of its mission, the entity is able to execute orderly, ethical, economical, efficient and effective operations; to fulfil its accountability obligations, to comply with applicable laws and regulations, and to safeguard the public resources against loss, misuse and damage.

Regrettably, like the practice in Kenya and South Africa, the Ministry of Education in Malawi has chosen to disregard the same accounting standards by mandating head teachers to appoint teachers as bursars or accounts personnel in absence of accounts clerk or bursar (Ministry of Education, Science & Technology, 2014).

This defeats the whole aim of having these technocrats in the first place if their duties can easily be done by teachers. According to Majanga (2015), lack of and having unqualified accountant are prerequisites for dysfunctional financial management systems. From this perspective, therefore, we can be compelled to conclude that unqualified or unskilled accounting personnel will find executions of these obligations a tall order. In addition, it can be deduced that

appointment of teachers to do the work of accountants is an intent to deliberate flout applicable laws and regulations governing management of public funds. It also questions their ability to safeguard the public resources against misuse, loss and damage.

It was against this background that this study sought to assess how the appointment of teachers as bursars affect management of school funds in public secondary schools of South West Education Division in Malawi.

1. 3 Rationale of the Study

While a number of studies have been conducted on various aspects of financial management, this topic was far from being exhausted as a research area. According to Okumbe (1998), finance is the most basic resource in any enterprise, education sector inclusive, hence everybody is concerned about its management. In addition, Orlosky (1984) explained that financial management determines the way school is managed and whether or not the school will meet its objectives. Therefore, new studies could be conducted in the area of financial management to, among other things, analyse the effectiveness of teacher-bursars on management of funds in public secondary schools.

Despite the knowledge of obvious repercussions of delegating such tasks to teachers, the Ministry of Education in Malawi directed head teachers to appoint teachers as bursars or account personnel (Ministry of Education, Science & Technology, 2014). The ministry has hence decided to chuck out the threat the appointment of teachers as bursars pose to financial management. Regrettably, 6122 out of 14333 secondary school teachers are unqualified (Directorate of Education Planning, Education Management Information System (EMIS), 2017). This statistic clearly paints a vivid assumption that some of the appointed teachers could be unqualified teachers. Frustratingly, it could not be an overstatement to point out that public funds in some secondary schools in Malawi are managed by unqualified teachers.

However, Majanga (2015) in his paper titled *Sealing Leakages of Public Funds Abuse: The Malawi "Cashgate" Case* demonstrated the significant role accounts personnel or bursars play in observing fiscal discipline. He elaborated that the accountancy profession subscribes to the values of accountability, integrity, honesty, accuracy among others and that is the moral reason

accountants are required in any field of work to provide an independent report of how the resources are deployed to bring the outcome and assess if indeed the outcome from the use of such resources is as it had been expected by all the stakeholders. Therefore, the ministry's direction to head teachers to appoint teachers as bursars has set the pace in the violation of this principle. From this premise, there was a need to find out the influence of such appointing on prudent financial discipline. Thus, this study had been instituted to investigate the impact of such appointment on management of the public purse. The results of this study would assist head teachers when assigning teachers to be bursars to do more and make an informed decision because they would have an idea of what to expect from such delegation. In addition, other stakeholders in the education sector would be informed on the effectiveness of such delegation and hence make necessary steps to address the exposed gaps and shortfalls.

1. 4 Statement of the Problem

Head teachers in collaboration with their bursars are responsible for overseeing the management of school funds. They are hence mandated to execute this task within the confines and dictates of financial management guidelines (Ministry of Education, Science & Technology, 2014). In light of this, financial management demands that statements depicting management of school accounts ought to be produced in order for the manager (the head teacher) to compare the school's progress against the budget, and then make decisions about the future. As pointed out by Langat (2008), financial management should include keeping an accurate record of all financial transactions, linking the budget to the firm's strategic and operational plans. Additionally, financial management stipulates that there should be internal controls or checks and balances in place with an aim of safeguarding the organisation's (school's) assets, and also to manage risks (El-Nafbi, 2008).

Ideally, schools bursars should be capable of producing such information for the head teacher's final decision-making process on the course of action to be made thereafter. However, this is possible if such information has been presented in a concise manner as per requirements of the profession. Unfortunately, as earlier stated in the background section of this chapter, some schools in Malawi have bursars who are professionally trained as teachers. The influx of teacher-bursars, due to vacancies exacerbated by failure to recruit accounting personnel, has rendered the task of producing financial statements and doing other important financial

transactions unattainable. This view has also been shared by Ng'ambi (2011) who alluded to the fact that figures in budget documents from the schools presented to the line ministry through respective divisions do not tally with those from the Ministry of Finance. This puts on the spotlight the incompetence of these teacher-bursars.

With these revelations, therefore, this study sought to find out the effectiveness of teachers-bursars in the management of funds in public secondary schools and to probably provide alternative ways of addressing the challenges in the execution of the delegated tasks.

1. 5 Research Objectives

1. 5. 1 Main Research Objective

The main objective of this study was to investigate the effectiveness of teachers-bursars in the management of funds in public secondary schools in South West Education Division.

1. 5. 2 Specific Objectives

The study intended to:

1. Explore the rationale of appointing teachers to work as bursars in public secondary schools.
2. Examine the competency of teacher-bursars on the adherence to financial management principles in the execution of their work.
3. Analyse the implications of appointing teachers as bursars on management of public funds.

1. 6 Research Questions

The study was guided by the following research questions:

1. What is the rationale for the appointment of teachers as bursars in public secondary schools?
2. To what extent does teacher-bursar's competence in the execution of their work influences their adherence to financial management principles?
3. How does the appointment of teachers as bursars affect the management of public funds?

1. 7 Significance of the Study

The study has assisted in identifying gaps within the system of financial management in secondary schools and in providing approaches of addressing these gaps. Therefore, research findings of the study will be of benefit to theory and practice. In respect to theory, the study has added new knowledge pertaining to the way teacher-bursars are executing the tasks. The new knowledge will enlighten policy makers when planning and organizing resources for the schools. It shall also lead to a comprehensive analysis of the rationale of appointing teachers on the basis of trustworthiness. Schools with teacher-bursars will hence strive to conform to acceptable accounting standards by among other things organizing in-service trainings for the teacher-bursars.

1. 8 Theoretical Framework

This study had adopted a system theory of management as a framework on which the research undertaking was based. System theory was founded by Ludwig von Bertalanffy, William Ross Ashby and others between 1940s and 1970s. Thus systems theory is an interdisciplinary theory about the type of complex systems in nature, society, and science (Mele, Pels, & Polese, 2010). Briefly, Capra (1997) narrates that it is a framework by which one can investigate and/or describe any group of objects that work together to produce some result.

McNamara (2006) elaborated that systems range from very simple (like a family) to very complex (like a manufacturing company). Complex systems, such as social systems, are comprised of numerous subsystems, as well. These subsystems are arranged in hierarchies, and integrated to accomplish the overall goal of the system. Each subsystem has its own boundaries of sorts, and includes various inputs, processes, outputs and outcomes geared to achieve an overall goal for the subsystem (McNamara, 2006).

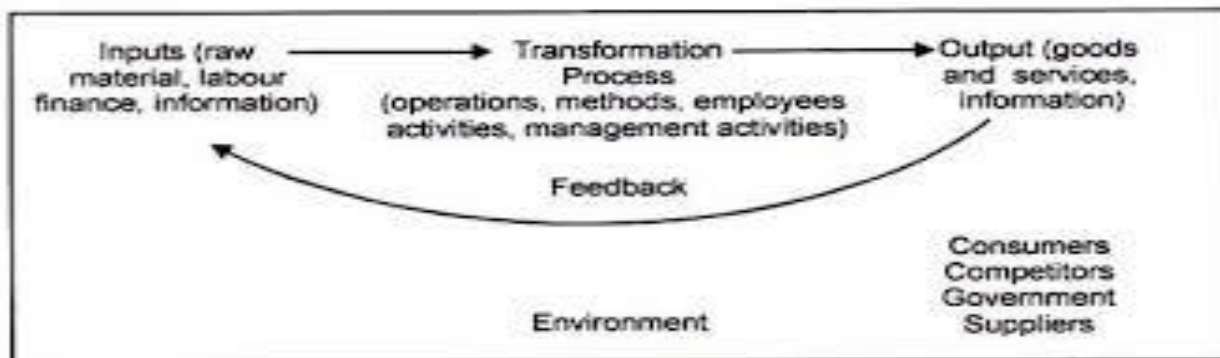


Figure 1.1: Model of an Organisation as an Open System

Source: Wehrich, Carnice & Koontz (2008)

For a system to produce the required outputs, it must have inputs injected into an effective and efficient transformational process. Therefore, it was from this line of reasoning that the study considered a school as a system.

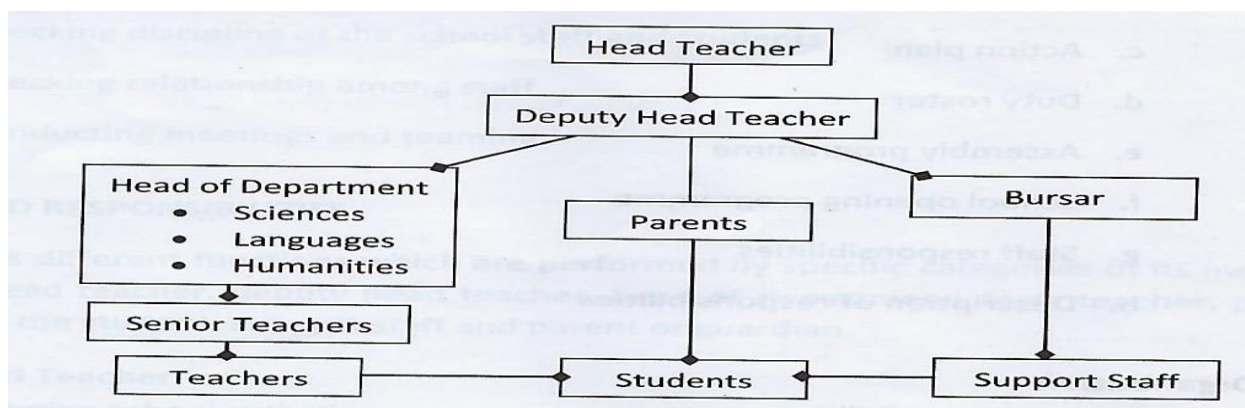


Figure 1.2: Organisational Structure of Secondary Schools in Malawi

Source: Ministry of Education, Science & Technology (2014).

It is evident from the organogram that the subsystem of academics comprise heads of department, senior teachers and teachers. The other subsystem is headed by the bursar. These two subsystems are answerable to the deputy head teacher and who again reports to the head teacher. In this particular sense, when a school is functioning properly, synergy is present. Synergy is a combined effect of a system working together where the combined result is greater or more powerful than that of the individual components. Synergism is achieved if and only if all the subsystems work together to achieve a common purpose (Chikere & Nwoka, 2015).

In this context, therefore, having unqualified officer in the office of bursar is having a misfit. This component will hardly apply the transformational processes effectively and efficiently (Anderson, Carter & Lowe, 1999). As a result, the academic subsystem will hardly execute its core duty of teaching and learning since there might be no provision of instructional materials from the bursar's subsystem; due to either mismanagement of funds or even unavailability of funds – because the office of the bursar did not do its work properly. Mobegi (2017) reported that financial misappropriation and misuse distort both the quality and availability of education services. Therefore, this study proposed that delegating the affairs of the office of the bursar to teachers will likely destabilise the school system in different ways. As suggested by the theory, according to McNamara (2006), replacement with a part of the same nature to the one removed and/or reconditioning another part to suit the new working environment were remedies to dysfunctional and damaged part.

1. 9 Limitations of the Study

The researcher would have liked to involve all the sampled schools in order to get more information pertaining to the research problem. However, this was not the case due to the remoteness of some of the schools which made the researcher unable to access them within study time frame. Nevertheless, the study managed to access over 70% of targeted population. Furthermore, the turn out rate was consistent with Oso & Onen (2009) who stated that a 50 percent return rate is adequate, 60 percent is good enough while the return rate of 70 percent is therefore very good.

1. 10 Delimitations of the Study

Delimitations are characteristics that limit the scope and define the boundaries of a study (Simon, 2011). In tandem with this observation, this study had delimiting factors which had to a larger extent defined the boundaries and scope of this study. The choice of this study had been specifically advanced due to importance of a bursar to management of school funds. It is a mandate of school bursar to offer professional assistance and advice in handling of accounting or financial matters to school head teacher (Ministry of Education, Science & Technology, 2014). This was the moral reason this researcher deemed it necessary to investigate the effectiveness of assigning a teacher as a bursar on management of school finances.

In addition, this study had opted to lay its framework from concepts derived from system theory of management. Though there were other relevant theories which could have been used in this regard, this study found merit in the system theory and it provided more insights in the investigation of the research problem.

1. 11 Definition of Significant Terms

In this study, the following terms were used to mean:

Financial accounting refers to a specialized branch of accounting that keeps track of a company's financial transactions.

Financial statements refers to reports prepared by an institution's accountant to present the financial performance and position at a time; such as balance sheets, income statements, statement of owner's equity and statement of cash flows.

Mismanagement of funds refers to failure to observe laws or guidelines when handling finances for an institution.

Public secondary school refers to a school that is financially supported and run by government, and provides secondary education.

Teacher-bursar's effectiveness refers to the degree at which a teacher-bursar is successful in adhering to generally acceptable accounting practices.

1. 12 Chapter Summary

Secondary school bursars have a sole responsibility of ensuring that GAAP is adhered to. Ministry of education in Malawi expects bursars or account clerks to carry out such duties on behalf of the head teacher and also to provide the necessary technical support to head teachers. However, in the absence of these qualified bursars, head teachers are obliged to appoint a trustworthy teacher to perform the duties reserved for qualified accounting personnel. In such cases, questions of competency of the teachers to provide technical advice to head teachers do arise. Revelations of incompetence in financial documentation and reporting have been exposed. These reports hence question the technical capability of teacher-bursar in handling the task of a school bursar.

The study investigated the effectiveness of teacher-bursars in management of finances through the following specific objectives: exploring the rationale of appointing teachers as bursars in public secondary schools, examining the competency of teacher-bursars on the adherence to financial management principles in the execution of their work, and finally analysing the implications of appointing teachers to work as bursars on management of public funds.

Research findings of the study will be of benefit to theory and practice. Systems theory of management informed the research study. The theory advocates that in a system there are sets of inputs, transformation process and outputs. So for a system to produce the required outputs, it must have inputs injected into effective and efficient transformational process. Therefore, in view of parameters associated with system theory, it was a judgement of the researcher that a school is a system. It has sets of subsystems and parts that work together to achieve a common goal. An organogram of a secondary school attested to this judgement. Thus, system theory of management can be applied in this case. The appointment of teachers to work as bursars would hence lead to disintegration of a school as a system. In this situation, cases of abuse of funds and misappropriation of the same could be anticipated.

CHAPTER 2: REVIEW OF RELATED LITERATURE

2. 1 Chapter Overview

In this chapter, we have presented a review of literature from local, regional and international sources which are related to this study. The literature has been discussed according to competence of teacher-bursars in management of finances and implications of appointment of teacher-bursar on financial management. However, it has also looked at meaning of financial management in a school's context.

2. 2 Concept of Financial Management

Financial Management is an essential part of the economic and non-economic activities which leads to deciding the efficient procurement and utilization of finance. For maximum utilization of resources, financial management plays an integral role. Paramasivan & Subramanian (2016) define financial management as the operational activity of a business that is responsible for obtaining and effectively utilizing the funds necessary for efficient operations. In other words, financial management is concerned with the mobilization or acquisition of funds for the purposes of stimulating and ascertaining the operations of an enterprise towards accomplishment of its core objectives and goals. "Thus, financial management is mainly concerned with the effective funds management in the business" (Paramasivan & Subramanian, 2016; p. 19).

School financial management comprises the planning and implementation of a financial plan, accounting, reporting and the protection of assets from loss, damage and fraud. All items of financial management are exposed to the risk of incorrect, improper and ineffective school management, which is particularly reflected in the accounting control of an institution. Schools can regulate their accounting with at least two internal rules: accounting rules and instructions on inventory check (Annual World ICSEI Congress & Brejc, 2007). However, Wood & Sangster (2005) define accounting as the process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by users

of the information. Knowing and adhering to accounting practices is undeniably a non-negotiable obligation to schools if they are to reduce and even prevent the risks.

Furthermore, a school has an effective internal control if necessary accounting procedures are followed. Likewise, if the school does not have the internal rules, there is a great risk for incorrect and ineffective management as well as unintended use of school's public or private financial resources. The internal control system comprises a system of procedures and methods with the objective to assure compliance with the principles of legality, transparency, efficiency, effectiveness and management economy (Annual World ICSEI Congress & Brejc, 2007).

2. 3 Competency of Teacher-Bursar in Management of Finances

Financial accounting which is a subset in the realm of financial management is concerned with the maintenance of records in which financial transactions of an educational organization are summarized. An adequate financial system ensures effective operation in an educational organization. Financial accounting is thus the process of recording, classifying and summarizing financial transactions of an educational organization and interpreting the results of these transactions (Sigilai & Bett, 2013). Therefore, financial accounting calls for the utilization of bookkeeping aspect of it. Book-keeping is the art of recording business transactions capable of being measured in monetary terms. Wood & Sangster (2005) added that bookkeeping is the process of recording data relating to accounting transactions in the accounting books. The primary value of book-keeping is that they are readily available when required. In Kenya, some of the various books of accounts in use in educational organizations include: cash book, ledger, journal, receipt book, commitment register, stores ledgers, inventory, and payment vouchers (Okumbe, 1999).

In financial accounting, cash book is another important bookkeeping document. "The cashbook is a book detailing money received and paid out of the school on a daily basis. A cashbook is a book of accounts in which all financial transactions with respect to receipts payments and banking are recorded" (Sigilai & Bett, 2013; p. 206) . It is the responsibility of the head teacher of every school to ensure that the cash book is written daily so that, through reconciliations, the cash in hand can be checked by the head teacher against the balances reflected in the cash book (Okumbe, 1999).

Administratively, Ministry of Education & Human Resources (1999) of Kenya emphasized that it is the responsibility of the head teacher to ensure that the transactions must balance at the end of the day. Thus this culture is helpful in tracking down the payables and receivables in operational school accounts. Bursars or account clerks are duty bound to record every transactions made during the day and substantiate them with supporting documents (Langat, 2008). So in this particular instance, the issue of competency then circles in. Knowledge in bookkeeping becomes an overbearing factor for one to duly conform to the dictates of the profession (Wood & Sangster, 2005). It hence becomes a rigorous undertaking to streamline school's financial accounts in order to be congruent with the universally, agreed financial instruments. Otherwise, lay persons in this field cannot comprehend and ably muster all these documents without due exposure to stringent training.

However, head teachers and teachers in Malawi both undergoes the same training. A head teacher is a teacher first and foremost (Ministry of Education, Science & Technology, 2014). Professionally, they are hardly experts in financial accounting and management. Langat (2008) also agrees with Ministry of Education, Science & Technology (2014) that although secondary school principals are regarded as financial controllers and accounting officers at school levels, most of them have no professional qualifications to enable them execute their duties effectively. Kenyan Ministry of Education (2014) collaborates by stating that head teachers therefore require initial and regular in-service training course in financial management so as to be fully conversant with school accounting and bookkeeping procedures and must be capable of supervising and controlling the work of the bursar and the accounts clerk. If the head teachers are to be exposed to training, what more with teachers working as bursars or account clerks. It is therefore unsurprising to find such teachers struggling to come of age in financial documentation and reporting.

2. 4 Implications of Appointing Teachers as Bursars on Financial Management

Financial management in public secondary school is not an easy task. In Ghana, according to Auditor-General's report (2008), vital findings with respect to senior high school financial management problems included failure to submit financial statements for validation, failure to collect outstanding debts, failure to settle outstanding indebtedness, cash irregularities, procurement irregularities, payroll irregularities and tax irregularities. Furthermore it was also documented that there were recurrent reports of financial management irregularities by head teachers, leading to misappropriation of funds, inadequate provision of buildings to meet increasing number of students (Auditor-General, 2008).

This is against the background that in Ghana headmasters and together with their bursars among other things are responsible for the management of funds in their schools from cash, receivables and inventory management without involving other stakeholders who may have the expertise in contributing to the success of their administration (Frimpong, 2015). Of course, there is no documentation in these sources to demonstrate that the bursars in question are either qualified or not. However, a fact remains – basing on the above arguments - they are failing to execute their duties properly. If they are qualified then proper channels of monitoring should be enhanced to minimize the risks; but, if there are unqualified bursars then it is an area of concern and interest for this study. However, “topping the list of offences, were non-deduction of taxes, purchases from non-VAT entities, unsupported payment vouchers and misapplication of funds” (Frimpong, 2015; p. 3).

Similar dimensions have been reported in Kenya. Ngaba (2003) established that there was lack of professionalism in some areas as far as management of schools' finances is concerned and called for recruitment of qualified personnel to manage school finances. With the increased secondary school financing and possible prospects from the government and other stakeholders, the secondary education in Kenya faces a big challenge on account of accountability and effective utilization of funds.

Furthermore, the problem with Kenyan School's management system is its 'archaic' nature. Teachers and Board of Directors (BOD) without relevant skills have been left in charge of important management processes like accounting, planning, procurement and project management (Nyanyuki et al., 2011). In this case, the involvement of teachers in handling

accounting tasks is being attributed as catalytic agent for financial mismanagement. Nevertheless, the findings by Nyanyuki et al. (2011) in a study on *Assessment of the Effect of Accounting Practices on the Management of Funds in Public Secondary Schools: A Study of Kisii Central District, Kenya* revealed that financial statements prepared do not agree with the underlying books of accounts and that there has been no portraying a true and fair view of the financial position of public secondary school.

El-Nafbi (2008) in his study on *The Role of Public Sector Audit and Financial Control Systems in Safeguarding Public Funds in Sudan* paints a picture of Sudan's situation on financial management. The study revealed that a number of factors that encourage financial corruption in the public sector such as financial control systems and internal checks in majority of public sector units were weak and ineffective. These shortcomings were occasioned by shortage or lack of qualified and trained accountants. "Some of the cited challenges facing public financial management system include the allegation that about half of the staff have had no formal training in financial management" (Wakiriba et al., 2014; p. 109). It can be inferred from this statement that the education sector is one of them since it forms part of the public sector; and that, use of unqualified staff exists in the sector.

In Malawi, despite the Ministry of Education encouraging the appointment of teachers as bursars, there is a report by Ng'ambi (2011) that exposes how this appointment affects financial reporting and documentation. There are capacity issues in the process of producing the budget. The 2005/06 CSCQBE report, for example, noted that the quality of the budget documents has been marred by inconsistencies in figures. Data from the Ministry of Finance is different from that of Ministry of Education, Science and Technology (MoEST) in the budget documents, and similarly data from MoEST headquarters does not tally with that from the divisions on similar budget lines. This exhibits gross incompetence by technical personnel to present data consistently. Moreover it makes it difficult for interested parties to assess the levels of transparency and accountability as such weaknesses could lead to fraud and diversion of funds to non-priority areas (Ng'ambi, 2011). As stated, the use of unqualified bursars gives room for even head teachers to abuse the finances: when queried, head teachers might sight the incompetency of the accounting personnel as the moral reason for the mismanagement and misappropriation of the funds.

However, in reference to Malawi Public Service Regulation – 2015, a civil servant is guilty of an act of misconduct if he or she fails to discharge his or her duties properly. "A civil servant

commits an act of misconduct if he or she performs his or her duties negligently or fails to perform any duties properly assigned to him or her, or to obey any instructions which may properly be given to him or her by a person having authority to give such instructions” (Government of Malawi, 2015; p. 115). Here, we are witnessing a situation whereby a teacher-bursar is being led to fall prey to this code of conduct because the line ministry knows pretty well that the teacher-accountant does not have the prerequisite proficiency in accounting prior to their appointment. Hence out of ignorance the teacher-bursars contravene this section when they fail to discharge their duties accordingly. Sadly, the teacher-bursar cannot escape from this trap since once he or she is in-charge of public purse he or she is presumed to have been acquainted of the rules and regulations governing management of public funds.

Furthermore, Section 236 subsection 13 of the Malawi Public Service Regulation – 2015 adds that a civil servant commits act of misconduct if he or she fails to take reasonable care of any Government property in his or her custody or charge or take such steps as are within his or her power to ensure that reasonable care is taken of any such property (Government of Malawi, 2015). In this instance, if the misconduct is successfully heard in a competent court of law and found guilty then the teacher-bursar can be surcharged. “An officer is liable to be surcharged for the loss or damage to public moneys or stores for which he or she is responsible as provided for under the Public Finance Management Act, the Public Audit Act and the Public Procurement Act” (Government of Malawi, 2015; p. 21-22). Suffice to state that, in this regard, teacher-bursars are being subjected to an environment which may ruin their professional career in the civil service due to inconsiderate and unfair treatment resulting from being given a task without prior training.

2. 5 Chapter Summary

Financial management has been referred in this study as to planning, organizing, directing and controlling the financial activities of an organization or institution. It had been discovered that there was a prevailing problem of teachers failing to account for how public funds had been managed. These were teachers who have been tasked to work as bursars in public secondary schools. Like in Kenya, teachers were at fault for mismanagement of public funds, and hence there were calls for employment of qualified staff to handle the department. In Malawian context, head teachers are encouraged to appoint a trustworthy teacher to be a bursar or account clerk in the absence of qualified one. The consequences of this directive had been reported by Ng'ambi (2011) who stated that budget figures from the line ministry do not tally with those of Ministry of Finance.

2. 6 Conceptual Framework of the Study

The study generated a conceptual framework that details the process for effective management of finances in public schools.

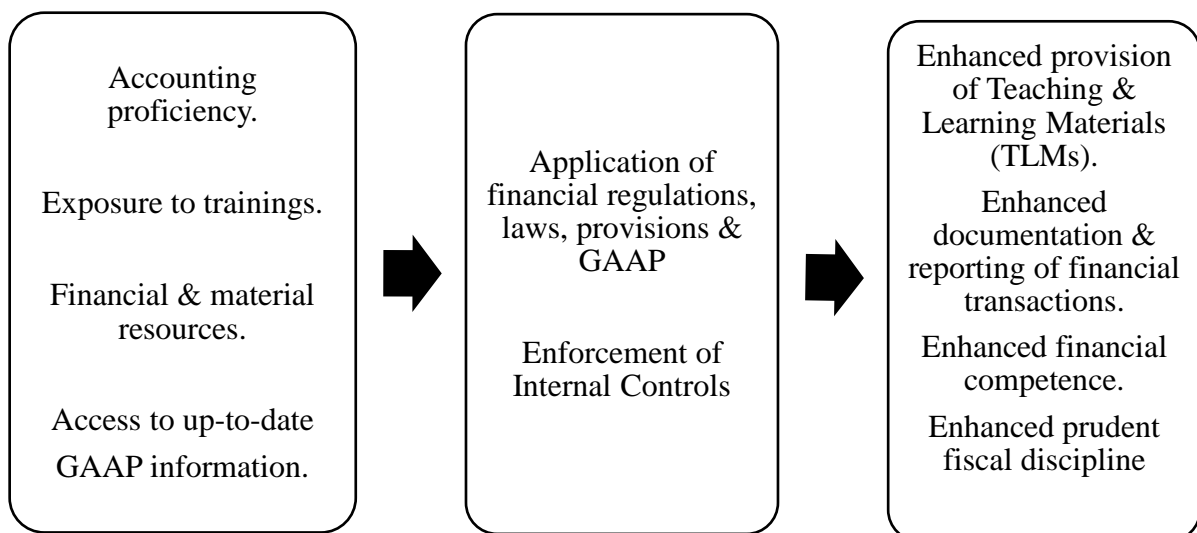


Figure 2.1: Conceptual Framework on Management of Finances in Public Secondary School

Teacher-bursar's effectiveness in financial management is dependent upon accounting proficiency. The accounting proficiency, in this study, is a product of knowledge in mathematical operations – which eventually leads to seamless pliancy to financial accounting – and exposure to financial literacy trainings. However, the proficiency in financial accounting is enhanced through provision of financial and material resources in order for the teacher-bursar to access up-to-date GAAP information from online and other sources. This study therefore developed the framework from the system theory of management. In this framework, the input which is the accounting proficiency supported by the other parameters must be fed into a transactional process where all the applicable financial laws, provisions and regulations are followed. The transactional process need to be enhanced with enforcement of internal controls by the head teacher. Therefore, the enhanced transactional process leads to improved financial management in public secondary schools.

CHAPTER 3: RESEARCH METHODOLOGY

3. 1 Chapter Overview

This chapter focusses on the research paradigm and the rationale behind the choice of the paradigm. It also discusses the research design, research setting, scope of study, participants of study, sampling technique and sample size, data collection instruments, data analysis techniques and ethical considerations of the study. Under data collection instruments, this study discussed the nature of the data instruments which effectively led to synoptic accounts of validity and reliability of the instruments. In the same manner, data analysis techniques were confined to two techniques – that is numeric data analysis technique and possibly categorical data analysis technique.

2. 2 Research Paradigm

Pragmatism, as a research paradigm, encourages a researcher to employ various methods or techniques in the quest of understanding the research problem. It further demands the use of mixed methods because researchers draw liberally from both qualitative and quantitative assumptions when they engage in research (Creswell, 2014).

There was a glowing need to gather both numerical and categorical data in order to address the objectives of this study hence the choice of this paradigm. The mixed methods approach incorporates and embraces blends of paradigms, philosophical assumptions, and theoretical perspectives. It is usually driven by the purpose of the study and the intended audience (Ary et al., 2010).

Hence the allowance to employ various methods in this paradigm enhanced this study to explore deeper into the problem using various techniques – including the integration of system theory of management.

3. 3 Research Design

This research settled for mixed methods research design. As per conviction of Creswell (2014), mixed methods offers strength that offset the weaknesses of both qualitative and quantitative research. Ary et al. (2010) concur with Creswell (2014) by stating that a broader range of research questions can be examined because the researcher is not confined to a single method. They further argued that mixed methods research can provide stronger evidence for a conclusion through corroboration of findings. “The researcher may have insights that could have been missed with only a single method. The combination may produce more complete understandings of phenomenon or more complete knowledge to inform theory or practice” (Ary et al., 2010; p. 567).

However, explanatory sequential mixed methods which falls under this approach was used in this study. It involves a two-phase project in which the researcher collects quantitative data in the first phase, analyzes the results, and then uses the results to plan (or build on to) the second, qualitative phase. The quantitative results typically inform the types of participants to be purposefully selected for the qualitative phase and the types of questions that will be asked of the participants. The overall intent of this design is to have the qualitative data help explain in more detail the initial quantitative results (Creswell, 2014).

This research design provided a good platform for the study as it helped in understanding how the appointment of teachers as bursars influences the management of finances in government secondary schools.

3. 4 Research Setting

This study investigated how appointing teachers as bursars affects management of funds in South West Education Division. Districts which belong to this division are Blantyre (both Rural and Urban), Nsanje, Chikwawa, Mwanza and Neno.

The choice of this setting was based on the understanding that some civil servants decline posting instructions to work in areas which have hostile working conditions – due to, among other factors, environmental factors. Kayuni & Tambulasi (2007) in *Teacher turnover in*

Malawi's Ministry of Education: Realities and Challenges pointed out that the critical factor to high teachers' turnover is poor working conditions. Supporting the findings of Kayuni & Tambulasi (2007), Mkwanda (2017) investigated on reasons behind teachers' denial to accept posting instructions to teach in rural areas despite the GoM introducing *Hardship Allowance*. He interviewed a teacher who was deployed to a rural school in Ngabu, almost 50 kilometres south of Chikwawa Boma: and now, the teacher is back to Blantyre City after just a year at Kholowa Primary School. "I was happy to get a job at last, but the working conditions at the rural school left me frustrated. The school is located in the remotest of places on the border between Malawi and Mozambique. Markets are far, teachers' houses few and electricity non-existent" (Mkwanda, 2017).

However, Chandrasekar (2011) demonstrated that environmental factors such as temperature, lighting and ventilation can have a direct impact on health - for example very high temperatures can lead to heat stress and heat exhaustion. The explanation of environmental factors in *Workplace Environment And Its Impact On Organisational Performance In Public Sector Organisations* by Chandrasekar (2011) buttresses the point raised by Kayuni & Tambulasi (2007). However, 4 out of 5 districts (80%) in South West Education Division experience hot to very hot weather conditions (Department of Climate Change and Meteorological Services, 2019). Thus, this weather condition serves us a deterrent to some civil servants as indicated by Kayuni & Tambulasi (2007).

At this juncture, therefore, poor working conditions could translate into shortage of qualified personnel to fill vacant posts in various government departments; of which a post of bursar in schools is one of them. Therefore, the assumption that 'there is a high probability of severe inadequacy of qualified bursars in this division' was plausible; and hence the likelihood of having a mammoth percentage of teacher-bursars in these schools.

3. 5 Scope of the Study

This study probed on the effectiveness of appointing teachers as bursars on the management of funds in South West Education Division. Specifically, it investigated teacher-bursars' ability to perform the duties of bursar. In this case, knowledge of bookkeeping and financial control procedures, and execution of such is congruent to prudent financial management of an institution (Wakiriba et al., 2014). Therefore, teacher-bursars' effectiveness in adhering to bookkeeping and other financial control measures was seen in this study as critical to maintaining prudent fiscal discipline as far as financial management is concerned.

This study examined the process of identifying and appointing teachers as bursars, their competence in financial management and analysed the implications of such delegation.

3. 6 Population of the Study

The population of this study comprised head teachers and bursars from public secondary schools in South West Education Division, and not excluding officers who form part of a management team at the division. We understood that there are two categories of bursars; that is teacher-bursars and qualified bursars. However, it was the belief of this study that teacher-bursars cut a bigger percentage of the bursars in the division, as per explanation in sections 1.2.3 and 3.4 of this study. Most importantly, this belief has been ascertained in section 4.3.1 as well. Therefore, the study targeted the teacher-bursars who answers to the objectives of the study.

Nonetheless, qualified bursars might fall into this picture but their involvement has been significantly controlled to almost negligible so much so that they should seldom compromise the scope of the study. From this proposition, therefore, head teachers and teacher-bursars from schools in SWED were drawn to be participants of the study. Another population of administrative officers from the division was involved in this study. These officers included internal auditor, PHRMO and divisional planner.

Head teachers and bursars are central to management of funds in schools hence they were principal informants in this study. Internal auditors from the division are there to ascertain

objectivity and accuracy of the financial reports and also to ensure that budget documents of a school are followed without distortion and misappropriation.

One of the key roles of human resource officer is recruitment and retention of staff. Therefore, the office knows the extent of the problem and how to deal with such situations. Planning section in the division oversees the budget process and implementation. This office too has an idea of how budgets from those schools are being planned and implemented.

3. 7 Sampling Technique and Sample Size

3. 7. 1 Sampling Technique

Simple random sampling technique was employed to select the schools to be visited in order to reach out to the head teachers and bursars. This technique was selected because it guarantees that all schools within a district have an equal chance of being picked (Creswell, 2014). Thus, head teacher and bursar of a selected school were involved in this study.

Purposive sampling was engaged to select the officers from the division. “Purposive sampling method may prove to be effective when only limited number of people can serve as primary data sources due to the nature of the research design and aims and objectives” (Palys, 2008; p. 697). Thus, purposive sampling technique was used to select administrative officers from the division.

Comprehensively, the selection of purposive sampling technique was mainly based on the research design – explanatory sequential mixed method. In this design, second phase of qualitative data collection is done purposively; in order to build onto the quantitative data. The participants in the second phase are purposively selected (Creswell, 2014). The incorporation and integration of data from divisional officers added more depth to the numerical data.

3. 7. 2 Sample Size

The study used Cochran's Sample Size Formula to come up with the sample size. Cochran's Sample Size Formula allows a researcher to calculate an ideal sample size – that would represent the population as a whole – given a desired level of precision (margin of error, e), desired confidence level and the estimated or hypothesized proportion of the attribute present in the population (Glen, 2019). The Cochran's formula, according to Glen (2019), is:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

- n_0 is the ideal sample size
- e is the desired level of precision (i.e. the margin of error)
- p is the (estimated) proportion of the population which has the attribute in the population
- q is $1 - p$
- Z -value is calculated when the desired confidence level is determined.

She added that the formula is suited for a large population but it can be modified to fit a smaller population. This study therefore had a smaller population since South West Education Division had a population of 118 public secondary school (see *appendix XVIII*). This figure automatically translated into 118 head teachers and 118 bursars. Therefore, Glen (2019) modified the Cochran's Sample Size Formula for the benefit of this study, and other studies as well that might have smaller populations.

Thus, the modified version is:

$$n = \frac{n_o}{1 + \frac{(n_o - 1)}{N}}$$

Here:

- n_o is Cochran's Sample Size recommendation; however, incorporated to generate sample size, n , for smaller population
- N is the population size
- n is the new, adjusted sample size

In this study, we wanted a *plus* or *minus* 5 percent level of precision ($e = 0.05$) at 95 percent confidence level. A ninety-five percent confidence level gave us Z -value of 1.96 (using *nominal tables* as explained by Pierce (2018)). However, we did not have much information on exact proportion of teacher-bursars in the 118 bursars. Initially, we wanted to access the population of teacher-bursars only in this division for purposes of narrowing down the spectrum of the study. Unfortunately, the available data was cloudy and inconclusive (as vindicated in *appendix XVIII* of this study) – could not tell the exact number of teacher-bursars in the division. In this case, we assumed that half of bursars are teacher-bursars: this gave us maximum variability. So $p = 0.5$. Therefore, $q = 0.5$ (since $q=1-p$).

Substituting these values in the Cochran's formula, we had n_o as 384.16: this value substituted n_o in the modified formula where N is 118 to get the adjusted sample size, n , of 91 (to the nearest whole number). The sample size of this study was therefore 91 public secondary schools. Furthermore, to exact the number of schools to be picked from each of the four districts, we used an algebraic formula:

$$z = \left(\frac{x}{y}\right) m.$$

Where: z is exact number of schools to be selected from a district, x is the total targeted number of schools in district, y is the overall total number of schools in division and finally, m is the sample size. In simple terms, substituting the unknown values with the already known values, the formula becomes;

$$z = \frac{x}{118} \times 91;$$

In this case, the list of secondary schools (x) in a district was accessed from the division (attached to this study as *appendix XVIII*). Therefore, by using this data, the study ably came up with a number of schools to be visited per district. The Table 3.1 therefore provides the sample sizes – which were as the result of the calculations based on the algebraic formula explained above – for each district. The schools selected per district in this case automatically gave us the head teachers and bursars to be contacted. Therefore, each school provided us the head teacher and teacher-bursar for the quantitative data.

Table 3.1: Participants for Quantitative Data

Division	District	Target Population (x) (number of secondary schools in a district)	Sample size for Head teachers for the District (z)	Sample size for Bursars for the District (z)
SWED	Chikwawa	25	19	19
	Nsanje	19	15	15
	Mwanza	6	4	4
	Neno	9	7	7
	Blantyre Urban	27	21	21
	Blantyre Rural	32	25	25
	Total		118	91

However, to select the actual school (to give us head teacher and teacher-bursar) to be visited, we had to utilise MS Excel 2013 version to do the sampling process. We just fed the software a corded data representing list of schools in a particular district and the generated sample size for that district. Thereafter, we commanded it to do the sampling. Finally, it gave us a list of schools to be visited in that district. This was repeated for all the five districts as depicted in Table 3.1.

Conclusively, 91 head teachers and 91 bursars were contacted from the ninety one sampled schools in the division. However, three officers from the division were selected in this study as participants in qualitative phase of data collection. In total, 185 respondents were sampled to participate in this study.

3. 8 Research Instruments

3. 8. 1 Data Collection Instruments

As stated earlier in section 3.3, explanatory sequential mixed methods approach was employed in this study. As a result, data was collected using both questionnaires and interview guides. In this mixed method approach, questionnaires were administered to larger sample of head teachers as well as bursars. Furthermore, Palys (2008) justifies this approach by stating that the intent of data collection for qualitative data is to locate and obtain information from a small sample but to gather extensive information from this sample; whereas, in quantitative research, a large N is needed in order to conduct meaningful statistical tests.

Table 3.2: Research Instruments for Quantitative Data

Nature of Respondents	Number of Respondents (Sample size)	Research Objectives the instrument addressed	Section	Type of Questions	Number of Questions
Teacher-bursars	91	Objective 2: Competency of Teacher-bursars	B	Close-ended questions	3
Head teachers	91	Objective 1: Rationale of Teacher-bursar Appointment	B	Close-ended questions	2
		Objective 2: Competency of Teacher-bursars	C	Close-ended questions	1
		Objective 3: Implications of Teacher-bursar's Appointment on Management of Public funds	D	Close-ended questions	4

Table 3.2 shows instruments for quantitative data administered to bursars (teacher-bursars). It also depicts the research objectives the questionnaires addressed. The table also addressed the number of questions attached to each research objective; of course, not forgetting the section where the questions for that particular objective belongs.

Similarly, face-to-face interviews were administered to internal auditor, divisional planner and human resource officer.

Table 3.3: Research Instruments for Qualitative Data

Nature of Respondents	Number of Respondents (Sample size)	Research Objectives the instrument addressed	Type of Questions
Internal Auditor	1	Objective 2: Competency of Teacher-bursars Objective 3: Implications of Teacher-bursar's Appointment on Management of Public funds	Open-ended Questions
Divisional Planner	1	Objective 2: Competency of Teacher-bursars Objective 3: Implications of Teacher-bursar's Appointment on Management of Public funds	Open-ended Questions
Principal Human Resource Management Officer (PHRMO)	1	Objective 1: Rationale of Teacher-bursar Appointment Objective 2: Competency of Teacher-bursars Objective 3: Implications of Teacher-bursar's Appointment on Management of Public funds	Open-ended Questions

Table 3.3 details how questions on interview guide were structured. This layout (i.e. Table 3.3) guided the approach of conducting the interviews. The structure of the questions was informed by the research design. This meant that the interview guide depended on the nature of responses from the numeric data.

On top of that, there were also follow-up questions in order to clarify unpolished point(s) and buttress emerging themes that were not there in the first place. Hence there were no fixed, pre-determined number of questions for the interviewees. These interviews were audio-recorded.

3. 8. 1. 1 Validity of Research Instruments

Validity of research instruments is paramount in the sense that it ascertains the suitability of instruments in measuring what they are supposed to measure. Zamanzadeh, Ghahramanian, Rassouli, Abbaszadeh, Alavi-Majd & Nikanfar (2015) defined validity as the ability of an instrument to measure the properties of the construct under study. Therefore, from this perspective, we, in quantitative validity, focused much on content validity. Content validity is the ability of the selected items to reflect the variables of the construct in the measure (Zamanzadeh et al., 2015). In addition, content validity tries to check if the items measure the

content they were intended to measure (Ary et al., 2010). “If an instrument lacks content validity, it is impossible to establish reliability for it” (Zamanzadeh et al., 2015; p. 166).

However, pre-test of questionnaires was carried out in order to measure the content validity of the items. The testing was important because it established the content validity of scores on an instrument and to improve questions, format, and scales (Creswell, 2014). Therefore, a pre-test was conducted on a similar (bearing the same characteristics) population to Mzuzu University 2018 Master of Education Students who are holding positions of bursars and head teachers in their respective duty stations; and also, head teachers and bursars from Chikwawa and Blantyre Districts. So six head teachers and six bursars were engaged for pre-test purposes. The rationale for selecting at least five people was justified by Zamanzadeh et al. (2015) who stated that at least five people are recommended to have sufficient control over chance agreement.

Therefore, in quantitative, Content Validity Ratio (CVR) is used to determine the confidence in the content inherent in instruments. In this way, the experts (the selected people) are requested to specify whether an item is necessary for operating a construct in a set of items or not. To this end, they are requested to score each item from 1 to 3 with a three-degree range of “*not necessary, useful but not essential, essential*” respectively. Furthermore, content validity ratio varies between 1 and -1. The higher score indicates further agreement of the members of panel on the necessity of an item in an instrument. However, if CVR is bigger than 0.49, the item in the instrument with an acceptable level of significance will be acceptable (Zamanzadeh et al., 2015).

Zamanzadeh et al. (2015) in *Design and Implementation Content Validity Study: Development of an Instrument for Measuring Patient-Centered Communication* explained that the formula for content validity ratio is:

$$CVR = \frac{\left(N_e - \frac{N}{2}\right)}{\frac{N}{2}}$$

Where: N_e is the number of panelists indicating “essential”
and N is the total number of panelists.

Using this formula, the study embarked on determining the content validity of each instrument for the two questionnaires basing on the scores from the panelists. The results of this process has been projected in Table 3.4. Precisely, Table 3.4 illustrates the CVR for the items in both teacher-bursars' and head teachers' questionnaires.

Table 3.4: Determination of Content Validity for Teacher-bursar Questionnaire

Teacher-bursar Questionnaire				Head teacher Questionnaire			
Items	N _e	CVR	Interpretation	Items	N _e	CVR	Interpretation
1	5	0.666	Remained	1	6	1	Remained
2	4	0.333	Eliminated	2	5	0.666	Remained
3	6	1	Remained	3	5	0.666	Remained
4	5	0.666	Remained	4	4	0.333	Eliminated
5	2	-0.333	Eliminated	5	5	0.666	Remained
6	6	1	Remained	6	1	-0.666	Eliminated
7	3	0	Eliminated	7	6	1	Remained
8	5	0.666	Remained	8	3	0	Eliminated
9	5	0.666	Remained	9	5	0.666	Remained
10	6	1	Remained	10	5	0.666	Remained
				11	6	1	Remained
				12	5	0.666	Remained

For instance, in teacher-bursar's questionnaire, number of panelists that described item 1 as *essential* (N_e) was 5. Using the formula and with 6 people as panel (N=6), its CVR was found to be 0.666. Since it was bigger than 0.49, so it remained as an essential item for the instrument. In this regard, as explained earlier, the items with the CVR bigger than 0.49 remained and the rest eliminated. Therefore, the teacher-bursar questionnaire finally had 7 items from the initial 10 items before application of content validity (*see appendix I*). Furthermore, on the part of head teacher's questionnaire, Table 3.4 depicts that 3 items were eliminated from this instrument hence remaining with 9 essential items (*see appendix II*).

3. 8. 1. 2 Reliability of Research Instruments

Reliability of instruments was yet another vital aspect of this study. Kothari (2004) acknowledges that an instrument is reliable when it can measure a variable accurately and consistently and obtains the same results under the same condition over time. Furthermore, for instruments to be reliable, a good reliability (Test-retest) needs to be executed using Cronbach's Alpha Co-efficient. Cronbach's Alpha Co-efficient was used to calculate reliability using appropriate computer software. The reliability co-efficient must range from 0.00 to 1.00. A reliability co-efficient of 0.01 indicate complete absence of relationship hence no reliability at all; whereas, 1.00 is the maximum possible co-efficient that can be obtained for research purpose (Ary et al., 2010).

However, reliability should be at least 0.7 and preferably higher but not exceeding 0.9 (Cortina, 1993). Decisively, University of California at Los Angeles (UCLA) (2016) demonstrated that the formula for Cronbach's Alpha formula is:

$$\alpha = \frac{N\bar{c}}{\bar{v} + (N - 1)\bar{c}}$$

Where:

- N is the number of items
- \bar{c} is the average inter-item covariance among the items
- \bar{v} is the average variance

For head teacher's questionnaire, N was 20, \bar{v} was 0.8273 and \bar{c} was 0.193610526 (see appendix XVI). Substituting into the formula, we had:

$$\alpha = \frac{20 \times 0.193610526}{0.8273 + (20 - 1) \times 0.193610526} = \frac{3.87221052}{4.505899994}$$

$$\alpha = 0.859364505$$

From this result, the alpha coefficient for the twenty items was 0.859 (correct to 3 decimal places). Therefore, this value suggests that the items have relatively high internal consistency. Since a reliability coefficient of 0.70 or higher is considered “acceptable” in most social science research situations (University of California at Los Angeles (UCLA), 2016), the items in the instrument were hence reliable.

In terms of teacher-bursar’s questionnaire, N was 15, \bar{v} was 0.839933333 and \bar{c} was 0.198686666 (*see appendix XVII*). Using the formula, therefore, we had:

$$\alpha = \frac{15 \times 0.198686666}{0.839933333 + (15-1) \times 0.198686666} = \frac{2.98028571}{3.621533329}$$

$$\alpha = 0.822935688$$

In this case, for teacher-bursar’s questionnaire, Cronbach’s Alpha co-efficient for fifteen items is 0.823 (correct to 3 decimal places). The items hence had a high internal consistency. Therefore, the items in teacher-bursar’s questionnaire were reliable.

Furthermore, reliability in qualitative studies is mostly a matter of “being thorough, careful and honest in carrying out the research” (Robson, 2002; p. 176). In qualitative interviews, this issue relates to a number of practical aspects of the process of interviewing, including the wording of interview questions, establishing rapport with the interviewees and considering ‘power relationship’ between the interviewer and the participant (Cohen et al., 2007). Therefore, the study took into account these dimensions in order to take care of reliability in qualitative instruments. The study was able to get the required and relevant information from the interviewed participants.

3. 8. 2 Data Collection Procedure

According to the adopted design, the data collection exercise occurred in two distinct phases with quantitative in the first phase and qualitative phase in the second phase. The key idea is that the qualitative data collection builds directly on the quantitative results (Creswell, 2014).

However, prior to data collection exercise, a letter of introduction was sourced from Department of Educational Foundations at Mzuzu University so that it should provide authenticity of the researcher for conducting the research. Another letter was obtained from the Divisional Office. On other aspects of ethical issues, the researcher firstly explained to the respondents on their obligation and their need to withdrawal if they felt the need to do so.

Therefore, before embarking on the data collection, we designed a data collection procedure in order to guide us on how the exercise would be conducted. So in this case, Table 3.5 indicates how data was going to be gathered from the two phases; quantitative phase as well as qualitative phase. The period in-between these two phases (from 16th May 2019 to 10th June 2019) was allocated for analysis of the numeric data and generation of the questions for the next qualitative phase.

Table 3.5: Data Collection Procedure

Category	Research Participants	Questionnaires to be Issued and / or Interviews to be conducted	Duration of Data Collection Exercise
Quantitative Data	Teacher-bursars	91	Four weeks (from 15th April 2019 to 16th May 2019)
	Head teachers	91	
Qualitative Data	Internal Auditor	1	Two weeks (from 10th June 2019 to 21st June 2019)
	Principal Human Resource Management Officer (PHRMO)	1	
	Divisional Planner	1	

We however experienced a good return rate for the exercise as depicted in Table 3.6. The response rate was generally above 75%. The positive return rate brought confidence in conclusions of the study concerning the target population. On the other hand, the scheduled

interviews which were initially planned did take place. This represented a 100 percent participation rate on the part of officers earmarked for the interviews.

Table 3.6: Data Collection Return Rate

Respondents	Questionnaire targeted	Questionnaire Administered	Questionnaire Returned	Return Rate
Teacher-bursars	91	81	65	80%
Head teachers	91	81	69	85%

However, ten schools were not visited, as evident in the Table 3.6, due to bad road networks which rendered our efforts fruitless. This hiccup did not compromise the eventual quality and strength of the study as expounded in section 1.9.

3. 9 Data Analysis Techniques

3. 9. 1 Analysis of Quantitative Data

A computer software, SPSS version 20, was employed to analyse quantitative data. This software assisted this researcher to carry out statistical tests on the numerical data. Inferential statistics was computed through the use of the software package. With inferential statistics, this study was able to generate conclusions that extend beyond the immediate data alone. Furthermore, it encouraged us to infer from the sample data what the population might think. The software in collaboration with Microsoft (Ms) Excel was used to generate descriptive statistics such frequency tables, graphs, cross tabulations of variables and pie charts. Determination of an effect of a variable on another was possible through the use and application of “Pseudo R-Square” via SPSS version 20.

3. 9. 2 Analysis of Qualitative Data

Qualitative data from the interviews was analysed through inductive content analysis. Content analysis unlike deductive analysis does not measure or quantify patterns. It is based on interpreting opinions and perspectives of various subjects. Its strength lies in its methodological control and step-by-step analysis of information. In other words every element in the data collected is categorized into themes which are identified through secondary literature (Datt, 2016). Furthermore, the research findings result from multiple interpretations made from the raw data by the researchers who code the data. Inevitably, the findings are shaped by the assumptions and experiences of the researchers conducting the research and carrying out the data analyses. In order for the findings to be usable, the researcher (data analyst) must make decisions about what is more important and less important in the data (Thomas, 2003). Therefore, basing on the design of this study, this data analysis technique was necessary and helped in giving more clarity to the quantitative data.

3. 10 Ethical Considerations

Ethical issues were exclusively considered in this study. Creswell (2014) argues that, as researchers consider data collection, they need to respect the participants and the sites for the research. In this study, many ethical issues were taken into account so that the privacy, confidentiality, anonymity, informed consent were adhered to. To achieve this, questionnaires had no option for disclosure of a participant's name and school (duty station). Interview guides too had no question demanding the interviewee to state his or her name. However, interviewees agreed to have the titles of the offices they held to be used in the eventual analysis and discussion of the results instead of pseudo name as earlier planned.

Issuance of information sheets and informed consent forms were adhered to. The information sheet addressed the purpose and significance of this study and also emphasised on researcher's adherence to privacy and confidentiality. Likewise, informed consent forms ensured issues of voluntary participation, purpose of the study, and that no negative consequences shall befall on them as a result of their involvement in this study. More detailed information on information sheet could be accessed in appendix VI and VII; while for informed consent could also be found in appendix VIII up to XII in the appendices section.

3. 11 Chapter Summary

The study adopted a pragmatic paradigm which demanded the use of mixed methods. Explanatory sequential mixed method informed the design of this research where quantitative data was firstly gathered and analysed to build up for next qualitative phase. This study was conducted in SWED targeting head teachers, teacher-bursars and management officers. Simple random sampling technique was employed to select participating schools while purposive sampling technique decided the nature and calibre of management officers to be engaged. Ninety-one schools were sampled, giving us 91 head teachers and 91 teacher-bursars as targeted research participants. Questionnaires and interview guides were the research instruments. The research instruments were tested hence found valid and reliable. Data was collected in two phases – quantitative data amassed in the first phase followed by qualitative data. Furthermore, SPSS version 20 analysed quantitative data. Inductive content analysis analysed categorical data. Finally, various ethical considerations were implemented in this study.

CHAPTER 4: RESEARCH FINDINGS

4. 1 Chapter Overview

Research findings have been presented in this chapter. This study sought to investigate teacher-bursar effectiveness in management of finances in public secondary schools in SWED which comprises six educational districts namely Chikwawa, Nsanje, Mwanza, Neno, Blantyre Rural and Blantyre Urban.

This study was guided by three objectives which were to: explore the rationale of appointing teachers to work as bursars in public secondary schools; examine the competency of teacher-bursars on the adherence to financial management principles in the execution of their work; analyse the implications of appointing teachers as bursars on management of public funds. Therefore, presentation of findings in this chapter were informed by the outlined specific objectives.

4. 2 Demographic Information

4. 2. 1 Demographic Information for Teacher-bursars

Figure 4.1 depicts distribution by gender for teacher-bursars. This demographic information was necessary as it establishes representation of both sexes in the offices of bursar in these schools. In particular, it would help to strengthen and enhance the results of this study since it had captured the views across the gender divide.

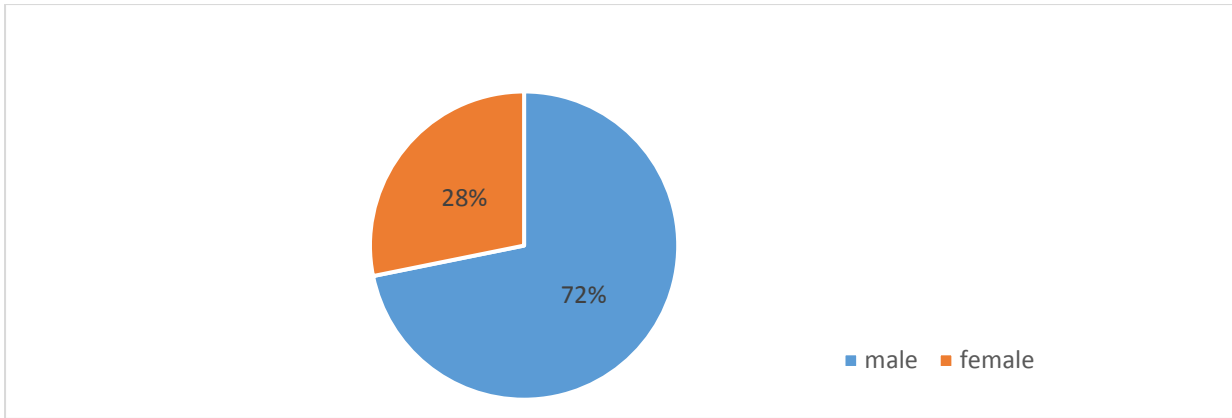


Figure 4.1: Distribution by Gender

The results shown in Figure 4.1 indicate that there were more male respondents. This might not be surprising considering that a bigger percentage of schools are located in rural areas as far as data from SWED (2019) (see *appendix XVIII*) is concerned, and that male teachers are highly represented than their female counterparts (Directorate of Education Planning, Education Management Information System (EMIS), 2017).

Again Figure 4.2 indicates the spread of years of service for the respondents, in this case the teacher-bursars. The figure paints a picture of how long the respondents had served in their capacity as bursars in the respective schools.

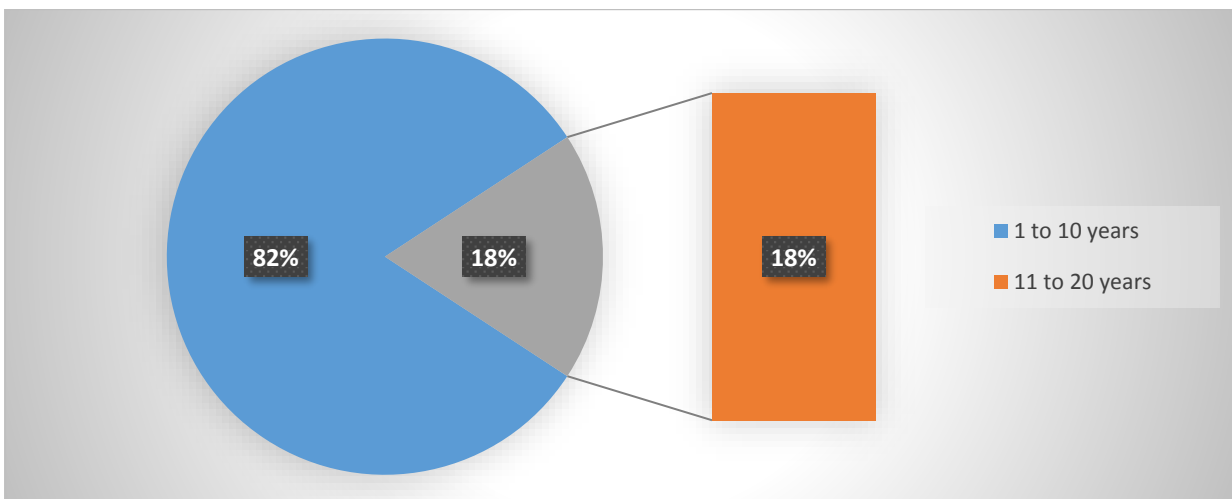


Figure 4.2: Distribution by Years of Service for Teacher-bursars

The year of service was in terms of teacher working as bursar since his or her appointment as such. The figure therefore indicates that a bigger portion of teacher-bursars (82%) had served in their current positions for 10 years or less. The remaining percentage had served for more than 10 years.

Furthermore, Figure 4.3 factors in the concept of training which the study wanted to find out from the participants. The study hence endeavoured to establish if the teacher-bursars had been trained as bursars.

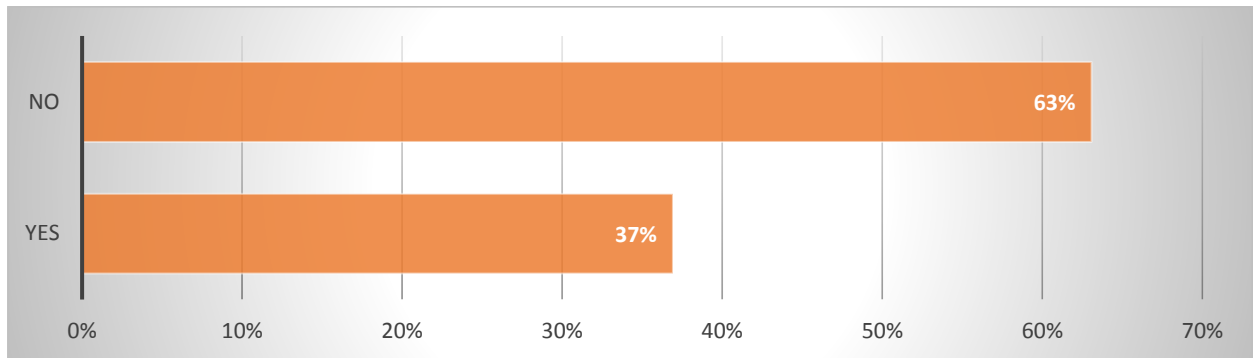


Figure 4.3: Teacher-bursars' Exposure to GAAP Training

This figure confirms that 63% of the teacher-bursars had hardly undergone training on the specifics, the dos and don'ts of the job they had been assigned to perform. PHRMO for SWED was asked if these teacher-bursars had ever attended training on how to execute their new assigned roles. She candidly responded; *"No, they have not. We are unable to conduct trainings."*

We however wanted to know whether this outcome (lack of trainings) posed as a big challenge to their work as bursars. In response to the question, the interviewee had this to say; *"Yes it is really a challenge to them."* Conclusively, the divisional planner echoed the same sentiments by lamenting that, *"the only challenge I see with the teacher-bursars is that they lack training in the areas of accounting, producing payment vouchers, rather record keeping in the accounting area."*

4. 2. 2 Demographic Information for Head teachers

Head teachers in the division are either male or female who are deemed to have enough capabilities to serve in this capacity. However, Figure 4.4 gives a clear picture of how many males or females have occupied this post.

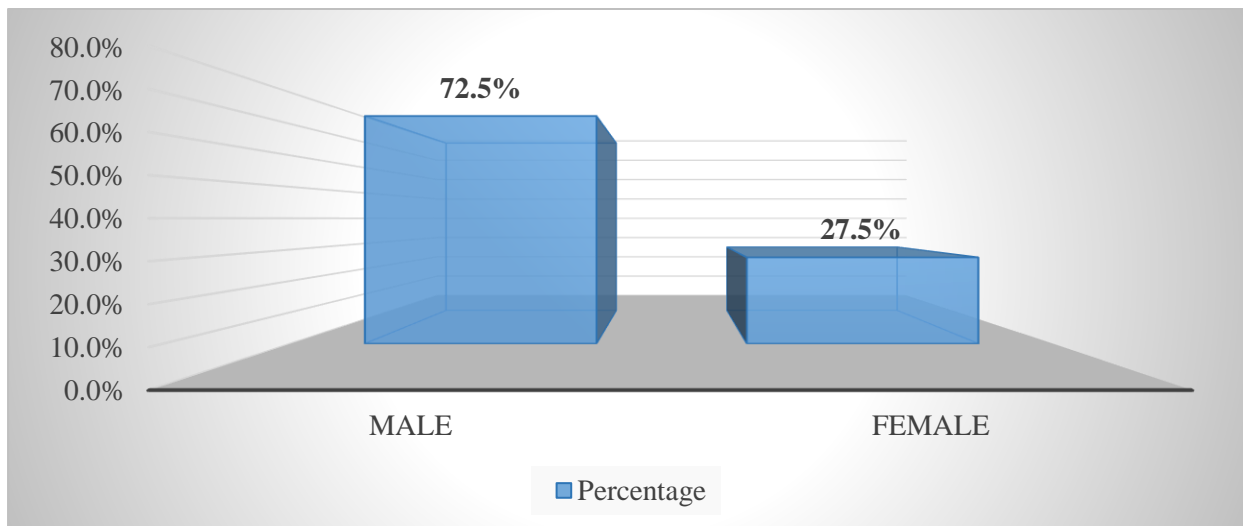


Figure 4.4: Gender of Head teachers

Seventy three percent of the participants who were contacted were male head teachers while the remaining were female. This outcome had shown that the study had drawn participants from both sexes. This result is in line with earlier plans of having an inclusive study.

We also inquired about the experience of the head teachers who participated in this study. This piece of information helped to comprehend the office-bearer's knowledge domain and acquaintance of the undertakings the office of head teacher demands. Hence Figure 4.5 displays this information.

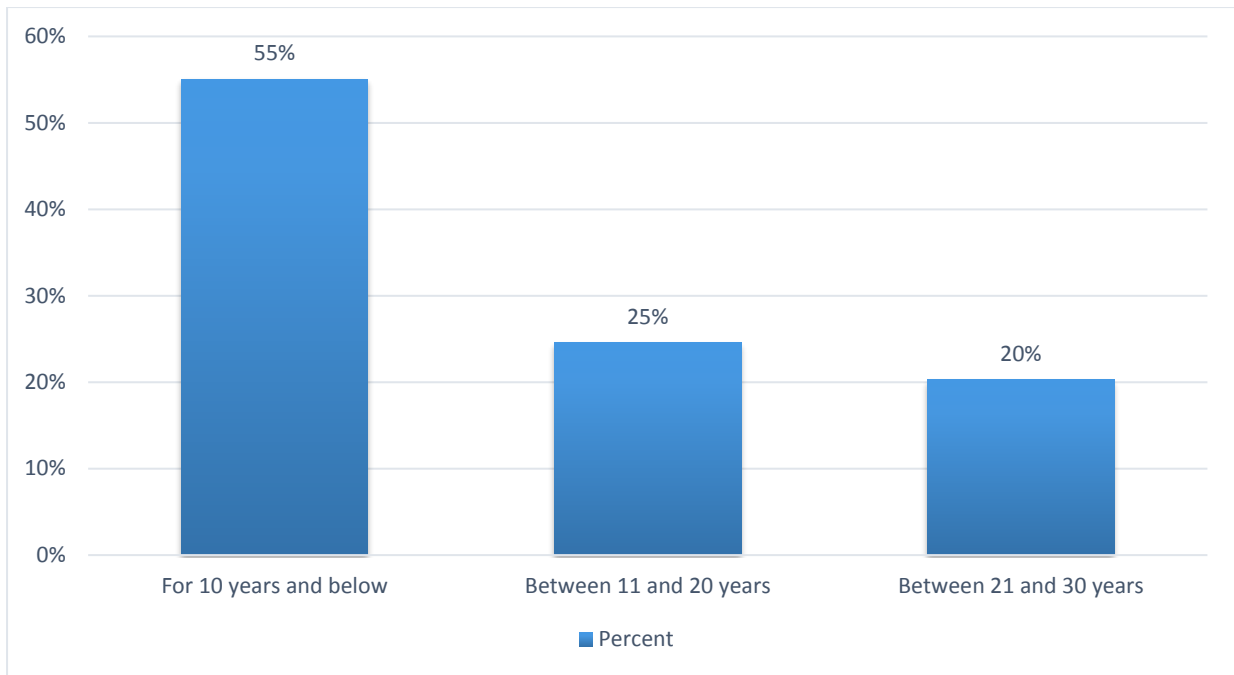


Figure 4.5: Distribution of Head teachers' Years of Service

Figure 4.5 illustrates that 55% of head teachers involved in this study had 0 to 10 years of experience serving in a capacity as head teacher. This was followed by the range of 11 to 20 years with 25%.

In the case of interviewees, internal auditor had, at the time of the interview, three years of experience serving in that capacity in the division, PHRMO was three months old in that capacity and divisional planner had served for eleven years.

Therefore, the variety in the years of service of these officers has shaped a synthesis of varied perceptions and comprehensions in the realm of financial management. Hence this study viewed this outcome as beneficial and added value to its quest of building knowledge from the practice. The representations across gender divide and various age brackets were beneficial because different perceptions and banks of knowledge were tapped and intertwined to make a comprehensive study.

4. 3 Objective 1: Rationale of Appointing Teachers as Bursars

4. 3. 1 Staffing Levels of Teacher-bursars in the Division

One of the vital aspects in this study was the staffing levels of teacher-bursars. The study was premised on the understanding that the presence of teachers executing the tasks of bursars who might have no knowledge in the rules and regulations that govern management of funds would compromise adherence of GAAP in the schools. In this regard therefore knowing the figures that represent composition of teachers who have taken up this post buttressed this position. Thus, Figure 4.6 served this purpose.

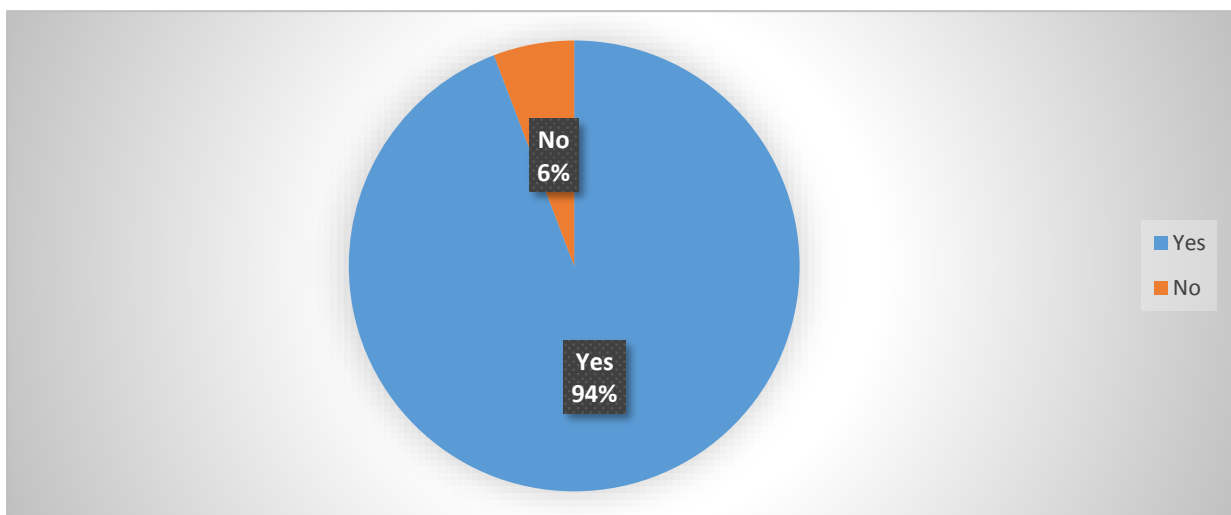


Figure 4.6: Staffing Levels of Teacher-bursars in SWED

In so doing, the Figure 4.6 has vividly revealed that 94% of head teachers who took part in this study appointed teachers as bursars. In the same manner, 6% of head teachers who opted for a “No” signaled that they had qualified bursars.

The PHRMO for the division, however, confirmed that, “*there are only eight qualified bursars.*” Therefore, in this division, 93% of the public schools had teacher-bursars.

4. 3. 2 Criteria Used in Appointing Teacher-bursar

It was of paramount relevance in this study to establish how the head teachers were appointing teachers as bursars; especially to understand the criteria they applied to arrive at their preferred choice. In that regard, therefore, Figure 4.7 has provided the aggregated responses from the head teachers to the question.

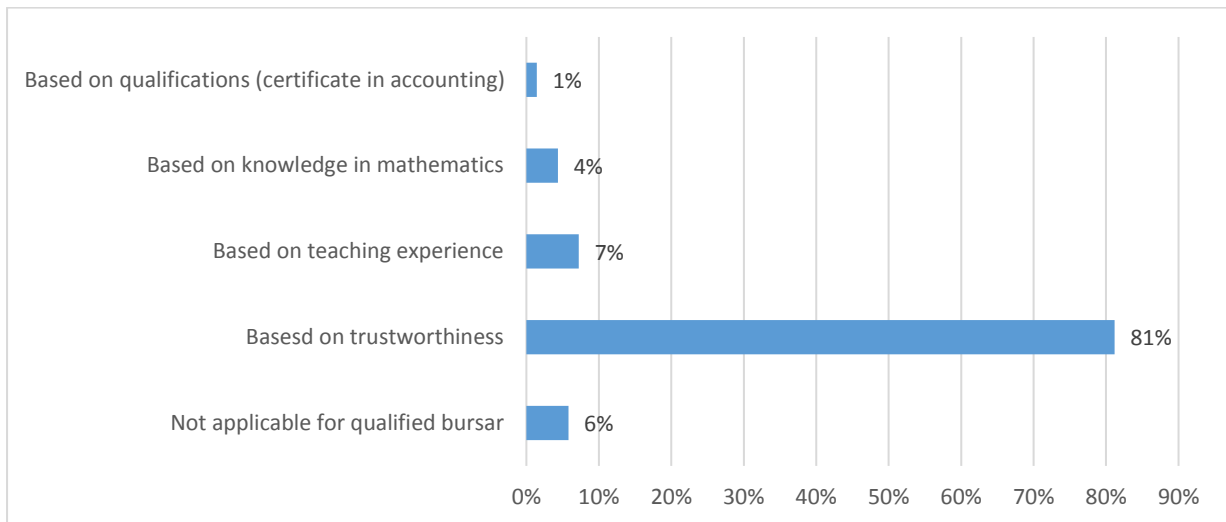


Figure 4.7: Criteria Used in Appointing Teacher-bursar

The figure has hence unearthed that 7% of head teachers appointed teachers as bursars based on teaching experience, 4% of head teachers affirmed that they did appoint him or her based on his or her knowledge in mathematics, 1% of head teacher based on teacher’s qualifications (certificate in accounting or any other relevant academic papers) and 81% agreed that they based on trustworthiness. Six percent of head teachers said they had a qualified bursars and the question did not apply to them.

These results are in agreement with what PHRMO said when we wanted to find out if this was the right route to take: *“It is to an extent considering our economic hardship. The government banned recruitment of bursars. As a result, it advised head teachers to appoint trustworthy teachers to serve as bursars.”* However, the internal auditor had a different view altogether on appointment of teachers as bursars on trustworthy ticket. The auditor had this to say: *“Most of them are just teachers. They are language teachers, by chance, maybe some are science teachers. We only get lucky when someone is a science teacher or mathematics teacher. Science*

teachers understand better than language teachers.” From this angle of perception, the researcher wanted to inquire more from the PHRMO on the practicality of non-science-teachers to effectively carry out these obligations in the field of accounting. The PHRMO then clearly stated that; “No. it is not recommendable for someone who is not very good (at figures) to do accounting. You will be required to deal with figures every day.”

On a similar note, the internal auditor raised a pertinent issue of head teachers’ abuse of this directive. The officer clearly stated that head teachers have resorted into changing teacher-bursars, now and then, without valid reasons for such actions. This habit, according to internal auditor, has rendered her efforts of correcting the sorry-state of teacher-bursars’ imperfections useless.

“What frustrates me most is when I go to a school, I train someone there this term, then I go there another term for a follow-up, I see the guy is doing so well, good documentation and I certify that the school is doing good. I leave it (school) and say to myself, let me concentrate on other schools. But when I go back to that school, maybe ten months or later, to make a follow-up then I see things have drastically changed (from good to worse). The information that was perfect is no longer perfect, documentation is not kept, and reports are not written. When I inquired to head teacher what happened for this bad development then the head teacher simply says “I changed the teacher-bursar”. But why? “With that one, we were not getting along”. Now then this new one needs to be trained, I was like why didn’t the old one handover to this new one. Then the head teacher responded “the situation was not good the way it was managed so the former teacher-bursar refused to hand over. He just surrendered the books and refused to train the new one.” So why didn’t you train this one yourself since I trained both of you. The head teacher remained quiet and didn’t respond.”

She furthermore added that, *“this is different with account clerks. If a new head teacher has been posted to a school where there is an account clerk, he or she is forced to work with the clerk whom he or she has found there. But in this case, if a head teacher is not happy with a teacher-bursar he or she is at liberty to reassign this teacher to another post. So it becomes difficult to cope with. I wish the government could have funds to employ account clerks so that there should be continuity and professional execution of the work rather than working with new teacher-bursars now and then.”* As per auditor’s account of frustration and discontentment in the way the policy direction is being implemented, a breeding ground for sinister

manoeuvring bent on self-enrichment has been, needlessly, given to head teachers which could later on prove to be a recipe for abusive management of public funds.

4. 4 Objective 2: Competency of Teacher-Bursars on Adherence to Financial Management

4. 4. 1: Funds Accounting and Compliance to Internal Controls

As key stakeholders in this study, teacher-bursars were demanded to appraise themselves on how they comply with the dictates of office they were holding. This sharpened the apprehension of the problem. Therefore, in Figure 4.8, teacher-bursars gave their own assessment on how they are managing the public funds.

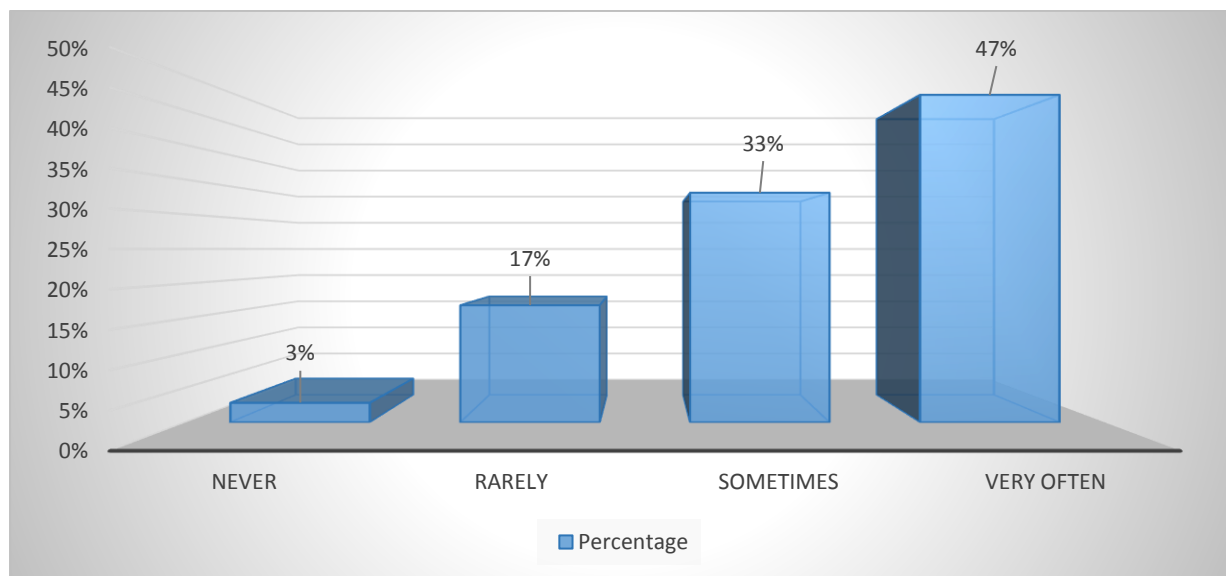


Figure 4.8: Distribution on Use of GAAP by Teacher-bursars

Their assessment was in terms of their adherence to GAAP. From this perspective, therefore, Figure 4.5 depicts that 47% of teacher-bursars on regular basis use prescribed book of accounts and other accounting practices while the remaining 53% of teacher-bursars shared the remaining ratings. For instance, 33% of teacher-bursars said they sometimes adhere to the use

of the recommended book of accounts and other accounting practices. Thus, more than half of teacher-bursars conceded that they do not regularly use the generally acceptable accounting practices (GAAP).

In light of this outcome, we engaged SWED Internal Auditor on whether the appointment of teacher-bursars affects implementation of GAAP.

“Yes. It does affect the implementation of GAAP. This office tries to organize trainings to these teacher-bursars through small workshops but this does not guarantee that a person will be able to implement GAAP properly.”

Again we wanted to understand from the auditor on what exactly happens after discovering that the teacher-bursars she had visited are facing difficulties in this area. *“We do make follow-ups. The follow-ups (do) help. They (teacher-bursars) see how serious we are on checking them; when you check on them regularly is when they realize that I need to adjust and make necessary improvements.”*

Similarly, head teachers were required to give their input in this question of competency. As immediate supervisors of the teacher-bursars, their say in this matter was valuable. They thus held a key role in determining the course of discussion regarding their handling of generally acceptable accounting practices (GAAP). So Figure 4.9 displays the position of head teachers in as far as their level of satisfaction in teacher-bursars’ execution of delegated tasks is concerned.

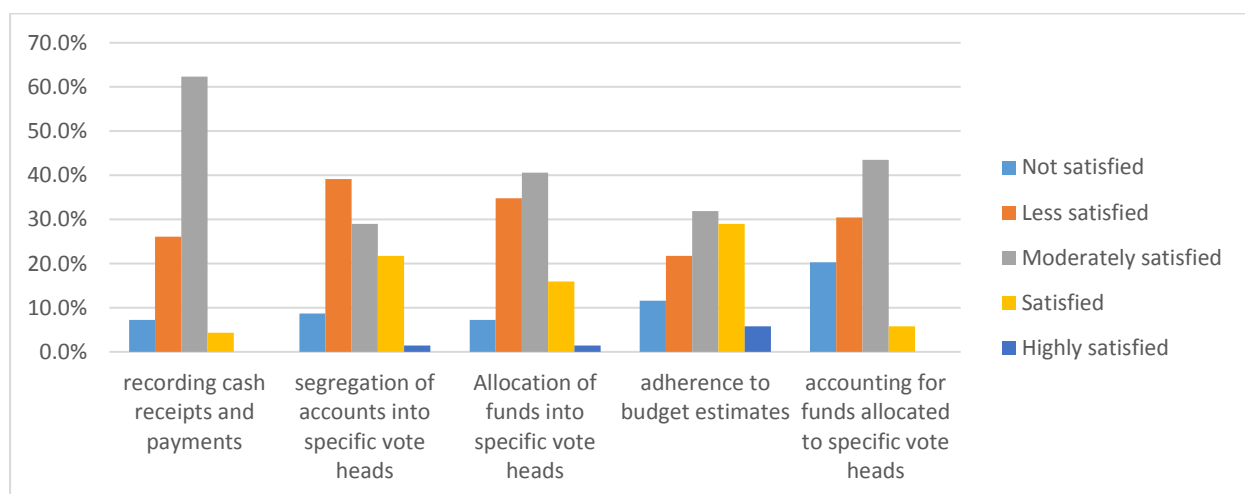


Figure 4.9: Head teachers’ Levels of Satisfaction in Teacher-bursars’ Use of GAAP

Averaging the percentages of the ratings, we have 42% of head teachers stating that they were moderately satisfied with the way teacher-bursars have been ensuring internal controls when transacting the assigned tasks. In the same manner, 30% were less satisfied while 11% were completely not satisfied with their work as far as their use of GAAP is concerned. This entails that a bigger chunk (83%) of head teachers had reservations towards teacher-bursar's use of internal controls when managing financial resources of the school.

This analysis by head teachers complimented what the internal auditor pointed out in trying to address the question of competency on part of teacher-bursars when executing these obligations. *“There are challenges in the way they do their documentation, they do not know how to do the documentation. They have challenges in posting information.”*

Nevertheless, the PHRMO had a different perspective on this result. She blamed the appointing authority for their wrong choices. *“They are to blame because they choose the bursars (themselves). So if they are not satisfied with their choices, then maybe they should change their choices.”* In response to this suggestion by the PHRMO on reassigning the underperforming teacher-bursars to other duties and that they should be replaced, internal auditor finds it painful to be working with teacher-bursars who are being changed willy-nilly; and who are at the mercy of head teacher's abuse of these powers. *“The unfortunate thing is you train a teacher-bursar this year, you work with them to get to know the things; and at the time they have known the things, you find out that the head teachers have changed them because they are not getting along; or that they have been transferred to another school; or when a new head teacher has been posted to a school, (when) he or she finds out that the teacher-bursar there cannot get along with then the new head teacher changes him or her and appoints another teacher.”*

4. 4. 2 Efficiency in Production of Financial Statements

This study appraised the teacher-bursars' readiness and willingness to produce financial reports. The eventual results of the appraisal are presented in Figure 4.10.

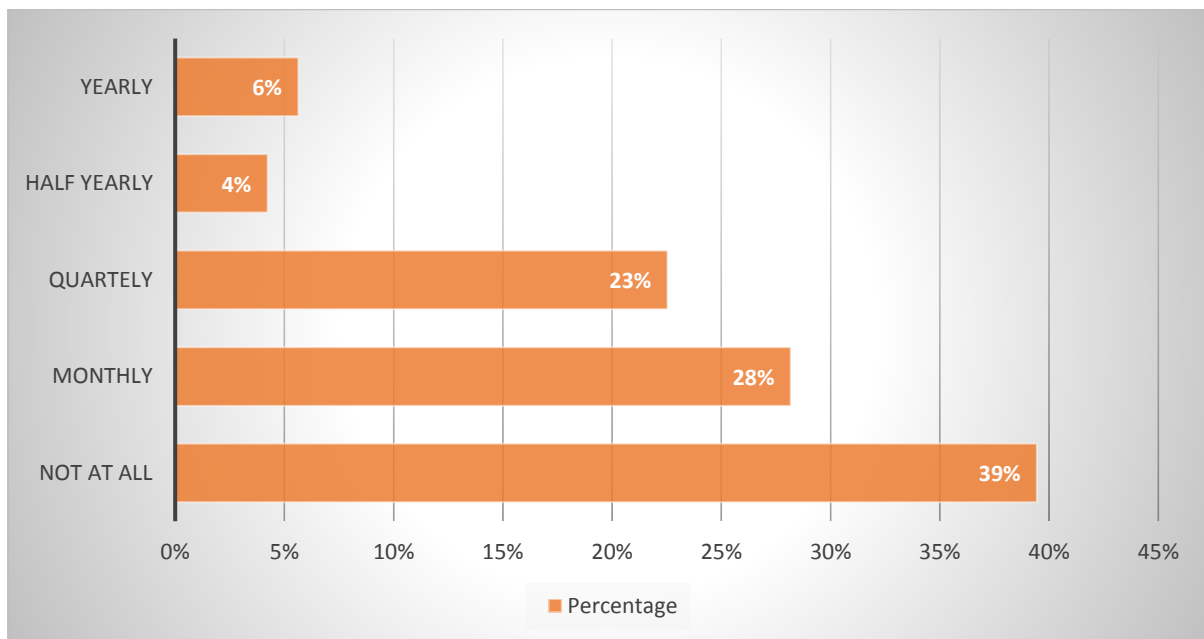


Figure 4.10: Response on Production of Financial Statements

The figure has shown that 39% of teacher-bursar accepted they have never attempted to produce these financial statements. Twenty-eight percent of teacher-bursars pointed out that they do produce these financial statements monthly.

Commenting on the teacher-bursars' response which indicated that 61% of teacher-bursars do produce these financial statements, the internal auditor disagreed with their assertion and stated that; *“Most of them come up with reports that cannot even be properly used by anyone else, any stakeholder or even head teacher cannot understand what teacher-bursar is trying to explain to them. A report is supposed to give someone or help someone to make a decision.”*

4. 5 Objective 3: Implications of Teacher-Bursars Appointment on Financial Management

4. 5. 1: Challenges School face due to Appointment of Teachers as Bursar

Table 4.1 shows a cross tabulation of ‘criteria used to appoint teacher-bursar’ and ‘competence to prepare school budgets as per guidelines’. This tabulation tries to tease the assumption that the method used to appoint a teacher-bursar has an influence over the way budgets are formulated and executed in schools.

Table 4.1: Competence in Preparing School Budgets and Criteria Used in Appointing Teacher-bursars

		Criteria Used in Appointing Teacher-bursar					Total
		Not applicable for qualified bursar	Based on trustworthiness	Based on teaching experience	Based on his or her knowledge in mathematics	Based on his or her qualifications (certificate in accounting)	
Competence in Preparing School Budgets	most serious challenge	0%	4%	0%	0%	0%	4%
	serious challenge	0%	45%	3%	0%	0%	48%
	moderately serious challenge	0%	26%	1%	4%	0%	31%
	least serious challenge	1%	4%	3%	0%	0%	8%
	not serious challenge	4%	4%	0%	0%	1%	9%
Total		5%	83%	7%	4%	1%	100%

Fifty six head teachers indicated that they appointed a teacher-bursar based on trustworthiness. From this number, 4% of head teachers confirmed that their teacher-bursars have had most serious challenges. Again from 83% of head teachers, 45% registered serious challenges in the way teacher-bursars prepare school budgets. Another 26% agreed that their teacher-bursars have been having moderately serious challenges in this area while 4% indicated that their teacher-bursars have the least serious challenges.

Apart from that, 4% of head teachers hardly have serious challenge as far as competence to prepare school budgets is concerned. However, the 5% – who said that they have bursars – have divergent views on how the bursars were performing in preparation of school budgets. One percent from the 5% insisted that his or her bursar has least serious challenge while the remaining 4% stated that the bursars have no serious challenge. Only one percent who appointed teacher-bursar based on his or her qualification (certificate in accounting or any other related papers) reaffirmed that the teacher-bursar has no serious challenge in as far as preparation of school budget is concerned.

The question of teacher-bursars’ competence to prepare school budgets as per guidelines was posed to divisional planner. *“They do it somehow well. They are the ones who happen to follow the budget closely unlike the supervisors (head teachers)”* However, when quizzed further for his comment on a study done by Ng’ambi (2011) which revealed that figures in budget documents from the schools presented to Ministry of Education through respective divisions do not tally with those from the Ministry of Finance, he had this to say; *“For the years I have been in this office. I have not noted that difference. If anything, possibly some years ago (before 2008) but otherwise we have a budget the way it was submitted.”*

Secondly, we established a link between the appointment of teacher-bursars and recording of financial transactions in relevant books of accounts by the same teacher-bursars. The link has been outlined in the Table 4.2.

Table 4.2: Recording of Financial Transactions and Criteria Employed in Appointing Teacher-bursars

		Criteria Used in Appointing Teacher-bursar					Total
		Not applicable for qualified bursar	Based on trustworthiness	Based on teaching experience	Based on his or her knowledge in mathematics	Based on his or her qualifications (certificate in accounting)	
Recording of financial transactions in relevant books of accounts	most serious challenge	0%	22%	0%	0%	0%	22%
	serious challenge	0%	29%	1%	0%	0%	30%
	moderately serious challenge	0%	20%	3%	3%	0%	26%
	least serious challenge	1%	6%	3%	1%	1%	12%
	not serious challenge	5%	5%	0%	0%	0%	10%
Total		6%	82%	7%	4%	1%	100%

Table 4.2 depicts relationship in terms of observed frequencies between ‘criteria used to appoint teacher-bursar’ and ‘recording of financial transactions in relevant books of accounts’. From the table, it shows that of the six percent – who pointed out that they have qualified bursars – one percent accepted that his or her bursar possesses least challenge in the recording of financial transactions. Five percent pinpointed that theirs have no serious challenges in doing the recording of these transactions.

Nevertheless, 22% of head teachers who appointed teacher-bursars based on trustworthiness stressed that their teacher-bursars have the most serious challenges in recording of financial transactions in relevant books of accounts; 29% said their teacher-bursars have serious challenges in the recording of these financial undertakings; 20% have noticed that their teacher-bursars possessed moderately serious challenges in documenting the financial transactions; 6% as well as 5% reiterated that the teacher-bursars in their respective schools have least challenges and hardly have any serious challenge respectively.

Most importantly, 3% of head teachers who appointed teacher-bursars based on his or her knowledge in mathematics pointed out that the teacher-bursars have moderately serious challenges while 1% stressed his or her teacher-bursar has least serious challenge in performing the stipulated task.

Table 4.3: Competence in Ensuring Internal Controls and Criteria Employed in Appointing Teacher-bursars

		Criteria Employed in Appointing Teacher-bursar					Total
		Not applicable for qualified bursar	Based on trustworthiness	Based on teaching experience	Based on his or her knowledge in mathematics	Based on his or her qualifications (certificate in accounting or other relevant papers)	
Competence to ensure internal controls in execution of financial transactions	most serious challenge	0	14	0	0	0	14
	serious challenge	0	24	3	1	0	28
	moderately serious challenge	0	10	1	1	0	12
	least serious challenge	1	8	1	1	0	11
	not serious challenge	3	0	0	0	1	4
Total		4	56	5	3	1	69

Finally, this research study carried a cross tabulation between competence to ensure internal controls in execution of financial transactions and criteria used in the appointment of teacher-bursar. The table 4.3 has figures that attested to the earlier proposition of the study. In Table 4.3, of the 4 head teachers, who declared that they do not have teacher-bursars, one head teacher was of the view that his or her bursar has a least challenge in ensuring internal controls in due course of executing the task; while 3 head teachers pointed out that their bursars do not have any challenge in this area. Similarly, one head teacher – who appointed a teacher-bursar based on his or her qualification – does not have any serious challenge in ensuring internal controls are maintained in the midst of his or her execution of the responsibility.

However, of the 56 head teachers, who based on trustworthiness when appointing the said teacher-bursars, 14 head teachers emphasised to us that they have witnessed the most serious challenges in the way the teacher-bursars are executing the assigned tasks in as far as ensuring internal controls in management of funds is concerned. Twenty four head teachers have highlighted that they have serious concerns towards the teacher-bursar's approach in seeing to it that internal controls are maintained at all costs. Ten head teachers agreed that the concerned teacher-bursars have moderately serious challenges in ensuring internal controls towards the management of financial resources under their jurisdiction. Finally, 8 head teachers conceded, according to the table, that the teacher-bursars have least serious challenges in enforcing internal control measures in the management of the financial resources.

On the other hand, 3 out of 5 head teachers who appointed teacher-bursars based on their teaching experience lamented that the teacher-bursars have serious challenges in maintaining internal controls; one head teacher – in the same category – disclosed that his or her teacher-bursar has moderately serious challenge in doing the said activity. The other one did not dispute the analogy that his or her head teacher has least serious challenge in ensuring internal controls in the management of school funds.

Despite these outcomes, adhering to budget estimates at the time of implementation is one of important aspects of maintaining internal controls. Revelations had emerged that schools are not following their own budgets when implementation of the same kicks off, thus according to the divisional planner.

“The budget documents which the schools produced in the first place are not being referred to by the same schools. When the budgets have been passed, when they are funded, they just say

“what do we need today”. They do not refer to the plan. A few of them, do refer to the plan but majority do not refer to the plan.”

We, however, insisted to hear more on this development and hence proposed to the planner that, ‘could it be the issue of incompetence on the part of teacher-bursars by not giving counsel to the head teacher of what is supposed to be done at this stage of implementation?’ The planner responded, by stating;

“The head teachers are the ones for the budget, to control and implement. Therefore they should be on top of the matter. If they just leave it to the teacher-bursars or heads of department it won’t work and it doesn’t work. That is why, in this current year (2018-2019 financial year) we have got some schools, on this 21st day of June, (I am told Treasury will be closing on 25th if not 24th of June), schools are still having backlog of funds about 7 million kwacha; which means to say between today (Friday, 21st June) and Monday 24 June they need to produce payment vouchers worth 7 million kwacha to clear the funds, which is not easy. So what does this mean? This means to say there was no monitoring by the supervisor on the expenditure. That’s what it means! Despite the challenges that are there, internet and the like, it goes back to the budget holders.”

4. 5. 2: Effectiveness of Teacher-bursars to Produce Financial Statements

4. 5. 2. 1 Effect of Recording Cash and Receipts on Financial Statements

Table 4.4 is a cross tabulation of two variables. The table explains the relationship that exists between these variables. Thus the data in the table emanates from analysis of head teacher’s questionnaire; especially from the sections that probe the competence and impact of teacher-bursars’ management of school funds.

In this study, recording cash and receipts is one of independent or explanatory variables, and hence placed on the far left. The rows of the table carries ratings or scales of the explanatory variable. Financial statements not giving a true and fair view of financial position of school is therefore the dependent variable. In the Table 4.4 the outcome variable is located on top right while its ratings are verticals or columns.

Table 4.4: Effect of Recording Cash and Receipts on Financial Statements

		Financial statements not giving a true and fair view of financial position of the school					Total
		strongly agree	agree	Disagree	strongly disagree	not sure	
Recording cash receipts and payments	not satisfied	4%	3%	0%	0%	0%	7%
	less satisfied	9%	16%	2%	0%	0%	27%
	moderately satisfied	26%	23%	6%	6%	1%	62%
	Satisfied	0%	0%	1%	3%	0%	4%
Total		39%	42%	9%	9%	1%	100%

Table 4.4 has shown that 81% of head teachers who were not satisfied with the way teacher-bursars were recording cash and receipts agreed that financial statements produced thereafter did not give a true and fair view of financial position of the schools. The head teacher's dissatisfaction – in the recording of cash and receipts by teacher-bursars – expressed through the gigantic percentage had cast a negative impact on the usefulness and effectiveness of the financial statements. However, only 18% of the head teachers disagreed, affirming that the financial statements were usable and effective.

4. 5. 2. 2 Ordinal Regression Analysis of the Variables

Ordinal regression analysis was employed for the purposes of determining if one variable could explain the variation in another variable: especially, if *recording cash receipts and payments* as one of explanatory variables explained the variation in *financial statements not giving a true and fair view of financial position of school* which is an outcome variable in this study. Most importantly, ordinal regression was used in this study because the study's numeric data instruments were ordinal in nature.

Table 4.5: Case Processing Summary of Two Variables

Variable	Scale	Marginal Percentage
Financial statements not giving a true and fair view of financial position of the school	strongly agree	39.1%
	Agree	42.0%
	Disagree	8.7%
	strongly disagree	8.7%
	not sure	1.4%
Recording cash receipts and payments	not satisfied	7.2%
	less satisfied	26.1%
	moderately satisfied	62.3%
	Satisfied	4.3%

N = 69

Table 4.5 shows Case Processing Summary. As evident in the table, this study has modelled ‘recording cash receipts and payments’ in relation to ‘financial statements not giving a true and fair view of financial position of the school’. On a different note, Pseudo R-square (in Table 4.6) was opted to establish the magnitude or extent of the relationship. It sought to explain the extent of independent variable’s determination in the variation of the dependent variable. We carried this analysis in full comprehension that there were other equally important explanatory variables in this study that could as well explain the variation in the dependent variable. However, recording cash and receipts is presumed to be a significant aspect in bookkeeping (Wood & Sangster, 2005) hence its incorporation in the test.

Table 4.6: Percentage Determination of Variance in Dependent Variable

Pseudo R-Square	
Cox and Snell	.133
Nagelkerke	.146
McFadden	.059

A “good” R^2 value depends upon the nature of the outcome and the explanatory variables. In view of this, Table 4.6 gives the pseudo R^2 value (e.g. Nagelkerke = 0.146) which indicates that recording of cash receipts and payment explains 14.6% of the variation in the dependent variable – financial statements not giving a true and fair view of financial position of school. This underscores the point that the predictor value is responsible for only 15% of the variation in the dependent variable.

In this regard, this is just as the study would expect because there were several categorical predictor variables (such as segregation of accounts to specific vote heads, adherence to budget

estimates and accounting for funds allocated to specific vote heads) that impact on financial statements not giving a true and fair view of financial position of school. Some of these variables may be much more important predictors of not providing the financial statements free from material misstatements and faithfully representing the financial performance and position of the school than the single association with recording of cash receipts and payments. However, the low R^2 indicates that a model containing only recording cash receipts and payments is likely to be not a “very” good predictor of the outcome for a produced financial statement.

However, we aspired to establish from the respondents, in this case the head teachers, on how they would rank the ratings of the independent variable – in terms of their level of preference as to what they would desire to have in relation to the other. Therefore, Table 4.7 explains the likelihood of a head teacher ranking one parameter over the others in a given independent variable – *recording of cash and receipts*. On top of expressing their likelihood of picking one scale over the other, this table also justifies the interpretation of the decisions the head teachers made in picking the rating that best explains their understanding of teacher-bursar’s competence in the management of funds.

Table 4.7: Estimating the Odds of Ranking a Variable Higher Than Others

		Parameter Estimates					95% Confidence Interval	
		Estimate	Std. Error	Wald	Df	Sig.	Lower Bound	Upper Bound
Threshold	[PartD7S1 = 1]	-3.548	1.187	8.934	1	.003	-5.874	-1.221
	[PartD7S1 = 2]	-1.444	1.143	1.595	1	.207	-3.684	.797
	[PartD7S1 = 3]	-.543	1.112	.238	1	.625	-2.722	1.636
	[PartD7S1 = 4]	1.760	1.320	1.777	1	.182	-.827	4.347
Location	[PartC5S1=1]	-4.067	1.488	7.471	1	.006	-6.984	-1.151
	[PartC5S1=2]	-3.164	1.244	6.473	1	.011	-5.602	-.727
	[PartC5S1=3]	-3.061	1.194	6.574	1	.010	-5.402	-.721
	[PartC5S1=4]	0 ^a	.	.	0	.	.	.

a. This parameter is set to zero because it is redundant.

However, the Table 4.7 has parameters. The parameters in this case are the *ratings* or *scales* inherent in the variables. Therefore, the table seeks to find out the odds of ranking one level higher than the other. Basically, in the table there are intercept parameters and slope parameters. The intercept parameters are found in the ‘threshold’ while slope parameters are

based on the 'location' part. Like in linear regression, the most important values are the slope parameters because they help in determining the odds of ranking one parameter higher than the others. These parameters are: PartC5S1=1, PartC5S1=2, PartC5S1=3 and PartC5S1=4.

These levels of satisfaction (in the Table 4.7 referred to as parameters) stands for, in that order: *not satisfied* in Part C question 5 under Statement 1 in head teacher's questionnaire; *less satisfied* in Part C question 5 under Statement 1 in head teacher's questionnaire; *moderately satisfied* in Part C question 5 under Statement 1 in head teacher's questionnaire; and lastly, *satisfied* in Part C question 5 under Statement 1 in head teacher's questionnaire.

Over and above, Table 4.7 seeks to give a picture on the likelihood of head teachers to rank, for instance, 'not satisfied' higher than 'less satisfied' in the quest of assessing their level of satisfaction in teacher-bursar's use of internal controls. However, by default, a study's highest level of satisfaction is coded as a reference category and is set at 0. As it is evident in the table, *satisfied* which is level 4 has been coded as reference category and hence set at 0. For interpretation sake, this means that if a level has a value greater than 0, then it has the likelihood of being ranked higher than reference category. Likewise if a level has a value less than 0 then it has a likelihood of being ranked lower than the reference category.

At this juncture, going into the table, no level has a score higher than 0. *Not satisfied* has aggregated -4.067, *less satisfied* has scored -3.164, *moderately satisfied* has scored -3.061. These have been referenced as level 1, level 2 and level 3 respectively. Going by the earlier interpretation, it can be noted that head teachers are likely to rank level 3 higher than level 2 and level 1 while level 2 is likely to be ranked higher than level 1. Most importantly, level 4 is likely to be ranked higher than the rest, in that order. Thus, head teachers are supposedly and likely to place the level 'satisfied' higher than 'moderately satisfied', followed by 'less satisfied' and lastly 'not satisfied' as the favourable outcome when judging the performance of their teacher-bursar's use of internal controls. To them, it means having a score of 'satisfied' means the teacher-bursar is doing exceptionally well than being given a score of 'not satisfied'.

4. 5. 3: Effects of Appointing Teachers as Bursars on Management of Funds

This study proposed to the head teachers some of the effects of delegating the duties of the bursar to the teachers. The respondents expressed their perceptions through endorsement of effect(s) that best explained their opinions and experiences. Data that constituted the responses from the participants has been transformed into a graph in Figure 4.11.

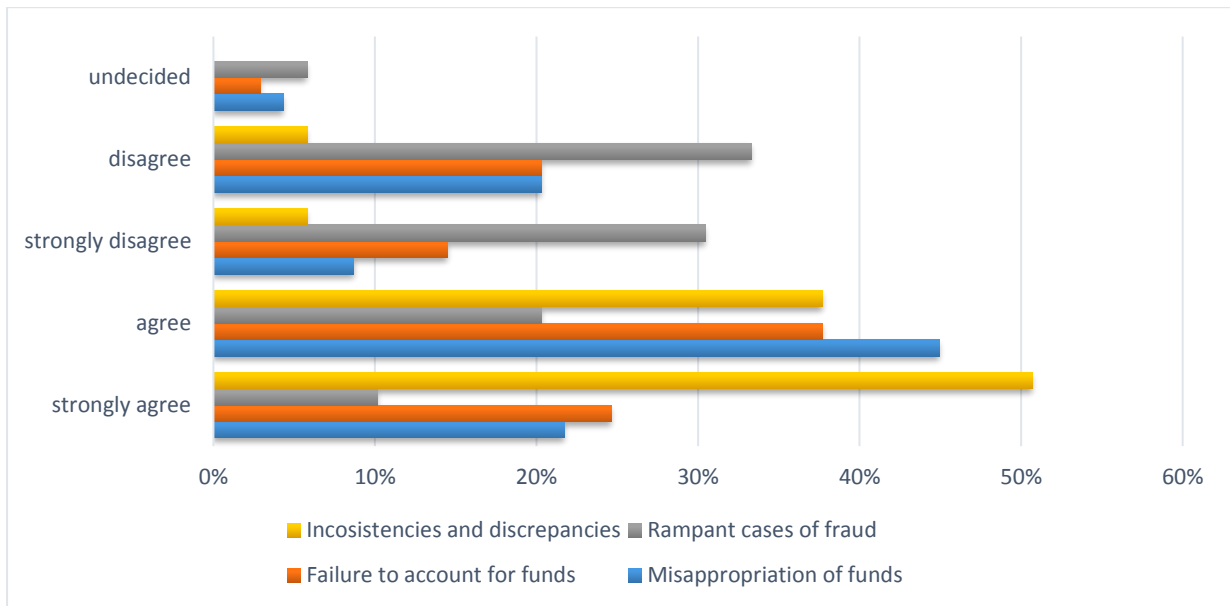


Figure 4.11: Effects of Teacher-bursars' Appointment on Financial Management

From Figure 4.11, we noted that 51% of head teachers strongly agreed that there are inconsistencies and discrepancies in the recording of financial transactions by the teacher-bursars. Thirty-eight percent agreed to have encountered this problem in their respective schools. Thus these figures give a cumulative percentage of 89%.

However, we reached out to internal auditor for her remarks on this huge percentage of head teachers confirming they are experiencing unpleasant after-effects of appointing teacher-bursars based on trustworthiness. This was what she said; *“Yes I do agree. I think it is what I have already said; where we are also meeting the (same) challenges. So the discrepancies are there and are many.”*

In terms of cases of fraud being rampant, 10% of head teachers strongly asserted to this proposition while 20% just agreed to this statement. These two figures sum up to a cumulative percentage of 30%. So it is right to state that this proposition is not popular.

However, internal auditor's position on the prevalence of fraud cases is consistent with the 30 % turn-out. She narrated that, *"There are some schools that have been involved in fraud. But the fraud is in terms of misuse of money, misappropriation of fees. In those schools, some head teachers have been removed from their positions as head teachers because of mismanagement of funds."*

Failure to account for funds allocated to specific vote heads was another proposed effect of such appointment on management of finances. According to the results in the graph, a cumulative total of 63% agreed that indeed this is a drawback to effective management of such funds. This has thus far painted a vivid picture that teacher-bursars are failing to account for funds allocated to specific vote heads.

Evidently, the same trend has been cast out in misappropriation of funds to relevant vote heads. A cumulative total of 67% of the head teachers have stated that they do agree to the fact that teacher-bursars are misappropriating funds. Therefore, element of mismanagement of funds is popular among the schools that participated.

With these cases of fraud and other related crimes being exposed by the head teachers and also the office of internal auditor, this study wanted to find out again from the internal auditor on measures being taken to address these problems. *"I report (these cases) to the managers and it is up to them to take it up. But if they are not taking it up it is still my responsibility to find out what they are doing about the fraud that happened. It only helps when management is willing to do something about it. Because as an auditor, there is not so much I can do. I cannot go ahead and start doing the operations of the management. I am here just to advise management and make recommendations on what they can do. But if management is not willing to take it up and do something about it then it portrays a (wrong) picture that our office is doing nothing (not reporting such cases). However, management has a task to see to it that they do something to the reports of fraud unearthed by internal auditor. Oftentimes the management call them for a caution and some people are even told to pay back the money they have embezzled. Sometimes the embezzled funds are not in huge sums so they are told "we are giving you a chance to pay back and if you do it again then you shall be removed from your position"."*

4. 5. 3: Evaluation on Appointment and Competence of Teacher-bursars

In view of the effects – this study has established – that exists due to appointment of teachers as bursars, we viewed it as a necessity to engage the head teachers on how best to resolve these problems. Head teachers as principal stakeholders in this regard might have immediate solutions to some of these challenges hence their involvement in suggesting some workable solutions and remedies. In this way, this study would be able to bring forth alternatives or different perspectives to the ones currently in use through extrapolation of the views sourced in this manner. Ultimately, a graph in Figure 4.12 details the suggestions expressed by the respondents in response to the question this study posed to them.

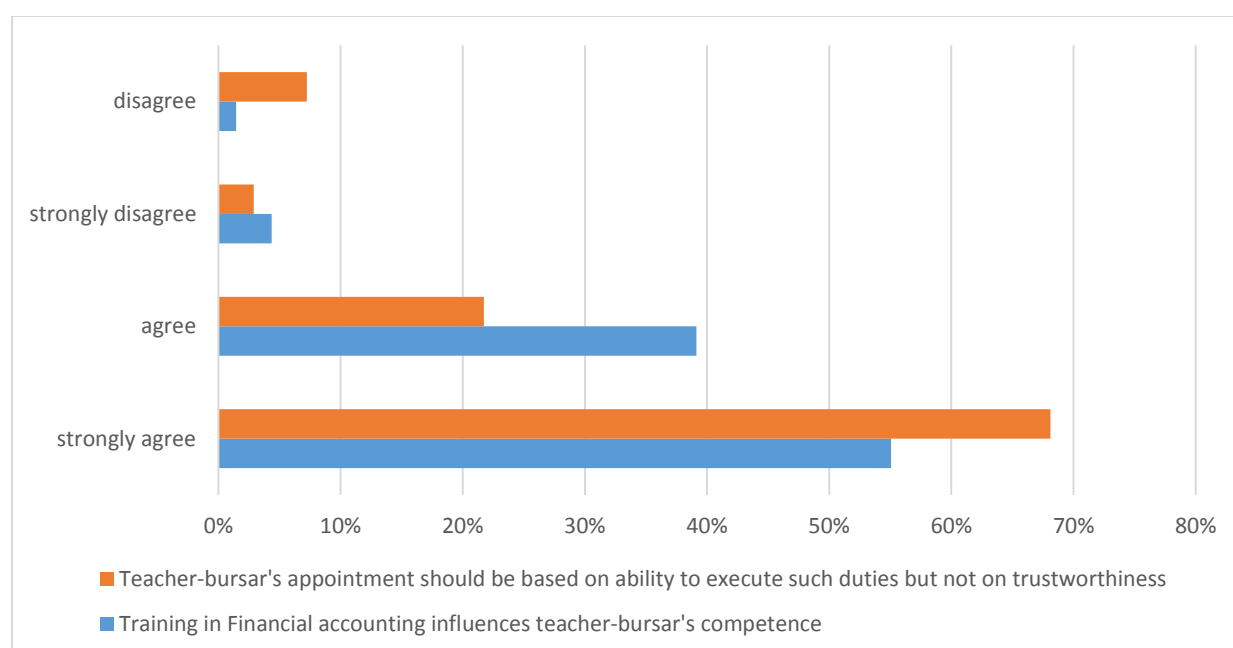


Figure 4.12: Head teachers' Assessment on Appointment and Competence of Teacher-bursars

In due reference to the graph in figure 4.12, 68% of head teacher strongly consented that teacher-bursar's appointment should be based on ability to execute such duties. Apart from that, 22% also agreed to this proposal of not appointing teacher-bursars based on trustworthiness but on ability to carry such tasks. This gives a combined result of 90% which is a significant result.

Interestingly, earlier on in this study, internal auditor added her voice to the call of appointing teacher-bursars based on ability not on trustworthiness. She has been quoted as saying science-teacher-bursars, especially those with a bias in mathematics, have a better understanding and are more willing to learn than language-biased-teacher-bursars.

“You know these people (language-teacher-bursars) do not understand accounting in the first place. There are other people (language-teacher-bursars) who are not even interested in getting to know what we are teaching. So they just memorize the things (GAAP) that they told me to do this. But when if you have an accounting background, you know – even though they (have) told me to do this – but this is how it is supposed to be done.”

However, PHRMO was against the idea of appointing teachers as bursars in the first place, when she was answering to a question which asked of her recommendations to relevant authorities on issues to do with criterion to be employed in the appointment of teachers as bursars. This is what she said. *“I would not recommend teachers to be bursars. Bursary job is an accounting job. Teaching and accounting are completely two different fields. Maybe if we, you know the way Ministry of Education has so many projects and so many donors coming in, could find maybe donors to recruit bursars, on our behalf, maybe that can help.”*

Lastly, 55% of head teachers strongly agreed with the proposition that training in financial accounting influences teacher-bursars’ competence. In addition to that, 39% of head teachers agreed to the proposal. So this entails that a cumulative percentage of 94 has been achieved; that supports the idea of training the teacher-bursars so that they become knowledgeable enough of what is expected of them when executing these tasks. This was collaborated by divisional stakeholders. The internal auditor, for example, emphasized that;

“There should be trainings for these teacher-bursars, a proper accounts training even if it entails sending (teacher-bursars) to Mpemba (Malawi Institute of Management at Mpemba), they must do that. That is if government cannot employ accounts clerks then it needs to invest in these teacher-bursars so that teacher-accountants should know what they are supposed to do. It needs a small training in order to empower them or if they are to receive certificates it is okay, as long as they know bookkeeping and other stuff.”

Similarly, the divisional planner had the same views. He protested against the use of teachers as bursars without exposing them to training, especially on the ‘specifics’ not in detailed format.

“Teacher-bursars need to be oriented on the specifics as regard to revenue, or funds which they receive. Just going to the specifics, not going to accounting in general. When you just go to the specifics, that means to say; where you say how to draw a payment voucher; how to come up with a ledger; how to come up with a cashbook. Just get them into the specifics, definitely this aspect (teacher-bursars’ incompetency) will be eroded (taken care of).”

On different wavelength, there was another opinion from the internal auditor who expressed that teacher-bursars should be made permanent in order to minimize the head teachers’ abuse of the powers by changing teacher-bursars haphazardly, without binding reasons.

“The other thing, I would wish teacher-bursars are permanent people that want to work as a teacher as well as a bursar. It should be a permanent post so that even when the division is planning to transfer teacher-bursars who are science teachers then they should swap them in order not to lose information. It is a waste of resources to train someone as teacher-bursar and then he or she gets transferred to another school where he or she will not take up the same post.”

Nonetheless, the PHRMO contested against the idea of having a permanent teacher-bursar and also of having a fully loaded training to be conducted at Mpemba, with all GAAP concepts intertwined in it, as suggested by the internal auditor.

“But that’s kind of a conflict with human resource standards/principles because us, we are recruiting this person as a teacher and then take them to be a (permanent) teacher-bursar, that’s changing somebody’s career. For someone to be sent to Mpemba as teacher-bursar when they are just teachers it is also against HR training tools because you are supposed to be trained in the field you were recruited for. So well it is bad as the way it is, so maybe that can still be a way forward. But now another problem is; we transfer the teachers anyhow so you end up training someone and maybe posted to another school where there is already a teacher-bursar. So having two teacher-bursars would be a problem. It will be wasting of resources.”

On the issue of transfers as raised by the human resource officer, it was pointed out to her that the auditor reasoned that it can be solved by swapping the teacher-bursars. To this opinion, she responded by stating; *“But you know sometimes we face different circumstances on why you have to transfer someone out.”*

4. 6 Chapter Summary

Basing on the research objectives, this study in general had demonstrated that teacher-bursars innocently discharged their duties contrary to the prescriptions of the accounting profession. However, in a chronological recount of the findings, we discovered that head teachers are appointing teachers as bursars basing on trustworthiness. The management conceded that it was the only available option offered to them even though they raised doubts in the effectiveness of the directive. Secondly, this study had established that teacher-bursars were incompetent in the way they were performing their tasks. For instance, the financial statements teacher-bursars were producing lacked clarity and were incoherent with established accounting standards. With these statements, stakeholders could hardly construe what was actually happening to the school funds. SWED management also noted the same regarding the financial statements. Finally, we found out that the appointment of teachers as bursars had negatively affected the management of financial resources. Issues of misappropriation of funds and failure to account for the funds allocated to vote heads featured highly as some of the negative effects. However, participants in this study suggested that criteria for appointing teacher-bursars should be revisited; teacher-bursars should be trained on the specific areas they frequently transact; teacher-bursars should be made permanent in a bid to address issues of abuse by the appointing authority.

CHAPTER 5: DISCUSSION OF RESEARCH FINDINGS

5. 1 Chapter Overview

This chapter presents discussions of the research findings. The discussions are firstly informed by the objectives of the study which were embedded in the data collection tools that we used. Secondly, the discussions of the findings considered issues raised in this study's literature review section as well as the theoretical framework of the study.

5. 2 Objective 1: Rationale of Appointing Teachers as Bursars

5. 2. 1 Staffing Levels of Teacher-Bursars in the Division

The study revealed that 94% of schools in SWED have teacher-bursars. Interestingly, this finding was collaborated by SWED management who confirmed that the division has 110 teacher-bursars and 8 qualified bursars. Looking at these figures, it clearly vindicates that over 90% of the bursars in SWED are teachers. This is a significant result considering that schools have to be staffed with qualified professionals at different levels of managerial ladder (Ministry of Education, Science & Technology, 2014). However, this result is coming out due to the failure by the GoM to recruit more qualified bursars to fill the vacant positions existing in most schools. Similarly, survey participants lamented the same reason to the extent that schools have no choice but to appoint teachers to fill these gaps.

5. 2. 2 Criteria Used In Appointing Teacher-Bursars

This study found that 81% of the teacher-bursars were appointed based on trustworthiness. This shows that majority of head teachers are following what the MOEST directed them to do in the absence of the duly qualified bursars. In other words, this step taken by head teachers is usually supported by the line ministry. This is also in tandem with this study's earlier theoretical proposition, by quoting existing literature, that teacher-bursars are being appointed using this criterion.

However, in chapter one especially background section, this study did propose that use of this criterion in appointing the teacher-bursars is like defeating the very same efforts the Ministry set aside to safeguard and ensure prudent utilization of financial resources. Since according to Ministry of Education, Science & Technology (2014) and Langat (2008) bursars are supposed to offer technical expertise to the controlling officers (the head teachers) in areas of prudent financial management, so the appointment of teacher-bursars based on trustworthiness frustrates this cause.

According to SWED management, schools have teacher-bursars who are professionally trained as language teachers. This is surprising because science teacher-bursars have a better understanding of GAAP concepts than their counterparts. Furthermore, the study found that it is simpler to work with teacher-bursars who are mathematic teachers and that they easily grasp the concepts when the division conducts training about their delegated tasks.

Concurring with these findings, Wood & Sangster (2005) emphasized that people skilled in accounting (or have better understanding in financial accounting) should be able to tell whether or not a business is performing well financially. So with this development, one tends to wonder if these trustworthy teacher-bursars can offer such service or informed counsel to the head teachers more competently than the one with technical ability or competence in such matters. The answer is obviously a “no”. The appointment of teachers with no technical ability to do such a job is exactly what theoretical framework of this study was trying to discourage. According to McNamara (2006), “a functioning car is a system. Remove the carburetor and you have no longer got a working car.” Likewise, a functioning school is a system. Removing a bursar then you have a zero functioning school. Worse still, replacing with person who barely has technical abilities in that job is creating more problems, on top of the existing ones.

Therefore, appointing teachers to work as bursars while knowing for sure they are hardly competent to discharge those duties is an unjust treatment. As discussed in literature review, the teacher-bursars are being exposed to risks which may warrant a surcharge. According to Government of Malawi (2015) through a publication titled *Malawi Public Service Regulation – 2015* under Section 236 subsection 5, it stipulates that a civil servant commits act of misconduct if he or she fails to comply with any of the following legislation – (i) Public Finance Management Act; (ii) Public Procurement Act; (iii) Public Audit Act; and (iv) Public Service Act. This appointment, in another perspective, therefore does neglect a principle in recruitment process whereby an individual should be placed to work in an environment where he or she

can easily discharge his or her duties in accordance to his or her capabilities (University of Minnesota, 2016). At the same time, according to Wood & Sangster (2005), it is unthinkable to accounting principles to subject teachers to such treatment – of appointing them as bursars without prior training.

Furthermore, with the powers given to head teachers to appoint teachers as bursars, the same head teachers, according to the findings of this study, have resorted into firing the very same teacher-bursars they appointed simply because they are not going along.

As agreed upon by stakeholders in this study and the quoted literature sources, this study has understood that appointing teachers as bursars is not a big problem. However, appointing incompetent teachers (with no prerequisite knowledge in the realm of arithmetic operations) is the problem. Therefore, appointment of teacher-bursars based on trustworthiness only needs to be reconsidered if financial resources are to be managed accordingly.

5. 3 Objective 2: Competency of Teacher-Bursars on Financial Management Compliance

5. 3. 1 Funds Accounting and Compliance to Internal Controls

Research findings from the teacher-bursars' questionnaire indicated that 47% of teacher-bursars use GAAP in management of funds on regular basis and the rest do not regularly adhere to these bookkeeping obligations. In line with these results, management has conceded that the teacher-bursars are struggling to maintain financial records. These revelations are not far away from what was explained earlier. In due reference to Langat (2008), teachers as well as head teachers do not undergo a specialized course in financial accounting and management during their training. These results are, therefore, not surprising.

Similarly, we wanted to assess teacher-bursars' compliance to the implementation of generally acceptable accounting practices. The study has found that 83% of head teachers (in section 4.4.1) had reservations towards how the teacher-bursars are adhering to principles of financial accounting. In another perceptive, it can be translated that majority (83%) of head teachers

painted an image that teacher-bursars are incompetent as far as implementation of GAAP is concerned.

5. 3. 2 Efficiency in Production of financial Statements

Even though 60% of teacher-bursars said they produce financial statements but, according to other findings, these statements cannot even be properly used by anyone else, any stakeholder or even head teachers cannot understand what teacher-bursar is trying to explain. In addition, the findings from interview sources accepted that there are challenges in the way teacher-bursars do their documentation. Therefore, these findings from management are serious signals which all point to incompetence being displayed by teacher-bursars.

In view of these findings, this study had found these reports very disturbing, considering that availability of financial records are benchmarks and signals of how a transparent and accountable an institution is. In addition, Bragg (2007) contends that accounting records are typically exhibits of evidence to auditors who need to verify the transactions which have occurred. Furthermore, this shows that the school funds may be used in activities that are not related to enhancement of teaching and learning.

5. 4 Objective 3: Implications of Teacher-Bursars Appointment on Financial Management

5. 4. 1 Challenges School Face Due To Appointment of Teachers as Bursars

The study has unconcealed that 89% of head teacher – who appointed teacher-bursars based on trustworthiness – have most serious to moderately serious challenges in the way teacher-bursars prepare school budgets. This outcome was reinforced by divisional officer who explained that they somehow do it well. The participant cited reasons such as having a backlog of work to do – which includes teaching – and also failure to access laptops where they can practice as a contributing factor for inefficiency.

However, the planner, in particular, annulled the claims made by Ng'ambi (2011) who reported that figures in budget documents from schools do not tally with those from Ministry of Finance. He stated that, as a planner, he had never encountered such a situation since 2008. Notwithstanding, we uncovered that schools in the division were still encountering challenges in terms of budget tracking and implementation. This problem in all essence borders on the proficiency in accounting on the part of the teacher-bursar (Wood & Sangster, 2005). Therefore, the position of this study is that problems still exist when it comes to budget formulation and implementation.

Secondly, this study has demonstrated that 89% of participants who appointed teachers as bursars on basis of trustworthiness confided in us that their teacher-bursars have challenges that range from most serious to moderately serious in the way they record financial transactions in relevant books of accounts. In section 4.4.2, one of management officers did emphasise that the financial statements which some teacher-bursars are producing cannot be relied upon. The statements do not give a clear picture of what is happening to the school finances. Henceforth, basing on the report from the Internal Auditor – who has technical capacity to certify either the financial statements give a true and fair view of financial position of school or not – this study is compelled to conclude that the statements produced are not worthy to be considered as financial statements.

Finally, this study has established that there are serious challenges in the manner teacher-bursars are answering to calls of ensuring internal controls in their quest of managing school finances. That is to say, 68% of head teachers who have trustworthy teacher-bursars had confirmed this development. Furthermore, management opened up in expressing their displeasure towards schools' management team for their failure to follow budget lines when committing funds for expenditure. They do not refer to the budget plan. This hence is a clear violation of financial control systems.

According to Wakiriba et al. (2014), they demonstrated that, “an institution's system of financial control has a key role in the management of risks that are significant to fulfilment of its operational objectives”. Therefore, basing on this understanding, this study can emphatically accept the reasoning that with this practice – of not adhering to schools' budget plan – school administrators are hence migrating from achieving their planned goals to ascertaining clandestine objectives; of which are not for the betterment of the schools.

5. 4. 2 Effectiveness of Financial Statements in Relation to GAAP

In section 4.5.2, this study came up with cross tabulation of two variables – thus, *recording cash and receipts* and *financial statements not giving a true and fair view of financial position of school* – in the view of investigation the effect of one variable over the other. In this section, it was unearthed that 81% of head teachers who were not satisfied with the way teacher-bursars were recording cash and receipts agreed that the financial statements produced from such documentation were in fact ineffective; did not give a true and fair view of financial position of school.

Nevertheless, Pseudo R-square was opted to establish the magnitude or extent of the relationship. It explained the extent of independent variable's determination in the variation of the dependent variable. The pseudo R² value of 0.146 was registered. This value indicated that recording of cash receipts and payment explained 14.6% of the variation in the dependent variable – financial statements not giving a true and fair view of financial position of school. This underscores the point that the predictor value is responsible for only 15% of the variation in the dependent variable. As a result, 85% of the variation in estimated outcomes of financial statement not giving a true and fair view of financial position of institution was explained by other explanatory variables.

Substantially, this finding agrees with Sibande, Ojwan'g, & Allida (2017) who stated that financial statements of a school are generated using combined analysis of records of cash receipts and payments, reconciled bank statements, inventory records, stores records, records of tax returns and school budgetary allocations and estimates. Thus, this explains why one predictor variable could hardly account for a bigger variation in the response variable.

These findings have agreed with the theoretical framework of this study. As proposed in this study, inefficiency of one part of system results into malfunction of entire system. This study had found that appointing teachers as bursars on trustworthy ticket leads to ineffectiveness and dysfunction of financial management systems of a school. Furthermore, these findings are in agreement with the findings of a study conducted in Kenya by Nyanyuki et al. (2011). They discovered that financial statements produced by teachers and Board of Directors (BOD) – who were assigned to manage school finances – do not agree with the underlying books of accounts

and that the statements do not give a true and fair view of the financial position of public secondary schools.

5. 4. 3 Effects of Appointing Teacher-Bursars in Managing School Funds

The study has shown that 89% of the surveyed head teachers acknowledged the existence of inconsistencies and discrepancies in the manner financial transactions are being recorded. In the same manner, SWED management narrated that the discrepancies are there and are many. On the other hand, 30% of head teachers accepted the prevalence of fraud. However, this study was unable to establish a causal link between the fraud and the teacher-bursars' effectiveness in the management of funds. Even though management acknowledged the existence of fraud but they clarified that the fraud was in terms of misuse of money and misappropriation of fees. Furthermore, they confirmed that some head teachers who were tried in competent court of law and found guilty of fraud were removed from their positions.

Interestingly, 63% of the head teachers painted a clear image that, in their schools, teacher-bursars are failing to account for funds allocated to specific vote heads. Similarly, 67% of head teachers bemoaned that their teacher-bursars have misappropriated school funds. The results of this study, nonetheless, are consistent with Mestry (2004) who stated that misappropriation is an intentional or illegal use of funds for one's own benefit or other unauthorized purposes, particularly by public officials. This argument is premised on the fact that participants highlighted that the officers who misappropriated funds could not explain how the funds were utilized.

Further to that argument, these results are also in agreement with the findings exposed in Auditor-General (2008)'s report in Ghana. The report uncovered that, with respect to Senior High School financial management, there were financial management problems which included failure to submit financial statements for validation, failure to collect outstanding debts, failure to settle outstanding indebtedness, cash irregularities, payroll irregularities and tax irregularities.

5. 4. 3 Stakeholders' Recommendations on Appointment and Competence

When it was put to head teachers that teacher-bursars should be appointed based on ability not on trustworthiness, majority (90%) of the head teachers agreed to this suggestion. Most importantly, the internal auditor – who was a key stakeholder in this study – stated that teacher-bursars who were appointed based on their ability in mathematical operations have the better understanding. However, this is in agreement with Wood & Sangster (2005); Nyanyuki et al. (2011); Vandeyar (2002); Majanga (2015) & Ngaba (2003) who state that financial management is best suited with a competent and well trained personnel who has the ability to offer counsel to head teachers and interested parties.

On training of teacher-bursars, almost all of survey (94%) head teachers agreed that training in financial accounting influences teacher-bursars' competence. There was a general consensus among the three divisional officers who were reached out for interviews. The internal auditor suggested that teacher-bursars should be sent for a proper training in the field of financial accounting. Likewise, the divisional planner pointed out that he would prefer if teacher-bursars are trained on 'specifics' such as how to draw a payment voucher, how to come up with a ledger and how to come up with a cashbook. Thus, the planner felt that by doing so it will reduce levels of incompetency in teacher-bursars.

However, on a different note, internal auditor suggested that teacher-bursars should be permanent; meaning to say, they should be recognized as such so much so that even if they have been transferred they should still maintain the same position he or she held at a former school. In doing so, issues of training different teachers as bursars now and then – due to appointing and reappointing by head teachers – should be minimized, if not, being stopped. The habitual firing and appointing of teachers as bursars without logical explanations, according to her, is making her job life difficult because she is being forced to work with new appointees at the same schools in many occasions.

Although the PHRMO disagreed with idea of making their positions permanent as this move shall be in conflict with human resource statutes, and also could prove difficult in transferring them, but later on succumbed to the idea. For her to have a change of thought, we put forward to her the internal auditor's remarks which dispelled the fears by accentuating the fact that , in

cases of a transfer, these teacher-bursars could be swapped with another from the school this teacher-bursar is being transferred to. Therefore, this study has found these suggestions binding and thought-provoking insights to the research problem resolutions.

5. 5 Chapter Summary

This study has firstly discovered that majority (94%) of head teachers have appointed teacher-bursars in their respective schools. This has been collaborated by data records from the division which showed that the division has 110 teacher-bursars out of 118. On the criteria employed in appointing the teacher-bursars, it has emerged that more than three-quarter (81%) of head teachers appointed the teachers as bursars based on trustworthiness. Of course, this symbolized that majority of head teachers are abiding to a guiding principle documented in Secondary School Management Handbook. However, different stakeholders engaged in the study argued that this criterion has not helped to ensure effective management of finances in the public secondary schools. Their assessment augured well with the various literature sources this study referred to.

Secondly, in terms of competency of the trustworthy teacher-bursars, this study has established that the teacher-bursars are finding it difficult to comply with generally acceptable accounting practices. This was a cause of alarm especially from internal auditor's point of view who openly stated that the financial statements they produce cannot be relied upon, the statements do not give a clear picture of what is happening to the school finances.

Thirdly, 89% of head teachers rated the challenges they are facing in the management of finances – as a result of appointing of teachers as bursars – as ranging from most serious to moderately serious. In Wakiriba et al. (2014)'s point of view, this porous system of financial controls exposes institutional finances to risks that are detrimental to fulfilment of its operational objectives. Furthermore, divisional planner was quick to point out that most schools do not follow their budget plans when time comes for budget implementation. This hence indicates a distinct violation of financial control systems.

Furthermore, a bigger proportion (89%) of participants agreed to have encountered inconsistencies and discrepancies in the way financial transactions are being recorded.

Additionally, more than half (63%) of head teachers demonstrated that the teacher-bursars are failing to account for funds allocated to specific vote heads. These reports are similar to the ones registered by Auditor-General (2008)'s report. The report explained that there were recurrent reports on financial management irregularities in Ghana's Senior High Schools. This study had established that misappropriation has devastating effects on eventual teaching and learning process. Similarly, Hallak & Poisson (2007) evaluated that financial misappropriation and misuse distort both the quality and availability of education services. Furthermore, Mobegi (2017) added that due to financial mismanagement in Kenya's Gucha Sub-County suppliers supplied schools with low quality equipment for practicals which in-turn affected performance in sciences. Therefore, this study understood that misappropriation of school funds deprives a school the possibility of acquiring the necessary instructional materials and other facilities that can improve the academic outcomes of both students and the institution in the long run.

Lastly, majority of head teachers (90%) agreed to a suggestion that teacher-bursars should be appointed based on ability but not on trustworthiness. Additionally, majority (94%) of them supported the idea that training in financial accounting influences teacher-bursars' competence. In solidarity with the result, all the three management officers interviewed agreed that teacher-bursars should undergo training on 'specifics' of financial accounting and management. However, apart from that, one of management officers proposed that teacher-bursars should be made permanent. According to the officer, this could help to reduce cases of abuse on the part of head teachers who have been changing teacher-bursars willy-nilly, disregarding the bad repercussions of such actions to financial control systems.

CHAPTER 6: CONCLUSION, CONTRIBUTION OF STUDY TO SOCIETY AND RECOMMENDATIONS

6. 1 Chapter Overview

This chapter has considered the major findings in order to come up with conclusions. The conclusions would then lead to the recommendations on what should be done to improve on financial management in public secondary schools. On top of this, the study has established and raised some important issues and points that could help to improve the proficiency of teachers working as bursars; and not forgetting theoretical constructs that could as well assist the line ministry to reconsider the policy of appointing teacher-bursars based on trustworthiness. However, this chapter also outlines the areas that need further research in the light of scope and constrain of this study.

6. 2 Conclusion

Basing on the findings in this study, the following are the key conclusions on effectiveness of teacher-bursars on management of public funds in South West Education Division.

- Head teachers were appointing teachers as bursars using the existing structures laid down in *Secondary School Management Handbook: A Practical Guide for Secondary Schools in Malawi*. Specifically, they based on trustworthiness. However, this criterion has not helped to maintain financial management standards in the schools. It has rather exacerbated flouting of generally accepted accounting practices.

- Competency of teacher-bursars had been found wanting; lack of basic accounting practices was prominent in most of teacher-bursars. As a result, financial management systems had been seen to be on free fall – since majority of teacher-bursars did not attend even a single course in financial management – in that they were managing the public funds on trial and error, muddling through until they made a breakthrough on their own. This was very dangerous as it might lead to wastage of financial resources.

- Negative effects of this appointment on management of public funds had been registered. Financial statements produced by the teacher-bursars were ineffective hence left no trail; no one could establish what was happening to the revenue collected. Inability of these statements to give a true and fair view of financial position of the schools necessitated the creeping in of funds misappropriation and misuse. Financial misappropriation and misuse has the potential of distorting both the quality and availability of education services.
- A bigger percentage of head teachers stressed that teachers should be appointed based on “ability” since “trustworthiness” might be misconstrued to mean “friends” to some head teachers. Even management vehemently agreed the urgency to revisit this criterion otherwise head teachers had advertently perverted from picking the right-minded teachers as per policy direction to settling for teachers who can be towed left, right and centre without protesting (who will do exactly what the head teacher demands him or her to).
- Teacher-bursars should be trained in financial management. Lack of training adversely affects effective management of public funds in schools. In the long run, the trainings help to seal loopholes that can lead to pillage of public funds. Financial statements written from a technical point of view have more meaning and effect hence more reliable. These statements have more weight to speak for themselves; stakeholders in this case can easily be able to follow every detail of what happened to the public funds.

6. 3 Contributions of Study to Society

This study has generated knowledge and ideas on how teacher-bursars in South West Education Division are managing the school funds. These bits and pieces of knowledge established in this study have sculptured a picture whereby the society at large needs not to ignore if effective management of school funds is to be prioritized.

6. 3. 1 Criterion on Appointing Teachers as Bursars

Financial management as presented in this study embodies multifaceted disciplines that could hardly be acquired by rote learning. It requires technical and professional ability and astuteness for one to successfully excel and perform. This fact has been repeatedly expressed in various sources quoted in this study. Moreover the results of the study has also projected the same hence the burning urgency for those tasked with accounting job to always aspire to maintain the internationally agreed standards on financial prudence and management.

However, it is worth noting that appointing teachers without initial training and worse still basing on trustworthiness is mockery to this cause – of ensuring effective utilization of finances in public schools. Worthwhile information has been exposed on how the appointed teachers basing on this criterion have performed. In the same manner, stakeholders have expressed their delight and contentment with the way teacher-bursars appointed on the basis of their technical ability are executing their work and have hence vouched the suggestion of appointment of these teachers to be bursars. Therefore, one of the principle messages coming out clear in this study is that there should be a paradigm shift. Office of bursar in public institutions should not be demeaned but valued by being staffed with a technically and skilled officer (in this case a science teacher) who can seamlessly execute such tasks and obligations.

6. 3. 2 Proficiency in Financial Management

This study has developed a framework that aims at demonstrating how schools can manage the funds effectively. This tool constructs our shared view that financial management in public schools borders on accounting proficiency. The accounting proficiency in this particular case is as a combined result of knowledge in mathematical operations and exposure to financial literacy trainings. However, this proficiency in accounting must be coupled with provision of financial and material resources in order for an officer transacting as a bursar to access up-to-date GAAP information.

With these elements or inputs we are extremely optimistic that the officer will, without fail, apply the financial laws, provisions and regulations that govern the management of public funds. In computer world, wrongly keyed inputs will drastically lead to catastrophic and

erroneous outcomes (*garbage in garbage out*). So too with financial management; unpolished and inappropriate inputs keyed into a perfect system of laws, provisions and regulations governing management of finances will definitely result into poor documentation and reporting of financial transactions, reduced provision of teaching and learning materials and reduced prudent and fiscal discipline. Therefore, in fiscal matters, this framework remains a core contributor to the body of knowledge and practice.

6. 3. 3 In-service Training of Teacher-bursars on Financial Management

In-service training of teacher-bursars is integral in pursuance of effective management of public funds. Much as the government might not be ready to recruit qualified bursars or accountants however the training of teacher-bursars who have been found incompetent in this regard is a viable immediate solution to the incompetency. Different stakeholders altogether had opted for and reinforced this alternative approach in ensuring effective utilization of school funds. Therefore, it was our considered view in this study that in-service training of teacher-bursars on financial management would eventually help to scale down the existing gaps in the management of school funds by teacher-bursars against the generally accepted accounting practices.

6. 4 Recommendations

This study has come up with the following recommendations the Government of Malawi and other key stakeholders should consider if effective management of finances in public schools is to be optimized:

- a) Teachers should be appointed as bursars based on their ability to execute such obligations. There should be a departure from the current practice of appointing teachers as bursars based on trustworthiness to the appointment of mathematics teachers as bursars. Mathematic teachers had shown to be more adaptive to strenuous accounting practices.

- b) The line ministry should train teacher-bursars. Trainings are hence very beneficial to teachers who are serving as bursars since they will unlock technical accounting practices – which have been demonstrated to be more alien to them – for their effective and efficient utilization; and most importantly, will usher in the much needed confidence and diligence in the process of executing their delegated work. However, the trainings in financial management should be modulated so as not to be in conflict with human resource principles. Otherwise, the trainings may be deemed to be a catalyst for career change – from seeing himself or herself as a professionally trained teacher to qualifying himself or herself as an accomplished accountant; and might eventually trigger him or her to start agitating for a transfer to another ministry (in this case, ministry of finance).
- c) Universities and teacher training colleges should introduce a course in basic financial management in their curricula when training teachers who shall serve the secondary schools in different capacities after their graduation. This initiative shall prepare them fully when time comes to serve the public as secondary school bursars and head teachers.

6. 4 Suggested Areas for Further Research

The following are suggested areas for further research.

- This study was carried out in South West Education Division. However, a similar study should be carried out on a larger scale, preferably in all divisions in Malawi in order to provide more information on effectiveness of teacher-bursars on management of public funds.
- A study should be carried out to establish a causal relationship between proficiency of teacher-bursars in management of funds and availability of fraud in public schools.

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APPENDICES

Appendix I: Questionnaire for Teacher-bursars

I am a Master of Education student at Mzuzu University. I am conducting an academic research on topic, **An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division** in partial fulfillment for award of Master of Education Degree in Leadership and Management. As such this research paper is mainly meant for academic purposes. All data collected will be strictly used for the purposes of this study and will be treated with strict confidentiality. Therefore, do not endorse your name or school name on this questionnaire.

Please indicate your responses as correctly and honestly as possible by putting a tick (√) on one of the options.

Part A: Demographic Characteristics

1. What is your gender?

Male Female

2. Are you a teacher-bursar?

Yes No

3. For how long have you served as a teacher-bursar?

1 to 10 years 11 to 20 years 21 to 30 years

31 years & above

4. Have you ever been trained on how to carry out duties of a bursar?

Yes No

Part B: Knowledge and Competence

5. Do you use the following books of accounts and other accounting practices?

	Never	Rarely	Sometimes	Very often
Reconciling cash and bank accounts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accounting for money received from fees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

and other sources

Payment of creditors and other payables

Documentation and reporting of financial transactions

Making entries for purchase or disposal of fixed assets

6. How often do you produce the following financial statements?

	Not at all	Monthly	Quarterly	Half yearly	Yearly
Income Statements	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Balance Sheets	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Statement of Cash flows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

7. If you are to assess yourself, how can you rate your abilities in funds accounting?

	Not at all	Very Poor	Poor	Moderate	Very Good	Excellent
Segregation of accounts into specific vote heads	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Allocation of funds to specific vote heads	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Accounting of funds allocated to specific vote heads	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

“Thank You for Taking Part in this Research.”

Appendix II: Questionnaire for Head Teachers

I am a Master of Education student at Mzuzu University. I am conducting an academic research on topic, **An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division** in partial fulfillment for award of Master of Education Degree in Leadership and Management. As such this research paper is mainly meant for academic purposes. All data collected will be strictly used for the purposes of this study and will be treated with strict confidentiality. Therefore, do not endorse your name or school name on this questionnaire.

Please indicate your responses as correctly and honestly as possible by putting a tick (√) on one of the options.

Part A: Demographic Characteristics

1. What is your gender?

Male Female

2. For how long have you served as head teacher?

For 10 years & below Between 11 & 20 years
Between 21 & 30 years Between 31 & 40 years
Above 40 years

Part B: Rationale of Appointment of Teachers

3. At this school, do you have a teacher-bursar?

Yes No Not Sure

4. If is a yes in Question 3, what criteria do you employ to appoint him or her?

Based on trustworthiness Based on his or her knowledge in mathematics
Based on his or her experience in teaching profession Based on his or her qualifications
Not Applicable for Qualified Bursar

Part C: Knowledge and Competence

5. How can you rate your level of satisfaction in bursar's use of internal controls?

	Not satisfied	less satisfied	moderately satisfied	satisfied	highly satisfied
Recording cash receipts and payments.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Segregation of accounts into specific vote heads.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Allocation of funds into Specific vote heads.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Adherence to budget estimates.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Accounting of funds allocated to specific vote heads.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Part D: Implications of appointment on financial management

6. What levels of challenges do you face due to appointment of teacher as a bursar on adherence to financial management principles? Rate by ticking (✓) one item on a five point scale.

Key

1 = most serious challenges 2 = serious challenges 3 = moderately serious challenges
 4 = least serious challenges 5 = not serious challenges

	1	2	3	4	5
Competence to prepare school budgets as per guidelines.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Recording of financial transactions in relevant books of accounts.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Competence to ensure internal controls in execution of financial transactions.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

7. To what extent do you agree with the following statements on effectiveness of financial statements produced by teacher-bursars? Rate by ticking (✓) one item on a five point scale.

Key

1 = strongly agree 2 = agree 3 = disagree
 4 = strongly disagree 5 = undecided

	1	2	3	4	5
Financial statements do not give a fair and true view of financial position of the school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial statements are not reliable enough to draw decisions from them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. What are implications of appointing teachers as bursars on management of funds? Rate by ticking (✓) one item on a five point scale.

Key

1 = strongly agree 2 = agree 3 = strongly disagree
 4 = disagree 5 = undecided

	1	2	3	4	5
Misappropriation of funds to relevant vote heads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Failure to account for funds allocated to specific vote heads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cases of fraud are rampant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inconsistencies and discrepancies in recording of financial transactions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. To what extent do you agree with the following statements? Rate by ticking (√) one item on a five point scale.

Key

1 = strongly agree 2 = agree 3 = strongly disagree
4 = disagree 5 = undecided

1 2 3 4 5

Teacher-bursar's competence in financial management is influenced by training in financial accounting.

Teacher-bursar's appointment should not be based on trustworthiness but ability to carry out such duties.

“Thank you for sparing your precious time to participate in this study.”

Appendix III: Interview Guide for Internal Auditor

I am a Master of Education student at Mzuzu University. I am conducting an academic research on topic, **An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division** in partial fulfillment for award of Master of Education Degree in Leadership and Management. As such this research paper is mainly meant for academic purposes.

All data collected will be strictly used for the purposes of this study and will be treated with strict confidentiality. You have liberty to withdraw your interest to participate in this study at any point in the course of the interview. However, your willingness to partake in this study will be highly appreciated. Your privacy and anonymity shall be guaranteed.

1. For how long have you served in this capacity in South West Education Division?
2. I understand over eighty percent of schools in this division have teacher-bursars. Do you see this ballooning number of teacher bursars affect implementation of GAAP?
3. According to collected data from teacher-bursars, three-quarters of them do indicate that they have challenges in executing their job. Have you met this gap in your audit reports?
4. In what specific areas do the challenges exist?
5. About eighty-eight percent of school head teachers agreed that there are inconsistencies and discrepancies in financial documentation and reporting. Do you agree with these revelations?
6. In the schools you have visited and identified these gaps, do you make follow-ups to check the progress made?
7. In the case of noncompliance to your advice, what measures do you put in place to ensure efficient and effective use of financial resources?
8. In cases of misappropriation of funds and fraud, how do you handle such cases?
9. Fifty-five percent of head teachers have confessed that the financial statement produced by the teacher-bursars are not effective to give a true and fair view of financial position of the school and are not reliable enough to draw decisions from them. Do you share the same view? Is this the true picture of situation in this division?

10. If you are to make recommendations to relevant authorities on issues to do with management of finances by teacher-bursars in schools, what sort of recommendations or advice can you give?

“Thank you for sparing your precious time to participate in this study.”

Appendix IV: Interview Guide for Divisional Planner

I am a Master of Education student at Mzuzu University. I am conducting an academic research on topic, **An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division** in partial fulfillment for award of Master of Education Degree in Leadership and Management. As such this research paper is mainly meant for academic purposes.

All data collected will be strictly used for the purposes of this study and will be treated with strict confidentiality. You have liberty to withdraw your interest to participate in this study at any point in the course of the interview. However, your willingness to partake in this study will be highly appreciated. Your privacy and anonymity shall be guaranteed.

1. For how long have you served in this capacity in South West Education Division?
2. I understand schools in this division have teacher-bursars. So how has been your experience working with teacher-bursars?
3. About 50 percent of school head teachers have pointed out that the teacher-bursars have serious challenges in budget preparation. However, during budget meetings, your office is tasked with the responsibility of communicating to teacher-bursars as well as head teachers of what is required of them in terms of the tools and items to be incorporated or embedded in the budgets. Do the submitted budgets of these schools reflect these grey areas?
4. If the submitted budgets fall short of these parameters, what could be the root cause?
5. A study done by Ng'ambi (2011) revealed that figures in budget documents from the schools presented to Ministry of Education through respective divisions do not tally with those from the Ministry of Finance. He cited capacity of officers formulating the budgets as one of the reasons. Do you agree with his findings? Or what can you comment on his analysis?
6. One of the critical areas in implementation of budget is adhering to budget estimates in the utilization of funds. Have you recorded cases of schools not even following their planned activities in the implementation of their budgets during the review meetings?

7. If these cases are rampant, what are the possible causes? How do you assist these schools?
8. From your experience and understanding, what can be lasting solutions to issues of incompetence on the part of teacher-bursars?

“Thank you for sparing your precious time to participate in this study.”

Appendix V: Interview Guide for Human Resource Officer

I am a Master of Education student at Mzuzu University. I am conducting an academic research on topic, **An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division** in partial fulfillment for award of Master of Education Degree in Leadership and Management. As such this research paper is mainly meant for academic purposes.

All data collected will be strictly used for the purposes of this study and will be treated with strict confidentiality. You have liberty to withdraw your interest to participate in this study at any point in the course of the interview. However, your willingness to partake in this study will be highly appreciated. Your privacy and anonymity shall be guaranteed.

1. In this division, do secondary schools have qualified bursars?
2. How many qualified bursars do you have?
3. In the absence of qualified bursars, head teachers are advised to appoint a trustworthy teacher. This is from *Secondary School Management Handbook: A Practical Guide for Secondary Schools in Malawi*. Is it the right way to go?
4. Accounting tasks require some knowledge in mathematical operations and some claim that this field is science biased. Do you see that it is a big ask for somebody who is not good at figures to carry out these tasks?
5. More than half of head teachers contacted revealed that they are not satisfied with how the teacher-bursars are performing their tasks. What is your take on this revelation?
6. More than sixty percent of teachers-bursars have indicated that they have never attended training on how to execute their new assigned roles. Do you see this as a big challenge to them and how are you addressing this gap?
7. According to data I have from the schools I have visited, it is showing that about 60 percent of head teachers are pointing out that teacher-bursars do misappropriate funds and even fail to account for the funds in their possession. Do you have these reports of fraud, misappropriation of funds and other related cases from these teachers who were appointed to be bursars on a trustworthy ticket?
8. If is yes in Question 6, can we say this criterion is working in bringing sanity to management of finances in schools?

9. So in this case, should we still encourage head teachers to still look for a trustworthy teacher to be a bursar?
10. Suppose you are in a position to make recommendations to relevant authorities on issues to do with criteria to be employed in the appointment of teachers to be a bursar. What kind of recommendations or advice can you give?

“Thank you for sparing your precious time to participate in this study.”

Appendix VI: Information Sheet for Head Teachers

Research study on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.*

I, *Victor Pangani Phiri*, am conducting a research for my *Masters of Education Degree (Leadership and Management)* at *Mzuzu University*. I am carrying out a study that investigates *the effectiveness of teacher-bursars in the course of carrying out their duties*. I would like to conduct this research among head teachers, teacher-bursars from public secondary schools in the South West Education Division. I would like to find out how teacher-bursars execute their assigned task, what implications their level of competence have on adherence to financial management.

My research will benefit your school in that the responses from the teacher-bursars will contribute to an understanding of their effectiveness in management of finances so that appropriate interventions can be looked into by various stakeholders. Furthermore, the findings will contribute knowledge to the research in financial management in public secondary schools in Malawi.


If you allow your school to take part in my study, I would like to make it clear that your participation is entirely voluntary, no negative consequences will result from your participation, and all information will be treated with confidentiality. If you do accept to participate, please remember that the teacher-bursars may decline to answer any question, and you may withdraw from the study at any time. In order to protect confidentiality, all names I use will be fictitious.

I will provide you with a summary of my research results on completion if you would like me to.

Thank you.

Name: *Victor Pangani Phiri* (researcher) Cell No. 0998 246 231 / 0884 595 326

Email: vpangani6@gmail.com

Signature: 

Mzuzu University

Appendix VII: Information Sheet for Divisional Manager

Research study on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.*

I, *Victor Pangani Phiri*, am conducting a research for my *Masters of Education Degree (Leadership and Management)* at *Mzuzu University*. I am carrying out a study that investigates *the effectiveness of teacher-bursars in the course of carrying out their duties*. I would like to conduct this research among internal auditor, divisional planner, human resource officer from divisional office and head teachers and teacher-bursars from public secondary schools in the South West Education Division. I would like to find out the rationale of appointing teachers as bursars, how teacher-bursars execute their assigned task, what implications their level of competence have on adherence to financial management.

My research will benefit your division in that the responses from these officers will contribute to an understanding of teacher-bursars' effectiveness in management of finances so that appropriate interventions can be looked into by various stakeholders. Furthermore, the findings will contribute knowledge to the research in financial management in public secondary schools in Malawi.


If you allow your division to take part in my study, I would like to make it clear that participation of the officers is entirely voluntary, no negative consequences will result from the participation, and all information will be treated with confidentiality. If you do accept to participate, please remember that the officers (both at divisional and school levels) may decline to answer any question, and they may withdraw from the study at any time. In order to protect confidentiality, all names I use will be fictitious.

I will provide you with a summary of my research results on completion if you would like me to.

Thank you.

Name: *Victor Pangani Phiri* (researcher) Cell No. 0998 246 231 / 0884 595 326

Email: vpangani6@gmail.com

Signature: 

Mzuzu University

Appendix VIII: Informed Consent Form for Head Teachers

An Assessment of Teacher-bursars' effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.

I, _____, consent to participate in this study conducted by *Victor Pangani Phiri* on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division*.

I realise that no negative consequences will result from my participation in this study, and that the study is being conducted for purposes of improving the effectiveness of teacher-bursars in the way they manage finances in schools. I give permission for the material to be used for research only.

Having read and understood terms and conditions for my involving in this study, I duly accept to participate voluntarily and understand that I may withdraw from the study at any time.

Name: _____

Signature: _____

Date: _____

Appendix IX: Informed Consent Form for Teacher-Bursars

An Assessment of Teacher-bursars' effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.

I, _____, consent to participate in this study conducted by *Victor Pangani Phiri* on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division*.

I realise that no negative consequences will result from my participation in this study, and that the study is being conducted for purposes of improving the effectiveness of teacher-bursars in the way they manage finances in schools. I give permission for the material to be used for research only.

Having read and understood terms and conditions for my involving in this research study, I duly accept to participate voluntarily and understand that I may withdraw from the study at any time.

Name: _____

Signature: _____

Date: _____

Appendix X: Informed Consent Form for Internal Auditor

An Assessment of Teacher-bursars' effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.

I, _____, consent to participate in this study conducted by *Victor Pangani Phiri* on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division*.

I realise that no negative consequences will result from my participation in this study, and that the study is being conducted for purposes of improving the effectiveness of teacher-bursars in the way they manage finances in schools. I give permission for the material to be used for research only.

Interviews:

I further consent to being interviewed as part of the study. I also understand that I have the right to review the notes or audios made of our conversations before these are used for analysis if I so choose. I can delete or amend any material or retract or revise any of my remarks. Everything I say will be kept confidential by the interviewer. I will only be identified by a pseudonym in the research report. In addition, any persons I refer to in the interview and the name of the school (s) will be kept confidential.

Having read and understood terms and conditions for my involving in this study, I duly accept to participate voluntarily and understand that I may withdraw from the study at any time.

Name: _____

Signature: _____

Date: _____

Appendix XI: Informed Consent Form for Divisional Planner

An Assessment of Teacher-bursars' effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.

I, _____, consent to participate in this study conducted by *Victor Pangani Phiri* on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division*.

I realise that no negative consequences will result from my participation in this study, and that the study is being conducted for purposes of improving the effectiveness of teacher-bursars in the way they manage finances in schools. I give permission for the material to be used for research only.

Interviews:

I further consent to being interviewed as part of the study. I also understand that I have the right to review the notes or audios made of our conversations before these are used for analysis if I so choose. I can delete or amend any material or retract or revise any of my remarks. Everything I say will be kept confidential by the interviewer. I will only be identified by a pseudonym in the research report. In addition, any persons I refer to in the interview and the name of the school (s) will be kept confidential.

Having read and understood terms and conditions for my involving in this study, I duly accept to participate voluntarily and understand that I may withdraw from the study at any time.

Name: _____

Signature: _____

Date: _____

Appendix XII: Informed Consent Form for Human Resource Officer

An Assessment of Teacher-bursars' effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division.

I, _____, consent to participate in this study conducted by *Victor Pangani Phiri* on *An Assessment of Teacher-bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division*.

I realise that no negative consequences will result from my participation in this study, and that the study is being conducted for purposes of improving the effectiveness of teacher-bursars in the way they manage finances in schools. I give permission for the material to be used for research only.

Interviews:

I further consent to being interviewed as part of the study. I also understand that I have the right to review the notes or audios made of our conversations before these are used for analysis if I so choose. I can delete or amend any material or retract or revise any of my remarks. Everything I say will be kept confidential by the interviewer. I will only be identified by a pseudonym in the research report. In addition, any persons I refer to in the interview and the name of the school (s) will be kept confidential.

Having read and understood terms and conditions for my involving in this study, I duly accept to participate voluntarily and understand that I may withdraw from the study at any time.

Name: _____

Signature: _____

Date: _____

Appendix XIII: Access and Acceptance Request

Mzuzu University

Private Bag 201,

Luwingu, Mzuzu.

Tel. 0884 595 326 / 0998 246 231

Email: vpangani6@gmail.com

The Education Division Manager

South West Education Division

Private Bag 386

Chichiri, Blantyre 3.

Dear Sir/Madam,

REQUEST TO CARRYOUT A RESEARCH IN SELECTED SECONDARY SCHOOLS IN SOUTH WEST EDUCATION DIVISION

I am a post graduate student at Mzuzu University pursuing a Master of Education degree programme in Leadership and Management. I am carrying out a study on **Assessment of Teacher-Bursars' Effectiveness in Management of Finances in Public Secondary Schools: A Case of South West Education Division**, in partial fulfillment of the requirements of the award of the Master's Degree. I am therefore writing to request for permission to carry out this study in some of the schools within your division.

Attached is an introduction letter from Mzuzu University

Yours faithfully,



Victor Pangani Phiri

Appendix XIV: Letter of Introduction from Mzuzu University



MZUZU UNIVERSITY

OFFICE OF THE DEAN
FACULTY OF EDUCATION

Private Bag 201
Luwingu
Mzuzu 2
MALAWI
Tel.: (265) 01 320 722/575
Fax: (265) 01 320 505

Ref.: MU/1/D3.0

11th April 2019

TO WHOM IT MAY CONCERN

Dear Sir/Madam

PERMISSION TO COLLECT RESEARCH DATA

Victor Pangani Phiri is a registered Master of Education (Leadership and Management) Program student at Mzuzu University. He is supposed to collect research data for a study titled *An assessment of teacher bursars' effectiveness in management of finances in public secondary schools: A South West Education Division perspective*. The Faculty of Education at Mzuzu university has approved and cleared this research proposal.

Kindly assist him accordingly.

Yours faithfully,

Associate Professor Victor Mgombezulu
Dean, Faculty of Education.

Appendix XV: Authority to Conduct Research Study

All correspondences should be addressed to:
The Education Division Manager



In reply please quote ref no.SWED/1/1

SOUTH WEST EDUCATION DIVISION
PRIVATE BAG 386
CHICHIRI
BLANTYRE 3
MALAWI

6TH May 2019

TO WHOM IT MAY CONCERN

AUTHORITY TO CONDUCT RESEARCH

I write to kindly request your office to allow VICTOR PANGANI PHIRI to undertake research activities at your institution.

He is a postgraduate student at Mzuzu University pursuing a Master of Education in Leadership and Management and is conducting a research on **Assessment of Teacher Bursars' Effectiveness in Management of Finances in Public Secondary Schools: A South West Education Division Perspective.**

I would be most grateful if he is given all the necessary support and guidance so that his research activities are carried out successfully.

I look forward to your usual support and hoping at the same time that you will accord this request all the attention and urgency that it deserves.

A handwritten signature in black ink, appearing to be 'C. Ziwa'.

CHRISTOPHER ZIWA - PEMA

FOR: EDUCATION DIVISION MANAGER (SWED)

Appendix XVI: Computation of Covariance for Head teacher’s Questionnaire

We used SPSS version 20 to generate Variance and Covariance¹ for Head teacher’s questionnaire. The SPSS dataset had 20 test items for this questionnaire. These items were referred to as *q1, q2, q3, …, q20*. Therefore, to obtain variance and covariance, we opened SPSS which contained dataset. Thereafter, we went to *Analyze – Correlate – Bivariate*. Then we shifted the twenty items to the *Variables box* and click *Options*. Under *Statistics*, we checked *Cross-product deviations and covariances*. Clicked *Continue* and *Ok* to obtain output. However, we filtered out other “unnecessary” parameters to remain “only” with the items and their corresponding covariances. The condensed version of the output (i.e. the filtered output) is hence shown below:

	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14	q15	q16	q17	q18	q19	q20
q1 Covariance	.202	.009	-.001	.033	-.016	-.087	-.091	-.120	-.053	-.094	-.112	-.091	-.064	-.083	-.114	-.095	-.071	-.054	.001	-.094
q2 Covariance	.009	.642	-.009	.081	-.098	-.010	-.063	.117	-.068	.054	-.115	.015	-.148	-.187	-.124	-.156	.015	-.059	-.022	.056
q3 Covariance	-.001	-.009	.055	-.067	.036	.078	.047	.047	.082	.035	.073	.051	.079	.092	.026	.006	.012	-.010	-.016	-.014
q4 Covariance	.033	.081	-.067	.420	.083	.032	.030	.153	-.007	.125	.117	.136	.057	.069	.035	.031	.097	.152	-.033	-.043
q5 Covariance	-.016	-.098	.036	.083	.470	.353	.315	.293	.348	.254	.378	.315	.203	.253	.237	.188	.075	.157	.045	.108
q6 Covariance	-.087	-.010	.078	.032	.353	.926	.784	.662	.657	.505	.811	.681	.413	.329	.359	.421	.191	.289	.007	.321
q7 Covariance	-.091	-.063	.047	.030	.315	.784	.774	.604	.549	.466	.642	.558	.414	.345	.336	.356	.175	.235	.058	.299
q8 Covariance	-.120	.117	.047	.153	.293	.662	.604	1.219	.486	.529	.714	.678	.231	.364	.172	.414	.399	.368	.023	.169
q9 Covariance	-.053	-.068	.082	-.007	.348	.657	.549	.486	.760	.329	.659	.529	.325	.379	.227	.259	.073	.191	.081	.208
q10 Covariance	-.094	.054	.035	.125	.254	.505	.466	.529	.329	.907	.723	.604	.190	.180	.273	.344	.118	.338	-.007	.321
q11 Covariance	-.112	-.115	.073	.117	.378	.811	.642	.714	.659	.723	1.312	.924	.368	.258	.444	.578	.301	.451	.011	.290
q12 Covariance	-.091	.015	.051	.136	.315	.681	.558	.678	.529	.604	.924	1.091	.313	.322	.563	.615	.292	.436	.080	.326
q13 Covariance	-.064	-.148	.079	.057	.203	.413	.414	.231	.325	.190	.368	.313	.963	.582	.300	.137	.107	.147	.075	-.045
q14 Covariance	-.083	-.187	.092	.069	.253	.329	.345	.364	.379	.180	.258	.322	.582	1.127	.174	.338	.283	.181	.068	-.008
q15 Covariance	-.114	-.124	.026	.035	.237	.359	.336	.172	.227	.273	.444	.563	.300	.174	1.279	.614	.475	.294	.113	.306
q16 Covariance	-.095	-.156	.006	.031	.188	.421	.356	.414	.259	.344	.578	.615	.137	.338	.614	1.330	.556	.574	.043	.510
q17 Covariance	-.071	.015	.012	.097	.075	.191	.175	.399	.073	.118	.301	.292	.107	.283	.475	.556	1.189	.412	.021	.169
q18 Covariance	-.054	-.059	-.010	.152	.157	.289	.235	.368	.191	.338	.451	.436	.147	.181	.294	.574	.412	.696	-.044	.255
q19 Covariance	.001	-.022	-.016	-.033	.045	.007	.058	.023	.081	-.007	.011	.080	.075	.068	.113	.043	.021	-.044	.430	.063
q20 Covariance	-.094	.056	-.014	-.043	.108	.321	.299	.169	.208	.321	.290	.326	-.045	-.008	.306	.510	.169	.255	.063	.754

¹ The method used in this study to arrive at the covariance was sourced from University of California at Los Angeles (UCLA) (2016). However, we paraphrased and edited some areas in order to fit the design of this study.

In the table, the diagonals (in bold and highlighted) are variances (v) and off-diagonals are the covariances(c). Thus, average variance (\bar{v}) is obtained by finding the mean of the variance:

$$\bar{v} = \frac{\Sigma v}{\Sigma f} = \frac{16.546}{20} = 0.8273$$

For average inter-item covariance (\bar{c}), we only needed to consider the covariance on the lower triangle because this is a symmetric matrix. Therefore, the average inter-item covariance, (\bar{c}), becomes:

$$\bar{c} = \frac{\Sigma c}{\Sigma f} = \frac{36.786}{190} = 0.193610526$$

Thus, we have our N as 20, average variance (\bar{v}) and average inter-item covariance (\bar{c}) as 0.8273 and 0.193610526 respectively.

Appendix XVII: Computation of Covariance for Teacher-bursar's Questionnaire

The same method used in *Appendix XVI* was employed in this questionnaire to come up with the covariance. However, the items in this instruments were 15 and referred to as $q1, q2, q3, \dots, q15$. After applying the stated method, the condensed version of the output for this questionnaire is:

	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12	q13	q14	q15
q1 Covariance	.205	.029	.055	.120	.063	.074	-.017	.044	.072	.015	.036	.050	.093	.100	.091
q2 Covariance	.029	.119	.349	.307	.050	.012	.031	.058	.092	.004	.041	.020	.056	.100	.103
q3 Covariance	.055	.349	1.282	.965	.151	.024	.133	.123	.281	.021	.137	.084	.151	.257	.287
q4 Covariance	.120	.307	.965	1.124	.095	.028	.086	.075	.261	-.079	.062	-.041	.120	.214	.216
q5 Covariance	.063	.050	.151	.095	.781	.228	.215	.303	.432	.221	.320	.359	.291	.371	.345
q6 Covariance	.074	.012	.024	.028	.228	.388	.126	.222	.111	.184	.219	.208	.162	.243	.216
q7 Covariance	-.017	.031	.133	.086	.215	.126	.816	-.022	.260	.245	-.005	.235	.038	.171	.156
q8 Covariance	.044	.058	.123	.075	.303	.222	-.022	.733	.373	.187	.594	.493	.180	.286	.231
q9 Covariance	.072	.092	.281	.261	.432	.111	.260	.373	1.346	.235	.526	.366	.155	.329	.254
q10 Covariance	.015	.004	.021	-.079	.221	.184	.245	.187	.235	.662	.356	.320	.156	.200	.188
q11 Covariance	.036	.041	.137	.062	.320	.219	-.005	.594	.526	.356	1.455	.800	.241	.329	.221
q12 Covariance	.050	.020	.084	-.041	.359	.208	.235	.493	.366	.320	.800	1.634	.058	.286	.310
q13 Covariance	.093	.056	.151	.120	.291	.162	.038	.180	.155	.156	.241	.058	.541	.500	.478
q14 Covariance	.100	.100	.257	.214	.371	.243	.171	.286	.329	.200	.329	.286	.500	.800	.657
q15 Covariance	.091	.103	.287	.216	.345	.216	.156	.231	.254	.188	.221	.310	.478	.657	.714

Again, in the table, the diagonals (in bold and highlighted) are variances (v) and off-diagonals are the covariances (c). Thus, average variance (\bar{v}) is obtained by finding the mean of the variance:

$$\bar{v} = \frac{\Sigma v}{\Sigma f} = \frac{12.599}{15} = 0.839933333$$

For average inter-item covariance (\bar{c}), we only needed to consider the covariance on the lower triangle because this is a symmetric matrix. Therefore, the average inter-item covariance, (\bar{c}), becomes:

$$\bar{c} = \frac{\Sigma c}{\Sigma f} = \frac{20.862}{105} = 0.198686666$$

Thus, we have our N as 15, average variance (\bar{v}) and average inter-item covariance (\bar{c}) as 0.839933333 and 0.198686666 respectively.

Appendix XVIII: List of Secondary Schools in South West Education Division

The following data is list of Secondary Schools in South West Education Division as of May 2019². This data was used to come up with sample size of the study.

S/N	DIVISION	SCHOOL	DISTRICT	S/N	DIVISION	SCHOOL	DISTRICT
1	SWED	Christian Secondary School	Blantyre Rural	33	SWED	Bangwe Secondary School	Blantyre Urban
2	SWED	Lunzu Secondary School	Blantyre Rural	34	SWED	Blantyre Secondary School	Blantyre Urban
3	SWED	Namikazi Secondary School	Blantyre Rural	35	SWED	Chichiri Secondary School	Blantyre Urban
4	SWED	Lirangwe CDSS	Blantyre Rural	36	SWED	Ndirande Secondary School	Blantyre Urban
5	SWED	Ngumbe CDSS	Blantyre Rural	37	SWED	Chimwankhunda CDSS	Blantyre Urban
6	SWED	Mudiin CDSS	Blantyre Rural	38	SWED	Njamba Secondary School	Blantyre Urban
7	SWED	Dziwe CDSS	Blantyre Rural	39	SWED	South Lunzu CDSS	Blantyre Urban
8	SWED	Nankumba CDSS	Blantyre Rural	40	SWED	Nanjiri CDSS	Blantyre Urban
9	SWED	Chikuli CDSS	Blantyre Rural	41	SWED	Bangwe CDSS	Blantyre Urban
10	SWED	Chilangoma CDSS	Blantyre Rural	42	SWED	Chigumula CDSS	Blantyre Urban
11	SWED	Chinamvuu CDSS	Blantyre Rural	43	SWED	Chirimba CDSS	Blantyre Urban
12	SWED	Chiraweni CDSS	Blantyre Rural	44	SWED	Limbe CDSS	Blantyre Urban
13	SWED	Chivumbe CDSS	Blantyre Rural	45	SWED	Lumbira CDSS	Blantyre Urban
14	SWED	Khombwe CDSS	Blantyre Rural	46	SWED	Manja CDSS	Blantyre Urban
15	SWED	Madziabango CDSS	Blantyre Rural	47	SWED	Mulunguzi CDSS	Blantyre Urban
16	SWED	Maliya CDSS	Blantyre Rural	48	SWED	Mzamba CDSS	Blantyre Urban
17	SWED	Mapazi CDSS	Blantyre Rural	49	SWED	Naizi CDSS	Blantyre Urban
18	SWED	Matindi CDSS	Blantyre Rural	50	SWED	Namalimwe CDSS	Blantyre Urban
19	SWED	Mdeka CDSS	Blantyre Rural	51	SWED	Namame CDSS	Blantyre Urban
20	SWED	Mitsidi CDSS	Blantyre Rural	52	SWED	Namiwawa CDSS	Blantyre Urban
21	SWED	Mlomba CDSS	Blantyre Rural	53	SWED	Ndirande CDSS	Blantyre Urban
22	SWED	Mpapa CDSS	Blantyre Rural	54	SWED	Nyambadwe CDSS	Blantyre Urban
23	SWED	Mpemba CDSS	Blantyre Rural	55	SWED	St Kizito CDSS	Blantyre Urban
24	SWED	Mpumbe CDSS	Blantyre Rural	56	SWED	St Pius CDSS	Blantyre Urban
25	SWED	Namwanje CDSS	Blantyre Rural	57	SWED	Catholic Institute CDSS	Blantyre Urban
26	SWED	Nchokera CDSS	Blantyre Rural	58	SWED	Stellamaris	Blantyre Urban
27	SWED	Ngongomwa CDSS	Blantyre Rural	59	SWED	Zingwangwa Secondary School	Blantyre Urban
28	SWED	Nkula CDSS	Blantyre Rural				
29	SWED	Ntenjera CDSS	Blantyre Rural				
30	SWED	Joshua CDSS	Blantyre Rural				
31	SWED	Tsogolo CDSS	Blantyre Rural				
32	SWED	Soche Hill Secondary School	Blantyre Rural				

² This data was sourced from the division at the time of data collection. The data list continues up to the next page of this thesis.

POPULATION DATA OF SECONDARY SCHOOLS IN SWED

S/N	DIVISION	SCHOOL	DISTRICT	S/N	DIVISION	SCHOOL	DISTRICT
60	SWED	Chapananga Secondary	Chikwawa	91	SWED	Chiwale Secondary School	Neno
61	SWED	Chikwawa Secondary School	Chikwawa	92	SWED	Chifunga CDSS	Neno
62	SWED	Dzumila Secondary School	Chikwawa	93	SWED	Chikonde CDSS	Neno
63	SWED	Ngabu Secondary School	Chikwawa	94	SWED	Kambale CDSS	Neno
64	SWED	Changambika CDSS	Chikwawa	95	SWED	Lisungwi CDSS	Neno
65	SWED	Livunzu CDSS	Chikwawa	96	SWED	Matope CDSS	Neno
66	SWED	Makande CDSS	Chikwawa	97	SWED	Neno CDSS	Neno
67	SWED	Phwadzi CDSS	Chikwawa	98	SWED	Ligowe CDSS	Neno
68	SWED	Nkunaliza CDSS	Chikwawa	99	SWED	Chilaladzi CDSS	Neno
69	SWED	Bwabali CDSS	Chikwawa	100	SWED	Bangula Secondary School	Nsanje
70	SWED	Chifunda CDSS	Chikwawa	101	SWED	Nsanje Secondary School	Nsanje
71	SWED	Kakoma CDSS	Chikwawa	102	SWED	Nyachilenda Secondary School	Nsanje
72	SWED	Limphangwi CDSS	Chikwawa	103	SWED	Fatima CDSS	Nsanje
73	SWED	Mbiya CDSS	Chikwawa	104	SWED	Mpatsa CDSS	Nsanje
74	SWED	Mfera CDSS	Chikwawa	105	SWED	Nyamadzere CDSS	Nsanje
75	SWED	Milore CDSS	Chikwawa	106	SWED	Masenjere CDSS	Nsanje
76	SWED	Mitondo CDSS	Chikwawa	107	SWED	Chekerere CDSS	Nsanje
77	SWED	Mthumba CDSS	Chikwawa	108	SWED	Chididi CDSS	Nsanje
78	SWED	Nchalo CDSS	Chikwawa	109	SWED	Chigumukire CDSS	Nsanje
79	SWED	Phanda CDSS	Chikwawa	110	SWED	Kadabwako CDSS	Nsanje
80	SWED	St Michaels CDSS	Chikwawa	111	SWED	Kalambo CDSS	Nsanje
81	SWED	Nkhate CDSS	Chikwawa	112	SWED	Magoti CDSS	Nsanje
82	SWED	Nsenjere CDSS	Chikwawa	113	SWED	Makhanga CDSS	Nsanje
83	SWED	St Monica CDSS	Chikwawa	114	SWED	Mtowe CDSS	Nsanje
84	SWED	Jombo CDSS	Chikwawa	115	SWED	Nkhande CDSS	Nsanje
85	SWED	Mwanza Secondary School	Mwanza	116	SWED	Phokera CDSS	Nsanje
86	SWED	Mphande CDSS	Mwanza	117	SWED	Chigumukireni CDSS	Nsanje
87	SWED	Thambani CDSS	Mwanza	118	SWED	Lulwe cdss	Nsanje
88	SWED	Chidoole CDSS	Mwanza				
89	SWED	Thawale CDSS	Mwanza				
90	SWED	Futsa CDSS	Mwanza				