EFFECTIVENESS OF HUMAN RESOURCE MANAGEMENT PRACTICES ON THE RETENTION OF MATHEMATICS TEACHERS:
A CASE OF PUBLIC SECONDARY SCHOOLS IN ARUSHA CITY COUNCIL

By

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A Dissertation submitted in Partial Fulfilment of the Requirements for the Degree of Master of Science in Human Resource Management (MSc-HRM) of Mzumbe University.

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CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled ***Effectiveness of Human Resource Management practices on the retention of mathematics teachers: A case of public secondary schools in Arusha City council*** in partial/fulfillment of the requirements for award of the degree of Master of Science in Human Resource Management of Mzumbe University.

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DECLARATION AND COPYRIGHT

I, Aggrey Adelbert Mleli**,** declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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Date_____

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God Bless them all.

DEDICATION

To my father; Adelbert Mleli and my mother; Joyce Mndeme

ABREVIATIONS AND ACRONYMS

CIPD	**-**	Chartered Institute of Personnel and Development
EI	**-**	Education International
ER	-	Employee Retention
ESAMI	**-**	Eastern and Southern Africa Management Institute
HRM	-	Human Resource Management
ICTR	-	International Court of Tribunal for Rwanda
MoEVT	-	Ministry of Education and Vocational Training
MsM	-	Maastricht School of Management
SEDP	**-**	Secondary Education Development Programme
SN	**-**	Serial Number
SPSS	-	Statistical Package for Social Sciences
TPA	-	Teachers Performance Appraisal
Tshs	**-**	Tanzania Shillings
TSS	**-**	Tanzania Secondary Schools
TTU	-	Tanzania Teachers Union
UDSM	-	University of Dar es salaam
UNESCO	-	United Nations Educational, Scientific, and Cultural Organizations

ABSTRACT

Employee retention is one of the challenges facing many organizations today. For many organizations, strategic staffing has become a concern because the ability to hold on to highly talented employees can be critical to the future survival of the organization. This study assess the effectiveness of human resource management practices namely Employee empowerment, Training and development, Performance appraisal and compensation on the retention of public secondary schools mathematics teachers, taking Arusha city council as a case study.

The research aim was to study how Mathematics teachers regard the effectiveness of the mentioned HRM practices on their decision to remain or quit. Data were collected using questionnaires consisting of questions with 5-points Likert scales distributed to samples of 61 mathematics teachers in Arusha City Council. Analysis of data was done using SPSS Version 16.0 descriptive statistic software.

The study revealed that Human resource management practices namely compensation, empowerment, training and development and appraisal system in the education sector, as observed from Arusha City council were not effective to facilitate retention of mathematics teachers. It was further revealed that compensation plays a vital part on the decision of employee (mathematics teacher) to stay or quit. However, not all private schools are paying well compared to the public schools, other factors such as good working environments, leadership and more non financial benefits that are offered by private schools encourages mathematics teachers to run away from public to private schools and other institutions that needs them.

KEY TERMS;

Retention, Empowerment, Compensation, Training and Performance Appraisal

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CHAPTER ONE

INTRODUCTION AND PROBLEM SETTING

1.1 Background information

Employee Retention (ER) is a process in which employees are encouraged to remain with the organization for the maximum period of time or until the completion of the project. Employee retention programmes become effective when a systematic effort is made to create and foster an environment that encourages and supports employees to remain employed by maintaining strategies and practices in place that addresses their diverse needs (Sandhya and Kumar, 2011).

Retaining the desirable employees (mathematics teachers) is beneficial to an organization (school) in gaining competitive advantage that cannot be substituted by other competitors (Heathfield, 2005). Today retention of valuable employees is a global challenge. Managers and top level authorities are constantly met with the issue of retaining employees. There is a wealth of evidence that worldwide retention of skilled employees has been of serious concern to managers in the face of ever increasing high rate of employee turnover (Arthur, 1994). Throughout the world there is a projected shortage of 18 million teachers of all subjects over the next decade, most critically in Sub-Saharan Africa and the Arab States (United Nations, 2006). Similarly Tanzanian public secondary schools are facing great shortage of mathematics teachers despite the fact that every year the government employs them.

The working condition for all teachers in general is said to be poor. It is reported that teachers in Tanzania earn an average of around $120 a month, at the same time their wages are often late or not paid at all. In July 2012, Tanzania's teachers staged strikes demanding pay increases of more than 100%. Teachers also demanded a 55% raise in allowances for science and mathematics teachers, and 50% for other teachers. The strike was supported by around 200,000 teachers, representing 95.7% of the Tanzania Teachers Union (TTU) (Keyworth, 2012).

Available evidence as table 1.1 bellow illustrates, authorities concerned has not yet taken considerable measures to make sure that Mathematics teachers who are very scarce resources remain in their posts

Table 1.1: Numbers of Mathematics Teachers in Public Secondary schools in Arusha City Council: Brief comparison of the shortage with the related subjects.

SN	Name of School	Mathematics			Physics		Chemistry	
		Demands	Present	Deficit	Present	Demands	Present	Demands
1	Arusha Day	06	05	01	03	02	04	01
2	Arusha Sec.	18	07	11	04	02	03	03
3	Baraa	07	03	04	02	02	02	02
4	Elerai	06	05	01	04	01	06	00
5	Felix Mrema	06	02	04	01	02	01	02
6	Kaloleni	04	03	01	02	02	02	02
7	Kimaseki	06	04	02	02	03	03	02
8	Kinana	04	01	03	02	02	01	03
9	Korona	03	02	01	00	02	00	02
10	Lemara	09	03	06	03	01	02	01
11	Losirway	02	01	01	00	02	00	02
12	Moshono	04	02	02	01	02	02	04
13	Murieti	02	01	01	00	00	01	02
14	Naura	05	01	04	01	03	00	04
15	Ngarenaro	09	01	08	01	02	00	03
16	Njiro	04	03	01	01	01	01	01
17	Olasiti	01	00	01	00	01	01	01
18	Oloirieni	05	05	00	00	03	02	01
19	Sinoni	10	07	03	02	02	04	00
20	Sombetini	06	01	05	01	04	02	03
21	Sorenyi	05	02	03	00	02	01	01
22	Suye	03	02	01	01	01	01	01
23	Themi	06	01	05	00	04	04	01
	Total	131	61	70	31	46	43	42

Source: TSS Forms, Arusha City council 2012.

1.2 Statement of the Problem

The research was designed to assess the effectiveness of human resource management practices on the retention of mathematics teachers in the public secondary schools in Tanzania. The main question regarding the problem in this study was: What is the root cause of mathematics teachers turnover/shortage, and how can they be retained? Wepukhulu (2002) responds that attrition of mathematics

teachers is high because their academic qualification is needed in the private sector that offers higher remuneration packages. To solve this problem Ngala (2005) suggests that it is important to train more mathematics teachers and upgrade the existing ones. Stavrou (2005) on the other hand insists that an effective human resource management practices can be the main factor for the success of a firm. Beneli and Mukyaruzi (2005) add that in some countries hardship allowance is given to teachers who teach in those schools which are not attractive.

This study assesses the effectiveness of human resource management practices on the retention of mathematics Teachers in the Arusha City Council. The human resource practices studied here are Compensation, Training (particularly in service training), Empowerment and Performance Appraisal.

1.3 Research Objectives

1.3.1 General Objective

The main objective of this study was to asses the effectiveness of Human Resource Management practices on the retention of mathematics teachers in the public secondary schools in Tanzania.

1.3.2 Specific Objectives

(i). To explore the effectiveness of empowerment on the retention of mathematics teachers in public secondary schools in Arusha city council.

(ii). To determine the effectiveness of compensation on the retention of mathematics teachers in public secondary schools in Arusha city council.

(iii). To assess the effectiveness of training on the retention of mathematics teachers in Arusha city council's public secondary schools.

(iv). To identify the relationship between appraisal system and mathematics teachers retention in the public secondary schools in Tanzania.

1.4 Research Questions

1.4.1 Main Research Question

How do Human Resource Management practices affect retention of Mathematics teachers in public secondary schools in Tanzania?

1.4.2 Specific Research Questions

(i). What is the role of empowerment in the retention of mathematics teachers in public secondary schools in Arusha city council?

(ii). What is the significance of compensation on the retention of mathematics teachers in the public secondary schools in Tanzania?

(iii). How effective is training on the retention of mathematics teachers in Tanzania public secondary schools?

(iv). What is the relationship between the appraisal system and the retention of secondary school mathematics teachers in Arusha city council?

1.5 Significance of the Study

The main objective of this research was to provide better understanding of the effectiveness of Human resource management practices on the retention of mathematics teachers in the public education sector in Tanzania.

(i). It should provide useful information of relationship between compensation, appraisal system, empowerment and training on the retention of mathematics teachers.

(ii). This study will help readers to understand better and use the information as a guide to more education institutions in Tanzania regarding the effectiveness of human resource practices on the retention of mathematics teachers.

(iii). It should also provide a range of solutions towards employee retention in secondary schools; specifically mathematics teachers.

1.6 Scope of the Study

The study was conducted on 61 mathematics teachers in Arusha city council of whom 46 were current teachers and 15 former ones.

1.7 Limitations of the study

(i) Single source respondents

In this research, 61 respondents from Arusha City council were chosen to participate in the study. That was due to the limited number of mathematics teachers in Arusha public secondary schools. As a result the researcher had to do with only 46 current teachers and 15 former ones who left for other organisations particularly private schools.

(ii) Short time frame

A short time frame was another constraint that the researchers faced. To complete the research, the researchers had to gather information, collect supporting document, equip well with the knowledge on data analysis programs (SPSS) and undergo data analysis process to ensure the reliability of the results within that limited time.

(iii) Respondents' biasness

Some respondents deliberately refused to answer some questions or the entire questionnaires provided to them. That made the researcher use extra efforts to convince them, and extra costs were incurred.

(iv) Barrier from school management

In some schools, though teachers were available; the school management refused to allow researcher to meet them by arguing that they had no time. At another times, the number of respondents the researcher expected to meet at a particular school as directed by District Secondary Education Officer was not possible because it turned out that some of them had in fact left or gone to the colleges for studies.

(v) Financial shortages

Due to the shortage of financial resources, during data collection researcher depended on public transport and in most of the time walking on foot from one school to another, something that resulted in much time wastage

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter includes review of the literatures related to the study, the conceptual framework, theoretical framework and an analysis of various issues that appeared to be important in this research.

2.2 Theoretical Review

2.2.1 Human Capital Theories

The human capital theory as stated by Ehrenberg and Smith "conceptualized workers as embodying a set of skills which can be rented out to employers. The knowledge and skills that a worker has, which comes from education and training, including the training that experience brings, generate a certain stock of "productive capital". For the employees the expected return on human capital investments is a higher level of earnings, greater job satisfaction and security in employment. For the employers the return in investment in human capital is expected to be improvement in performance, productivity, flexibility and capacity to innovate that should result from enlarging the skill base and increasing levels of competence (Armstrong, 2006).

Mathematics teachers like any other employees as the theory states, expect higher levels of earning, greater job satisfaction and assurance of job security. Human Resource Management practices such as Compensation, Performance appraisal, Training and development and Empowerment are the key motivators that any employee expects in order to perform well. The absence of one or more of the above may lead to turnover or poor performance, low productivity and low level of competence.

Therefore at the end of this study the human capital theory will help researcher in the formulation of the conclusion concerning the effectiveness of Human Resource

Management practices on the retention of mathematics teachers in the public Education sector in Tanzania.

2.3 Review of Key Concepts

2.3.1 Employee Retention

Employee retention is defined as the policies and practices organisations use to prevent valuable employees from leaving their job. It involves taking measures to encourage employees to remain in the organization for the maximum period of time (Ahlrichs, 2000 and Chiboiwa et al, 2010); it is a voluntary move by an organisation to create an environment which engages employees for the long term (Chaminade, 2006).

Employee retention, according to Harvard Business Essentials (2000), is the converse of turnover—turnover being the sum of voluntary and involuntary separations between an employee and his or her company (Starosta, 2006). However, Waldman and Arora (2004) postulate that discussing employee retention within the context of employee turnover is insufficient; instead focus should be on the way in which employee retention promotes the preservation of a workforce that is able to meet the organization's needs.

Secondary school mathematics teachers have always been leaving public sector employment to the private sector for various reasons. In many countries around the world, including Tanzania, many ideas have been proposed by various lawmakers, administrators, and union officials regarding rewards and incentives to improve employees (mathematics teachers) retention. While the intentions of these officials are good, the ideas are generally based on guesswork or at best, what seems to be not working in other areas. Increasing mathematics teacher salaries is often regarded as a panacea, yet it is clear that good teachers enter the field for reasons other than money. The surest way to solve the retention issues is to go directly to the source to find out on an ongoing basis why the teachers leave, where they see the problems and where they see the successes. The information needs to be tracked consistently

and compared, school by school (Nobscot Corporation).

The Ministry of Education has made some efforts to solve the problem by establishing policy programs, but their implementations have not yet proved effective. The Secondary Education Development Program (SEDP II 2010/2015) among its five major focuses in secondary school development is to improvement the teaching force and teaching process. This key area intends to attract, train, and retain adequate numbers of high quality teachers through incentive systems and rationalisation of ratios between natural science and social sciences/arts subjects, diploma and degree holders (MoEVT, 2010).

2.3.2 Empowerment

Empowerment is delegating the power of decision and action to the employees and giving more responsibility and authority to complete their task (Yasar et al, 2010). Herzberg's explain that, by giving people the ability to do things we provide basis for motivation only by then giving them the opportunity to put their capabilities into practice can we truly motivate people to achieve (ABE 1976).

Although the definitions of empowerment have emerged from the corporate world, the concept of teacher empowerment parallels employee empowerment in a business. Bolin (1989) defined empowerment as investing teachers with the right to participate in the determination of school goals and policies and to exercise professional judgment about what and how to teach. Lucas et al (1991) defined teacher empowerment as a function of the readiness of building-level administrators to share their autonomy with those whose commitment is necessary to make the educational program function at the highest degree of efficiency.

Lee (1991) shared this outlook by defining teacher empowerment as the development of an environment in which the mathematics teachers act as professionals and are treated as professionals. It is further explained that empowerment means that school authorities provide mathematics teachers with the authority to make decisions that have, in traditional systems, been made for them, a time and a place to work and plan

together during the school day and a voice in efforts to deepen their knowledge and improve their teaching.

In a broader view, empowerment includes involvement of the employee (mathematics teacher) in goal-setting, decision-making and motivational techniques and enabling employees to work in a participative environment (Osborne, 2002). Undeniably, empowered employees are identified as powerful drive in organization's success (Kaye and Jordan, 2001). It is because they are more motivated and committed to organizational operation. According to Hummayoun and Muhammad (2010), employee (mathematics teacher) empowerment can create sense of belongingness and ownership towards the current organization. They tend to be more confident and perform well, something that indirectly increases service quality and customer satisfaction.

Erikson et al (2003) stated that empowerment occurs when organizational leaders engage staff in ways that promote personal and professional growth. Some studies have identified that job dissatisfaction (Moore, 2002); low level of empowerment and low levels of support of superiors may lead to turnover. Human resources policies must focus at gaining more self-governing to the mathematics teachers to avoid turnover and job burnout. The goal-setting process that involves employee can enhance employee empowerment as employee (mathematics teacher) consider himself more empowered knowing his or her job and hence job satisfaction (Stanfield et al, 2006).

Empowered employees tend to be more confident and try to give their best to employer because they are given more authority in decision-making process. Empowerment can create a feeling of obligation among mathematics teachers to stay in secondary schools. Hence, the teacher will tend to remain in the organization even when face pressure from others that intend to leave the organization.

In essence, the intention to remain or leave the organization among the mathematics teachers is based on the job satisfaction. (Hummayoun and Muhammad, 2010).

The individual with higher job satisfaction tends to be more committed and remain to the organization. Mathematics teachers in Tanzania public secondary schools must be empowered so that they can feel part of the organization, hence easy implementation of academic programs.

2.3.3 Compensation

Compensation has been defined in many terms by researchers. It includes something awarded to someone either in cash or non cash form as a compensation for injury, loss or suffering, money received by an employee from an employer as a salary or wages, or do/give something to somebody in return. Hong et al (2012) states that compensation is always viewed as tool for attracting and retaining desired employees.

In the view of Herzberg, people are less likely to be motivated by money than they are by challenge, personal development, good supervision, feedback and sense of achievement derived from the work itself (Tyson, 2006). Price (2004) adds that, the reward or compensation that employee(mathematics teacher) receive for their contribution to an organization includes monetary and non monetary components and does not only compensate for their efforts, but also has an impact on the recruitment and retention of talented people.

Focusing on the effects of compensation on teachers retention, UNESCO (2006) emphasises that compensation is critical but not the only factor in teacher motivation; it constitutes both a formal and a social recognition of their work. Mathematics teachers may be compensated through salaries, or other cash payments, food, training or special assistance such as shelter, transport or agricultural support. Therefore an established teacher compensation system will help to stabilize the education system by reducing teachers turnover. Apart from compensation, mathematics teachers retention may also be affected by other factors such as; success in the class room, that is profession reward of seeing students achieve; status in their communities from exercising a respected profession; appropriate working conditions, including issues

such as number of hours taught each week and the number of students in the classroom (UNESCO, 2006).

2.3.4 Training

According to Armstrong (2006), Training is the use of systematic and planned instruction activities to promote learning. It involves the use of formal process to impart knowledge and help people to acquire the skills necessary for them to perform their job satisfactorily. It consists of planned programs designed to improve performance at the individual, group and/or organizational level (Cascio, 2003)

Mathematics as a discipline has grown very fast in the last twenty-five years and has become an essential component of all sciences. The rapid use of mathematics at different levels of our development makes it all the more necessary to have a critical appraisal of mathematics education in our country. Training of Mathematics teachers is an essential component of any process of mathematics education that should not be under emphasised. It is therefore reasonable to say that training can play a role in improving retention of mathematics teachers; though it may not be sufficient if other systematic barriers such as low salary, poor working environment, work overload, empowerment, and job appraisals will not properly addressed (Chieza, 2009)

When the results of training reflected in improvements in relevant knowledge and the acquisition of relevant skills, employee (mathematics teacher) job performance should improve provided that the skills learned in training transfer to the job. Improvement in performance such as productivity, quality, and services are the training outcomes provided that the job is strategically aligned to the organization's needs (Lacey Halpern). According to UNESCO (2006), training and mentoring, particularly recognised and certificated in service training as well as the prospect of promotion and career advancement are among the factors that motivates teachers in their work.

2.3.5 Performance Appraisal

Performance appraisal is defined as a process of inspecting and evaluating an

individual's performance in his duty to facilitate the decision of career development of the individual. It evaluates the individual overall contribution to the organization through assessment of his internal characteristics, working performance and his capability to pursue higher positions in the organization (Gruman and Saks, 2011). In order to enhance organizations' ability to survive through turbulent environment, mostly top corporations take great concern on managing the performance measures of their employees.

Teachers Performance Appraisal (TPA) is said to be an integral part of a continuum of professional learning that supports effective teaching, learning, and assessment practices by building on and complementing previous learning as well as learning acquired throughout each individual's teaching career. The TPA system helps strengthen schools as learning communities where teachers have the chance to engage in professional exchanges and collaborative inquiries that foster continuous growth and development. An appraisal system in which both teachers and principals (heads of schools) are actively engaged provides a framework for assessing teachers' practices in a way that meets their professional learning needs (TPA; Technical manual, 2010).

It is important therefore that heads of schools in Tanzania secondary schools engage in active performance appraisal with the mathematics teachers so that they can determine their needs, the information that can be used as a basis for learning, promotions and provisions of other incentives that can motivate them to remain in their posts. Performance appraisal plays the role as medium of communication between management and employee.

However, if appraisal is simply applied as a tool of measurement and monitoring, problems would arise. Appraisal can be stressful to both evaluator and respondent (mathematics teacher) if both parties do not take concern of its importance or confusing message is produced from the appraisal. Similar to a negotiation, stress can affect an employee's job performance where he or she might be too concerned with the effect of the appraisal to career development or compensation (O'Connor et

al, 2010). According to Armstrong and Baron (1998), appraisals are generally disliked by employees and employers alike.

2.4 Empirical Review

Most researchers have attempted to answer the question of what determines people's intention to quit; unfortunately to date, there has been little consistency in findings. Researchers have raised several reasons on why people quit their current jobs. Firth (2007) states that the extent of the job stress, low commitment in the organization; and job dissatisfaction usually result in resignation of employees (Mathematics teachers).

Numerous studies show how low employees (mathematics teachers) involvement can relate to the intention of staying or leaving an organization (Arthur, 1994). Lack of opportunities to learn and self development in the workplace can be the key factor for mathematics teachers dissatisfaction which leads to turnover. Other studies also indicated that employee will retain in the organization if he or she has a good relationship with the people he or she is working around with (Clarke, 2001). Organizations are therefore suggested to provide team building opportunities, where interaction and discussion can be carried out not only within but outside their working hours (Johns et al, 2001).

A study by Harris and Jensz (2006) on preparations of Mathematics teachers in Australia reported that, fewer than half of the teachers surveyed were confident that they would be teaching mathematics in five years time. In addition to those considering retirement, teachers cited the stressful nature of the job and uncertain tenure as influences leading to their uncertainty. This highlights the value in providing a supportive and attractive school environment if the loss of large numbers of new mathematics teachers is to be avoided. Irrespective of their qualifications, teaching experience or pattern of teaching responsibilities, mathematics teachers encouraged the provision of ongoing professional development opportunities.
They valued professional development that was practical, relevant to the discipline, and that encouraged greater networking and sharing of ideas and resources.

A study conducted by the Education International (EI) in six Anglophone sub Saharan African countries including Tanzania revealed that the teachers' salaries were the lowest in Tanzania and relatively higher in the other countries. As a result, mathematics teachers were forced to moonlight and engage in other income-generating activities in order to meet their daily needs. Engaging in private teaching was cited as the most common means of supplementing the teachers' meager income by the respondents, followed by buying and selling goods (EI, 2007). This is what happening in Tanzania where mathematics teachers are shifting massively from public to private sector employment.

A study by Chieza (2009) on the role of motivation in reducing voluntary staff turnover at FBC Reinsurance in Tanzania suggested that staff (mathematics teachers) remain in the organization because the organization has very good training policy and others remain because there are no better alternative available. It is therefore reasonable to say that training can play a role in improving retention; however it may not be sufficient if other systematic barriers are not addressed. In Tanzania for example, many public schools mathematics teachers may have remained in their employment because there is no alternative available at the moment and those who run to the private employment they do so because there are good training policy there.

In the focus group discussions with former employees on the relationship between human resource practices and employee retention in public organizations (Alnaqbi, 2011) revealed that performance appraisal and benefits may affect employees (mathematics teachers) motivation. Sudin (2011) in his current study on how perceived fairness during appraisal process may influence employee satisfaction found out the evaluator problem during appraisal process as managers tend to be personally intentional in choosing his way of conducting appraisal.

However, performance appraisal has been criticized that it has shifted from measurement issue to rater cognition in which raters establish, encode, and retrieve judgments about performance to increase appraisal accuracy; at the same time,

evaluators focus on thriving good subordinate relationship, solid reputation as adjusted to company objectives. This may distort the appraisal system which eventually creating employee confusion and frustration (Spence and Keeping, 2011).

Curran (2012) conducted research on why employee (mathematics teachers) leave the institution and found that ineffective recruitment and selection processes, inadequate training and development, inadequate remuneration package, inefficient performance management, lack of career advancement, poor management, challenging considerations, lack of people centred approach to talent management, influence of the province of origin, and lack of appreciation and support were the contributing factors.

Following the findings of the study, the researcher recommended the following retention strategies: training and development that is specific to the needs of the employee, a recruitment and selection strategy, where the task of recruitment and selection is either done fairly or outsourced to eliminate corruption and to ensure job fit, is of utmost importance, a remuneration strategy that is benchmarked against current market, effective communication and on-going feedback to employees, and lastly it is important that managers assess the performance of employees and trust them with work that include more variety and is more challenging.

Chew (2004), further conducted research on the retention of core employees in Australia and found that, instead of job security as identified in literature, employees now placed greater emphasis on training and development, career advancement and growth opportunities, recognition of capabilities and acquisition of new skills and challenging work.

However, the study suggested that, the needs of employees differ with age where for younger employees, needs are focused on remuneration, training and development, career advancement and challenging job, growth opportunities and recognition of their capabilities and acquisition of new skills. For older employees, salary and career advancement are not so important.

Many other researches conducted in Tanzania concerning employee retention came with different findings; research by Gambura (2009) about the uptake of employee value proposition as a tool attracting and retaining a talented workforce on the office of the registrar general revealed that employees keep working with the organization because, they needed security of being employed though they were seeking actively for employment in another place, advancement opportunities was also reported as a crucial element for employees to remain with the same employer, dissatisfaction with compensation has been revealed to be the problem.

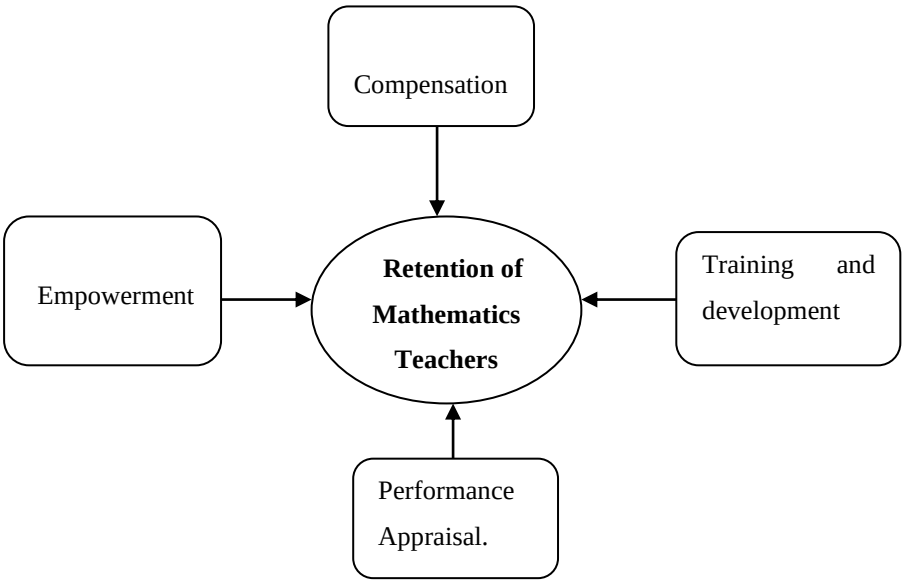
Madeleine (2010) assessed the impact of Human Resource Management practices on employee turnover, at the International Criminal Tribunal Court for Rwanda and found that the level of compensation is one of the factors that may tie employees to their jobs. However, empirical evidence by Lawler (1992) shows that, pay is less important than other factors in a decision to quit because competitive compensation alone cannot guarantee the retention of the most valuable employees when other factors are making them unhappy. Employees need to be recognized, good working environment, security of their employment, career development and challenging jobs.

By referring to these findings from various research conducted in different organizations, this research will assess the relationship between equity of compensation, empowerment, training and development and performance appraisal on the retention of mathematics teachers in Arusha city councils public secondary schools.

2.5 Conceptual Framework

Conceptual framework according to Sekaran (2003) is a conceptual model of how one theory makes logical sense of the relationship among the several factors that have been identified as important to the problem. It aims at indicating the most important areas to be covered by the study (Kamuzora and Adam, 2008)

Figure 2.1: Conceptual Framework



Source: Adopted from Sandhya and Kumar (Dec 2011) and Hong E.N et al (2012)

The study aims to find the relationship between independent and the dependent variables by conducting research on how these four variables are effective in the retention of Mathematics teachers in Arusha City council. In figure 2.1 above; empowerment, compensation, training, and performance appraisal are independent variables, while Retention of Mathematics teachers is a dependent variable. In short, the proposed framework suggests how training, empowerment, appraisal and compensation in public secondary schools are effective in the retention of mathematics teachers.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the design and method of research used in the study. The study adopted quantitative and qualitative approaches; it consists of research variables, research design, scope, unit of analysis and population, sample and sampling procedures, data collection source and techniques, and data collection instruments. The study used research instrument such as questionnaires, interviews and field observation.

3.2 Type of the Study

The research conducted was a case study. Aaker et al (2002) defined a case study as a comprehensive description and analysis of a single situation. Conclusions and lessons were drawn from the study conducted in Arusha City council. Findings from the area can be used for making inferences to other studies elsewhere in Tanzania.

3.3 Study Area/Population

The study was conducted at Arusha City Council with the scope limited to the public secondary schools mathematics teachers.

3.4 Research Variables

The aim of the study was to establish the relationship between the independent variables and dependent variable by conducting research on how these variables were effective in the retention of mathematics teachers in Arusha city council. Independent variables in this study are; training, empowerment, performance appraisal and compensation. Dependent variable is Retention of Mathematics Teachers.

3.5 Sampling Size and Sampling Techniques

3.5.1 Sample Size

Sample size refers to the number of items to be selected from the universe to constitute a sample. Malhortra and Peterson (2006) and Zikmund (2003) stated that, the larger the sampling size of a research, the more accurate the data generated, but the sample size will be different due to different situations. When the research took place there were approximately 61 Mathematics teachers in the Arusha city councils' public schools (TSS form, 2012) where majority had left to other employment especially private school which the number was by then not known. Due to the fact that the number of former public schools teachers who left to private schools and elsewhere was not known, researcher assumed that in 22 private schools located in the City, 15 teachers with public schools experience would be found. In the case of public schools, it was assumed that every school had an average of two teachers each, making a total of 46. Therefore a total of 61 mathematics teachers with public school teaching experience were included in the study.

Table 3.1: Target Population

Category	Total Number of mathematics Teachers	Respondents selected using purposive Sampling
Public secondary schools teachers	61	46
Former Public secondary schools teachers	Unknown	15
Total	Unknown	61

Source: Constructed by Researcher (2013)

3.5.2 Sampling Techniques

3.5.2.1 Purposive Sampling

Under purposive sampling the researcher deliberately includes or excludes some of the elements in the sample. The chosen elements are those that researcher believes will be able to deliver the required data (Adam and Kamuzora, 2008). Purposive sampling technique in this study helped researcher to identify mathematics teachers

who had experience in teaching in the public secondary schools that enabled them to explain the effectiveness of HRM practices on their decision to remain or leave.

Table 1.3 below shows the steps used to obtain the sample of 46 mathematics teachers from public secondary schools. At first schools were grouped basing on the number of teachers each had. The table shows six (6) groups; where there are group made up of schools with 1, 2, 3, 4, 5, and 7 mathematics teachers. There are different numbers of schools within group as well as number of Teachers. The number of group was multiplied with the number of schools within group so as to get the number of teachers per group. To obtain the sample per group, the number of mathematics teachers per group(x) over total population (61) was multiplied to the target population (46); that is $\frac{X}{61} \times 46$

Table 3.2: Steps employed to get a Sample using purposive Sampling

Group of schools basing on number of teachers	1	2	3	4	5	7	**Total**
Number of schools within group	**8**	**4**	**4**	**1**	**3**	**2**	**22**
Number of teachers per group (**x**)	**8**	**8**	**12**	**4**	**15**	**14**	**61**
Sample per Group	**6**	**6**	**9**	**3**	**11**	**11**	**46**
%	**13**	**13**	**19.6**	**6.5**	**24**	**23.9**	**100%**

Source: constructed from Table 1.1 (2013)

Therefore, picking of mathematics teachers in public secondary schools was conducted basing on group on which the school found. By focusing on the group, questionnaires were distributed to get the required number of people. For private secondary schools, questionnaires were distributed with the aim of getting responses from fifteen (15) mathematics teachers who had formerly been public employees.

3.6 Types and Sources of Data

Both primary and secondary sources of data were used in the study.

3.6.1 Primary Data

In this study, questionnaires consisted of four main variables, namely employee empowerment, training and development, employee compensation and performance appraisal systems were constructed. The questionnaires were distributed to the sample of 61 Mathematics teachers in Arusha city council to fill up and later results were analysed using SPSS 16.0 version statistical package software.

3.6.2 Secondary Data

In this study, secondary data were extracted from data collected and stored by Arusha City council such as TSS forms, students' attendance lists, schemes of work, log books and teachers' attendance books.

3.7 Data collection Methods/instruments

By using these methods, information concerning the effects of compensation, training, performance appraisal and empowerment on the retention of mathematics teachers

3.7.1 Questionnaires

This is a research method and instrument for gathering data over a large sample (Kothari, 2004). Questionnaires prepared for primary were administered to the mathematics teachers working at Arusha City council. For this research, the questions in the questionnaire were closed-ended in order to ease the process of analysing data. Thus, the results gathered from respondents helped to increase the speed and accuracy of recording, as well as more comparable. The questions were adopted and modified from previous research papers conducted by other researchers.

There were two types of questionnaires, one targeted for mathematics teachers who were by then working in public secondary schools, and the second one on teachers who had left for the private schools.

3.7.2 Interviews

In this technique, there is direct contact between the researcher and respondent,

where the interviewer and respondent engage in oral questioning or discussion (Kamuzora, 2008). The method might prove effective in that they will be able to gather additional data through probing questions as well as making follow up questions to clarify on unclear answers provided by the respondents (Kothari, 2004). Under this method informal interview was used where researcher was able to get more information where respondent failed to explain clearly.

3.7.3 Observation.

This is a tool that provides information about actual behavior and also allows the researcher to put the behavior in context and thereby understand it better. In this study non participant observation was used. Among the information obtained through observation includes working environments, number of students in the class, and physical appearance of both public and private school mathematics teachers.

3.8 Data Analysis Plan

According to Kothari (2004), data analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data groups. The main activities researcher carried out during preparation for data analysis included, editing, coding, classification and tabulation. Data were collected and analysed using SPSS software.

3.8.1 Editing

Editing involves inspection and if necessary correction of questionnaires or observation form. The basic purpose is to secure quality standard on the data (Graham and Kjell, 2002). Field editing helped the researcher to clarify things which difficult to ascertain clear such as unreliable handwriting, abbreviations, unfilled questions and ambiguous statements.

3.8.2 Coding

Coding is the process of assigning numerals or other symbols to classes. Coding facilitated data entry because instead of entering the whole number response, number or symbol were used. Coding is very important as it reduces bulkiness of responses

and time spent in the data entry (Kothari, 2004)

3.8.3 Classification

This is the process of putting responses of the same characteristics into the same group or class. Classification helped to reduce the hugeness of the collected raw data for easy tabulation. Classification was based on class interval or attributes.

3.8.4 Tabulation

It refers to the process of summarising collected raw data in a table to facilitate computation of various measures during data analysis Kamuzora and Adam (2008). Tabulation helped to save space, making comparison possible and identification of errors easy.

In this study therefore data were analysed by examining, categorizing, tabulating or combining the evidence to address the initial propositions of the study. The statistical Package for social sciences (SPSS) version 16.0 program was used to process and analyse data. The findings were analysed and interpreted to asses the effectiveness of Human resource Management practices in the education sector in Tanzania, particularly public Secondary schools in Arusha City Council.

3.9 Validity and Reliability of Data

3.9.1 Validity of Data

Care was taken during research process to ensure that the research measure what really in intended to measure.

3.9.2 Reliability of Data

The researcher ensured that the method of data gathering such as questionnaires, interviews, observation and various documents could lead to consistent results.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the specific findings of the study followed by a discussion of the combined results. The discussion identifies the effectiveness Human Resource Management practices on the retention of mathematics teachers in the Government (public) schools. The findings presented are from 61 questionnaires completed by 46 current public and 15 former public secondary school mathematics teachers. The study needed specific information about mathematics teachers' preferences when opting for or leaving their job based on the level of satisfaction the job provides or fails to provide. Because of that, two separate questionnaires were created. The first questionnaire was distributed to a sample of current Public Secondary School mathematics teachers which paved the way for the second questionnaire for former public Mathematics teachers who had left government employment.

These two questionnaires were used to develop an understanding of how selected HRM practices in Arusha City Council were effective to provide and maintain working conditions that encouraged mathematics teachers retention. The first questionnaire had two parts; the first part was about the respondents profile and other questions that needed basic information on respondent's job. The second part had five points Likert scales questions aimed to find mathematics teachers satisfaction with the four major HRM Practices in their organizations. The second questionnaire for former public secondary school mathematics teacher aimed to gain more information from the former public school mathematics teachers by making comparison of the satisfaction of HRM practices in their former job in relation to the current job. The first part of both questionnaires posed the same questions.

4.2 Respondents' profile.

Respondents' profiles included gender/sex, age, tenure in employment and the highest level of education.

In total 61 respondents participated in the study, 70.5% of them males and 29.5% females. This shows that majority of mathematics teachers in Arusha city councils secondary schools were men. By age, 65.2% were in the age group of 26 to 35, and of these, 53% were former mathematics teachers. Respondents also differed in public school teaching. 47% were there for 6 years and more and 33% were out of in, having been there for only one year or less and left.

Research finding also depict respondents' education level of academic attainment. In public schools 50% had earned a diploma and 50% had a Bachelor's degree; while in private schools (former employees) diploma holders constituted 60% and Bachelor's degree 40%.

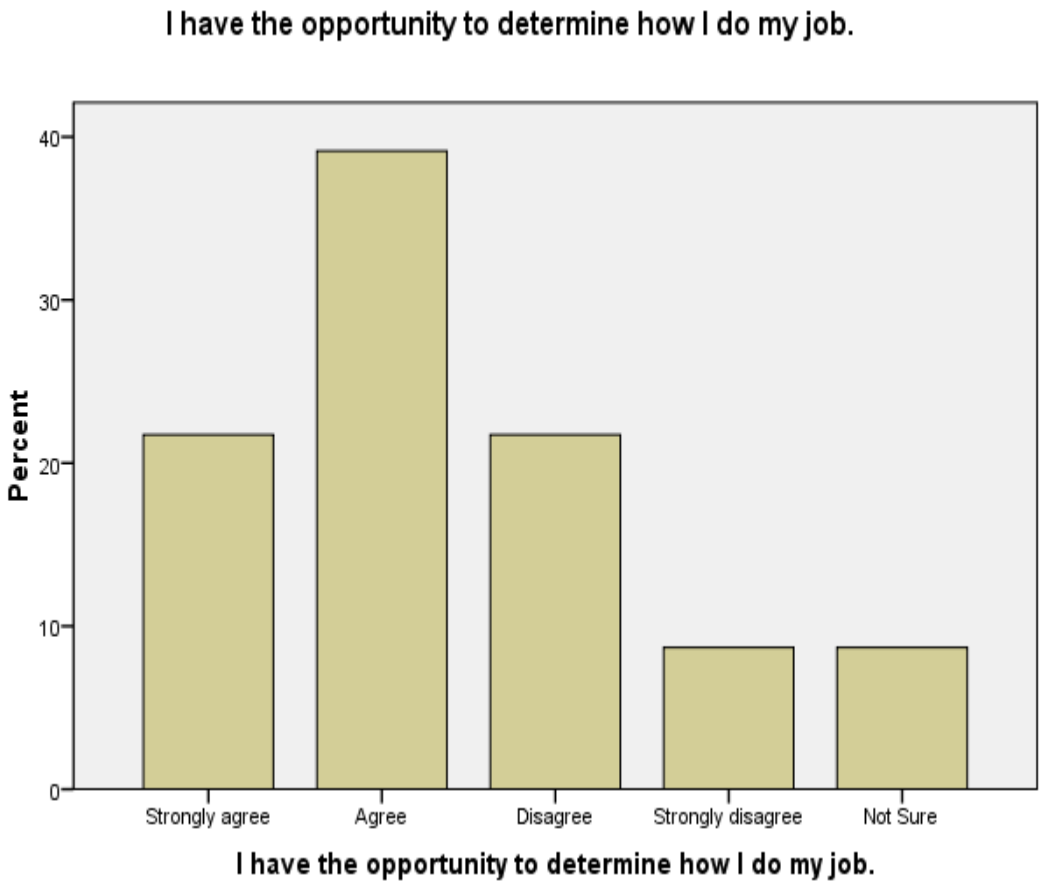
4.3 HRM Practices: For current public school mathematics teachers

The investigation focused on five variables: Compensation, Empowerment, Training and development, Performance Appraisal and Retention. The first four are independent variables, while the last one is dependent. Data were collected using questionnaires consisted of questions with 5-points Likert scales distributed to 61 mathematics teachers. The scales used to interpret the variables corresponded, to responses of Strongly Disagree / Extremely Dissatisfied, followed by Disagree /Dissatisfied, Neutral /Not Sure, Agree /Satisfied; and finally Strongly Agree /Extremely Satisfied. The questionnaire aimed to find how mathematics teachers in public schools were satisfied by the Human resource Management practices in their job.

4.3.1 Empowerment

From the findings 60.8 % of the respondents agreed that they had the opportunity to determine how to do their job as professionals. This implies that majority of the respondents were satisfied by the opportunity offered to them in the determination of how to perform their duties. In the particular case 67% of respondents agreed that they had the power to take appropriate action without waiting for approval from above. This implies not only sense of trust by the heads of schools on teachers but also delegation of power as figure 4.1 reveals.

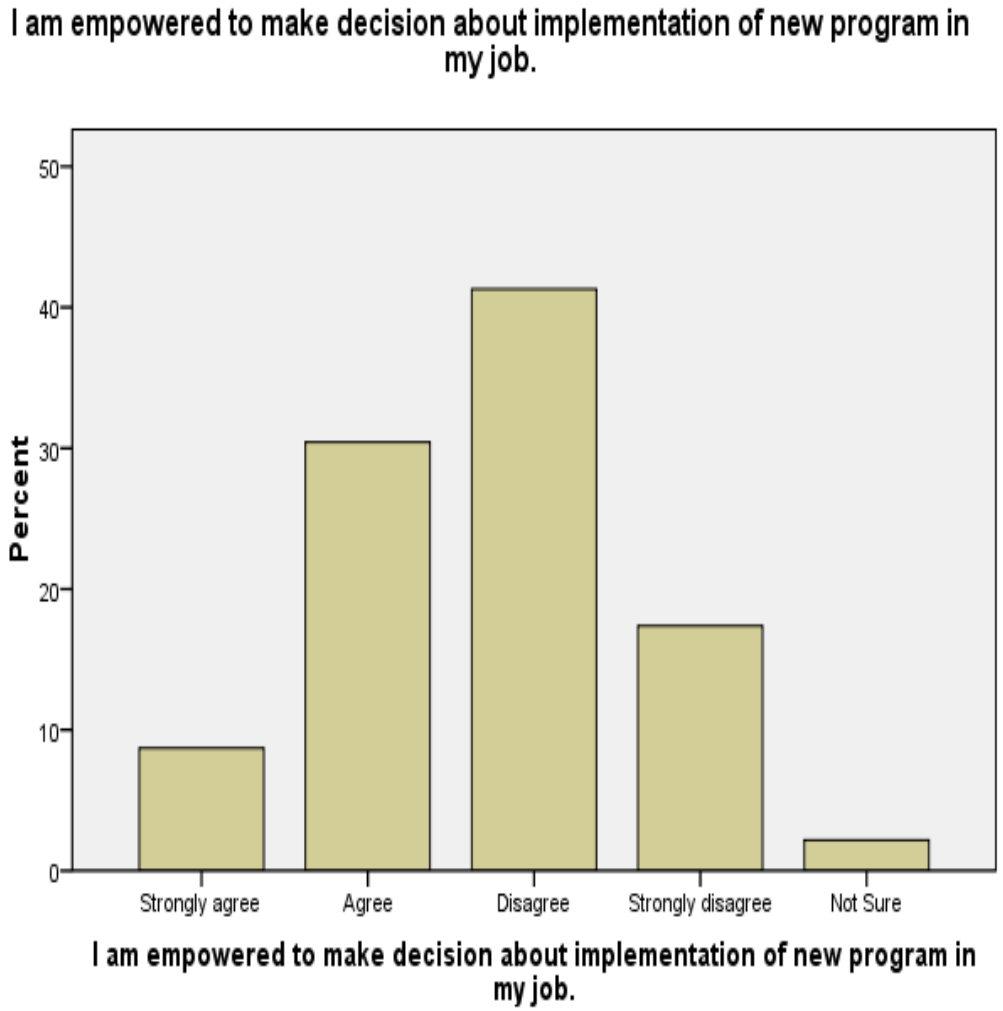
Figure 4.1: Opportunity to determine how to do job



Source: Field Data (2013)

Many teachers were not satisfied over power provided to implement new programs. Figure 4.2 below illustrates that 58.7% of them presented their disagreement with the statement.

Figure 4.2: Power to make decision about implementation of new programs in job.



Source: Field Data (2013)

Research findings further show that, 38(82.7%) of respondents agreed that their work makes good use of their skills and abilities. This implies that the skills and abilities of mathematics teachers in public schools was effectively utilised. The study also depicts that large numbers of respondents (54.4%) were not satisfied by the freedom of thought and action offered to them by the management in exercising their job. This number is closely related to those satisfied (45.7%). This information is depicted in figure 4.3 below.

Figure 4.3: Amount of Independent Thoughts and Actions.

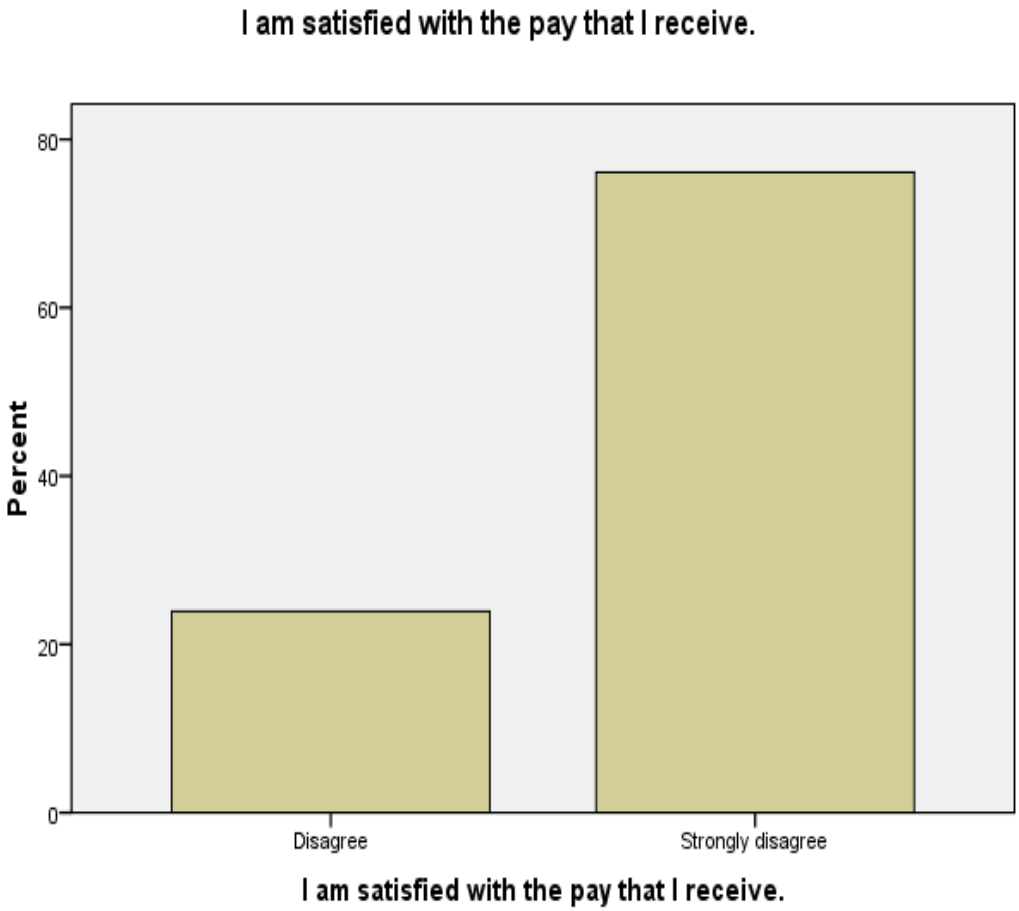
Source; Field Data (2013)

Generally a majority of respondents (54.4%) did not believe that they were empowered.

4.3.2 Compensation

All mathematics teachers (100%) were not satisfied by the pay that they received in public schools. Further findings show that regardless of tenure on employment, 89.2% of respondents earned salary below 500,000Tshs and only 10.8% earned above 500,000Tshs. When told to mention the amount which they think would satisfy them in public schools, regardless of education level a majority (26.1%) mentioned 800,000Tshs and 17.4% mentioned 1,000,000Tshs. This implies total dissatisfaction of the teachers with their payments in public secondary schools as figure 4.4 illustrates.

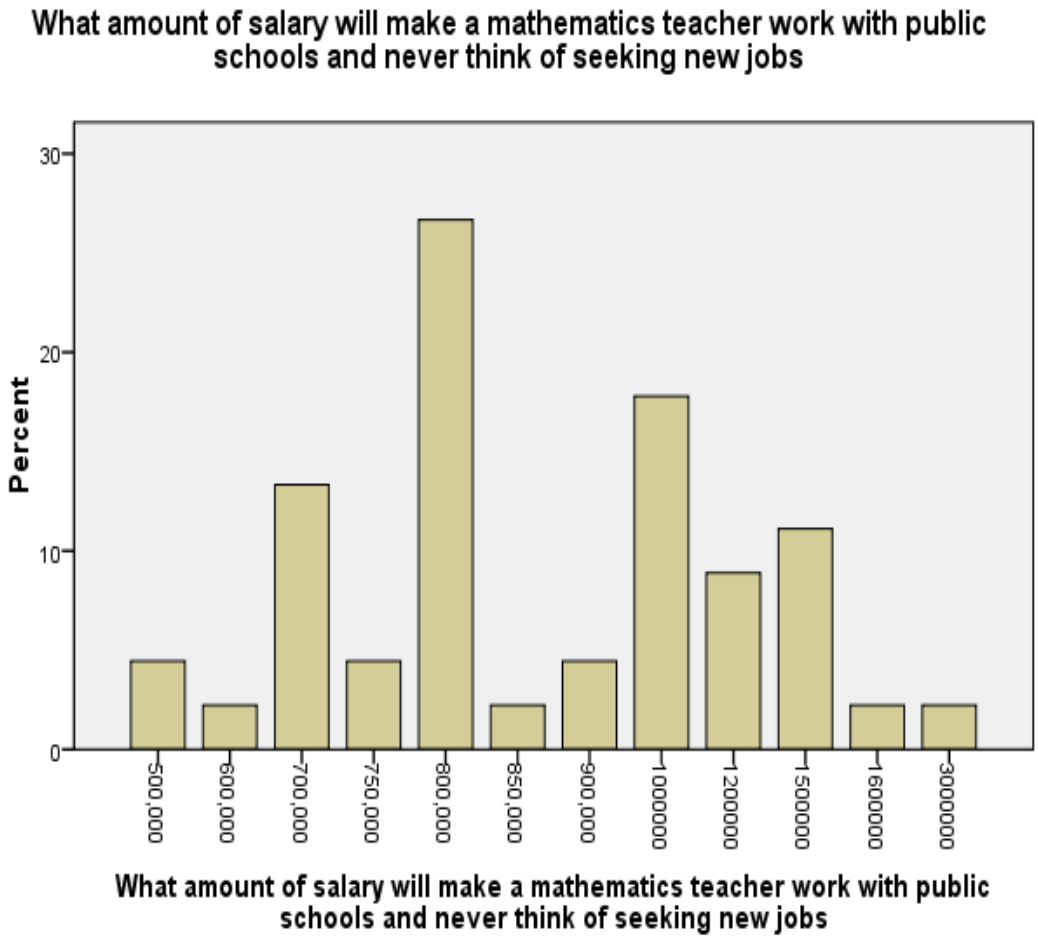
Figure 4.4: Satisfaction With the Pay Received



Source: Field Data (2013)

Moreover, 97.8% of respondents agreed that their payments were lower compared to their colleagues doing the same job in the private sector(s) and only 1(2.2%) disagreed. When asked to mention the salary that their fellow at the private sectors were paid responses ranged between 500,000Tshs and 1,200,000Tshs (65.3%) where the highest figures mentioned by the majority were 600000Tshs, 700000Tshs and 800,000Tshs. This implies that mathematics teachers were totally dissatisfied by the pay that they received in public employment. Figure 4.5 reveals

Figure 4.5: The Amount that will Make Mathematics Teachers Work With Public Schools.



Source: Field Data (2013)

The study revealed that 89.1% of respondents refuted the statement that their current salary level was commensurate with their skills. 97.8% of them disagreed that the pay that they received may encourage them to improve the quality of their work and only 1(2.2%) was not sure. In the oral interview, teachers said that the most discouraging was that while their teaching load was very big (up to 40 periods per week), sometimes their fellows arts teachers taught below ten (10) periods per week. Figure 4.5 implies that the salary that government paid to mathematics teachers was not effective to improve the quality of their work.

Figure 4.6: Salary versus skills.

Source: Field Data (2013)

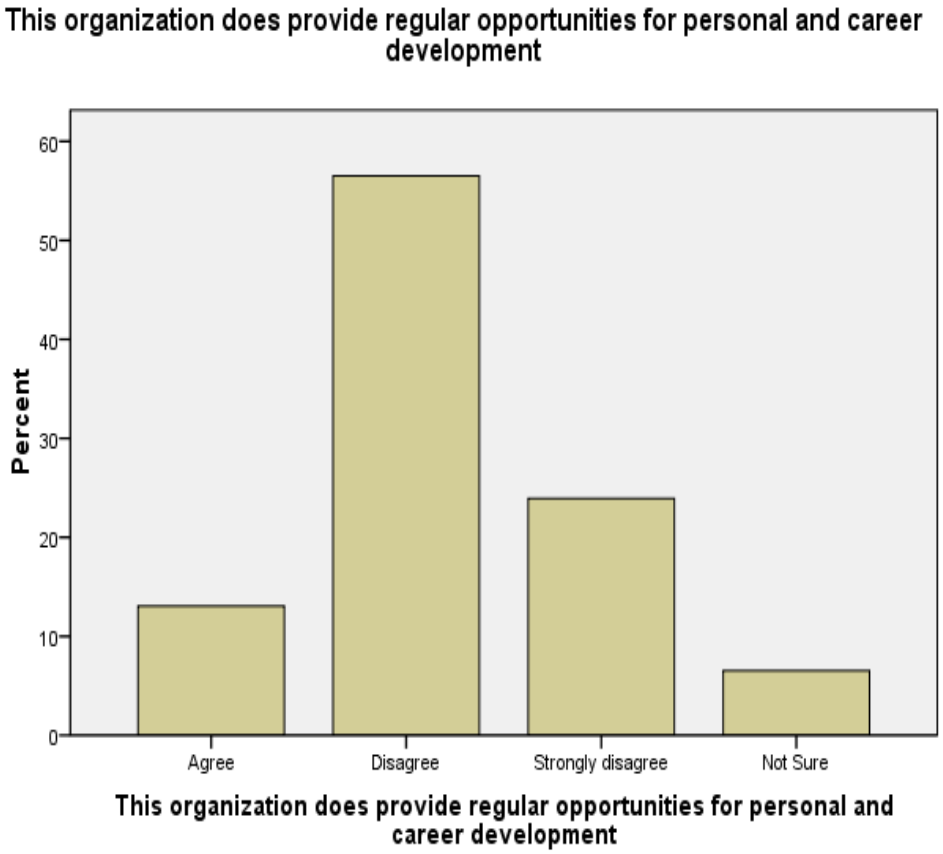
In the same scenario, the study shows that 69.6% of respondents who did something good to improve the quality of their work received no reward for that from the employer. Data also shows that 89.2% disagreed with the statement that public employment offered an opportunity for promotion for mathematics teachers. This implies that a majority of mathematics teachers were not satisfied by the promotion system in the public schools. At the same time, lack of compensation for training was also criticized by 84.8% of them.

4.3.3 Training and development

Findings shows that 65.2% of respondents disagreed with the statement those mathematics teachers were properly oriented and trained upon joining public secondary schools in Arusha City Council. Furthermore, data indicates that 73.9% respondents disagreed that in public secondary schools employment, innovation and creativity were encouraged for mathematics teachers.

Moreover 80.4% disagreed with the statement that regular opportunities for personal and career development were being provided to the secondary schools mathematics teachers. As figure 4.7 illustrates, respondents were not satisfied with the opportunities for personal and career development in the public schools.

Figure 4.7: Opportunities for personal and career development.



Source: Field Data (2013)

The study shows that 63% of respondents said that they had not been provided with any training opportunity that would have enabled them to extend the range of their skills and abilities. Additionally, 73.9% of respondents disagreed that they got the opportunity to discuss their training and development needs with their employer(s).

Furthermore 84.8% of the respondents disagreed that public secondary schools were committed to the training and development of mathematics teachers. Data further shows that 82.6% disagreed that in public secondary schools there were career development activities that could help mathematics teachers identify and improve their abilities, goals, strengths and weaknesses. As figure 4.8 reveals, commitment to the training and development of mathematics teachers in public secondary schools is low.

Figure 4.8: Commitment to the training and development of employees.

Source: Field Data (2013).

4.3.4 Performance Appraisal.

Finding illustrates that a majority of respondents (56.5%) agreed that performance appraisal is important for mathematics teachers retention. The rest disagreed and 8.7% were not sure. This implies that respondents believe that performance appraisal if well applied can be effective on the retention of mathematics teachers.

Findings show that 78.3% of respondents were dissatisfied with the existing performance appraisal system in public schools. Figure 4.9 shows that the current appraisal system in the public secondary schools is not effective to satisfy mathematics teachers. Respondents said they just fill the so called Open Performance Review and Assessment system (OPRAS) forms but no feedback given. *We just fill the forms but we don't know where they end.*

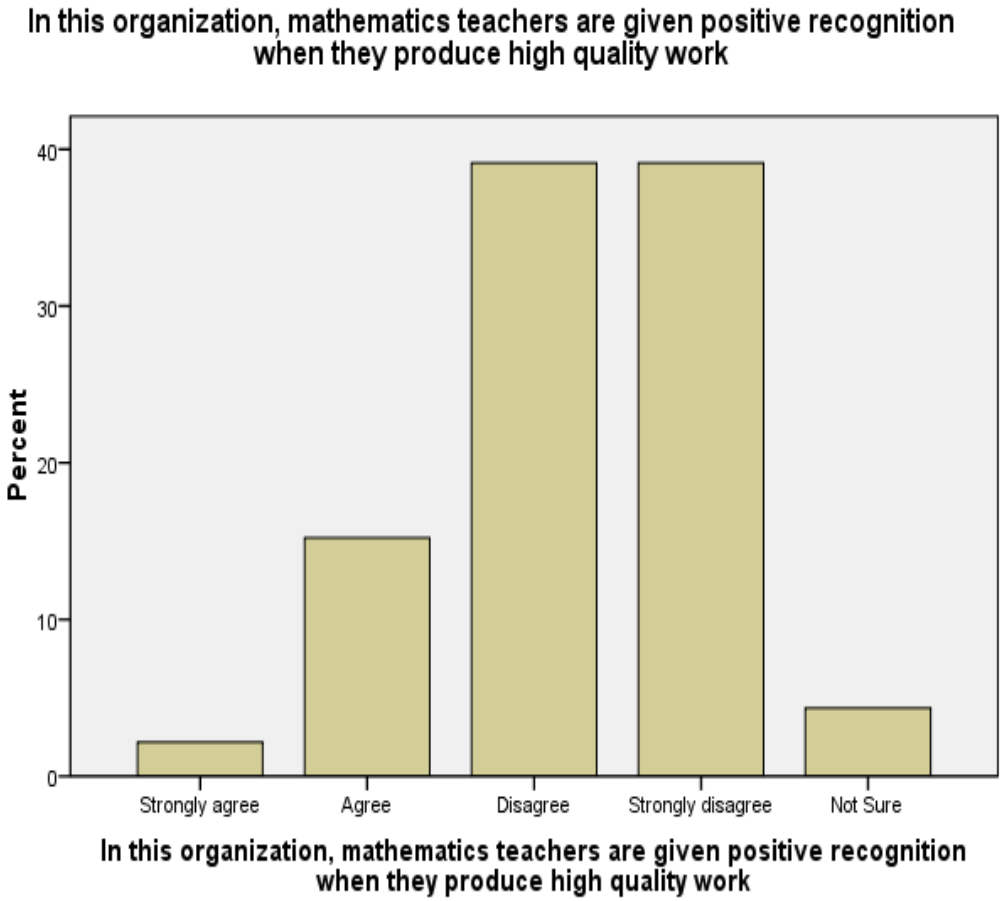
Figure 4.9: Satisfaction with the existing performance appraisal system.

Source: Field Data (2013)

Findings show that 76.1% of respondents agreed that the quality of their work is an important factor in evaluating their job performance. On the other hands 65.2% of responses disagreed with the statement that they are given regular feedback on their job performance. This implies that absence of regular feedback on the job performed by respondents dissatisfied them.

Study shows that 78.2% of respondents disagreed on the statement that mathematics teachers were given positive recognition when they produced high quality work. This brings the implication that respondents were dissatisfied with the appraisal system in the public schools especially for mathematics teachers; figure 4.10 reveals.

Figure 4.10: Recognition when high quality work is produced.



Source: Field Data (2013)

4.3.5 Intent of mathematics teachers to remain with the organization.

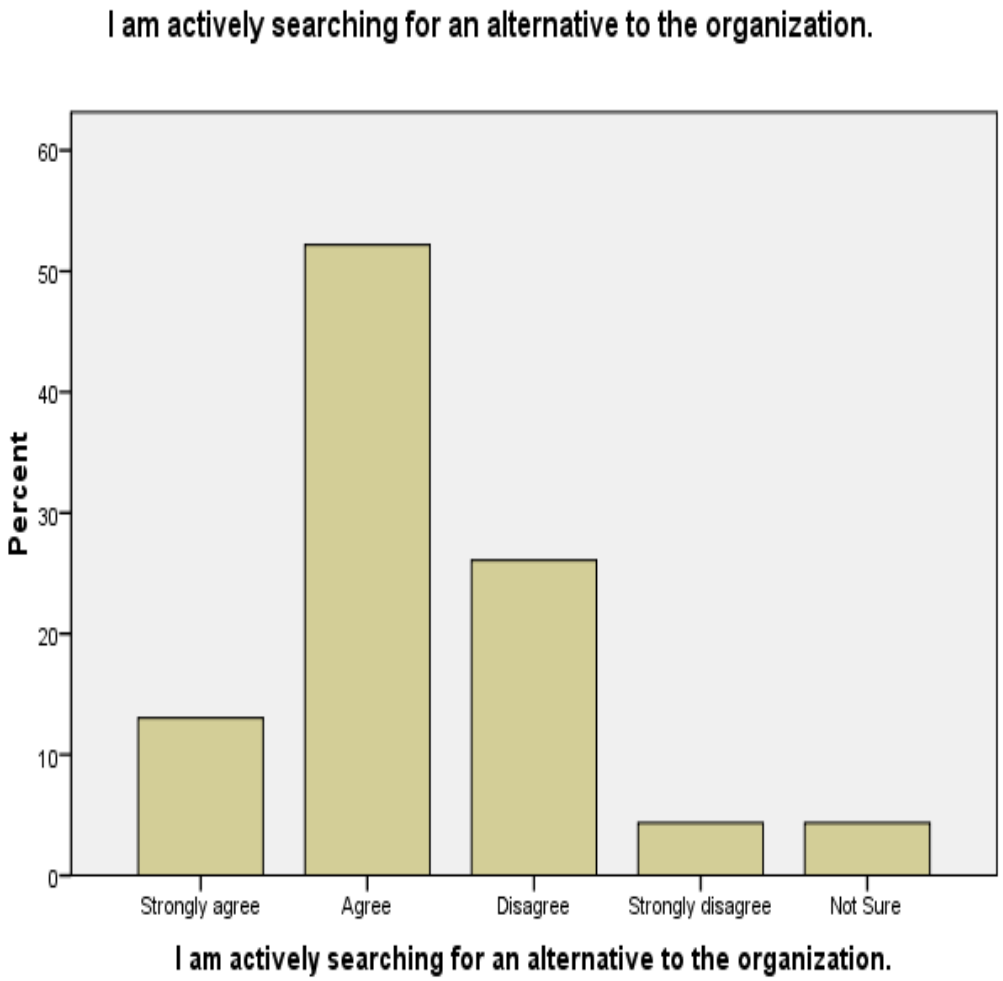
Findings reveals that 71.8% of respondents agreed with the statement that availability of good training programs, appraisal system, empowerment and compensation in other organizations contributed to public mathematics teachers' turnover. This means that respondents believed that HRM practices were important factors on the decision of employee retention or turnover.

Responses Illustrates that 69.6% of respondents disagreed with the statement that the public secondary schools in which they worked were the best organisations for them to work for. These findings implies that majority of respondents were not satisfied by the environments in which they worked. Moreover data shows that 69.6% of respondents disagreed that they were ready to recommend/convince their close friends looking for a job to become public secondary school mathematics teachers. This implies that if satisfied, mathematics teachers can be the agents to attract their fellow teachers to the field. One respondent replied *I like my job; the problem is lack of incentives.*

Consecutively data shows that 56.5% reported that that they did not feel proud to tell other people that they are public secondary school mathematics teachers. Not only that, the responses indicate that 80.5% agreed that they did not think that there was anything more could be gained by sticking with public secondary school employment. This implies that dissatisfaction reduces the teachers commitment to their jobs.

More findings show that 65.2% of respondents were actively searching for an alternative to the public school teaching. This implies that majority of mathematics teachers were dissatisfied by HRM practices and therefore they were actively searching for an alternative to the employment whenever the chance could appear. In the oral interview, respondent replied *I have started the process, any time I will leave.* Figure 4.11 justify.

Figure 4.11: Intention to stay or leave



Source: Field Data (2013)

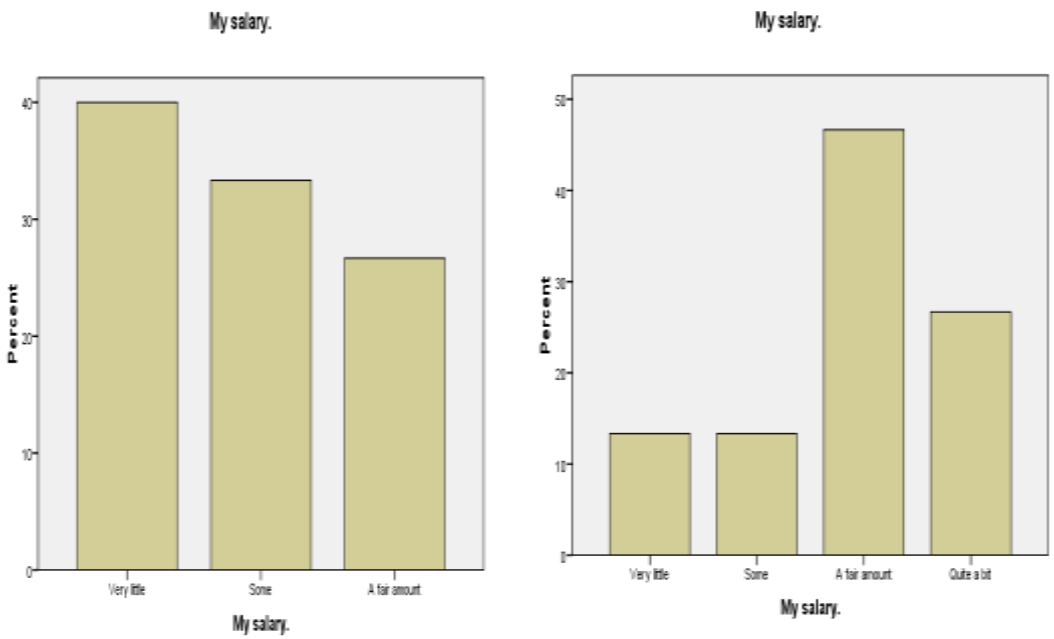
4.6 HR practices for former public schools mathematics teachers.

Data were collected using the self administered questionnaire that consisted of questions with 5-points Likert scales distributed to 15 former public schools mathematics teachers. The scales used to interpret the variables corresponding, to responses of: Very little, followed by some, A fair amount, Quite a bit; and finally A lot. The questionnaire aimed to find how former public schools mathematics teachers were satisfied by the HRM practices at the public employment which they left compared to their current employment at the private schools.

Additionally 40% of former mathematics teachers reported that at the public schools the salary received was very little compared to the current (Private) employment where 46.7% said it was a fair amount. Overall, satisfaction with the public sector salary was low compared to private schools. On the other side findings shows that 66% of respondents find that at the public school payment was little compared to the current (private) school employment where 40% said it was a fair amount. Figure 4.12 below reveals.

Figures 4.12: Salary

Former job (Left Bar Graph) **Current Job** (Right Bar Graph)



Source: Field Data (2013)

Findings also reveal that 26.7% of respondents said at the public school promotion opportunities were very little and 26.7% said it was quite a bit compared to the current employment where 53.3% respondents said was very little. This implies that promotion opportunities at the public schools for mathematics teachers is plenty compared to the private schools.

A majority of the respondents (33.3%) reported that at the public secondary schools satisfaction with the opportunities offered to determine how to do their job as professionals was very little compared to the current employment where 40% said it is a fair amount. More over 53.3% respondents reported that at the public schools satisfaction with the power to take appropriate actions was 53.3% some compared to the current private schools employment where 40% said it is a fair amount.

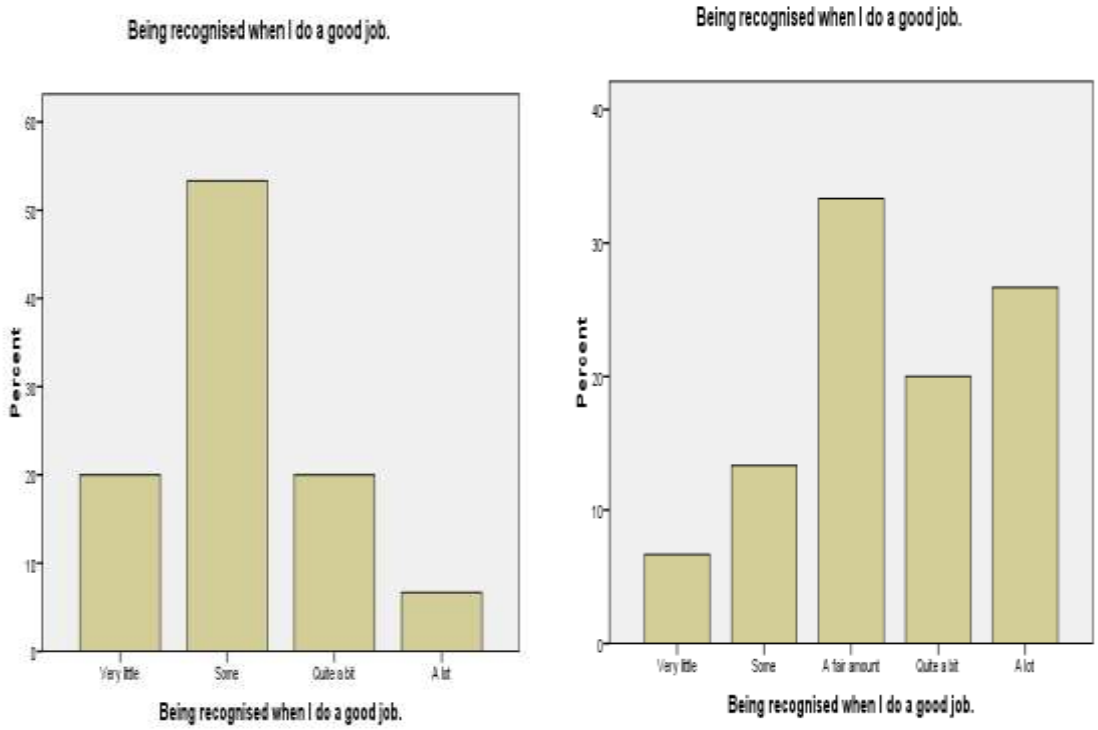
Particularly 40% respondents reported that public secondary school employment offered to them a fair amount of independent thoughts and actions compared to the current employment where 33.3% responded that it is quite a bit. On the other side 46.7% respondents revealed that at the public secondary schools satisfaction with the good use of their skills and abilities was a fair amount compared to the current employment where 33.3% said it is quite a bit.

Moreover findings shows that 53.4% of respondents reported that at the public schools satisfaction with the training opportunities were both quite a bit and a fair amount (26.7% each), while at the current employment(private schools) it was 33.3% Quite a bit. On the other hand responses show that opportunities for personal and career development at the public schools were 33.3% quite a bit where as at the current private schools 40% agreed that it was quite a bit.

Findings indicate that majority of former mathematics teachers (53.3%) reported that at the public schools, recognition given when good job produced was somehow satisfactory while at the current employment (33.3%) said it is fair amount (Figure 4.13). This indicates that at the public schools motivation for the good job done was not good as the private sector did. This may encourage turnover. At the same time findings shows that at the public school feedback on job performance was 40% some and 33.3% quite a bit at the private schools.

Figure 4.13: Mathematics teachers recognition.

Former job (Left Bar Graph) **Current Job** (Right Bar Graph)



CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

This chapter contains the discussion of the findings presented in chapter four. The findings of the research here are compared and contrasted with those of previous studies presented in the literature review. As stated earlier, the research was focused on five variables: Compensation, Empowerment, Training and development, Performance appraisal and Retention; where the first four are independent variables, while the last one is dependent. As stated in chapter four, the scale used to interpret the variables corresponded to responses of Strongly Disagree, Disagree, Not Sure, Agree and Strongly Agree.

5.2 Respondents profile

This section presents the respondent's gender/sex, age, tenure on employment and level of education.

Gender was considered in this study to make sure that there is no biasness. However, the finding shows that the number of men was greater (70.5%) than women (29.5%). This can be an indication that, men are determined to take mathematics than women. According to the Finish studies, boys have better self-esteem in mathematics than women. The study revealed that boys trust their abilities more than girls do and that seemed to be the case even in the situations where girls perform better (Hannula et al, 1997).

When profiled by age, data shows that most respondents from public schools fall under the category of 26 to 35(65.2%). This shows that public secondary schools teachers to a large extent were made up of large number in this group. This is a very good labour force that is energetic which if satisfied can bring positive changes in the education sector in Tanzania over a long term.

Findings on tenure on employment illustrated that 47.8% of the present public school mathematics teacher had served in the government schools for more than 6 years. However, more than 50% former employees, served as public teacher for only 1 and 2 years and left. This is against Sandhya and Kumar (2011) who defined retention as a process in which employees are encouraged to remain with the organization for the maximum period of time or until the completion of the project. It implies that, there was lack of motivations in some aspects which made them to quit within a short time of working in public schools.

As shown in the data presentation, the highest education level of mathematics teachers in public secondary school is diploma (50%) and degree (50%). These are the basic criteria for one to be employed as secondary school teacher. This implies that there is a balance between the number of mathematics teachers holding diploma and those with bachelor degree, this shows the success of one aim of the SEDP 2010/2015 where MoEVT aim to rationalize the number of diploma and degree holders. However, the number is still inadequate and efforts are necessary not only to recruit new but also to motivate teachers to remain in their posts.

5.3 HRM practices: Current Public schools Mathematics teachers.

This part of questionnaire demanded public secondary school mathematics teachers to tick the appropriate box that best reflected how they were satisfied with each aspect of their job listed. The objective of the research was to determine how the selected human resource management practices were effective to influence employee satisfaction and thereby help to retain mathematics teachers within public secondary schools. The questions were framed to cover practices such as Performance appraisal, empowerment, compensation, training and development in the expectation that the responses would indicate the level of satisfaction of these practices on mathematics teachers retention. Findings will help clarify which key human resource management practice can be related to mathematics teachers retention in public secondary schools.

In this chapter respondent quotes were drawn from open-ended questions in order to illustrate tendencies in the ratings and the comments, wherever possible illustrating the positive and negative points of view provided.

5.3.1 Empowerment.

Bolin (1989) defined empowerment as giving teachers the right to participate in the determination of school goals and policies and to exercise professional judgment about what and how to teach. Lee (1991) further explained that empowerment means that school authorities provide mathematics teachers with the authority to make decisions that have, in traditional systems, been made for them, a time and a place to work and plan together during the school day and a voice in efforts to deepen their knowledge and improve their teaching. Due to the fact that empowerment plays a significant role in determining the level of satisfaction on employees, there was a strong need to establish the level to which the Arusha city council has ventured into the area of empowering mathematics teachers and how this affects their level of satisfaction.

The study shows that 60.8% of respondents acknowledged that they had the opportunity to determine how to do their job as professionals (Figure 4.1). This corresponds to Bolin (1989) who explained that empowerment is about investing teachers with the right to exercise professional judgments about what and how to teach. In the particular case 67% of respondents agreed that they had the power to take appropriate action without waiting for approval from above. This finding is supported by Hummayoun and Muhammad (2010) who argued that empowered employees tend to be more confident and try to give their best to employer because they are given more authority in decision-making process.

On the other hand, respondents were asked to indicate their attitude on the use of their skills in public secondary schools where more than 82.7% of them agreed that their skills and abilities were best utilized. In this case the study revealed that, the use of skills is not a motivator to public secondary school mathematics teachers rather a dissatisfying factor due to the fact that they were overloaded; in almost all public

schools surveyed, no mathematics teacher who teach below 30 periods per week. That is considered exploitation as every teacher is required to teach maximum of 24 periods per week and that was found to be the case for art teachers who most of them teach below 24 periods per week.

In responding to the question on the power invested in them on the implementation of new programs in their job, majority (58.7%) respondents as figure 4.2 illustrate, disagreed that they had such power, the fact being that implementation of new program sometimes needs resources such as money, so without money even if there is freedom to do so implementation of the program could be impossible.

Mathematics teachers on the other hand, are generally in doubt about empowerment in their jobs. Despite the fact that they mentioned that there were some aspects in which they had some powers to make decisions; majority (54.4%) conclude by saying that they did not believe that they were empowered. Moore (2002) states that low level of empowerment and low levels of support (financial and material) of superiors dissatisfies employees (mathematics teachers) and may lead to turnover.

According to Ugboro (2006), the employee empowerment could provide an impact to the organizational commitment. The organisation should provide some power and rights to the employees to control and use the organisation resource to achieve organisation goal. This would motivate and satisfy the employees because the organisation has provided responsibilities to them. Therefore, empowerment may not be regarded as an effective factor in retaining mathematics teachers in Arusha city councils public secondary schools in the absence power and rights for mathematics teachers to use organizational resources to achieve organization goals. From the study, these results indicate that empowerment is correlated to retention but not effective to retain public secondary schools mathematics teachers.

5.3.2 Compensation.

The study shows that there is positive relationship between compensation and retention. Findings illustrated that mathematics teachers in public secondary schools were not satisfied by the pay that they received; in their responses all respondents (100%) were dissatisfied. Majority of them earn between 300,000 and 400000Tshs, regardless of their tenure on employment.

A review of the effectiveness of compensation on mathematics teachers formed part of the questions posed to the respondents. Lawler (2000) states that a skilful and competent person may not perform productively if they are not given the right rewards for their efforts. Lai (2011) on the other hand argued that external competitiveness to attract competent employees and individual equity to retain top talent can be created by a fair compensation system. Mathematics teachers may feel that they are appreciated for their performance and contributions if they get good salary. Hence, they are motivated to contribute more or perform better.

Respondents were asked to indicate whether the salary paid satisfied them, that was especially when demanded to mention the salary that at least would make them work with public secondary schools comfortably and never seek new jobs. A large number of them (Figure 4.5 represents); regardless of education qualification and tenure on employment mentioned the amount ranging 700,000Tshs to 1,200,000Tshs. The study revealed that there is a danger of government to loose important human resources especially mathematics teachers in secondary schools if effective retention measures will not be adopted. Lai (2011) argues that employees may feel that they are appreciated by the organization for their performance and contributions if they get good salary and hence indirectly they tend to retain in the organization since they are valued.

Respondents were also asked to illustrate satisfaction with their salary compared to their skills and 89.1% refuted the statement that their current salary level was commensurate with their skills. Furthermore 97.8% of respondents disagreed that the pay that they received may encourage them to improve the quality of their work. The

results further illustrates that mathematics teachers felt inferior when they compared their salaries and wages they get with employees from other organizations who are performing the same work.

The study conducted by Education International (2007) in six Anglophone sub Saharan African countries revealed that the teachers' salaries are the lowest in Tanzania. Mathematics teachers also acknowledged that the pay that they receive does not encourage them to improve the quality of their work as figure 4.8 reveals.

The study shows that 78.2% of respondents disagreed on the statement that mathematics teachers were given positive recognition when they produced high quality work. The study further revealed that even if mathematics teachers in public secondary schools did something to improve their work no reward made as a motivation. That dissatisfies mathematics teachers and its side effect is specified by Lawler (2000) who state that a skilful and competent person may not perform productively if they are not given the right rewards for their efforts. On the other hand, respondents show that 89.2% of them were dissatisfied by the promotion system for public (mathematics) teachers. Poor promotion system for public mathematics teachers goes against the findings by Alnaqbi (2011) that the limited opportunities for promotion had a demoralizing effect on employees.

Generally the study shows that there is positive relationship between compensation and employee retention as the study by Madeleine revealed that the level of compensation is one of the factors that may tie employees to their jobs; however that was not effective in public secondary schools where HRM practices are poorly implemented in such a way that dissatisfies mathematics teachers. The study on HRM practices by (Alnaqbi, 2011) stated that while it is evident that salary and compensation play a significant role in motivating individuals to give full commitment to duty, low wages and lack of attractive compensation benefits played a significant role in disinclining the employees from rendering their best work

5.3.3 Training.

Training is not simply a means of arming employees with the skills they need to perform their jobs: it is also deemed to be representative of an employer's commitment to their workforce (Storey and Sisson (1993). Study by UNESCO (2006) revealed that training and mentoring, particularly recognized and certificated in-service training as well as the prospect of promotion and career advancement are among the factors that motivates teachers in their work.

Findings shows that 65.2% of respondents disagreed the statement that mathematics teachers were properly oriented and trained upon joining public secondary schools in Arusha City Council. Armstrong (2006) stated that, the significance of orientation theory is that it stresses the importance of the effect of environmental factors on the motivation to work. Despite the significance of orientation to employees motivation, the study revealed that lack of training and orientation during joining the teaching employment dissatisfied majority of mathematics teachers.

Data also indicates that 73.9% of respondents said that in public secondary schools employment, innovation and creativity was given low weight. Apart from lack of training and orientation upon joining the organization, regular opportunity for personal and career development including encouragement of innovation and creativity for public secondary school mathematics teachers was reported by respondents to be very minor and even if it was offered, the costs of training were to be incurred by the employee (mathematics teacher) himself. Study by Arthur (1994) reported that lack of opportunities to learn and self development in the workplace can be the key factor for mathematics teachers dissatisfaction which leads to turnover.

Respondents were asked to indicate their attitude on the organizations commitment to the training and development of employees where 84.8% disagreed. Majority of public mathematics teachers (84.8%) responded that in public education sector, commitment to the training and development of employees is very low where mathematics teachers do not get time to discuss their training and development needs with the employer(s). However few confessed that they had got chances to attend

seminars that intended to increase their skills. Study by Chieza (2009) revealed that staff (mathematics teachers) remains in the organization because the organization has very good training policy and others remain because there are no better alternative available. It is, therefore, reasonable to say that training can play a role in improving retention; however it may not be sufficient if other systematic barriers should not addressed.

In this study, 80% respondents reported that their organizations had no career development activities that could help them improve their teaching abilities, goals, and strengths and identify their weaknesses. The study by Harris and Jensiz (2006) found that irrespective of their qualifications, teaching experience or pattern of teaching responsibilities, mathematics teachers encouraged the provision of ongoing professional development opportunities where they valued professional development that was practical, relevant to the discipline, and that encouraged greater networking and sharing of ideas and resources.

5.3.4 Performance Appraisal.

Respondents were asked to indicate whether performance appraisal enhanced mathematics teachers retention. Findings show that 78.3% of respondents as illustrated in figure 4.8 dissatisfied with the existed performance appraisal system in public schools. In the literature review it was learned that Teachers Performance Appraisal (TPA) is an integral part of a continuum of professional learning that supports effective teaching, learning, and assessment practices by building on and complementing previous learning as well as learning acquired throughout each individual's teaching career (Teachers Performance Appraisal; Technical manual, 2010).

Studies show that the impact of a fair performance appraisal process on employee (mathematics teachers) retention is positive, as performance appraisal is designed to relate pay to performance irrespective of goal achievement (Boice and Kleiner, 1997). On the other hand, O'Connor, Arnold and Maurizio, (2010) cautioned that appraisal can be stressful to both evaluator and respondent (mathematics teacher) if

both parties do not take concern of its importance or confusing message is produced from the appraisal, where by the view of Armstrong and Baron (1998), appraisal is generally disliked by employees and employers alike.

In this study, majority of teachers (56.5%) agreed that performance appraisal is important for mathematics teachers retention. The rest disagreed and 8.7% were not sure. Due to the lack of feedback on their performance, figure 4.8 presents mathematics teachers dissatisfaction with the performance appraisal though they believed that it was important for their retention.

Most respondents (76.1%) believed that the quality of their work was important factor to evaluate their job performance. However due to the fact that performance rating which could provide to them feedback on their job performance, was not being done; they were not sure whether performance ratings could be helpful to identify their strengths and weaknesses. According to Hong (2011), Appraisal system should be transparent in nature; Managers should conduct the process without holding any bias against any team member and the process should be well established and straightforward to avoid any kind of doubt. That will make the employees accept feedback on their work with an open mind.

The finding of the study shows that, the appraisal system for the mathematics teachers in public secondary schools is important for retention but it is not effective. This is consistent with the study done by Poon (2004) in which it was argued that dissatisfaction with performance appraisals affects job satisfaction, and in turn affects employee retention.

5.3.5 HRM practices: Former Public schools Mathematics teachers.

The questionnaire was administered to former mathematics teachers who were currently in private schools/organizations intended to reveal respondents attitudes towards the organisations (schools) they had left. Findings shaded more light on the data collected on mathematics teachers who were currently working in public secondary schools. Discussion of the findings was made in two parts: the first part

indicating the level of satisfaction respondents felt towards their previous job; the second part indicated the level of satisfaction on the current job (at the private school).

Responses from the former mathematics teachers shows that the three variables (human resource management practices) that dissatisfied them in their previous job, at the current job (private schools) they were satisfied by almost all of them. Majority (40%) of former mathematics teachers reported that at the public schools the salary received was very little compared to the current employment where 46.7% respondents said it was a fair amount. Figure 4.12 in chapter four reveals. This implies that human resource management practices; that are compensation, empowerment, training and development, and performance appraisal at the public secondary schools were not effective and hence dissatisfied mathematics teachers.

Moreover, former mathematics teachers shed more light by making researcher to conclude that, mathematics teachers retention is not a function of one factor. The study discovered that in public secondary schools, promotion (26.7% quite a bit) and training opportunity was somehow satisfying than in the private schools (53.3% very little). However that was not enough factors to make former mathematics teachers remain in the public schools. This is consistent with the research done by Chieza (2009) where he suggested that it was reasonable to say that training could play a role in improving retention but it might not be sufficient if other systematic barriers were not addressed.

From the research finding it is reasonable to say that, employee retention is a combination of many factors, because of the varied demands as the study by Chew (2004) postulates that, the needs of employees differ with age where for younger employees, needs are focused on remuneration, training and development, career advancement and challenging job, growth opportunities and recognition of their capabilities and acquisition of new skills where for older employees, salary and career advancement are not so important.

5.3.6 Intent of mathematics teachers to remain in public employment (Retention).

Findings of this research agrees with many studies which concludes that the simplest way to retain employees is to increase satisfaction levels; but this will only be effective if performed properly (Denisi and Griffin, 2008). A survey conducted by Middle East Manpower, dealing with the engagement of the work force and retention trends in management, revealed the necessity of adopting effective strategies for employee retention in order to achieve profitability and competitiveness in the local market. Manpower's findings mention factors other than increased pay, including improved employment opportunities (79.4%), career growth advancement (80.8%) and a superior working environment (45.9%) where 85% of respondents cited these reasons for leaving their current jobs (Luby, 2009).

Important factors in this discussion are those variables that related to secondary school mathematics teachers in Arusha city council. This part of the study reveals that mathematics teachers and all other teachers like their job and they are proud of it except the poor human resource management practices especially compensation that dissatisfied them to the extent that they were no longer willing to proceed working with public schools and if they remained it was only because there were no alternative available. Study by Chieza (2009) on the role of motivation on employees in Tanzania came with the findings that some staffs (mathematics teachers) remain in the organization only because there are no better alternatives available.

Many public mathematic teachers replied that most of their colleagues left for other organizations because there were good human resource practices. This was verified by the former public schools mathematics teachers responses where they said HRM practices in their current employment somehow satisfied them than where they were before (public employment). Due to the dissatisfaction, mathematics teachers feels that public schools is not their best place to work and they are not ready to recommend their friends to become public mathematics teachers as themselves do not proud to tell others that they are public teachers.

Sandhya and Kumar (2011) states that turnover causes to more turnovers because when an employee terminated from the organization the effect is felt throughout the organization where co-workers are often required picking up the slack. That what happened to public schools where due to turnover, the remaining employees were required to take up periods of absent teachers something that led to teaching overload, hence more job dissatisfaction.

The study further revealed that many mathematics teachers were in doubt of achieving their goals by sticking to the public employment due to the low payments that was not congruent to the work done. Following the findings of his study Curran (2012), recommended the following retention strategies; training and development that is specific to the needs of the employee, a remuneration strategy that is benchmarked against current market, effective communication and on-going feedback to employees, and managers assess the performance of employees and trust them with work that include more variety and is more challenging.

Generally, a majority of mathematics teachers (65.2%) responded that they were actively searching for an alternative employment (figure 4.11). This means that whenever good chance appears in another place, more than 65% of mathematics teachers will leave their current employment. Human resource practices should be effective enough so that mathematics teachers and other key employees can be motivated to remain in the public employment.

CHAPTER SIX

SUMARY, CONCLUSION, AND POLICY IMPLICATIONS

This chapter contains five sub sections. The first section presents a summary of the study's results, followed by the conclusion, Policy implications and Areas for further studies.

6.1 Summary

The research explored how mathematics teachers perceived the effectiveness of empowerment, training, compensation and appraisal aspects when they make the decision to stay loyal with the institution or not. These aspects are all essential human resource management tools that are often been utilized by most of the organisations nowadays to facilitate their strategic management.

This study was mostly guided by the Human Capital Theory propounded by Ehrenberg and Smith, (Armstrong, 2006).

The findings indicates that mathematics teachers are generally concerned with and affected by all the HRM aspects because turnover has shown to be a result of the ineffectiveness of these human resource Management practices. Teachers likes career advancement but the system of in-service training is said to be not active. On the other hands, performance appraisal is not working as teachers just fill the forms but no feedback as a result of OPRAS. Some teachers have advanced their knowledge, but no promotion in their works. Additionally, Findings shows that, to some extent teachers have powers to make decisions on their jobs, but still very limited.

Hence if managers in public education sector in Tanzania become sensitive to the needs of mathematics teachers in learning new skills and knowledge, delegation of powers on action and decision, desire for competitive compensation package and improvement on existing appraisal system there is a higher possibility that the retention rate of the secondary schools mathematics teachers would be boosted.

Furthermore, the finding reveal that compensation is the most valued factor that can attract and retain mathematics teachers in public secondary schools. Poor compensation revealed to be the most powerfully dissatisfying HRM aspect. Most respondents mentioned a demand of almost 100% of the current salary in order to remain in public schools. That was also the case with the former public schools mathematics teachers who showed an interest of returning back to the public employment if payments will be raised to 800000 and above, (figure 4.5 reveals). However, the study finds that it is not pay alone that attracts mathematics teachers to private schools or other institutions as some private schools pays the same or less than public schools, rather other factors such as attractive working environment, presence of more non financial benefits (such as transport services, accommodation, water and electricity) and proper management makes mathematics teachers to prefer private employment than public ones.

This study therefore finds that current human resource management practices in education sector in Tanzania, based on the situation in the Arusha City Council are not effective for the retention of Mathematics teachers and if not corrected may contribute to more turnovers. Therefore to reverse the situation this study reveals an opportunity for public educational sector to manipulate aspects of this study so as to attract and retain potential talents. By establishing a reputable image as an organization, mathematics teaching in public schools will directly become a favorite among the teachers. When public education sector is able to motivate mathematics teachers in a more specific manner, it will directly increase the number of teachers something that will lead to productivity and efficiency of its operations.

6.2 Conclusion

The high rate of mathematics teachers turnover in public secondary schools is cost fully as the school managers (heads of schools) try to fill the gaps by employing temporary teachers whom a majority of have no qualifications of professional teaching. The qualification to become secondary school teacher is diploma or bachelor degree (MoEVT, 2010). At the same time, many public resources are spent to train those teachers who end up turning over (Sandhya and Kumar, 2011). The

role of the authorities responsible should be to satisfy the needs of teachers through good compensation, provision of in-service training and development opportunities, appraisal systems and empowerment in order to increase retention and reduce turnover.

This research presents those aspects that the government has to perform in Tanzania public schools to achieve the intended goals. There is a clear need for changes in the human resources management practices and styles that have been applied in public schools in order to ensure employees (mathematics teachers) satisfaction. This will greatly increase teachers' commitment and reduce high turnover rates. The workplace environment needs to be made fully suitable for the needs of mathematics teachers and all employees by ensuring leadership styles that encourage decentralization and delegation of duties, equality in the implementation of employee evaluation and appraisal systems, feedback to teachers on important matters on their jobs and provision of sufficient benefits, rewards, and structures for recognition for a job well done by public teachers.

Though this study focused on only four HRM practices, there is need for authorities concerned to look into other factors that will influence retention of mathematics teachers in Tanzanian public schools. Key among them being salaries and wages, extra duty allowances, on time promotion opportunities, compensation for training, improvement of working environment, recognition, a rewarding system, fairness in the treatment accorded to employees by the management, a clear understanding of teachers needs, and being made to feel good about their work. That will wake up the mathematics teachers morally and hence induce them to remain in their posts considering that their needs are met.

6.3 Policy Implications

This research has both practical and policy significance, in the provision of information that will help in the understanding of HRM practices that affect the retention of employees (mathematics teachers). From the results of this research, it is clear that Tanzania public Education sector need to focus on their HRM policies,

which seems to be not effective. To show understanding of the importance of employees motivation, ministry of education in Tanzania established the policy program known as Secondary Education Development Programme (SEDP II 2010/2015); where among its five major focuses, is improvement of the teaching force and teaching process by attracting, training, and retaining adequate numbers of high quality teachers through incentive systems and rationalization of ratios between natural science and social sciences(arts) subjects, diploma and degree holders (MoEVT, 2010).

Establishment of this policy programs is in line with the findings of a survey by Huselid (1995), in which over 900 US firms identified HR practices of two varieties: one that concentrated on developing employees' skills, and one that placed stress on motivation. The first selected employees on talent, and provided training and motivation; profits in these companies increased significantly. The second promoted motivation though performance evaluation; the productivity level in these companies rose significantly. Arthur (1994) finds that high-commitment HR systems directly correspond to an increase in the number of long-term employees, which attributed to developing their skills and increasing their opportunities to contribute to the organisation. This corresponds with the current analysis, that HRM policies and practices governing public secondary education in Tanzania are not effective and require changes.

6.4 Recommendations

Researchers recommendations are guided by the human capital theory which stated that for the employees the expected return on human capital investments is a higher level of earnings, greater job satisfaction and at one time but less so now a belief that security in employment is assured. For the employers the return in investment in human capital is expected to be improvement in performance, productivity, flexibility and capacity to innovate that should result from enlarging the skill base and increasing levels of competence (Armstrong, 2006).

Based on the finding of this study, the researcher recommends the following:

a) Government should increase salaries and other benefits for the teachers in line with the task they perform comparable to the staff of other sectors with the same education level.

b) Government should improve the teachers working environments so as to motivate them to join and remain in their posts.

c) Promotion and payments of teachers' arrears should be done on time.

d) Payments of extra allowance should be made to teachers whose periods exceed the maximum number of periods a teacher is supposed to teach per week.

e) Efforts must be put in place to attract mathematics teachers from secondary school level. There should be a combination in advanced level which includes teaching and there should be incentives for students who opt for combination with teaching mathematics. The researcher suggests that those students should be exempted from paying school fees from advanced level, diploma colleges and at the university level.

f) If government will not find effective HR strategies to attract and retain mathematics teachers, two things may happen in a few years to come:

   (i) Lack of science and mathematics teachers in Tanzanian schools.

   (ii) Presence of large number of jobless arts teachers. This may happen as majority of those who graduate from the Teachers Training Colleges are arts teachers and very few mathematics and science teachers. At the same time there are neither special incentives nor strategies to attract and retain those who take mathematics for teaching as their profession.

6.5 Areas for further studies

(i). The limitations of this research make it necessary that there should be more research in this or related topics. This is because there must be many other factors for the retention of the teachers apart from empowerment, compensation, and training and appraisal system. Researchers should carry out the research about employees' retention

continuously due to the fact that it is a very important factor not only in secondary schools but also in all organizations.

(ii). Another future strategy that may be of value is the use of a model that can be expanded to other related and relevant variables, such as orientation strategies, leadership style management, and a firm's business strategy. It may also be useful to consider in deep aspects such as flexible work environments, especially in the rural areas because this study entirely based in the town.

(iii). Another major opportunity for future research is the documentation of a research design that focuses on practical ways of establishing HRM practices to influence retention of all teachers and other organisations in general instead of focusing on only very small portion of the population as this did for only mathematics teachers.

(iv). Lastly researchers should conduct longitudinal research. Some of the findings and arguments of this study may well be good starting point for such research where other researchers will be able to study changes and developments over time.

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APENDICES

Appendix A: Budget

Item	**Quantity**	**Amount (Tshs)**
Duplicating Paper	10 reams @ 10000	100000
Internet services	280 hours @ 1000	280000
Duplicating Ink	5 tubes @ 15000	75000
Transport	20 days @20000	400000
Subsistence	20 days @ 10000	200000
Typing	100 pages @ 1000	100000
Photocopy	300 pages @ 100	30000
Binding	4 books @ 20000	80000
Research assistant	1 Person	100000
Total		**1365000**

Appendix B: Timeframe

Activity	**Duration(months)**	**Completion date**	**Possible delay in months**	**Completion Date**	**Remark**
Proposal write up	2	28th Feb, 2013	1	30th March 2013	
Data collection	2	30th April 2013	1	30th May 2013	
Thesis writing	2	30th June 2013	1	30th July 2013	

Appendix C: Questionnaires. For both Former and current public school Mathematics teachers

Part 1: Respondent's Profile

The following questions concern your position and other personal information. Completion of this information is voluntary, and confidentiality is assured. No individual data will be reported.

Please put a **Tick/fill** in appropriate **Box/space**.

THANK YOU!

1. What is the name of your school? ……

   (i). Public ☐

   (ii). Private ☐

2. What is your Sex?

   (i). Male ☐

   (ii). Female ☐

3. What is your Age Group?

   (i). under 26 ☐

   (ii). 26 to 35 ☐

   (iii). 36 to 45 ☐

   (iv). 46 to 55 ☐

   (v). 56 to 65 ☐

4. How long have you worked as a public Secondary school mathematics teacher?

   _____ Years _____Months

5. What is your highest level of Education?

(i) Diploma ☐

(ii) Bachelor's degree ☐

(iii) Master's degree ☐

(iv) PhD ☐

6. What is your current take home salary group?

(i). Bellow 300,000 ☐

(ii). 400,000 to 500,000 ☐

(iii). Above 600,000 ☐

(iv). 300,000 to 400,000 ☐

(v). 500,000 to 600,000 ☐

9. How much mathematics teachers are paid in Private secondary schools/other institutions? Mention the salary in Tshs……

10. What amount of salary do you think will make you/mathematics teacher work with public schools and never think of seeking new jobs in private schools or other institutions?

Suggest the amount in Tshs ……

Part 2: Human Resource Management Practices: For current public schools mathematics Teachers.

Directions: For each aspect of your job listed below, you are requested to **tick** the appropriate **Box** that best reflect how you are satisfied with each aspect. You should tick only one **Box** for each aspect.

SN		**How satisfied am I with these aspects of my work**	Strongly agree	Agree	Disagree	Strongly disagree	Not sure
1	**A. Mathematics Teacher empowerment**	I have the opportunity to determine how I do my job.					
2		I take appropriate action without waiting for approval.					
3		My work makes good use of my skills and ability.					
4		I am empowered to make decision about implementation of new program in my job.					
5		I believe that I am empowered employee.					
6		The organization offers amount of independent thought and action I can exercise in my job.					
7	**B. Mathematics Teacher compensation**	I am satisfied with the pay that I receive**.**					
8		I earn more than other Mathematics Teachers who do similar work at the private schools/other institutions.					
9		My current salary level commensurate my skills					
10		My pay encourages me to improve the quality of my work.					
11		I will receive a reward if I do something to improve my work.					
12		My work pays for any work-related training and/or development I want to Undertake					
13		This organization offers good opportunities for promotion					

SN		How satisfied am I with these aspects of my work	Strongly agree	Agree	Disagree	Strongly disagree	Not Sure
14	**C. Mathematics Teacher Training and Development**	People are properly oriented and trained upon joining this organization					
15		Innovation and creativity are encouraged here					
16		This organization does provide regular opportunities for personal and career development					
17		This organisation has provided me with training opportunities enabling me to extend my range of skills and abilities					
18		I get the opportunity to discuss my training and development requirements with my employer					
19		This organisation is committed to the training and development of its employees					
20		The organization has career development activities to help an employee identify/improve abilities, goals, strengths and weaknesses					
21	**D. Mathematics teacher performance appraisal.**	I think performance appraisal is important for mathematics teachers retention.					
22		I am satisfied with existing performance appraisal system.					
23		The performance ratings are being done periodically in this organization.					
24		The performance rating is helpful to identify my strength and weakness.					
25		The quality of my work is an important factor in evaluating my job performance.					
26		I am regularly given feedback on my job performance					
27		In this organization, mathematics teachers are given positive recognition when they produce high quality work					

D. Mathematics Teachers Retention

SN	How satisfied am I with these aspects of my work	Strongly agree	Agree	Disagree	Strongly disagree	Not Sure
33	Availability of good training, empowerment, appraisal and attractive compensation programs elsewhere contributed to mathematics teachers turnover in public secondary schools.					
34	To me this is the best organisation to work for.					
35	I would recommend this organization to a friend if he/she is looking for a job.					
36	I would accept almost any type of job assignment in order to keep working for this organization.					
37	I am proud to tell others that I am part of this organization.					
38	There is not too much to be gained by sticking with this organisation indefinitely.					
39	I am actively searching for an alternative to the organization.					

E. Former public Secondary Schools Mathematics teachers.

SN	How was I satisfied with these aspects of my former work in Public sector:					Interviews With Former public Schools Mathematics Teachers.	How important these aspects of my job are to me in my current job at the private sector:				
	Directions: For each aspect of your job listed below, first **tick** the appropriate **Box** to the **left** that best reflect how satisfied you were with each job aspect in your former job. Then, **tick** the **Box** to the **right** that best reflect how important each aspect is to you in your current job										
	Very little	Some	A fair amount	Quite a bit	A lot	**Aspects of your job**	Very little	Some	A fair amount	Quite a bit	A lot
40						My salary.					
41						My benefit packages.					
42						Promotion opportunities.					
43						Opportunities to determine how to do my job.					
44						Taking appropriate action without approval.					
45						Amount of independent thoughts and actions offered to me.					
46						Good use of my skills and abilities.					
47						Getting the training I need to do my job well					
48						Encouragement of innovation and creativity.					
49						Opportunities for personal and career development.					
50						Being recognised when I do a good job.					
51						Regular feedback on my job performance.					

F: Interview Guide Questions.

1. Do you have the power to make decision on the implementation of programs in your work?
2. Does the pay you receive here commensurate your skills?
3. How can you differentiate public and private school payments for mathematics teachers?
4. Do you think your employer can pay for you once you get an opportunity to attend training?
5. How is the teaching load for mathematics teachers compared to other teachers?
6. What do you think should be done retain public schools mathematics teachers?
7. Do you think you made mistake choosing this profession?
8. Are you planning to find an alternative to the employment?