

**RELATIONSHIP BETWEEN IN-SERVICE TECHNICAL TRAINING
AND PERFORMANCE OF EMPLOYEES IN THE PRIVATE
SECTOR'S MALAWI INDUSTRIAL TRAINING ASSOCIATION
(MITA) COMPANIES**

**MASTER OF BUSINESS ADMINISTRATION (MBA) DEGREE
THESIS/DISSERTATION**

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UNIVERSITY OF MALAWI

THE POLYTECHNIC

February, 2016

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**Submitted to the Department of Business Studies, Faculty of Commerce, in partial
fulfilment of the requirements for the degree of Master of Business Administration**

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February, 2016

Declaration

I declare that this thesis is my own, unaided work. It is hereby being submitted in partial fulfilment of the requirements for the award of the degree of Master of Business Administration (MBA) in the University of Malawi. It has not been submitted before for any degree or examination at any other University or College.

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Certificate of Approval

We, the undersigned, certify that we have read and hereby recommend for acceptance by the University of Malawi a thesis titled 'Relationship between in-service training and performance of employees in the private sector's Malawi Industrial Training Association (MITA) companies'.

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Date : _____

Dedication

I dedicate this thesis to my late grandmother, Mrs Ellen Mbiru, for her great love and encouragement during my childhood and early years of my academic journey.

Acknowledgements

Firstly, I am very grateful to God for seeing me through my years of this degree study, for which I owe any success to Him. His grace, mercy and blessings have been the light of my journey that has brought me this far.

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Abstract

Training is one of the critical success factors in most companies and organizations. Notably, human resource management theory and empirical research findings indicate that there is a relationship between training and employee performance. Training improves employee performance in a number of ways. In-service technical training is one of the main types of training commonly implemented in companies and organizations in the private sector in Malawi, particularly those under the Malawi Industrial Training Association (MITA). However, the significance of training on employees' performance appears not empirically articulated in most of the companies and organizations in Malawi.

The overall objective of this research study was to assess the relationship between in-service technical training and employees' performance within MITA in order to contribute empirical evidence on the role of in-service technical training in Malawi. The study was conducted through a survey using formal questionnaires distributed to the ten companies within MITA. A total of 470 questionnaires were proportionally distributed to respondents, who included senior managers, middle managers, supervisors, foremen, technicians and operators and 238 responses were received representing a response rate of 56.7%. The data were analysed through Cross Tabulation and Chi-squared Test in order to assess the relationship between the variables.

The findings revealed that although varied types of both in-service technical training and staff performance appraisal methods were employed within MITA, the dominant type of in-service technical training was on-the-job training while supervisor or manager appraisal system was the dominant performance appraisal systems. Additionally, in-service technical training implemented within MITA improved employees' job knowledge, productivity and quality of products. On the other hand, staff performance appraisal systems were used to assess employees' performance in the respective companies. Nevertheless, few of the respondents (18.1%) indicated that there was a link between training and performance appraisals or measures.

Therefore, in-service technical training implemented within MITA is important and related

to performance of employees although the employee performance appraisals employed in the respective companies were not necessarily used to assess the impact of the training implemented. The in-service technical training improves the employees' performance in terms of job knowledge, productivity and quality of products. However, the type of in-service training is not statistically related to the performance of employees mainly because in-service training is dominated by one type: On-the-job training, thereby undermining the significance and justification of such training. This aspect remains critical, and therefore seeks serious attention, both in MITA and the private sector at large in Malawi in order to promote the significance and value of training on the market.

Key Words: In-service technical training; Employee Performance Appraisal measurements; Employee Job knowledge; Employee Productivity; Quality of products.

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Abbreviations and Acronyms

AT	Apprentice Training
BSC	Balanced Score Card
CDT	Career or Developing Training
CMT	Coaching or Mentoring Training
IOT	Induction or Orientation Training
JST	Job Shadowing Training
MCCCI	Malawi Confederation of Chambers of Commerce and Industries
MITA	Malawi Industrial Training Association
MTEF	Medium Term Expenditure Framework
OJT	On-the-Job Training
SA	Self-Appraisal
SAP	Structural Adjustment Programme
SMA	Supervisor or Manager Appraisal
SPSS	Statistical Package for Social Sciences
TEVET	Technical, Entrepreneurial and Vocational Education and Training
TEVETA	Technical, Entrepreneurial and Vocational Education and Training Authority
TFA	360–Degrees Feedback or Full Circle Appraisal
TGA	Team or Group Appraisal;
URT	Upgrading or Refresher Training

Chapter 1

Introduction

1.1 Introduction

Training of employees has increasingly become important as knowledge and skills of employees have become central to organisations' success. In view of this, the Technical Entrepreneurial Vocational Education and Training Authority (TEVETA) in Malawi promotes and facilitates training of employees at the industry in order to improve their performance and productivity through its Private Sector Training Programme. One of such interventions under this programme is training through the Malawi Industrial Training Association (MITA).

Despite this, some companies and organisations do not recognize and value training in Malawi. A study of the relationship between training and employees' performance presents an opportunity for projecting the importance of employee training at the workplace. This chapter illuminates the problem statement, research question, objectives, methodology, significance and scope of the study, and ends with the general outline of the thesis and chapter summary.

1.2 Background

The business world today is characterized by growing competitiveness, market globalization and technological advancement. Knowledge and skills of employees have increasingly become important to organizations' performance, competitiveness and growth. Correspondingly, training has become a major area of human resource management influencing employee performance towards achievement of organizations' objectives.

Corollary to this trend, there is conceptual and empirical evidence that depicts the relationship between training and performance of employees, and supports the view that training improves employee performance. Different types of training and employee performance appraisals or measures are being employed in various organizations. However, the direct link, in tangible or measurable terms, between training and employee performance still poses a challenge, and continues to be a subject of debate requiring more investigation.

The Malawi Industrial Training Association (MITA) presents an opportunity for study to assess the status of this observation whose results can add knowledge on the significance and value of training in Malawi.

Availability of skilled workforce through human capital development is vital to the economic development of a country. Additionally, the survival and growth of an organisation depend on the knowledge and skills of its employees acquired through training. Empirical evidence has shown that training influences employees' and overall organizations' performance. Furthermore, Castel, et al. (2010) found that availability of skills and training of labour force ranked fifth as one of the constraints for growth and productivity in the formal sector in Malawi. Nevertheless, some companies do not train their employees at the workplace mainly because they fail to link employee training and performance or recognise the benefits of training (Alvan, 2011). Although the bottom line for most of the training and development programmes is on improvement of overall organisation performance, organisations often devote little attention to assess and evaluate training effectiveness (Raza, 2012).

Over the years, different opinions and views have been presented and argued on the issue of training and performance where the key issue has been the underlying factors linking the two variables which according to (Senyo, 2005) can help to enhance management's appreciation of the importance of in-service training, and open a wider door of acceptance for training programmes. Although a number of studies done in this field claim that there is a meaningful relationship between in-service training and performance of employees, more studies are required to augment this view and confirm previous findings through scientific empirical evidence due to the importance of in-service training on performance of employees and organisations, and costs associated to the trainings (Sarboland and Aghayi, 2012). This is more so in Malawi, particularly in the private sector, where not many studies appear to have been conducted.

Apparently, skills training particularly in-service technical training, is still not yet well recognized or valued in some organisations in Malawi. Often skills training is not integrated in the business strategies and plans for most companies and organisations in Malawi. The in-

service training in most of the organisations in Malawi is implemented in an ad hoc and unsystematic manner and not effectively linked to desired outcomes, such as employees' performance. The plausible reason is lack of an understanding of the meaningful or tangible relationship between training and performance of both employees and organizations and the value proposition for training. Therefore, there appears to be a continuing gap between the trainings implemented and the desired results or outcomes of the trainings.

Since the inception of the new reformed TEVET system in Malawi in 1999, one of TEVETA's major programmes has been the private sector training. The rationale behind this programme is to close both the knowledge and skills gaps of employees at the industry, and the gap between the training implemented and their results. Further, under the private sector training programme, TEVETA promotes and facilitates training of employees at workplace in order to improve their performance and productivity. Consequently, although some companies have recognised the importance of training on employees' performance through the TEVETA's private sector training programme, most companies in the manufacturing sector still do not train their employees. This is mainly because they do not recognise the importance of training on performance of employees. Nevertheless, some companies recognise and seriously consider training important for their business sustainability and growth. Some of such companies have organised themselves under one umbrella called the Malawi Industrial Training Association with the aim of training together and formalising in-service technical training at the workplace.

1.3 The role and link between TEVETA and MITA

TEVETA facilitated the establishment of MITA in collaboration with the industry as part of promoting industrial training through sectors, associations or industrial groupings with common objectives in training. Both TEVETA and companies within MITA have the common objective of promoting in-service technical training focusing on up-grading skills for artisans, technicians and engineers at the workplace. The training under MITA is aimed at improving performance of employees at the workplace in terms of productivity and delivery of quality products.

The companies under MITA and MITA itself has survived and continues to thrive despite the turbulent economic environment over the years in Malawi. Arguably, MITA companies have survived and grown on the market despite the economic challenges faced due to reliance on skills of employees developed through continuous training as one of their key strategies. In collaboration with TEVETA, all companies under MITA have been engaged seriously in training their employees at the work place through various in-service technical training.

1.4 In-service technical training and employee performance studies

There is an enormous amount of research studies that have examined the relationship between in-service training and employee performance. However, there is a surprisingly paucity of literature on the application of these concepts in Malawi. Specifically, although it is TEVETA and MITA policy objective to improve performance of employees at the workplace through in-service technical training, there has been no study conducted to assess the effect of training programmes under MITA on employees' performance or relationship between these trainings and performance of employees within MITA. Further, establishment of proper measures of employee performance to reflect and ascertain the attainment of the training objectives generally appear challenging or non-existent. Therefore, fulfilment of the link and common objective between TEVETA, MITA, in-service technical trainings taking place and employees performance within MITA, still hangs loose. Additionally, it is not clear which approaches to in-service technical training have a significant effect on employees' performance. This study extends the earlier studies on the relationship between training and performance in the context of Malawi.

1.5 Statement of the problem

Several companies and organisations implement in-service technical training using various approaches. However, a number of these companies do not know the most appropriate and effective in-service technical training approaches for their strategic objective, the effect and extent to which these approaches contribute to the performance of employees at the workplace. Additionally, most companies do not have mechanism to measure the influence of in-service technical training on performance of employees at the workplace. The main reason hinges on lack of knowledge of the tangible relationship between these two variables,

and on mechanisms and means of measuring employees' performance resulting from training programmes undertaken.

Although companies under MITA have promoted and implemented in-service technical training over the years and have survived and thrived on the market in Malawi, data available at TEVETA under the Private Sector Training Programme shows that relatively low levels of in-service technical training programmes are implemented in the manufacturing industry in Malawi. Further, a number of companies and organisations continue to implement their in-service trainings in an ad-hoc, haphazard and unsystematic manner without setting about the identification of the training needs, design, objectives and finally means of assessing the attainment of the objectives and desired results from the trainings. This seems to suggest that a number of companies still do not recognise the significance and value of in-service technical training. Additionally, it is unclear which in-service technical training approaches are potent for manufacturing industries in Malawi.

This study therefore assesses the relationship between technical in-service training and performance of employees in manufacturing industries within MITA in order to underpin the recognition and value of training on performance of employees.

1.6 Research question

The study addresses a research question surrounding the relationship between in-service technical training and employees' performance in companies under MITA in Malawi. The main question is, "*do the respective in-service technical training programmes taking place in MITA companies influence performance of employees in terms of job knowledge, productivity and quality?*" This question includes finding out whether the influences or results of the implemented in-service technical training programmes are measured in tangible terms; the types and most effective training approaches used, the extent to which the respective in-service technical training programmes contribute to the performance of the employees, and whether these in-service training programmes have contributed to the survival and growth of MITA companies in Malawi.

1.7 Aim of the study

Overall, the study seeks to determine the relationship between in-service technical training and performance of employees in terms of employees' job knowledge, productivity and quality of products. This includes establishment of types of in-service technical training and performance appraisal systems and measure, and link between the two variables in order to support the relationship.

1.8 Objectives of the study

1.8.1 Overall objective

The main objective is to assess the workers' perception on the relationship between in-service technical training and performance of employees in terms of productivity, quality and job knowledge in manufacturing industries within MITA in Malawi.

1.8.2 Specific objectives

The specific objectives of the study are:

- a) To assess the types of in-service technical training implemented in companies under MITA in order to scope the training taking place within MITA;
- b) To assess the types of staff performance measures implemented in companies under MITA; and
- c) To assess the relationship between in-service technical training and employee performance measure.

1.9 Significance of the research

A number of researchers and scholars have examined the usefulness of training and linked it to performance. Firstly, in-service training is used to achieve organisational goals and objectives (Adeniyi, 1995; Colombo and Stanca, 2008; Konings & Vanormelingen, 2009); Sepulveda, 2005. Secondly, it is used to improve the employees' and organisation performance in terms of productivity, effectiveness and profitability (Morley, 2002; Sultana et al., 2012). Thirdly, it is used for employees' professional growth, knowledge, skills and competencies development (Akintayo, 2001; Greig, 1997; Malone, 1984; Oguntimehim, 2001). Finally, it is used to strategically develop the human resources base and motivate employees (Jain, 1999; Rowley, 1995). Though this is the case, there is surprisingly little

information of the in-service technical training taking place in Malawi which includes information on the types of in-service training, roles and reasons for implementing in-service technical training.

This study has diagnostic value because its results indicate the relationship between in-service technical training and performance of employees, consequently, enhancing the recognition and value of training in Malawi. Specifically, the study reveals in-service technical training approaches used on the market that are effectively contributing to the survival and growth of the manufacturing industry (such as companies within MITA) and indeed economic development in the country. In this connection, this research will add knowledge in the area of training in the Private Sector in Malawi. This fills the knowledge gap on training and measurement of its influence on performance that should inform training policy under the TEVETA's private sector training programme and MITA training programme. The study will further alight emphasis on the need for in-service training programmes in the private sector in Malawi to be approached in well planned and systematic manner, focussing on achieving desired objectives in for effective justification of costs associated with such trainings today. The study therefore benefits employees and employers in the industry (particularly manufacturing sector), TEVETA, other stakeholders, and government at large in terms of policy formulation and implementation on human capacity development in Malawi.

1.10 Scope and assumptions

This study was limited to in-service technical training within manufacturing industries under MITA. Additionally, data were collected from a convenient sample. The study focussed on staff performance limited to the three factors: productivity, job knowledge, and quality. These factors, therefore, limit the generalizability of the findings.

1.11 Outline of the thesis

This chapter has provided the background of the study focusing on the research problem, objectives, significance and scope. The remainder of the thesis is, therefore, organised as follows: Chapter two presents the background literature and discusses the conceptual framework of the study. Chapter three looks at the research methodology covering the

research design, sample design, data collection methods and analysis. Chapter four presents the results of the study and discussions of the findings while chapter five summarizes the findings of the study and makes conclusions, and recommendations.

1.12 Chapter summary

In this chapter, the background of the research study, a synopsis of TEVETA and its private sector training programme, and the formation and link between TEVETA and the Malawi Industrial Training Association focussing on in-service technical training, have been highlighted. Additionally, the Problem Statement for the Research, Research Question being addressed, Objectives of the Study, Significance of the Research and the Scope, Assumptions of the Research Study and the outline of the thesis have been presented.

Chapter 2

Literature review

2.1 Introduction

In most organisations today, the human element and the knowledge and skills of employees have become a basis for sustainable competitive advantage for survival and growth of the organisations. This is due to growing competition resulting from market globalisation and technological advancement. Both globally, regionally and in Malawi, organisations and companies are subjected to various economic situations that affect performance of industries, hence need to continuously seek means of survival and success. In Malawi, although the economic performance of the country has been unstable and unsatisfactory over the years, there have been a number of economic reforms undertaken mainly under the Structural Adjustment Programmes (SAPs) and other government policies which have focussed on stimulating economic growth through industrial and private sector development.

Despite these economic reforms, some private sector companies have failed to survive on the market and have consequently closed down, whilst others have survived, and even grown their business over these years. A common thread among companies that have survived and grown has been the human capital development programmes implemented through training in recent years. Knowledge and skills of workers (employees) acquired through training have become important in the face of the increasing rapid changes of technology, products and systems, making organisations to invest in training for achievement of higher performance results (Alliger, et al., 1997; Kozlowski & Klein, 2000). They increasingly influence the performance, competitiveness and advancement of an organisation (Wright, et al., 1994).

The Malawi Vision 2020 (National Economic Council, 2000) and the Malawi Growth and Development Strategy (MGDS) (National Economic Council, 2006) recognised that human resource development is a critical determinant for the country's economic growth. These policy documents argued that skills gaps were one of the critical challenges facing the implementation of the strategies, and needed to be addressed seriously. The Malawi Labour Market Survey (2009) revealed that there is a high unmet demand for skills in almost all the

occupational/trade areas, leading to the need for skills training. Similarly, the Malawi Business Climate Survey (Malawi Confederation of Chambers of Commerce and Industries (MCCCI), 2008) revealed that the availability of local skilled workforce came fifth as one of the obstacles to production and productivity. All these, signify the importance of technical skills, and indeed technical training in the private sector development and growth in Malawi. Therefore, both training and employees performance in organisations have become more important today.

Training and performance are two major areas of human resource management widely used in human resources development. Training plays a central role in human resources development which plays a critical role in organisations' performance and success. Studies have been conducted on training and performance indicating that the two concepts are related or inter-twined. As applied to both organisations and people, the studies have suggested that training improves performance of both individuals, teams of people and organisations. Affirming the relationship, Gordon (1992) defines training as a planned and systematic modification of behaviour through learning events, activities and programs which results in participants achieving high levels of knowledge, skills, competencies and abilities to carry out their work effectively.

Training and performance are broad concepts, therefore focus in both this study and the literature review is on the narrowed scope of the research; "In-service Technical Training" and "Employees Performance" in terms of job knowledge, productivity and quality of products. Similarly, studies that have been conducted specifically on 'in-service training and employees' performance (Ahmad, et al., 2011; Sarboland and Aghayi, 2012) confirm that in-service training is related to employees' performance. As this study targets the manufacturing sector, and in particular companies under MITA, this chapter of literature review commences with a brief overview of the private sector development with respect to economic development trend in Malawi, the background of the establishment of MITA, its objectives and key characteristics. This, together with the general definitions and studies on 'training' and 'performance' give both empirical and conceptual framework for the research study. The chapter further describes types of training and employees' performance measures used at the workplace, focusing on job knowledge, productivity and quality. Finally, the

chapter highlights the theories and studies that have been conducted on the relationship, influence, effect and impact of ‘training’ on ‘performance’ of employees, focussing on ‘in-service technical training’ and employees’ performance.

2.2 Brief overview of the economy and private sector in Malawi in line with human resource development trends

Since independence in 1964, the economic development trend in Malawi has been turbulent. Over the years, the country has adopted a number of economic development policies to stimulate and register economic growth. In the first three decades after independence, the major policies related to private sector growth in Malawi have been the implementation of the Structural Adjustment Programmes (SAPs) in 1981, the Medium Term Expenditure Framework (MTEF), Trade (Market) liberalization programme and privatisation. Specifically, throughout the 1990s, the country underwent extended periods of macroeconomic instability caused, to a large extent, by the fiscal deficits (World Bank, 2001) and the shocks of the Structural Adjustment Programme. These economic reforms saw a number of companies failing to compete favourably on the market and closed down, largely between 1981 and 2000. In the recent two decades, Malawi has been making strides on its economic development. In both periods between 2006 -2008 and 2009 – 2013, Malawi has only managed to achieve an average growth rate of 7.0 % in its economy and growth measured by GDP at market prices based on constant local currency (World Bank, 2013). Furthermore, annual economic growth in the past five years have been 9.0 % (2009), 6.5 % (2010), 4.5 % (2011), 1.9 % (2012) and 5.0 % (2013) (World Bank, 2013).

Corollary to the economic development trend, the private sector/ industry in Malawi has experienced stunted growth. Throughout the years, the contribution of private sector or industry to the GDP has been very low indicating that industry in Malawi has not grown much to contribute significantly to the Malawi GDP. The secondary sector/industry is reported to have registered an average growth of 6.9 % between the years 2000 and 2010 (World Bank, 2013). According to the World Bank Country Report (2012), the Gross Fixed Capital formation, private sector (as a percentage of GDP) in Malawi was reported at 11.34 % in 2011. Furthermore, in the composition of GDP, industry accounted for only 16.9%. This indicates that industry in Malawi was still not well grown due to a number of factors

influenced by the economic development trend. Amongst other major factors, availability of local skills (which comes through education and training of the labour force) ranked as a fifth constraint for firm (industry) growth and productivity in the formal sector according to Phiri and Munthali (2009). Training and skills development for the private sector (industry) is crucial for the survival and growth of the industry, and overall fast economic development of the country (Castel, et al., 2010). In agreement, the Malawi Interim Country Strategy Paper (ICSP) 2011-12 observed and recognized lack of skilled labour to be one of the main factors hindering industrial growth in Malawi. Against this background and a number of studies that were conducted, TEVETA and subsequently MITA were established as part of the reforms in the TEVET sector in Malawi in response to the economic development trends in general, and the notable skills gaps in particular.

2.3 Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA)

Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA), established in 1999 by an Act of Parliament (Government of Malawi, 1999), advocates that training develops human capacity through provision and acquisition of skills which improve the performance of employees at the workplace. TEVETA's mandate is to ensure the generation of competent and skilled workforce capable of steering the social and economic development of the country by increasing labour productivity and delivery of quality products. This is in line with the overall TEVET policy goal of increasing accessibility, responsiveness and relevance to the labour market of the TEVET system in Malawi (Ministry of Labour, 1998, 2013). Accordingly, in promoting the provision of technical, entrepreneurial and vocational education and training in Malawi, TEVETA focuses on three core areas: formal apprenticeship training (technical colleges' training); industry- based training (Private sector training); and informal sector skills development programme (Government of Malawi, 1999; TEVETA, 2012).

2.4 Malawi Industrial Training Association (MITA)

Companies in the Private Sector in Malawi that have survived and continued to grow throughout the turbulent economic environment have used development of skills of their employees as one of the key strategies. In view of this, it can similarly be argued that companies under MITA have survived and grown on the market despite the economic challenges faced by Malawi relying on skills of their employees developed through training. One common aspect of companies under MITA is that they all have been engaged highly and continuously in training their employees at the work place or provide in –service technical training to their employees over the years as characterized by the objectives of their grouping.

MITA was formed in 2001 through a Memorandum of Understanding signed between TEVETA and the three pioneer MITA members/companies in order to promote skills development in the private sector by increasing employer’s participation in training of their employees. The three pioneer MITA members/companies were ILLOVO Sugar, Carlsberg/SOBO Limited and La Farge (formerly known as Portland Cement Limited). The main objective of MITA was to train employees at the workplace within MITA through in-service technical training focusing at up-skilling and multi-skilling of artisans, technicians and engineers (MITA, 2000). The establishment of MITA was facilitated by TEVETA in fulfilment of one of the functions of promoting the provision on tailor-made training programmes for the private sector in order to improve productivity and performance at the workplace (Government of Malawi Act, 1999). In line with the MITA MOU and expectations of both TEVETA and MITA, training under MITA is planned and implemented under the following principles:

- (a) Must be short term in-service trainings with tailor-made courses unique or specific to the association
- (b) Must be focused on pre-determined and assessed skill gaps in employees’ performance within MITA companies
- (c) Must be technical in nature focusing on up-skilling and multi-skilling of artisans,

technicians and engineers working within MITA companies.

- (d) Member companies to train together and receive both technical and financial support from TEVETA.
- (e) The implementation of the training courses must be able to address the assessed employee performance skills gaps at the workplaces within MITA grouping.

These principles/ guidelines call for effective planning and implementation of MITA training in order for MITA to meet its intended objectives (MITA, 2000).

Over the years, MITA has grown in membership from the initial three to ten companies due to its importance in training. The association comprises mainly large companies involved in manufacturing and service provision in Malawi whose workforces are predominantly technical (engineers, technicians, artisans and operatives). Accordingly, technical training has become an integral part of their business survival and growth strategy. Currently, the MITA members include; ILLOVO Sugar manufacturing company, Bottling and Brewery Group of companies Limited (BBGL), Lafarge Cement Manufacturing Company, Unilever, Universal Industries, Packaging Industries (Malawi) Limited (now NAMPACK Limited), Chibuku Products Limited, Lujeri Tea Estates, Eastern Produce and Central East African Railways (CEAR). Notably, companies under MITA continue to survive and register growth although the economy of Malawi has not performed comparatively well in the past years according to Malawi Business Climate Survey (MCCCI, 2008). It is believed that one of the factors that have contributed to their survival and continuing growth is human capital development through training as the common characteristic of the companies within MITA is that they all value training. They all believe that training is the 'lifeblood' of their companies (MITA, 2000).

2.5 Training in general and technical training

World over, globalisation and the associated technological changes have increased the realisation of the importance of training on performance in the industry. Today, companies and organizations are being forced to function in a world full of change and under various complications, and it is important than ever before to have the right employees with the right

knowledge, skills and experience (Singh and Mohanty, 2012). This being the case, training has become the most important tool for businesses to develop and succeed as it has significant effect on employees' performance.

Training is one of the management concepts on human capital development that significantly influences the performance of employees at the workplace. According to Halim and Ali (2008), training is broadly categorised into two: Pre-service training and in-service training. Pre-service training is academic in nature and offered by formal institutions following definite curricula and syllabuses for a certain duration leading to formal Certificates, Diplomas and Degrees. On the other hand, in-service training is the training offered by organisations from time to time for the development of skills, in terms of knowledge, competencies and attitudes, to an employee after the individual begins work responsibilities. Similarly, Goldstein and Ford (2002) defined in-service training as a systematic approach to learning and development aimed at improving an individual, team or the organisation's effectiveness. In-service training is therefore considered as a process of staff development for purpose of improving the performance of an incumbent (employee) holding a position with assigned responsibilities (Halim and Ali, 2008).

Training is one of the human resource development concepts that has been widely defined and applied in all sectors according to Pheese (1971) in Saleem, Rashid and Naseem (2011). Degree of influence of training and development on employees' behaviour. *International Journal of Computing and Business Research.*, 2(3), 2229-6166 defines training as a systematic process of altering the behaviour and attitudes of employees in a direction to increase the achievement of the organisational goals. In agreement to this definition, Gordon, (1992) expands the definition as 'planned and systematic modification of behaviour through learning events, activities and programmes which result in participants achieving high levels of knowledge, skills, competencies and abilities to carry out their work effectively'. In specific terms, training is a learning activity directed towards acquisition of specific knowledge and skills for the purpose of an occupation or task that requires more efficiency or improvement (Cole, 2002). In his study, Raza, (2012) asserts that training is learning experience which seeks a relatively permanent change in the individual that will improve the ability to perform his/her job well, involving change in skills, knowledge,

attitudes or behaviour that can help employees to adjust and perform their duties more effectively and efficiently.

Therefore, training is considered as a process whereby learning experiences are planned which will develop specific skills in terms of knowledge, competencies and attitudes in the trainee or learner towards the accomplishment of a specific change or result. It is a form of education received in a structured setting that can enable one to become more competent professionally, and develop technical competencies to keep abreast with job demands and technological changes while acquiring specific skills to perform a job through modification of behaviour that contributes to the attainment of the organisation's goals and objectives. Transcending from these definitions, 'technical training' refers to development of skills and competencies in technical areas or departments at the workplace. It equips the employees with skills and techniques to perform better, and mostly involves technical staff in production sides of the companies or organisations (Halim and Ali, 1998). Technical training further refers to development of skills for technical works that involves manual dexterities.

2.6 In-service technical training

Technical training is in most companies/organisations delivered through "In-service or In-company training approach" where the training takes place at the workplace whilst the operations and business of the company/organization is in progress. In-service training is generally defined as training that is given to employees during course of employment in order to help the employees develop their skills in a specific task or occupation. According to Halim and Ali (1998), training is broadly categorised into two: Pre- Service training and in- Service training. Pre-Service training is more academic in nature and offered by formal institutions following definite curricula and syllabuses for a certain duration leading to formal Certificates, Diplomas and Degrees. On the other hand, in-Service training is the training offered by organisations from time to time for the development of skills, in terms of knowledge, competencies and attitudes, to an employee after the individual begins work responsibilities. Goldstein and Ford, (2002) define workplace or in-service training as a systematic approach to learning and development aimed at improving an individual, team or the organisation's effectiveness. In-service training is therefore considered as a process of

staff development for purpose of improving the performance of an incumbent (employee) holding a position with assigned responsibilities (Halim and Ali, 1998). Further, in-service technical training relates to training programmes that involve manual or practical skills and competencies in a specific trade, occupation or vocation given to employees at the workplace during the course of employment, therefore, it is commonly applicable to manufacturing, production or engineering-oriented companies and organisations. It promotes the professional growth of individuals, and develops the competencies of the workers while they are on the job (Malone, 1984).

In-service technical training therefore refers to development of skills and competencies in the technical areas or departments at the workplace and mostly involves technical staff. This implies that development of skills for technical works involves manual dexterities, and prepares trainees for jobs that are based on manual or practical activities, traditionally non-academic, and totally related to a specific trade, occupation or vocation. Vitez (2010) relates in-service technical training to the skill set an individual acquires in a company to complete various tasks and activities at their place of employment. He further indicates that employees who undergo technical training at the place of employment (in-service technical training) are typically more valuable to their company than employees who do not, as the knowledge and skills they acquire often lead them to more innovation in the company and more opportunities for completing tasks or activities more efficiently.

There are a wide range of in-service training programmes taking place in companies and organisations. Halim and Ali (1998) indicate that in-service training may broadly be categorised into five different types, namely; Induction or Orientation training, Foundation training, On-the-job training, Upgrading or refresher training, and Career or development training. Similarly, Kauffman (2011) as cited by Sharpe, Arsenault and Lapointe (2008), indicates that the in-service training programmes taking place at the workplace include; orientation, on-the-job training, job rotations, internships and apprenticeships, among others. Paris and Mason (1995) in Laing (2009) further include; job shadowing and coaching as some of the in-service training programmes taking place at the industry. Therefore, the types of in-service technical trainings can be categorised into; Induction or Orientation training, Foundation training, On-the-Job training, Upgrading training, Career or development

training, Coaching, Job Shadowing and Apprenticeship training.

2.6.1 Induction or orientation training

Induction training is given immediately after recruitment of new employees to introduce or orient the new employees to their positions. Induction training is given to new employees to acquaint them with the organisation and its personnel in order to develop an attitude of personal dedication to service of people and the organisation. It is important for moulding good habits and organisational behaviour in the new employees as the most favourable time for gaining employees' attention and for moulding good habits among new employees is when they are new to their jobs (Halim and Ali, 2008). While education helps to increase general knowledge and understanding of the total environment in order to develop the human mind for increasing powers of observation, analysis, integration, understanding and decision making, training helps to improve human performance on the job that the employees are given or hired to do.

2.6.2 Job shadowing training

Laing (2009) defines job shadowing as a work experience option where students learn about a job by walking through the work day as a shadow to a competent worker. The job shadowing work experience is a temporally, unpaid exposure to the workplace in an occupational area of interest to the student for them to witness first-hand experience and occupational skills in practice in order to increase career awareness, help model student behaviour and reinforce the link between classroom learning and direct work experience. Though not common in most companies, job shadowing is a significant mode of training for developing employees. Tatum (2011) considers job shadowing as one of the most common of all training techniques for new employee citing that this training essentially involves spending a period of time with a seasoned expert, observing everything that he or she does that is related to the work that is expected to be accomplished as part of the daily routine of the job. This involves one new employee to act as an observer, and one person (experienced and seasoned) to function as the demonstrator, in order to allow the new hired employee to get a handle of what is involved in performing the tasks associated with the work, learning general job responsibilities, observing how the tasks are carried out, and getting some insight into the methods that allow for efficient handling of the job learning from experienced

employee or trainer.

2.6.3 Foundation training

Similar to ‘induction/orientation training’, foundation training is an in-service training which is applicable and appropriate for newly recruited personnel. Halim and Ali (1998) explain that foundation training is made available to employees usually at an early stage of their service career to strengthen the foundation of their service career. They further explain that besides technical competence and routine instruction about the organisation, the employees are given some professional knowledge about the various rules and regulations of the organisations, government, financial transactions, administrative capability, communication skills, leadership ability, coordination and cooperation among institutions and their linkage mechanism, and report writing. All these are aimed at enhancing the employees’ performance as they settle into the job.

2.6.4 Upgrading/refresher training

This is one of the commonly used in-service training at the workplace. This type of training helps to keep employees at peak of their possible production and prevent them from getting into rut. This is commonly referred to as ‘upgrading or sharpening of skills’ for the existing employees. The training is offered to upgrade and maintain the specialised subject-matter knowledge and skill of incumbents. The upgrading or refresher training keeps the employees updated and enables them add knowledge and skills, new methods, as well as reviewing old systems and methods of work. TEVETA Private Sector Revised Policy (2013) asserts that in-service upgrading training programmes assist to improve employees’ productivity and performance at the workplace for purposes of improving delivery of quality goods and services.

2.6.5 On-the-job training (OJT)

On-the-job training (OJT) is generally defined as employee training at the place of work while the employee is doing the actual work, usually a professional trainer or experienced employee serves as a training instructor/trainer. Similarly, OJT is the gaining of knowledge and learning aspects about a job while actually working at the specific job, working side by side with a highly skilled worker; thus learning the job while doing it (Ayers, 2011 in

Mofuluwake, 2014). OJT is most applicable and works well in technical occupations. According to Gray and Herr (1998) OJT has been one of those phenomena of technical and vocational education and training that has been around for a long time. They view the goal of OJT as that of equipping the workforce with skills, knowledge, understanding and motivation to meet the demands of an industrial and global economy. Jain (1999) describes OJT as an informal education and training that is practical and prepares an individual to use acquired knowledge efficiently and confidently. Cambell, (2007) further describes OJT as giving the employees normal working situations as designed to change the skills, attitude, and knowledge that has been directly related to performance demands of the task while Jain (1999) describes OJT as work-based learning that occurs on a day-to- day basis at the workplace as employees acquire new skills or develop new approaches to solving problems.

2.6.6 Coaching

Coaching is another type of in-service training taking place at the workplace which is also referred to as mentoring or career counselling. This is considered to be a technical training as it involves regular reviews of employee's progress when it is taking place in the production area involving mostly technical staff. These training programmes are carried out by line managers in order to advise and direct employees towards performance. On the other hand, Jain (1999) defines job coaching as a mode of training given to employees to help them find positions they will enjoy and are well suited for, through job assessment tests, counselling and one-on-one training to guide and mentor the employees. This helps employees to develop career goals, and assist them in creating a pathway to success. Furthermore job coaching, as a training method, increases skills in managing one's career and getting to the next level in one's profession, as well as, presenting as a strategic assistance aimed at landing the job one desires.

2.6.7 Career or development training

This type of training is designed to upgrade the knowledge, skill and ability of employees to help them assume greater responsibility in higher positions. The training is usually arranged departmentally for all workers at all levels for the employees' own continuing education and professional development. Malone, (1984) states that career development is the act of acquiring information and resources that enables one to plan a programme of lifelong

learning related to his or her work life. He further opined that career or development training provides the opportunity for employees to prepare a plan for career training which that ensures the benefits of employees' retention and satisfaction, results into increased employees' effectiveness and efficiency.

2.6.8 Apprenticeship training

Apprenticeship training is a system of training a new generation of practitioner of skill. This training enables employers to develop and apply industry standards in training registered apprentices to benefit the industry. At the workplace or industry, this is a complementary training to students that have been at training institutions (in colleges) and are attached to the industry to gain practical experience and industrial exposure in their occupation/trade areas. As an in-service technical training, this is also viewed as an up-skilling and multi-skilling training programme on technical or production skills. According to Sharpe, *et al.* (2008), this type of training usually involve several related groups of skills that allow the apprentice to practice a particular trade, and they take place over a long period of time in which the apprentice works for, and with, a senior skilled worker.

2.6.9 Studies done on types of training

According to literature, several studies have been conducted on the use of the different types of in-service training programmes at the workplace. Halim and Ali (2008) in their FAO repository Document in Agriculture in Bangladesh reported that both Induction /Orientation training, Foundation training, Maintenance or Refresher/Up-graders training, Career or Development training, and on-the-job training were used in the Agricultural Sector in Bangladesh. Bartel (1995) examined personal records from large manufacturing firms in USA and found that on-the-job training was the most regularly implemented training. Similarly, Laing (2012) in her study of Public Organisations in Ghana, namely; Ghana Ports and Harbour Authority (GPHA) reported that on-the-job training was the most widely and frequently used method (at the rate of about 67.7 %), because it was simple and less costly. Therefore, Bartel (1995), Halim and Ali (2008) and Laing (2012) found on-the- job training to be the most popular and dominant type of training at the industry.

2.7 Employees performance

Employee's performance is generally defined as a measure of an employee's output and contribution towards the goals of the organisation. It is further defined as the functioning and presentation of employees that shows how well the employee performs compared to the tasks that the employee had been assigned. Employee's performance is, therefore, an act of performing; carrying into execution; achievement, accomplishment or act towards set objectives, standards or targets whose measure or indicators include; quantity of work (productivity), quality of work, job knowledge, and customer service (Hameed and Waheed, 2011). It involves use of statistical evidence to determine progress towards specific defined organisational objectives.

Employee's performance is very significant to the success of an organisation as it involves the human resource that drives the other resources in an organisation. Performance is generally defined as a measure of attainment achieved by an individual, team, organisation or process towards defined goals or objectives. The management of employees' performance is a human resource development concept, often referred to Performance Management – a management concept used to drive employees' behaviour and actions to get desired specific outcomes. Armstrong and Baron (1998) as cited by Mofuluwake (2014), broadly define Performance Management as a strategic and integrated approach to increasing the effectiveness of organisations by improving the performance of the people who work in them and developing the capabilities of teams and individual behaviours.

In many companies and organisations today, Performance Management System is put in companies and organisations as a mechanism or system used in getting better results from the organisations, teams of people and individuals. It is about aligning the organisational objectives with employees' agreed measures, skills, competency requirements, development plans and delivery of results. This is done by understanding and managing performance within agreed framework of planned goals, objectives, standard achievement and competent levels. The performance management is used to ensure that employees' activities and outcomes are congruent with the organisations' objectives and entails specifying those activities and outcomes that will result in the firm successfully implementing the organisation's strategy (Noel, 2000 in Venclová, Šalková, & Koláčková, 2013).

There are also various types of staff performance appraisal systems or methods used at the industry (in various companies and organizations) based on several factors. Locker and Teel (1997) found that 'Identified Graphic rating Scales, Open Ended Essays and Management by Objectives (MBO), were the most frequently used staff Appraisal Forms. Further, they found three commonly used Staff Performance Appraisal methods used at the industry to be; Rating Scale, Essay Method and Results- Oriented or (MBO). Similarly Venclova, et al. (2012) and Katerine, et al. (2013), found that the most commonly used employee performance appraisal methods in Czech Republic were Pre-determined goals based performance appraisal (Highest at 51.2 %), Pre-determined standards fulfilment based appraisal (36.6 %), Appraisal Interview (29.3 %), Rating Scales (16.6 %), Free Essay (12.2 %), Ranking System (97.3 %) and 360 – Degrees Method (the least at 2.4 %). No clear and common reasons were presented for the choice of the methods in these studies. In another study, Management by Objectives, 360 –Degree, Behavioural Observations and Behavioural Anchored Rating Scales, were found to be the most popular appraisal systems in the study of Appraisal Systems in BHEL, Bhopal (Gangwani, 2012). Hakala, (2008) reported on a wide range of staff appraisal methods that included; Self-Appraisal, Supervisor/Manager Appraisal, Peer Appraisal, Team/Group Appraisal, Assessment Centre Appraisal, 360 – Degree Feed Back or Full-Circle Appraisal, Management By Objectives, Balance Score Card and Productivity Tests Appraisal systems. All these staff appraisal systems are used by different employers today. However, from the reported studies, it appears that Pre-determined goals, Pre-determined Standard fulfilment based and Management by Objectives are the leading most used appraisal systems.

2.7.1 Employees performance indicators and measurements

Employees' performance can be measured in a number of ways. Kaplan and Norton (1996) through the introduction of the performance management model "Balance Scorecard" view employees' performance from the internal perspective with factors/aspects of quality levels, productivity, job knowledge, working relationships, levels of demand for supervision; customer service, innovativeness and learning ; as part of the measures for employees' performance. Ratuli and Evans (2005) as cited by Evans and Evans (2005) elucidate the internal perspective to be significant in the manufacturing industry, with emphasis on

productivity, quality and cycle time, as key measures of performance of employees. In agreement to this, the literature review on a number of studies made on performance of employees; indicate job knowledge, productivity and quality as some of the key measures for employees' performance.

Singh (2000) defined the productivity of the Frontline Employees as quantifiable output with behavioural standards, and quality as how the service was delivered. Hakala (2008) reported that there are sixteen (16) ways through which Employees' Performance is measured. Some of these measurements include; Quantity/Productivity (number of units produced), quality (percentage work outputs/rejects or re-done works, errors etc.), timeliness/productivity (speed/rate or out-put per unit time), knowledge level of the job, cost-effectiveness, absenteeism/tardiness, creativity, adherence to policy, gossip and other personal habits, personal appearance/grooming, In his report, he observed that there were many indicators/measurements of performance. Some of the indicators or measurements of performance include; job knowledge, productivity and quality.

2.7.1.1 Job knowledge

Job knowledge is defined as a measure of performance, to imply the supervision required by the employee to do the job; and the level of expertise required to do the job according to Hanks (2010) as cited by Gruman (2011), indicates how well the employee knows his or her job, hence the performance of the employee. In order to successfully complete the duties and responsibilities of the position, job knowledge demonstrated by the employee becomes a driver of performance of the employee. This can be measured in terms of degree of technical knowledge, level of understanding of the job procured and methods, the level or amount of supervision required, confidence in execution of the job requirements, and level of expertise required to perform the tasks of the position.

2.7.1.2 Productivity

There are several models that have been developed that define productivity and how it can be measured. Ratuli and Evans (2005) as cited by Evans and Evans (2005) define productivity as the ratio of out-put of production process to the in-put. In agreement, Stoner (2005) as cited in Laing (2009), concur that productivity is a ratio of out-put to that of in-put,

and is a measure of how the individual, organisation and industry converts in-put resources into goods and services. Additionally, it is the measure of how much output is produced per unit resource employed from the definition of Lipsey (1989) as cited by Hamidun (2009). Influence of training on Employee Commitment and Performance. Dissertation submitted to University of Malaya, Kuala Lumpur. Malaysia. This means that it is a work measurement quantity that reveals the effectiveness with which labour and equipment are used or shows the efficiency. In other words, it indicates how long it takes the employee to complete assignments or tasks, use of time, volume of work, Production output rate/ volume realised from a given unit in-put or out achieved in a unit period of time, ability to meet schedules or produce against plans, and ability to meet objectives of both the employees' job and that of the overall organisation. Miller, et al. (2008) points out that the best way of measuring the average employee performance and contribution towards the success of the organisation is by using Productivity Metrics. This is implemented by identifying contributing elements, such as, the name, description, measurement procedure, measurement frequency, thresholds estimation, target value and units of the Metric. This data can be collected and organised over a specified period of time using a scorecard or dashboard.

2.7.1.3 Quality

Quality is a multifaceted concept and can be viewed in many different ways. This can be viewed from both design of the product (design quality - fitness) and process (conformance quality). According to Ratuli and Evans (2005) as cited by Evans and Evans (2005), conformance quality largely depends on the organisation's internal processes and the ability for its workforce (skills) to control them to specifications. A popular measure of conformance quality is argued to be the number of nonconformities (i.e., defects) per unit. Other indicators are; percentage of accurate products, number of rejects, mistakes or errors done per unit period or batch, number of complaints or customer satisfaction (both internal and external). Hakala (2008) prioritises and highlights quality as one of the sixteen ways of measuring employee performance. He elucidates that the quality of work performed by an employee can be measured by several ways, one of which is the percentage of work output that must be redone or is rejected. In a sales environment, this can also be viewed as the percentage of inquiries converted to sales. For instance, the percentage of inquiries converted to sales is an indicator of salesmanship quality. In general, quality is the

characteristic of products or services that bear ability to satisfy the stated or implied needs (Kotler, et al., 2001).

2.8 Relationship between in-service technical training and employees' performance

Training and Performance are inter-related concepts. The literature gives both conceptual and empirical evidence that training relates and influences performance of employees. Over the years, several authors have looked at the relationship between training and performance through a number of studies. These studies have been conducted both in general and also focused on to specific sectors or industries and types of training to determine the relationship. In general, the studies have shown that training correlates to employees' performance.

2.8.1 General studies on relationship between training and employees' performance

Some researchers have assessed the relationship between training and organisation's competitive edge (Jain, 1999); productivity (Doug, 2004; Singh, et al., 2012). In general, the results of these studies suggest that training increases employees' productivity through improved skills, job knowledge, attitude, innovation and creativity leading the organisation to maintain or gain competitive edge in highly dynamic global economy (Singh, et al., 2012; Bowers and Salas 2000 in Farooq & Khan 2011). Vitez (2010) asserts that employees who undergo technical training, whether before or during the job, are typically more valuable to their company than employees who do not. The knowledge and skills they acquire lead to more innovation in the company and more capacity for completing tasks or activities more efficiently. Among other things; training enhances job performance (Churchill, 1985 in Mofuluwake, 2014), training enhances manpower effectiveness (Senyo, 1991); training enhances skills, efficiency, productivity, high quality result, and develops employees to produce high quality output (Ignacious, 2008 in Mofuluwake, 2014), and training improves individuals, teams and corporate performance in terms of out-put, quality, speed and overall productivity, attract high quality employees by offering them learning and development opportunities, increasing level of competence and enhancing skills for career growth advancement within the organisation (Armstrong, 1995).

2.8.2 Studies on relationship between training and employees' performance in specific sectors/industries

In several studies, specific type of training and various types of trainings have been found to relate and influence employees' performance in a number of ways. Bartel (1995) examined personal records from large manufacturing firms in USA and found that formal training improves job performance, and leads to improvement in job performance as was measured by performance rating scores. Similarly, Dearden, et al. (2005) examined industrial data and found that training was related to task and had high significant relationship with productivity. Particularly, they found that every 1 % increment in training resulted into increment in productivity and added value of 0.6 %. Furthermore, Saleem, et al. (2011) in their study of employees trained in the banking, financial services, pharmaceutical companies, small and medium firms established that training improved performance, increased job satisfaction and morale among employees, and increased efficiencies in processing. Sultana et al. (2012) in their study of the practices in the telecommunication sector in Pakistan found that there was a strong positive effect of training on employee performance, and concluded that training enhances skills, competencies, ability and ultimately worker performance and productivity in organisations. Training was specifically found to increase the level of individual and organisational competency, and helping to reconcile the gap between what should happen and what was happening, between desired targets or standards and actual levels of work performance, helping to overcome any deficiencies in human performance (skills gaps) at the workplace, and ultimately enhancing skills, competency, ability and workers performance.

2.8.3 Studies on relationship between specific types of training and employees' performance

In-service training has been one of the major types of training whose studies have shown that training influences employees' performance at the workplace. Keith (1982) as cited by Mofuluwake (2014), concludes that 'In -service training' makes a difference, especially in knowledge acquisition which lead to change in behaviour and performance of intended tasks to be executed. One of the types of in-service training programs that have been studied in reference to employees' performance at the workplace is 'on-the-job training'.

On-the-job training has been found to be one of the best forms of training that relates directly to employee performance at the workplace. This is because it places the employees in a learning situation to develop confidence and sense of productivity. Lynch (1989) in a study of data of youth Cohorts in USA found that On-the-job training contributed significantly to workers performance stronger than the other types of trainings, such as, apprenticeship. This finding is supported by the results of the study by Dearden, et al. (2005) that found that training related to tasks (on-the-job training) had high significant relationship with productivity. Every increment of 1.0 % in training resulted into 0.6 % value addition in productivity.

In agreement, Creth (1986) as cited in Mofuluwake (2014), points out the benefits of on-the-job training to be:- increase in quality of work because of understanding the process; increase in quantity of work by knowing how to resolve problems; reduced need for close supervision because of the increase in employee's self-sufficiency; confident, flexible staff with low turnover because of ownership and feeling part of the organisation; high staff morale created by team interaction where each team has a vital role in success of the organisation; and job satisfaction from the culmination of producing a quality product, on time to meet customer demand, at a cost that has been competitive and functioning with fellow workers to achieve mutual goals.

2.8.4 Studies on relationship between training and employee productivity and effectiveness (performance)

In cementing the relationship between training and employee performance, some studies have specifically focussed on employee productivity and effectiveness from general performance of employees. Rajeswari and Palanichamy (2014) and Singh and Mohanty (2012) in their respective studies of employees in various sectors: automobile, service, agriculture, luxury items and credit banks found that there was a relationship between training and employee performance using t-tests. Rajeswari and Palanichamy (2014) found that training was leading into reduction in time by 20.6 %, improving in interpersonal relations by 29.1 %, discharging duties by 20.6 %, reducing wastages by 10.9 %, and improving output by 10.9 %. Similarly, Singh and Mohanty (2012) found varied training input to the respective sectors increasing productivity by varied proportionate increments: an

in-put training of 0.15 % increased productivity by 0.93 % in the Automobile sector while an input training of 0.26 % increased productivity by 1.89 % in the agricultural sector. Additionally, Ahmad, et al. (2011) in a survey of teachers who had attended in-service training between 2003 and 2005 in Malaysia measured through their students' performance found that there was a strong relationship between in-service training attended by their teachers and their teaching effectiveness, and concluded that in-service training attended by the teachers was very important in raising the teachers' effectiveness in terms of productivity.

In another study, Keith (1982) as cited by Mofuluwake (2014), looked at extension workers in Ohio who had undergone in-service training in order to find out whether in-service training makes a difference. The study focused on the influence of in-service training for extension workers on their knowledge and behaviour. The study involved one experimental group of staff (extension workers), namely those who had attended the training, and another group of staff which had been identified by stratified random selection process from those who had not attended the training. There were 31 % responding extension staff that had undergone the training, with a mean score for the post test of 21.5 and a median of 22.5 out of possible 32. The control group (those that did not attend the training) showed a mean score on the post test of 16.1 % with a median of 17 out of a possible 32 or 53 %. Using an independent t-test to compare the two groups for significant difference, it was found that those workers who had attended the training scored significantly higher on knowledge than the control group (workers who had not attended the training). The study concluded that in the cognitive (knowledge) area, a significant change had taken place in the workers who had attended training than those who had not. Therefore, training was found to have an influence on the knowledge of the workers who had attended the training. The conclusion drawn from this study was that training has an influence on knowledge of the trainees.

2.9 Measurements and conceptual framework of the relationship between training and employees' performance

A number of models and measurements for assessment of the relationship between training and employees' performance exist in literature. Both the models and measurements are based on varied factors in order to effectively confirm the relationship between training and employees' performance. In this study, several models and ways of measuring the relationship between these two variables were reviewed and considered in order to get the most appropriate conceptual framework and models for the study. According to the author's findings from literature review, most models are general than those on specific types of training and performance factors.

2.9.1 Measurements of relationship between training and employees' performance

Literature indicates that although the relationship between training (in-service technical training) and employees' performance can be measured, there are a number of factors that must be considered. As such, there are several models used to assess this relationship (Hakala, 2008; Kaplan and Norton, 1996; Miller, et al. 2008; Ratuli and Evance, 2005; and Singh, 2000). Towards that end, Rajeswari and Palanichamy (2014) in their study of public sector organisations in India identified and used; reduction of time, reduction of wastages, improving output, levels in discharging duties, and improving interpersonal relationships as some of the indicators or measures of employees performance at the workplace. Both of these relate to knowledge and productivity of employees and quality of output.

Rowley (1995) contended that training and human capital development must be viewed as an integral part of the core organisational strategy, rather than an ad hoc operation issue or function. In this respect, industry must be prepared to equip the workers with every advantage and learning technique to provide a knowledgeable, productive and satisfied worker. Additionally, since training contributes to the performance of an enterprise, it must be approached from the view point of employers, and that training in-puts and out-puts must

be measured by tangible yard sticks. Consequently, it is necessary to develop an effective set of methods for measuring the contribution of training to the performance of employees and the enterprises, particularly where training is carried out internally (Greig, 1997). Such measurements confirm the relationship or influence of training on employees performance and organisations.

2.9.2 Conceptual framework of the relationship between in-service technical training and employees' performance.

There are a number of models that give the conceptual framework of the relationship between training and employees' performance applicable to the relationship between in-service technical training and performance of employees. Apparently, no model is known that specifically gives the relationship between in-service technical training and employees' performance in terms of knowledge, productivity and quality in combination. However, other models available in literature which give the general conceptual framework on the relationship between training and employee performance are applicable. These models have been applied in this study to come up with the conceptual framework. Three of these applicable models are; Sultana (2012), Singh and Mohanty (2012), and Bowers and Salas (2000) as presented in Farooq and Khan (2011), and provide the literature conceptual framework of this study as it looks into the relationship between training and employee performance.

2.9.2.1 Sultana (2012) Training and Employee Performance Model

Sultana et al. (2012), investigating the impact of training on employee performance in telecommunication sector in Pakistan, strongly assert that training is a key element for improved performance, and that it enhances skills, competency, ability and ultimately worker performance and productivity in organisations. The study came up with a conceptual framework relevant and applicable to this study as presented in Figure 1.

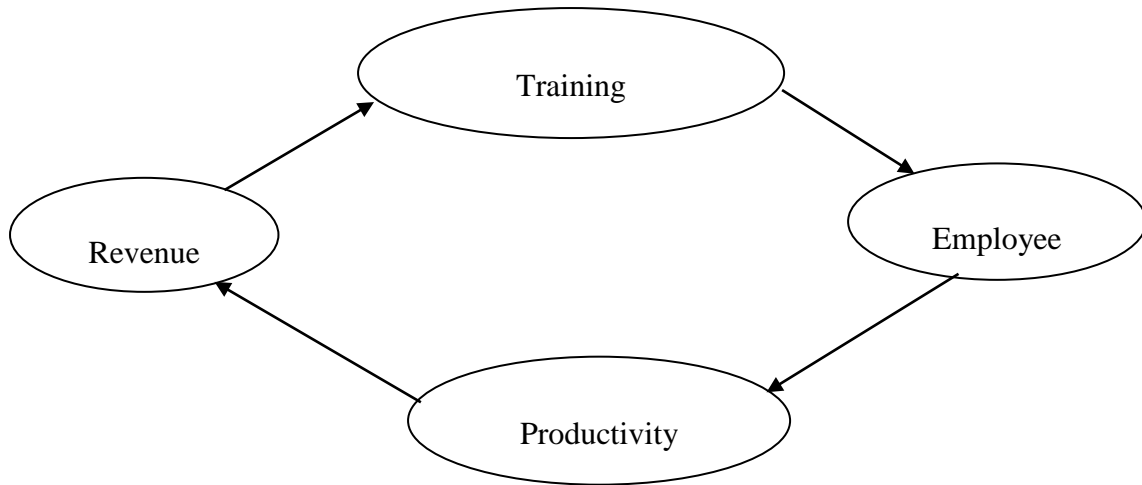


Figure 1: Sing and Mahonty (2012) Model

2.9.2.2 Singh and Mohanty (2012) Training and Employee Performance Relationship Cycle Model

Singh and Mohanty's (2012) comparative study on impact of training practices on employee productivity in India concluded that training has a significant role on productivity and came up with a relationship cycle model depicting training, employee performance, productivity and revenue. The model confirms that revenue cycle driven by knowledge, skill, innovation and creativity- all of which come from employees through training - results into improved productivity that in turn creates revenue for organisation. The Model depicts that productivity of employee has a direct relationship with training imparted in the employees, and that training has a significant role to play on productivity as presented in Figure 2.

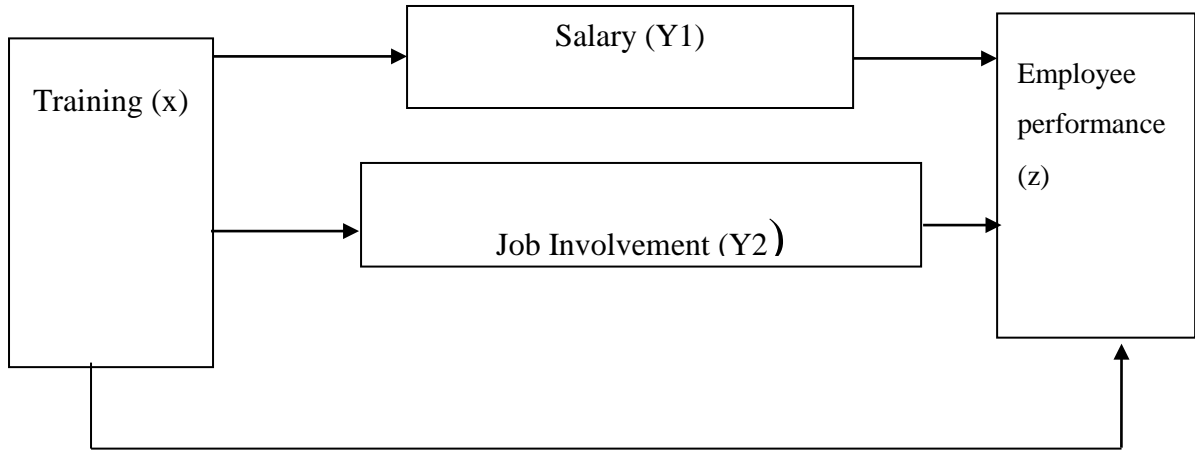


Figure 2: Sultan (2012) Model

2.9.2.3 Bowers and Salas (2000) Training and Productivity Model

The other model is that of Bowers and Salas (2000) as reported in Farook and Khan (2011) which gives training and feedback as drivers of employee performance. The Model indicates that training and feedback are the true compliments of giving a better shape to employees' performance. This implies that effective training increases the quality of tasks performed by employees and ultimately improve the performance of employees as presented in Figure 3.

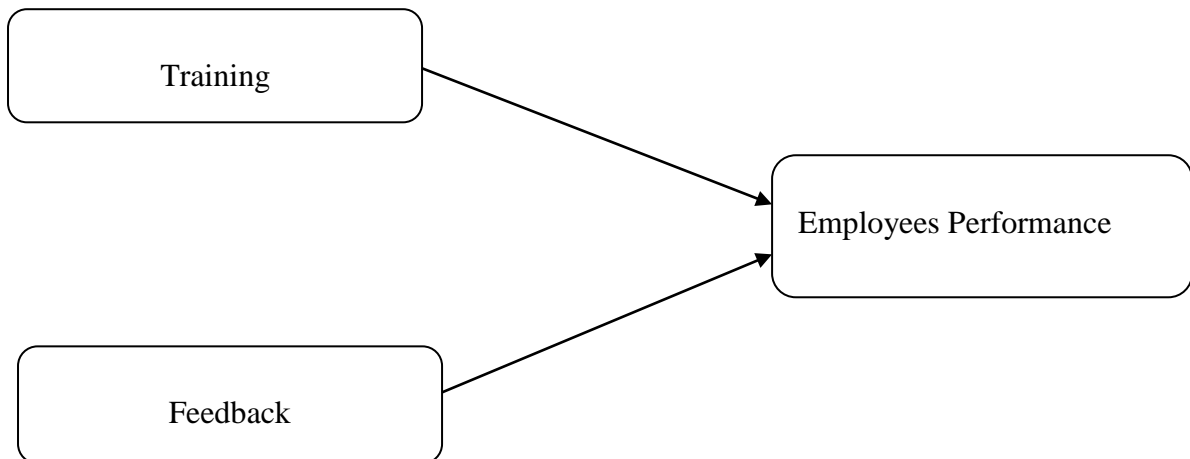


Figure 3: Bowers, et al (2000) Model

These three models provide the literature conceptual framework of this study as they look into the relationship of training on employee performance.

2.9.2.4 Conceptual framework for this study

Applying the three conceptual models on the relationship between training and employee performance as presented in the literature of this study, the conceptual framework of this study is built around considering the various types of in-service technical training as drivers (independent variable) and employee performance in terms of productivity, job knowledge and quality as the driven (dependent variable). This conceptual framework is designed to assess and confirm the relationship between in-service technical training and employees' performance as presented in Figure 4.

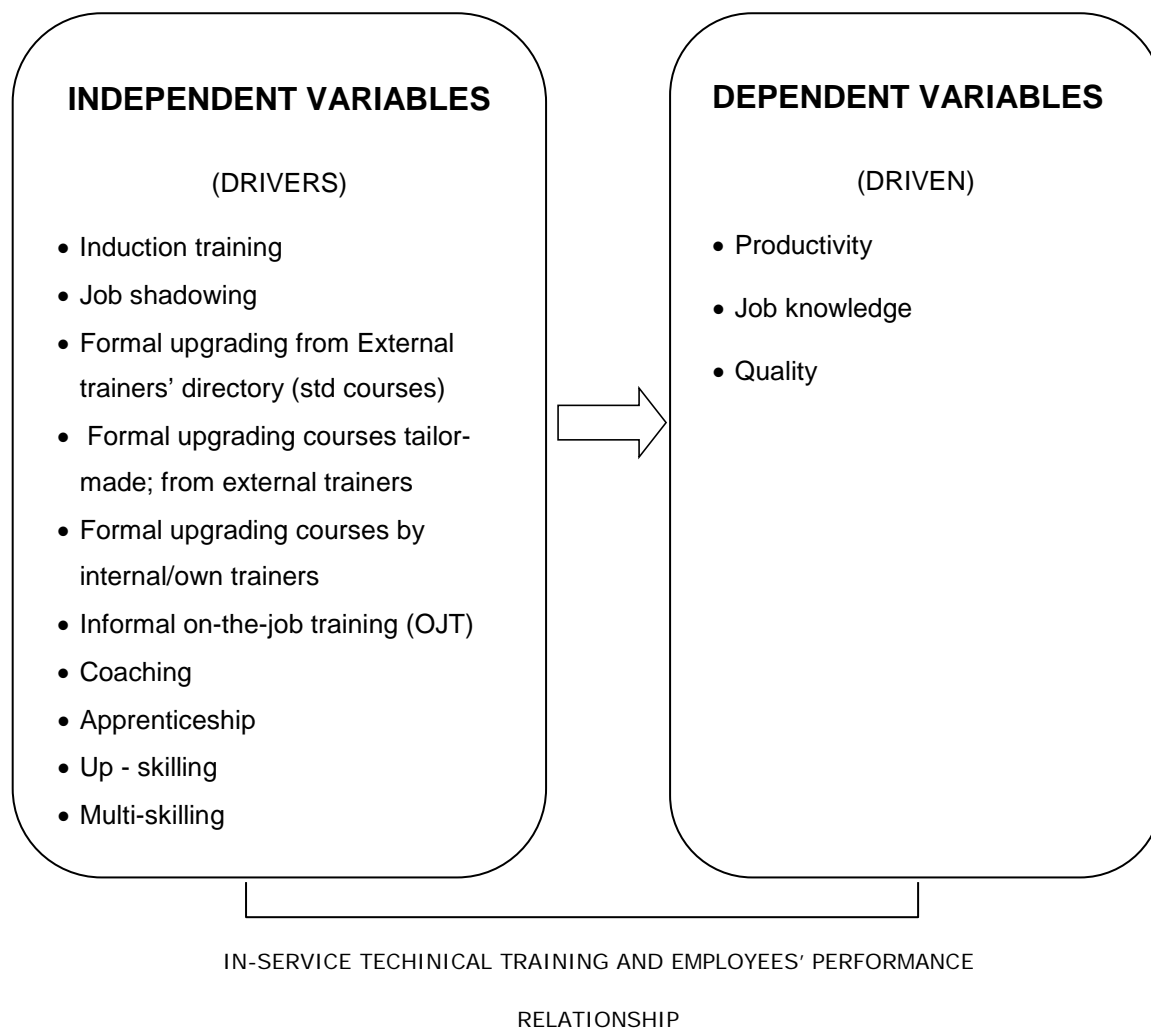


Figure 4: Conceptual framework of the study

2.10 Chapter summary

In this chapter of Literature Review, I have looked at the over view of the economy and private sector development in Malawi, background of the establishment of TEVETA and MITA, definitions, types and studies that have been conducted on in-service technical training and employee performance, performance appraisals and measurements/indicators, different conceptual framework models developed on the relationship between training and employees' performance. Finally, the chapter has also highlighted the conceptual framework as basis for this research study.

Chapter 3

Research Methodology

3.1 Introduction

In this chapter, the research methodology employed in the study is presented in detail. This is based on the “Onion” Model proposed by Saunders, et al. (2012). Firstly, the constructs of in-service technical training and employee performance have been conceptualized in this chapter. Secondly, the research design adopted in the study has been described focusing on the research philosophy, approach, strategy and methods. In the third place, the sample design focusing on the population, sampling frame and technique and sample size have been outlined. Coming to point number four, the data collection including methods, instrument and pre-testing of the instrument have been discussed. And in the final point, the data analysis techniques used as well as the ethical issues considered in this study have been described.

In general, this study drew from the positivism philosophy and using a deductive approach whereby quantitative data was collected using a pre-tested (closed) questionnaire from a sample of respondents drawn from the employees (beneficiaries of the training programmes at all levels) and the supervisors or managers directly responsible for the training and performance of the beneficiaries in the MITA companies using ‘convenience’ sampling. The ‘convenient’ sampling technique was used in the study to ensure administrative feasibility in view of the nature of the study and the population.

According to Saunders et al. (2012), ‘convenient sampling’ is a non-probability statistical method of drawing representative data by selecting people because of their convenient accessibility and ease to get the data. The data was analysed based on descriptive and inferential statistics using SSPS. Additionally, qualitative data was collected through discussions with management using semi-structured interview guide form relevant documents on training and performance of employees to complement the quantitative data collected.

3.2 Conceptualisation and operationalization

The main objective of the study was to assess the relationship between two concepts: in-service technical training and performance of employees. The concept of in-service training refers to the training offered by organisations from time to time for the development of skills, in terms of knowledge, competencies and attitudes, to an employee after the individual begins work responsibilities (Halim and Ali, 2008). It refers to a systematic approach to learning and development aimed at improving an individual, team or the organisation's effectiveness (Goldstein and Ford, 2002).

In-service technical Training therefore relates to training programmes that involve manual or practical skills and competencies in a specific trade, occupation or vocation given to employees at the workplace during the course of employment, and, it is commonly applicable to manufacturing, production or engineering- oriented companies and organisations (Halim and Ali, 2008). The types of in-service technical training include: induction training, job shadowing training, standard upgrading short-term courses from external trainers, tailor-made up-grading short-term courses from external trainers, formal short-term up-grading courses conducted by internal trainers, informal on-the-job training, coaching, apprenticeship training, up-skilling and multi-skilling training.

On the other hand, the concept of performance of employees is defined as a measure of an employee's output and contribution towards the goals of the organisation. It is the functioning and presentation of employees that shows how well the employee performs compared to the tasks that the employee had been assigned. Employee's performance is, therefore, an act of performing; carrying into execution; achievement, accomplishment or act towards set objectives, standards or targets whose measure or indicators include; quantity of work (productivity), quality of work, job knowledge, and customer service (Hameed and Waheed, 2011). Assessment of employee performance measure in this study is limited to three factors; job knowledge, productivity and quality.

3.3 Research design

3.3.1 Research philosophy

This research study was based on positivism philosophy which adopts scientific approach to generation of knowledge. This research philosophy was chosen based on a number of reasons. Firstly, it is because positivism uses factual knowledge deterministic through scientific principles or theories to learn about the truth. Secondly, it generates factual knowledge based on measurements and observations limited to the data collected and interpretation through an objective approach, and the research findings are quantifiable. It is based on quantitative approach, therefore future predictions and recommendations can be made (Johnson and Onwuegbuzie, 2007).

Thirdly, the theory or findings in the study can be generalised at a large degree. All these factors were important as the study attempts to assess and confirm the known theoretical relationship between in-service training and employees' performance. Fourthly, in positivism philosophy approach, the researcher is independent from the study safeguarding the study from human interests, emotions and feelings (Crowther and Lancaster, 2008). In this respect, it helps to derive conclusions that are not subjective.

This was also important for this type of study as it assumed that the researcher was independent of the study and was not affected by the subjects of the research to come up with unbiased conclusion on the relationship between in-service training and employees' performance within MITA. Therefore, the research study adopts a highly structured methodology that facilitates replication and quantifiable observations, consequently lending it to statistical analysis (Saunders et al. 2012).

Additionally, the quantitative approach was preferred in this research study as it relies on data therefore more scientific, allowing the researcher to measure and analyse the data which helped the findings in this study to be more objective. This allowed the conceptual framework or theory between training and employees' performance, as variables, to be tested scientifically, and data collected measured using statistics in order to add empirical knowledge and evidence on the relationship between training and employees' performance.

3.3.2 Research approach

The study employed a deductive research approach as it used data to test known propositions that relates in-service technical training and performance of employees, according to Saunders et al. (2012). The study used quantitative techniques to test the concepts of in-service technical training and performance of employees based on scientific principles. A deductive research approach was used because this approach is based on developing a hypothesis/hypotheses based on existing theory, and then designing a research strategy to test it (Wilson, 2010). Further, the deductive approach helps with deducting conclusions from premises or propositions where expected pattern is tested against observation (Babbie, 2010), and that it helps to explore a known theory or phenomenon and tests if that theory is valid in a given circumstance. Therefore, in this study exploring whether the known theory of the relationship between training and employees' performance is valid as we look into the in-service technical training implemented within MITA group of companies and their employees' performance.

3.3.3 Research strategy and method

The study was conducted through a survey whereby data was collected from sample drawn from all companies under MITA: ILLOVO Sugar Manufacturing Company, Bottling and Brewery Group of Companies Limited (BBGL), Lafarge Cement Manufacturing company, Unilever, Universal Industries, Packaging Industries (Malawi) Limited now called NAMPACK Limited, Chibuku Products, Lujeri Tea Estates, Eastern Produce and Central East African Railways (CEAR).

Data was collected through mixed methods, namely, questionnaire, structured interviews, discussions and study of relevant official documents on the subject matter (Creswell, 2008).

3.4 Sample design

3.4.1 Population

The targeted population was about 2100 employees in all the ten companies within MITA as unit of analysis because the employees were the ones who receive in-service technical training, perform and get assessed in their performance. This targeted population was estimated based on employees within the ten MITA companies involved in in-service

technical training. The survey also targeted employees in all the departments in these companies and at all levels from operators to senior managers. It was difficult to get the actual number of employees in each of the companies during the study as the number of employees fluctuates with time, particularly those in the lower cadre (from operators and below). However, through general approximate figures obtained verbally from management from the respective companies, the estimated number of total employees in all the ten MITA companies was above 10,000 around this period. In this figure, general workers contributed to the highest percentage leaving close 7000 as full employees. About 30% of these, that is 2100 employees, were those involved in the in-service technical training taking place within the MITA companies, and was therefore considered as population for the study. A total of 2100 employees was considered as the population for the study as opposed to 7000 for purposes of aligning the in-service technical training with the real targeted and beneficiary employees for such training.

3.4.2 Research sampling frame

The sampling frame for the study comprised employees who were Senior Managers, Middle Managers, Supervisors/Foremen, Technicians and Operators in all the departments and companies within MITA. The study excluded employees below operators who are mostly general workers or Labourers within these companies. This cadre of employees are usually on temporally or seasonal employment basis, mostly not offered formal or structured training, and would have difficulties in completing the nature of the designed questionnaire due to low levels of education associated with them. These factors would have affected the quality of the questionnaire results and also distort the outcome of the results.

3.4.3 Sample size and sampling techniques

A total of four hundred and seventy (470) employees at various levels in all the departments were selected using convenient sampling as a representative sample of the population. The sample was determined based on the number of companies under MITA, average number of departments and levels of positions within companies under MITA, and distribution of respondents across the demographics of MITA through strategizing convenient accessibility of the required data. This sample represented about 22.5 % of the estimated population. These were distributed to the ten MITA companies proportionate to company size, out of

which a total of two hundred and thirty eight (238) were responded and analysed, reflecting a response rate of 50.6 % which was reasonable due to time and financial resources limitations. The distribution of the 470 questionnaires was balanced based on number of employees at the respective levels in all the MITA companies as follows; 140 questionnaires (30%) to operators, 120 questionnaires (25%) to technicians, 95 questionnaires (20%) to supervisors/foremen, 70 questionnaires (15%) to middle managers and 45 questionnaires (about 10%) to senior managers. Except for the senior and middle management positions that targeted all employees at these two levels, the rest of employees from supervisors to operators were identified through random samplings. The questionnaires were administered with the help of human resources and training managers in the companies. Relevant official and published documents from both the companies, TEVETA and other sources in line with the research topic were reviewed and considered as part of the qualitative data. This approach and sampling technique was followed using the studies of Coskun, et al. (2008), Laing, (2009), Singh et al. (2012) and Rajeswari, et al. (2014).

3.5 Data collection methods and instruments

3.5.1 Data collection method

The data collection method was mainly through questionnaires, structured interviews and discussions, as well as studying relevant company documents. This integrated approach was used to ensure comprehensiveness and completeness of data (Creswell, 2008). The data collection method through questionnaires was used because it allows large amount of information to be collected from a large population (as was the case with number of employees within the MITA grouping) in a short period hence relatively cost effective. Further, the results of the questionnaires or data collected could be easily quantified through use of a software, collected in more standardized form and analysed more scientifically and objectively. Additionally, interviews and discussions were used to assist in collecting more detailed and qualitative information that could not be covered by the questionnaires to enhance the overall results of the study.

3.5.2 Data collection instrument

In the distributed questionnaire, key questions were aligned to the research objectives, most of which used the Likert scale. Questions (1) to (7) focused on the characteristics of the

population/respondents; question (8) was on range/types of trainings used in MITA and frequency of implementation, question (9) to (10) on reasons, roles and relationship between in-service training and performance of employees, whilst questions (11) to (13) centred on relationship between training and employees performance and measure.

3.5.3 Pre-testing the questionnaire (Pilot testing)

The questionnaire was pre-tested to ensure practicability and effectiveness in both data collection and analysis. Fifty (50) Questionnaires were piloted in two of the ten MITA companies (PIM and Universal Industries), out of which twenty-three (23) were returned, analysed and improvements made to the original questionnaire.

3.6 Data processing and analysis

The quantitative data was analysed using SPSS as this is one of the versatile tools for analysing quantitative data (Saunders et al., 2012). Firstly, the data was summarised using descriptive statistics while the relationships were tested using inferential statistics. This quantitative analysis was used because it provides support for anticipated results between two variables. Both simple frequency ratios, tables, cross –tabulation, and Chi-test were used in the analysis. Accordingly, Chi-test was used to determine the p value between two concepts or variables in order to confirm or reject the relationship between the two variables.

3.7 Research ethics considerations

The research was carried-out in partial fulfilment of the award of the Master of Business Administration degree. As such, the data collected and the findings in this study will mainly be used for academic purposes. Secondly, the companies that have been studied were coded for anonymity, for fear of disclosure of information. Data was collected from individual anonymously

3.8 Research limitations

The researcher's employer (TEVETA) collects and operates on training levy from companies whose payments uses company data in terms of number employees and their total emoluments. Therefore, any collection of data relating to employees becomes restricted and not easy thereby limiting the gathering of some of the information used in this study,

particularly on the true and accurate number of employees in companies of the study. The collection of such data was construed as TEVETA's platform for collection of levy by some respondents. Disclosure of more up to date data was challenging as some companies within this grouping lacked proper systems and procedures for implementing both trainings and performance appraisals. The education levels and lack of comprehensive knowledge about their companies and business, particular for the respondents at the operator's level who might not have a good understanding of some of the questions on the questionnaires might have affected some of the results. Time and financial resources were also limiting factors in the study.

3.9 Chapter summary

This chapter has presented the research methodology employed in the study based on the "Onion" Model proposed by Saunders, et al. (2012). The chapter has, firstly, conceptualised and operationalised the constructs of in-service technical training and employee performance. Following this, the chapter has described the research design adopted in the study focusing on the research philosophy, approach, strategy and methods. Then, the chapter has described the sample design focusing on the population, sampling frame and technique and sample size. Thereafter, the chapter has discussed the data collection including methods, instrument and pre-testing of the instrument, described the data analysis techniques used, and finally describing how the research addressed ethical issues in the last three sections of the chapter.

Chapter 4

Results and discussion of the study

4.1 Introduction

In this chapter, I have presented and discussed the results of the study on the assessment of the relationship between in-service technical training and staff performance measures among companies under MITA. Firstly, I have presented and discussed results of the assessment of the in-service technical training implemented focusing on the types, roles and reasons for in-service technical training. Secondly, I have presented and discussed the results of the assessment of the staff performance measures used focusing on the types, roles and reasons for the staff performance measure. Finally, the cross-tabulation results between in-service technical training and staff performance measure, focusing on the relationship between the types of in-service technical training and the types, roles and reasons for staff performance measure have been presented and discussed.

4.2 Respondents demographics

Table 4.1 summarises the demographic characteristics of the respondents. The results show that most of the respondents (59.4%) were from medium size companies with a population between 101 and 500 employees. The respondents were drawn from production (40.1%), engineering (31.6%), maintenance or workshop (10.2%), procurement (1.1%), marketing (0.5%), finance (4.3%) and human resources (4.8%). The majority of the respondents were at operator (25.7%) and technician (20.9%) positions. The results further show that most of the respondents (55.7 %) possessed secondary certificate qualification and the majority (80.2 %) had less than five years work experience.

Table 4.1: Characteristics of the respondents

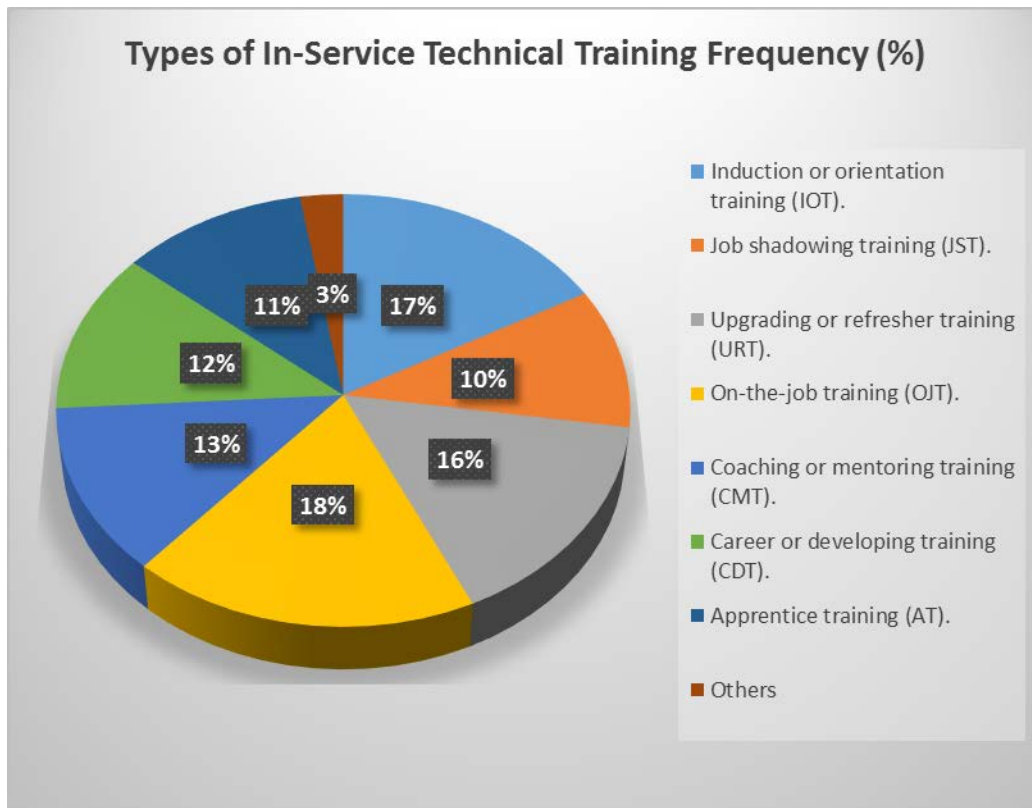
Variable	Attribute	Frequency (%)
Company Size (Number of employees)	1-100	9.1
	101-500	59.4
	501 and above	31.6
Respondents' department or division	Production	40.1
	Engineering	31.6
	Maintenance or Workshop	10.2
	Procurement or Materials	1.1
	Marketing	0.5
	Finance	4.3
	Human Resources	4.8
	Other	7.5
Respondents' position	Operator	25.7
	Technician	20.9
	Lead Technician	3.2
	Foreman	3.7
	Supervisor	13.9
	Line/middle Manager	13.4
	Senior Manager	3.7
	Other	15.5
Number of employees under respondent's supervision	None	23.5
	1-10	39.6
	11-50	22.5
	51-100	3.7
	101-200	2.7
	201-500	2.7
	501 and above	5.3
Academic Qualification	Primary certificate	18.7
	Secondary certificate	55.6
	University Degree	1.6
	Postgraduate Degree	1.1
	Professional Qualification	17.1
	Other	5.9
Respondents' Experience	0-5 years	80.2
	6-10 years	12.8
	11-15 years	3.2
	16-20 years	1.6
	21 and above	2.1
Availability of in-service training	Never	9.6
	Rarely	27.3
	Occasionally	28.9
	Frequently	15
	Always	19.3

4.3 In-service technical training

In line with the objectives of the study, the results of In-service technical training that takes place within the MITA group of companies have been presented through three distinct areas. The areas are; the types of training being implemented and their implementation frequency; cross tabulation analysis, tools used and results; and the role and reasons for implementing these types of training and their link to employees' performance as presented in sections 4.3.1, 4.3.2 and 4.3.3 of this study, respectively.

4.3.1 Types of in-service technical training implemented

A review of literature on in-service technical training indicates that there are several types of in-service technical training used for skills development in industry and that their implementation varies depending on nature of the business and demand. Therefore, this study firstly assessed the distribution of the types of in-service technical training implemented in the companies under MITA and the results are presented in Pie Chart 4.1.



Pie Chart 4.1: Types of in-service technical training implemented in industries under MITA

Source: Primary research data (for the types) and Secondary research data for the distribution or frequency.

The results show that various types of in-service technical training were implemented with varying frequencies: induction or orientation training (16.9%); job shadowing training (10.5%); upgrading or refresher training (15.7%); on-the-job training (18.4%); coaching or mentoring training (12.6%); career or developing training (12.1%) and apprentice training (11.3%). Additionally, the results show the dominant type of in-service training implemented among the respondents was on-the-job training (18.4%) whilst the job shadowing training was the least dominant at 10.5 %.

Secondly, the study assessed the relationship between the types of in-service technical training implemented and respondents' demographic characteristics through cross-

tabulation. The cross tabulation results and tools used or means of arriving at the results, analysis of the results and the actual results of the study are as presented in the proceeding sections 4.3.2, 4.3.2.1, 4.3.2.2 and 4.3.2.3, and Table 4.2.

4.3.2 Cross tabulation tools used, results and analysis

The results of both types of training with respect to demographic characteristics of respondents and types of performance appraisal system with respect to demographic characteristics of respondents were evaluated through Cross Tabulation using Chi-Square Test independent analysis. This was applied to determine the relationship between the respective two categorical variables, from a single population. This tool (Chi-Square Test independent analysis) was used because this study wanted to determine whether there was a significant association or relationship between the two variables, and also to investigate whether the distributions of the categorical variables differed from one another. The two categorical variables were, firstly, the types of training and; number of employees, qualification and experience of respondents, type of department, position of employee, and frequency of the in-service technical training that were being implemented. And secondly, the other categorical variables were the types of performance appraisal system and; number of employees, qualification and experience of respondents, type of department, position of employee, and frequency of the in-service technical training that were being implemented.

A Chi-Squared Test is a statistical hypothesis test in which the sampling distribution of the test statistic is a chi-square distribution when the null hypothesis is true, Howell, D.C (2009). In Chi-Square Test (χ^2), the predetermined (probability) alpha (p) level value is 0.05, and degree of freedom ($df = 1$). In the analysis, the corresponding probability (p) is between 0.10 and 0.05 probability levels. This means that the p -value is greater than 0.05 ($p > 0.05$), therefore the null hypothesis is not rejected and that there is no statistically significant difference between the variables. On the other hand, if the value for (p) at 1 degree of freedom, and an alpha level is of less than 0.05 ($p < 0.05$), the null hypothesis is rejected, and generally refers to this as a significant difference.

4.3.2.1 Cross tabulation results between type of in-service training and respondents' demographic characteristics

The cross tabulation results between type of in-service training and respondents demographic characteristics were statistically determined using the response from the questionnaires and further analysed using Chi Squared Test to evaluate the results. The results are as presented in Table 4.2

Table 4.2: Cross-tabulation between type of in-service technical training and respondents' demographic characteristics

Variable	Attribute	IOT	JST	URT	OJT	CMT	CDT	AT	OT
Company Size (Number of employees)	1-100	17.3	7.7	13.5	25.0	7.7	15.4	11.5	1.9
	101-500	16.9	11.8	16.7	17.8	13.7	10.2	9.6	3.3
	501 and above	16.9	8.4	14.1	18.1	11.2	15.3	14.9	1.2
Respondents' department or division	Production	17.2	13.2	14.6	18.6	13.8	10.4	7.3	4.8
	Engineering	16.7	10.6	15.9	18.1	11.9	10.1	15.9	0.9
	Maintenance or workshop	18.9	5.4	13.5	17.6	6.8	16.2	21.6	0.0
	Procurement or materials	20.0	10.0	20.0	20.0	20.0	10.0	0.0	0.0
	Marketing	33.3	33.3	33.3	0.0	0.0	0.0	0.0	0.0
	Finance	12.9	6.5	16.1	22.6	12.9	19.4	9.7	0.0
	Human resources	16.0	6.0	16.0	18.0	14.0	18.0	10.0	2.0
Other	14.8	4.9	21.3	18.0	13.1	16.4	9.8	1.6	
Respondents' position	Operator	16.6	13.1	16.6	19.1	11.6	13.1	9.0	1.0
	Technician	17.6	5.6	14.1	21.8	9.9	11.3	19.7	0.0
	Lead Technician	17.4	8.7	21.7	17.4	8.7	13.0	13.0	0.0
	Foreman	17.4	8.7	4.3	13.0	13.0	17.4	26.1	0.0
	Supervisor	18.2	11.4	14.4	17.4	14.4	12.9	9.8	1.5
	Line or middle manager	16.0	9.9	15.3	16.8	15.3	13.7	11.5	1.5
	Senior Manager	17.5	10.0	15.0	17.5	17.5	12.5	10.0	0.0
Other	15.7	12.4	19.0	17.4	11.6	7.4	4.1	12.4	
Number of employees under respondent's	None	16.5	10.8	15.8	19.0	10.1	11.4	15.2	1.3
	1-10	17.3	10.6	15.7	18.3	12.8	12.5	9.6	3.2
	11-50	16.4	11.1	16.4	17.9	13.5	10.6	11.1	2.9

supervision	51-100	18.8	3.1	12.5	18.8	15.6	15.6	15.6	0.0
	101-200	13.8	10.3	17.2	17.2	13.8	10.3	6.9	10.3
	201-500	23.8	4.8	19.0	23.8	9.5	14.3	4.8	0.0
	501 and above	15.4	13.5	11.5	17.3	13.5	15.4	13.5	0.0
Academic qualification	Primary certificate	16.7	13.4	15.6	17.7	13.4	8.6	6.5	8.1
	Secondary certificate	17.1	10.0	15.3	18.7	13.0	14.1	10.7	1.1
	University degree	15.0	15.0	15.0	15.0	15.0	15.0	10.0	0.0
	Postgraduate degree	16.7	0.0	33.3	16.7	16.7	16.7	0.0	0.0
	Professional qualification	15.8	6.7	16.7	19.2	10.0	11.7	20.0	0.0
	Others	20.0	12.5	15.0	17.5	10.0	5.0	17.5	2.5
Respondents' experience	0-5 years	17.1	10.8	15.4	18.7	12.6	11.8	10.8	2.8
	6-10 years	16.4	9.1	15.5	16.4	11.8	14.5	16.4	0.0
	11-15 years	14.3	0.0	28.6	21.4	14.3	7.1	7.1	7.1
	16-20 years	10.0	20.0	10.0	20.0	10.0	20.0	10.0	0.0
	21 and above	22.2	11.1	22.2	11.1	22.2	0.0	0.0	11.1
Availability of in-service training	Never	14.9	6.4	19.1	12.8	8.5	17.0	19.1	2.1
	Rarely	16.9	7.3	17.4	22.5	10.7	11.2	13.5	0.6
	Occasionally	18.0	8.6	15.6	18.0	11.9	15.6	11.9	0.4
	Frequently	17.0	12.8	13.5	18.4	13.5	12.1	11.3	1.4
	Always	15.9	14.9	14.9	16.4	15.4	7.5	7.0	8.0

Note: Variables key is as follows: IOT-Induction or orientation training, JST-Job shadowing training, URT-Upgrading or Refresher training, OJT-On-the-job training, CMT-Coaching or mentoring training, CDT-Career or developing training, AT-Apprentice training, and OT-Others.

The results show that the dominant type of in-service training implemented among the respondents was on-the-job training irrespective of the size of the company in terms of number of employees $\chi^2(14)=17.4, p > 0.05$, number of employees supervised by the respondents $\chi^2(42)=24.1, p > 0.05$, qualification $\chi^2(35)=72.7, p > 0.05$ and experience $\chi^2(28)=19.8, p > 0.05$ of the respondents. This is so because in both cases, the predetermined (probability) alpha (p) value was more than 0.05 and therefore there were no statistically significant difference between on-the-job training (as independent variable) and the size of the company, number of employees in the company, number of employees supervised, and qualification and experience of the employees (as dependent variables).

However, the results show that the type of in-service technical training identified by the respondents depended on the department $\chi^2(49)=169.9, p \leq 0.05$ and position $\chi^2(49)=91.5, p \leq 0.05$ of the respondents and the frequency of in-service technical training $\chi^2(28)=59.1, p \leq 0.05$. This is shown as the predetermined alpha (p) value was less than 0.05, therefore there was statistically significant difference between on-the-job training (as an independent variable) and the employees' positions and departments (as dependent variables).

4.3.2.2 Dominant in-service technical training within departments and various positions of employees in companies under MITA

While on-the-job training remained the dominant type of in-service technical training among respondents from production (18.6%), engineering (18.1%), human resources (18.0%) and finance (22.6%) departments, the dominant type of in-service technical training for respondents from maintenance and workshop department was apprenticeship (21.6%) while the dominant type of in-service technical training was career or developing training among respondents from human resources department (18.0%). Similarly, on the job training was dominant among respondents at operator (19.1%), technician (21.8%) and line manager (16.8%) levels. However, upgrading or refresher training was dominant among respondents at lead technician level (21.7%), apprenticeship training was dominant at foreman level (26.1%), and induction or orientation training was dominant among supervisors (18.2%). Finally, upgrading or refresher training was dominant among respondents who seldom undertake in-service technical training while on the job training was dominant for respondents who often undertake in-service technical training.

4.3.2.3 Analysis of the cross tabulation results on respondents' characteristics: Types of in-service training and dominant types of training among MITA members

As presented in sections 4.3.1 and 4.3.2.1, the results suggest that various types of in-service technical training are implemented among MITA members which includes: induction or orientation training, job shadowing training, upgrading or refresher training, on-the-job training, coaching or mentoring training, career or developing training, and apprentice training. This is consistent with results reported in (Halim and Ali, 2008) for agriculture

extension personnel, and (Laing, 2009) for public sector employees. The plausible reasons for this are that companies under MITA span diverse industry as the sample comprised respondents from diverse group: technicians, artisans and operatives and diverse positions spanning both technical and vocational positions.

Nevertheless, the dominant type of in-service technical training is on-the-job training consistent with the policy objective of MITA which focuses on 'hands-on' technical training for both up-skilling and multi-skilling of the production workforce. The result is also consistent with results reported in (Lynch, 1989) among youths in the USA; (Bartel, 1995) for large manufacturing firms in the USA and (Laing, 2009) for public sector employees in Ghana. On-the-job training is the dominant type of in-service technical training mainly because it is easy to implement as noted by (Halim and Ali, 2008).

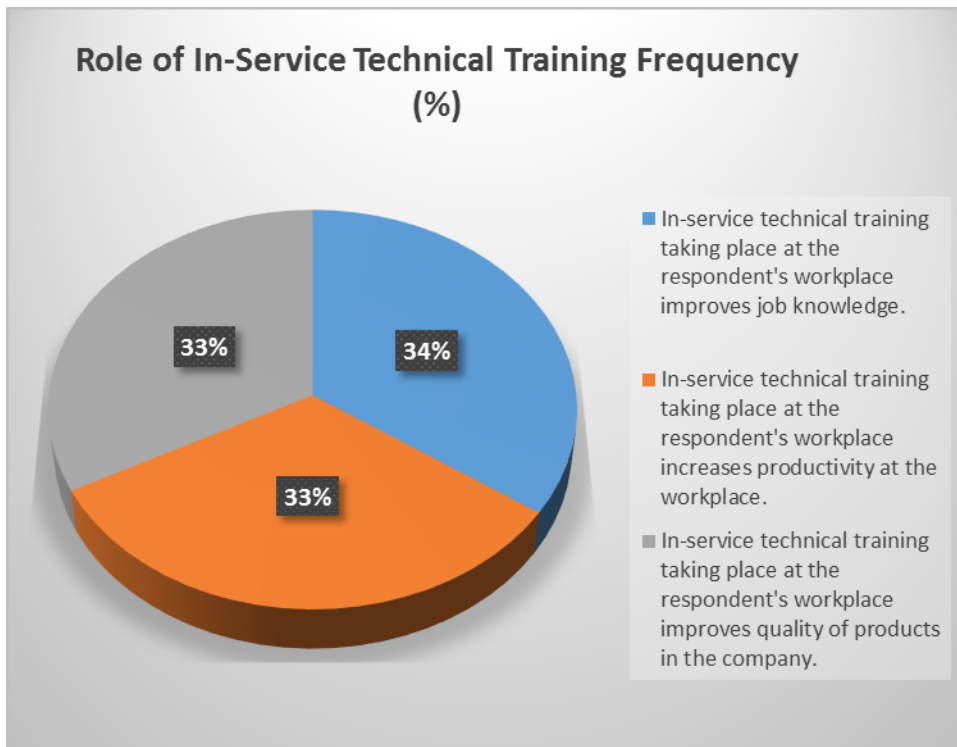
Interestingly, although apprenticeship is one of the "hands-on" types of in-service training and is expected to be dominant type of in-service technical training among the manufacturing industry (Sharpe, et al. 2008), the results suggest that it is one of the least type of in-service training implemented among MITA members. This is contrary to MITA's policy objective of focusing on 'hands-on' technical skill training. The reason could be due to the low numbers of apprentices being administered in companies under MITA following the general dwindling growth of the manufacturing industry in recent years in Malawi as a result of the Structural Adjustment Programme (SAP).

Secondly, the results suggest that on-the-job training is the dominant type of in-service technical training implemented among MITA companies irrespective of the size of the company consistent with the results reported by Danziger and Dunkle (2005) and Seetha (2014). However, the results contradict the findings reported by Thang, et al. (2008) who found that the type of trainings implemented varied with company size and type of industry in Vietnam. Additionally, the results suggest that on-the-job training is the dominant type of training implemented among MITA companies, irrespective of qualification and experience of the employee.

On the other hand, the results suggest that the types of in-service technical training implemented in MITA companies depend on the department and position. While on-the-job training remains the dominant type of in-service technical training among employees from production, engineering, human resources and finance departments, the dominant type of in-service technical training for employees from maintenance and workshop departments is apprenticeship while the dominant type of in-service technical training is career or developing training among employees from human resources department. Similarly, on-the-job training is dominant among operators, technicians and line manager levels while upgrading or refresher training is dominant among lead technicians, apprenticeship training is dominant at foremen and induction or orientation training is dominant among supervisors. Finally, the findings suggest that the type of in-service technical training implemented depends on the frequency of training. This is consistent with the results reported in (Thang, et al., 2008). Upgrading or refresher training is dominant among employees who seldom undertake in-service technical training while on- the- job training is dominant for respondents who often undertake in-service technical training.

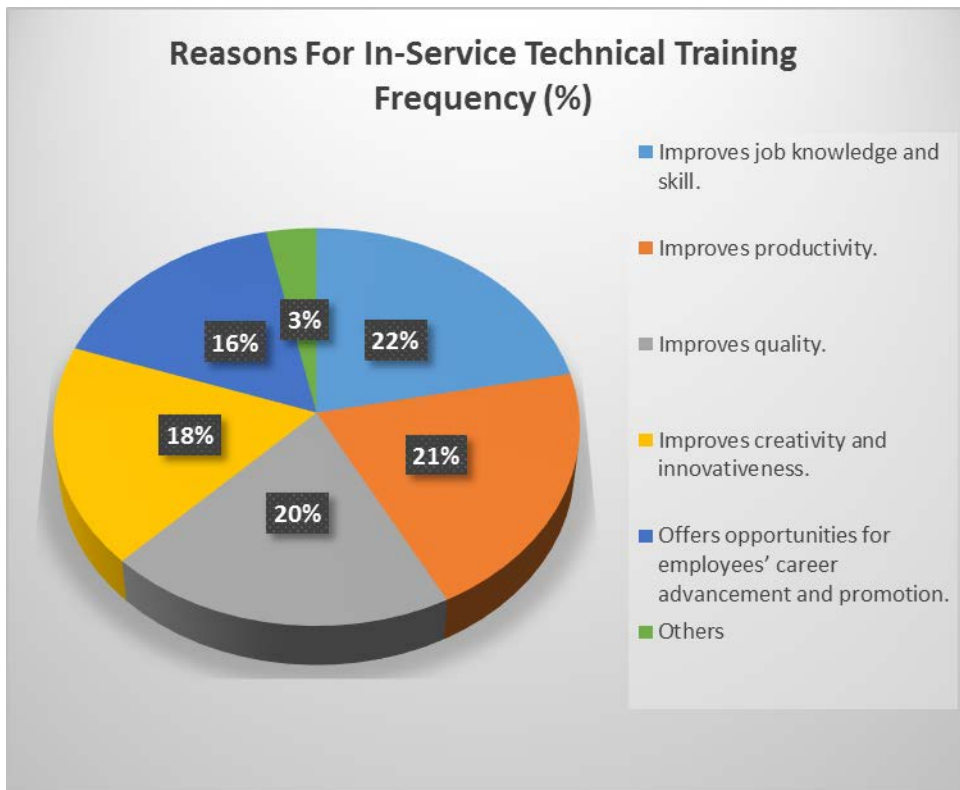
4.3.3 Roles and reasons for in-service technical training, and the link between in-service training and employees' performance.

In-service technical training plays different roles in industry that includes improving employees' productivity and quality of service or products through enhanced job knowledge, skill, competence and attitude. Accordingly, the industries implement in-service technical training for various reasons that include: enhancing levels of employees' knowledge, skill and competencies necessary to perform work effectively and efficiently. In view of this, the study also assessed the roles that in-service technical training plays in companies under MITA and the reasons for implementing in-service technical training. The results of the assessment are presented in Pie Chart 4.2 and Pie Chart 4.3, respectively.



Pie Chart 4.2: Role of in-service technical training

The results in Pie Chart 4.2 shows that the respondents indicated that in-service technical training improved job knowledge (34.6%); increased productivity (32.7%); and improved quality of products (32.7%). Although the study was based on respondents' perception than actual measurement of job knowledge, productivity and quality of products, the perception of employees gives tangible relationship between in-service technical training and employees' job knowledge, productivity and quality of products; respectively. Further, this means the role of in-service technical training are diverse in industries under MITA as per the respondents.



Pie Chart 4.3: Reasons for implementing in-service technical training

The results in Pie Chart 4.3 show that the respondents indicated that in-service technical training was implemented in their organisations for the following reasons: improve job knowledge and skill (21.8%); improve productivity (20.5%); improve quality (20.1%); improve creativity and innovativeness (18.0%); and offer opportunities for employees' career advancement and promotion (16.3%). Similarly, the results show that reasons for implementing in-service technical training remain diverse among respondents in the industries under MITA.

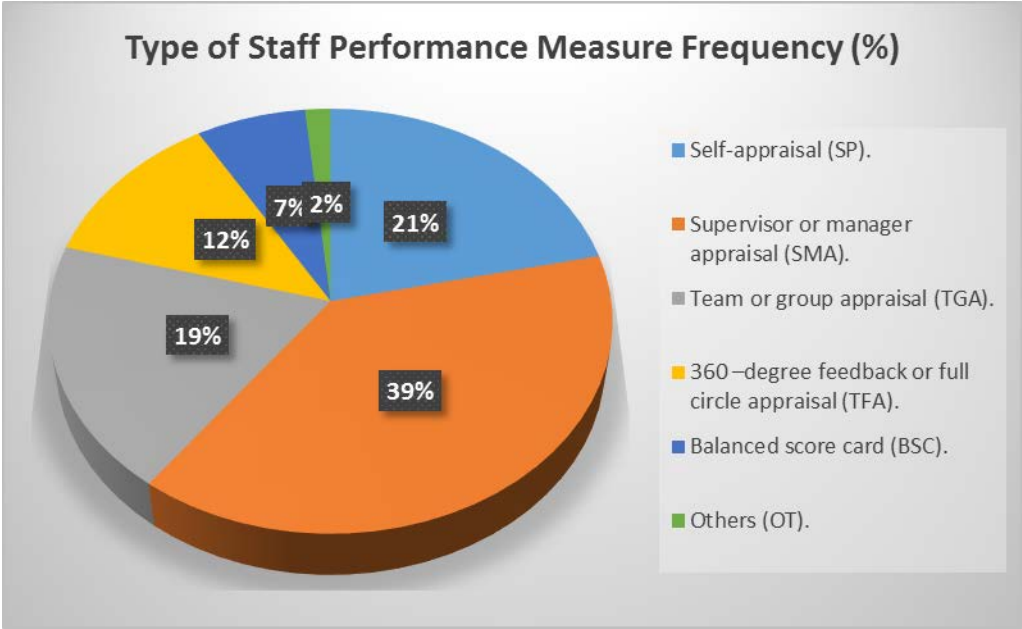
In general, the findings of the study suggest that in-service technical training among employees of industries under MITA is perceived to improve job knowledge, increase productivity and improve quality of products consistent with results reported in (Rajeswari & Palanichamy, 2014) for selected public sector organisations in India which found that in-service technical training helps employees discharge their duties, reduces wastages and improves out-put. Additionally, the results suggest that companies under MITA implement

in-service technical training to improve job knowledge and skill, productivity, quality, creativity and innovativeness, and offer opportunities for employees’ career advancement and promotion in consonant with results of studies conducted by Bartel (1995) for manufacturing industries in USA, Ahmad, et al. (2011) for teachers in Malaysia, and Sultana, *et al.* (2012) in Vietnam.

4.4 Staff performance measure

4.4.1 Types of staff performance appraisal systems

A review of literature on staff performance appraisal system indicates that there are a wide range of staff performance appraisal system and that their implementation varies depending on nature of the business. In view of this, the study assessed the distribution of the type of staff performance measures implemented in MITA companies and the results are presented in Pie Chart 4.4.



Pie Chart 0.4: Types of staff performance measure

The results show that various types of staff performance measures are implemented in companies under MITA which include: Self-appraisal (21.5%); Supervisor or Manager’s appraisal (38.7%); Team or Group appraisal (19.0%); 360–Degree Feedback or Full circle

appraisal (12.3%); and Balanced Score Card (6.9%). Further, the results show that the dominant type of staff performance measure is Supervisor or Manager's appraisal (38.7%) while the least dominant is Balanced Score Card (6.9%).

The study further assessed the relationship between the types of staff performance measure implemented and respondents' demographic characteristics through cross-tabulation, and the findings are as in the proceeding section 4.4.2 of this report.

4.4.2 Cross tabulation results between types of performance appraisal and demographic characteristics

The relationship between the types of staff performance measure implemented and respondents' demographic characteristics was further assessed through cross-tabulation using Chi-Square Test independent analysis to determine the joint frequency distribution relationship and statistical significance of the relationship or independence/dependence of staff performance systems and the respondents' demographic characteristics. The cross tabulation analysis was done to capture different dimensions of the results, strengthen the results, and increase the reliability and validity of the results, therefore found to be of statistical significance. The results are as presented in the following Table 4.3.

Table 4.3: Cross-tabulation between types of staff performance system and respondents' demographic characteristics

Variable	Attribute	SA	SMA	TGA	TFA	BSC	OT
Company Size (Number of employees)	1-100	11.1	38.9	36.1	8.3	5.6	0.0
	101-500	22.9	37.1	17.5	15.3	5.8	1.5
	501 and above	21.5	42.1	17.4	6.6	9.9	2.5
Respondents' department or division	Production	22.4	35.3	20.9	15.4	5.0	1.0
	Engineering	23.1	38.8	18.7	12.7	5.2	1.5
	Maintenance or workshop	19.4	51.6	16.1	3.2	6.5	3.2
	Procurement or materials	16.7	33.3	33.3	0.0	16.7	0.0
	Marketing	0.0	100.0	0.0	0.0	0.0	0.0
	Finance	0.0	80.0	10.0	0.0	10.0	0.0
	Human resources	15.0	35.0	15.0	10.0	25.0	0.0
Other	24.1	34.5	13.8	6.9	13.8	6.9	
Respondents' position	Operator	21.5	36.4	20.7	12.4	8.3	0.8
	Technician	26.3	42.1	14.5	11.8	3.9	1.3
	Lead technician	28.6	42.9	7.1	7.1	14.3	0.0
	Foreman	20.0	46.7	20.0	6.7	0.0	6.7
	Supervisor	20.3	39.0	22.0	10.2	6.8	1.7
	Line or middle manager	13.7	47.1	13.7	11.8	11.8	2.0
	Senior manager	25.0	30.0	15.0	10.0	15.0	5.0
Others	21.1	32.9	25.0	17.1	2.6	1.3	
Number of employees under respondent's supervision	None	26.7	43.3	13.3	11.1	3.3	2.2
	1-10	19.6	39.9	19.6	10.7	8.9	1.2
	11-50	21.0	36.2	20.0	17.1	3.8	1.9
	51-100	26.3	26.3	26.3	10.5	10.5	0.0
	101-200	26.7	33.3	20.0	13.3	6.7	0.0
	201-500	10.0	30.0	40.0	10.0	10.0	0.0
	501 and above	16.0	40.0	16.0	8.0	16.0	4.0
Academic qualification	Primary certificate	24.5	28.2	22.7	19.1	4.5	0.9
	Secondary certificate	19.4	41.0	21.1	8.4	8.4	1.8
	University degree	25.0	37.5	12.5	12.5	12.5	0.0
	Postgraduate degree	20.0	40.0	0.0	20.0	20.0	0.0
	Professional qualification	20.3	47.5	8.5	15.3	6.8	1.7
	Others	30.4	43.5	13.0	8.7	0.0	4.3

Respondents' experience	0-5 years	21.4	39.1	18.3	12.5	7.0	1.7
	6-10 years	23.3	36.7	20.0	10.0	8.3	1.7
	11-15 years	22.2	44.4	11.1	11.1	11.1	0.0
	16-20 years	12.5	37.5	25.0	25.0	0.0	0.0
	21 and above	20.0	30.0	40.0	10.0	0.0	0.0
Availability of in-service training	Never	20.6	35.3	17.6	8.8	11.8	5.9
	Rarely	16.9	48.3	14.6	9.0	9.0	2.2
	Occasionally	21.9	47.6	16.2	5.7	7.6	1.0
	Frequently	22.2	36.1	18.1	11.1	11.1	1.4
	Always	24.2	27.3	25.0	21.2	1.5	0.8

Note: Variables key is as follows: SA-Self appraisal, SMA-Supervisor or Manager appraisal, TGA-Team or Group appraisal, TFA-360-Degrees Feedback or Full circle appraisal, BSC-Balanced Score Card, and OT=Others.

The results show that there is no statistically significant relationship between the types of staff performance system identified by the respondents and the size of the company in terms of number of employees $\chi^2(10)=17.6, p > 0.05$, department $\chi^2(35)=38.1, p > 0.05$, employees' position $\chi^2(35)=26.2, p > 0.05$, qualification $\chi^2(25)=27.3, p > 0.05$ and experience $\chi^2(20)=7.2, p > 0.05$ of the respondents. This is because the probability alpha (α) value level in all these variables is greater than 0.05 indicating that there is no statistically significant difference between the performance appraisal systems and these variables. Similarly, the results confirms that there was no statistically significant relationship on the number of employees supervised by the respondents as $\chi^2(30)=21.7, p > 0.05$; and the frequency of in-service technical training as $\chi^2(20)=41.8, p > 0.05$. The cross tabulation results also show that the supervisor/manager appraisal system was the dominant type of staff performance measure irrespective of the size of the company in terms of number of employees, respondents' department, position, qualification and experience; number of employees supervised by the respondents; and the frequency of in-service technical training implemented in the companies of the respondents. This further confirms findings in section 4.4.1, and means that that the supervisor/manager appraisal system is the most commonly used performance appraisal system within MITA.

4.4.2.1 Comparative analysis of the types of performance appraisal systems used in MITA companies and literature

Findings from both Pie Chart 4.4 and Table 4.3 suggest that various types of staff performance measures are used in the companies under MITA. However, the most dominant type of staff performance measure is the Supervisor or Manager Appraisal (SMA) and the least is the Balanced Scored Card system mainly because SMA is less sophisticated and easy to use. These results, however, contradict with diverse results reported in literature.

Locher and Teel (1977) found that the three most popular staff measures were graphic rating scales, open ended essay method, and management by objectives. Additionally, Venclová, et al. (2013) found that the most used types or methods of performance measures were “pre-defined goals based” and “pre-defined standard fulfilment based” systems among agricultural organizations in Czech Republic. Similarly, Gangwani (2012) found that the most popular staff performance measures were Management By Objectives and 360 degree appraisal system. This suggests that companies select and use different staff performance measures based on the needs and objectives of their staff performance assessment.

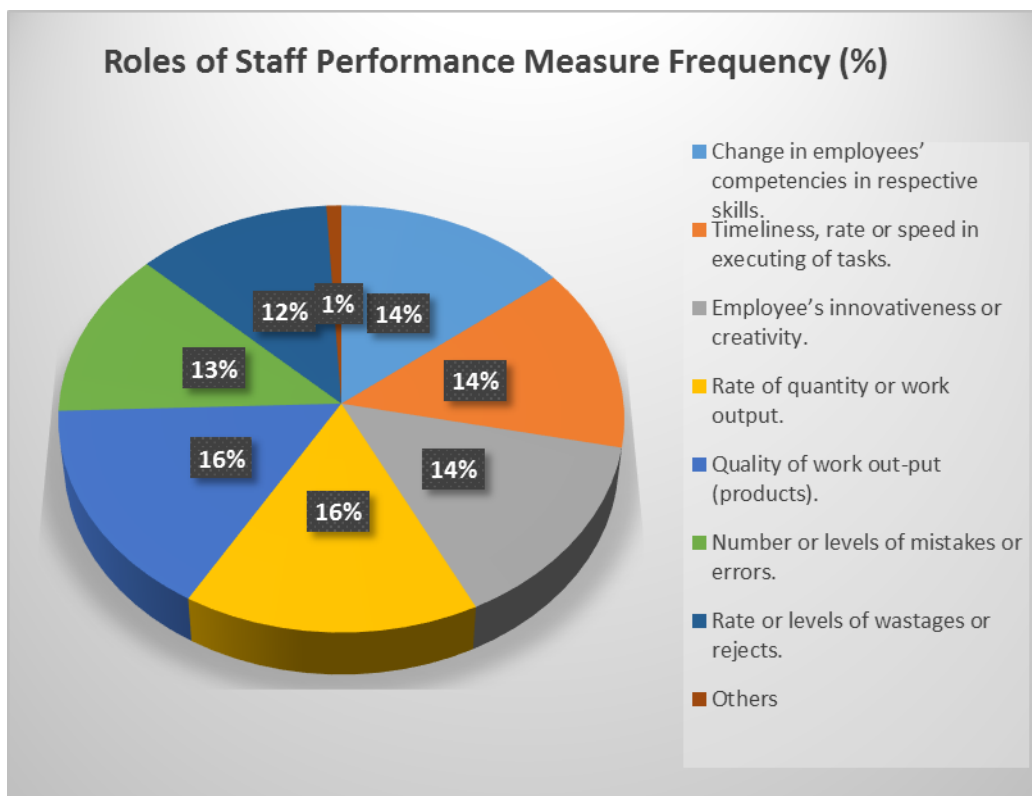
4.4.2.2 Analysis of the relationship between the types of staff performance system and respondents' demographic characteristics

The findings of the study suggest that there is no relationship between the types of staff performance system implemented and the size of the company in terms of number of employees, department, position, qualification and experience of the employees, and also number of employees supervised by the employees in companies under MITA. This means that although the companies under MITA are different in size in terms of number of employees, and have varied departments, job positions and types of employees in terms of qualifications and experience, number of employees supervised by respective position holders, and different implementation levels of in-service technical trainings, the performance appraisal system remains predominantly the supervisor or manager system mainly because supervisor or manager system of performance measure is less sophisticated and easy to use and probably, appropriately aligned to the nature their of business.

4.4.3 Roles and reasons for implementing staff performance measure

Literature indicates that staff performance measures play various roles in industry including; showing the change in the level of employee’s job knowledge, competency, productivity, efficiency and effectiveness. Accordingly, the industries implement staff performance measures for various reasons that include: identifying performance gaps, assessing the impact of an intervention such as training programmes, improving execution of tasks and activities, aligning the company’s objectives and expectations; determining pay raise, bonus or promotion. Therefore, the study assessed the roles that staff performance measures play in companies under MITA and reasons for implementing staff performance measures. The results of the assessment are presented in Pie Charts 4.5 and 4.6, respectively.

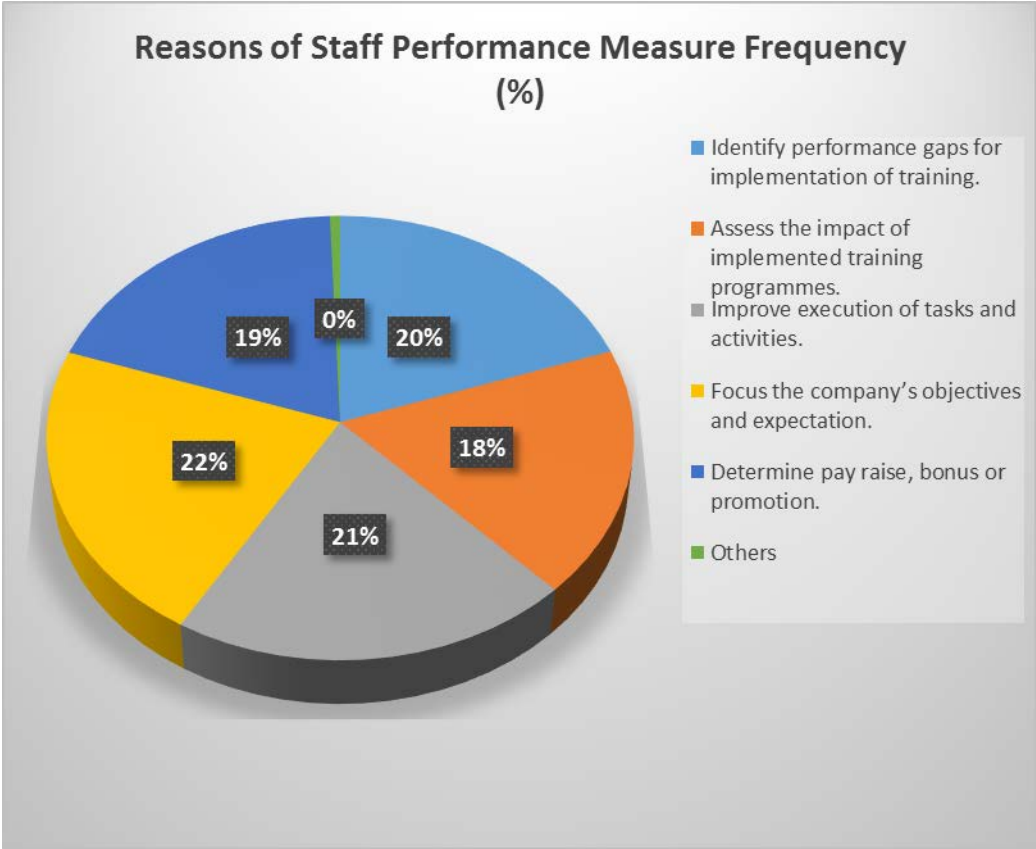
4.4.3.1 Roles of staff performance measures in MITA companies



Pie Chart 4.5: Roles of staff performance measures

The results in Pie Chart 4.5 show that the staff performance measure indicated in the companies within MITA performs a number of roles, such as indicating change in levels of job knowledge (12.4%); change in employees’ competencies (12.6%); speed in executing of tasks (12.2%); employee’s innovativeness or creativity (12.6%); rate of quantity /work output (13.9%); quality of work output (14.0%), number or levels of mistakes or errors (11.1%) and rate or levels of wastages or rejects (10.5%).

4.4.3.2 Reasons for staff performance measures in MITA companies



Pie Chart 0.6: Reasons for staff performance measure.

In Pie Chart 4.6, the results show that staff performance measures were implemented for the following reasons: identify performance gap (19.7%); assess the impact of implemented training programmes (18.1%); improve execution of tasks and activities (20.8%); focus the company’s objectives and expectation (21.7%); and determine pay raise, bonus or promotion

(19.2%). This means that the role and reasons for implementing staff performance measures remain diverse among respondents in the industries under MITA.

4.4.3.3 Analysis of the roles and reasons for staff performance measures in MITA companies

From the two Pie Charts (4.5 and 4.6), the results suggest that staff performance measures implemented within MITA companies perform various roles and are implemented for various reasons. As can be noted from these results, staff performance appraisals and measures implemented in companies under MITA are done to assess the change in levels of employees' job knowledge and competencies; the speed in executing of tasks; employee's innovativeness or creativity; rate of quantity or work output; quality of work output, rate or levels of wastages or rejects and number or levels of mistakes or errors made by employees. Both these factors perform a significant role to the overall performance of the companies. Furthermore, the results suggest that staff performance measures are implemented because the companies intend to identify performance gaps; assess the impact of implemented training programmes; improve execution of tasks and activities; focus the company's objectives and expectation; and determine pay raise, bonus or promotion.

This means the roles and reasons for implementing staff performance measures in companies under MITA are diverse, because although the nature of business of the companies is similar, their respective business goals, objectives, strategies and human resources development policies may be different. These findings are consistent with results of studies conducted by Venclová, et al. (2013), who found that appraisal results or measures were mostly used for various human resource management functions which include rewarding purposes, personal planning, education and development (training) and career management. Similarly, Seetha (2014) established that the staff performance measures were conducted in order to help employees integrate individual goals with organisations and help employees to improve their performance.

4.5 Relationship between In-service technical training, and Staff Performance system and measures

The study assessed the relationship between in-service technical training and staff performance system and measures. Specifically, the study assessed the relationship between the type of in-service technical training and the types, roles and reasons for staff performance measure using cross tabulation and Chi- Square Test. According to the Chi-Square Test, statistically, significant relationship was noted where the p- value was less than 0.05 ($p < 0.05$) and no significant relationship where p-value was greater than 0.05 ($p > 0.05$).

4.5.1 Results on the relationships

Firstly, the study assessed the relationship between the types of in-service technical training and the types of staff performance systems through cross-tabulation and the results are presented in Table 4.4.

4.5.1.1 Types of in-service technical training and types of staff performance system cross tabulated relationships

Table 4.4: Relationship between types of in-service technical training and types of staff performance systems

Types of In-Service Technical Training	Types of Staff Performance System					
	SA	SMA	TGA	TDA	BSC	OT
Induction or orientation training.	23.4	36.2	19.1	13.4	7.1	0.9
Job shadowing training.	21.1	33.5	19.1	17.1	8.0	1.2
Upgrading or refresher training.	21.9	36.1	20.4	14.2	6.8	0.6
On-the-job training.	21.3	36.9	19.4	13.9	7.1	1.4
Coaching or mentoring training.	22.5	33.8	20.8	15.1	6.7	1.1
Career or developing training.	19.8	39.2	19.0	11.6	9.1	1.3
Apprentice training.	22.4	39.3	16.9	11.9	8.7	0.9
Others	26.7	28.0	22.7	18.7	1.3	2.7

Note: Variables key is as follows: SA-Self appraisal, SMA-Supervisor or Manager appraisal, TGA-Team or Group appraisal, TFA-360-Degrees Feedback or Full circle appraisal, BSC-Balanced Score Card, and OT=Others.

The results show that supervisor/manager appraisal was the dominant type of staff performance system irrespective of the types of in-service training implemented. Analysing the results in Table 4.10 using the Chi-Square Test independent analysis, it was found that the relationship between the types of in-service technical training and the types of staff performance system was not statistically significant $\chi^2(35) = 20.4, p > 0.05$. This means that there is no relationship between the types of in-service technical training and the types of staff performance systems.

Secondly, the study assessed the relationship between the types of in-service technical training and the roles of staff performance measure through cross-tabulation and the results are presented in Table 4.5.

4.5.1.2 Types of in-service technical training and roles of staff performance measure

Table 4.5: Relationship between types of in-service technical training and roles of staff performance measure

Type of In-Service Technical Training	Role Staff Performance Measure								
	M1	M2	M3	M4	M5	M6	M7	M8	M9
Induction or orientation training.	12.2	12.7	12.5	13.1	13.3	13.7	11.5	10.3	0.7
Job shadowing training.	12.4	12.7	12.7	12.7	13.6	13.1	11.5	11.2	0.0
Upgrading or refresher training.	12.5	12.6	12.2	13.4	13.4	14.2	10.7	10.3	0.7
On-the-job training	12.0	12.8	12.3	12.8	13.6	13.6	11.3	10.7	0.8
Coaching or mentoring training.	12.0	13.1	12.6	12.9	13.4	13.2	11.6	10.9	0.3
Career or developing training	12.0	12.9	11.9	12.7	13.4	14.8	11.5	10.2	0.5
Apprentice training	12.9	12.6	12.0	13.5	13.7	14.1	11.3	9.4	0.6
Other	11.9	11.9	12.6	11.9	13.3	13.3	11.9	12.6	0.7

Note: Variables key is as follows: M1-Change in levels of job knowledge; M2- Change in employees' competencies in respective skills, M3-Timeliness, rate or speed in executing of tasks, M4-Employee's innovativeness or creativity, M5-Rate of quantity work output, M6- Quality of work output (products), M7- Number or levels of mistakes or errors, M8- Rate or levels of wastages or rejects, and M9- Others.

The results show that the dominant role of staff performance measure was to indicate the rate of quantity and quality of work outputs (products), irrespective of the type of in-service

training implemented. Similarly using the Chi-Square Test independent analysis, the results show that the relationship between the type of in-service technical training and the role of staff performance measure was not statistically significant $\chi^2(56)=9.9, p > 0.05$. This means that there is no relationship between the types of in-service technical training and the roles of staff performance measure.

Finally, the study assessed the relationship between the types of in-service technical training and the reasons for staff performance measure through cross-tabulation and the results are presented in Table 4.6.

4.5.1.3 Types of in-service technical training and reasons for staff performance measure

Table 4.6: Relationship between types of in-service technical training and reasons for staff performance measure

Type of In-Service Technical Training	Reasons for staff performance					
	R1	R2	R3	R4	R5	R6
Induction or orientation training.	19.9	18.1	20.9	20.9	19.9	0.4
Job shadowing training.	19.8	19.0	20.6	20.9	19.3	0.3
Upgrading or Refresher training.	20.6	18.3	21.0	20.8	19.0	0.4
On-the-job training.	19.7	18.6	21.0	21.0	19.3	0.3
Coaching or mentoring training.	19.7	18.3	20.0	21.1	20.4	0.5
Career or developing training.	19.9	18.6	20.6	21.3	19.1	0.5
Apprentice training.	19.4	17.5	20.6	23.1	19.4	0.0
Other	19.4	20.4	20.4	20.4	18.4	1.0

Note: Variables key is as follows: R1-Identify performance gaps, R2- Assess impact of implemented training programmes, R3-Improve execution of tasks and activities, R4-Focus the company's objectives and expectation, R5- Determine pay raise, bonus, or promotion, and R6- Others.

The results show that the dominant reason for staff performance measure was to focus on the company's objectives and expectation, irrespective of the type of in-service technical training implemented. Consequently, the relationship between the type of in-service technical training and the reasons for staff performance measure was not statistically

significant as $\chi^2(35) = 4.8, p > 0.05$ using the Chi-Square Test independent analysis. This means that there is no relationship between the types of in-service technical training and the reasons for implementing staff performance measure.

As stated earlier on, the findings of the study suggests that in-service technical training conducted in companies under MITA improves job knowledge and skill of employees; improves productivity and quality of products; improves creativity and innovativeness; and offer opportunities to employees for career advancements and promotion.

4.5.2 Comparison of results with other studies

These findings are consistent with results of earlier studies reported in literature. Bartel (1995) found that training improves job performance in manufacturing firm in the USA. Ahmad, et al. (2011) found that there was a strong relationship between the in-service training and teaching effectiveness and concluded that in-service training improved the teachers' effectiveness in Malaysia. Thang, et al. (2008) found that frequent trainings improved employees' skill and boosted their motivation in Vietnam, leading to high productivity and profits. Saleem, et al. (2011) found that training improved performance and increased processing efficiencies among employees in the financial service, pharmaceutical companies, and small and medium firms in Pakistan. Sarboland and Aghayi (2012) found that in-service training had influenced level of knowledge and performance abilities of employees at the Universities of Bilesavar and Parsabad in Iran. Sultana, et al. (2012) found that training increased level of individual and organisational competency, reconciled employees' skills gaps, attainment of desired targets or standards and actual levels of work performance among telecommunication sector employees in Pakistan. Rajeswari and Palanichamy (2014) found that training reduces execution time and wastages, and improves output among employees in the selected public sector organisations in India. This means that in-service technical training influences performance of employee performance at the workplace.

Although, there is a relationship between in-service technical training and staff performance, the findings of the study suggest there is no relationship between types of in-service technical training and types of staff performance measures, roles or reasons mainly because there was not much variation in the types of in-service technical training. This confirms the

general practice in most companies and organizations at the industry that the choice of type of staff appraisal system or staff performance measurement used does not necessarily depend or influenced by the types of training implemented in the companies and organizations. Nevertheless, the in-service technical training implemented in companies under MITA were predominated by on-the-job training. This type of training resonates well with the characteristics of the companies under MITA.

4.6 Chapter summary

In this chapter, I have presented and discussed the results of the study on the assessment of the relationship between in-service technical training and staff performance measures among industries under MITA. Firstly, I have presented and discussed results of the assessment of the in-service technical training implemented focusing on the types, roles and reasons for in-service technical training. Secondly, the results of the assessment of the staff performance system and measures used focusing on the types, roles and reasons for the staff performance measures have been presented and discussed. Finally, the cross-tabulation results between in-service technical training and staff performance measure, focusing on the relationship between the type of in-service technical training and the type, roles and reasons for staff performance measure, and comparison of the relationships with other studies, have been presented and discussed to complete the chapter.

Chapter 5

Conclusions and Recommendations

5.1 Introduction

In this chapter, I have presented an overview of the study, its main objective, an outline of the study and summary of the results. As this is the last chapter of the report, I have further presented the conclusions and recommendations from the study. In the last section of the chapter, I have presented areas for further research in line with the objectives of the study and issues emanating from the results of the study to enhance empirical evidence on the relationship between in-service technical training and performance of employees in both the Malawi Industrial Training Association (MITA) and the private sector in general in Malawi.

5.2 Summary of the results and conclusions

This study centred on determining the types of in-service technical training and staff performance measures implemented in companies under MITA. The objective of the study was to assess the relationship between in-service technical trainings and employees' performance within MITA. The study applied the positivism philosophy and used a deductive approach where data was collected through questionnaires and analysed, statistically, using SSPS. This data was further supported by qualitative data collected through discussions using semi—structured interviews and reference documents or materials leading into results as presented in chapter four of this study and report.

Firstly, although various types of in-service technical training are implemented among MITA members/companies (induction or orientation training, job shadowing training, upgrading or refresher training, on-the-job training, coaching or mentoring training, career or developing training, and apprentice training), on-the-job training is the dominant type of in-service training. Additionally, implementation of these in-service training depends on the nature of department, position of employee, and frequency of implementation of the trainings, but do not vary with the number of employees under one's supervision, qualification and experience of the employees.

As noted in the results and discussions, in-service technical training among employees of companies under MITA is perceived to improve job knowledge, increase productivity and improve quality of products. Therefore, companies under MITA generally implement in-service technical training to improve job knowledge and skill, productivity, quality, creativity and innovativeness, and offer opportunities for employees' career advancement and promotion. Therefore, it can be concluded that there is a relationship between in-service technical training and employees' performance at the workplace.

Secondly, companies under MITA use various staff performance measures. However, it can be concluded that the most dominant type of staff performance measure is the Supervisor or Manager Appraisal (SMA). Additionally, implementation of staff performance measures does not depend on type of department, position, employees under one's supervision and qualification and experience of employee.

Furthermore, staff performance measures are implemented in companies under MITA to assess the change in levels of employees' job knowledge and competencies; the speed in executing of tasks; employee's innovativeness or creativity; rate of quantity or work output; quality of work output, rate or levels of wastages or rejects and number or levels of mistakes or errors. Therefore, staff performance measures are implemented in order to identify performance gaps; assess the impact of implemented training programmes; improve execution of tasks and activities; focus the company's objectives and expectation; and determine pay raise, bonus or promotion.

Finally, although, there is a relationship between in-service technical training and staff performance, there is no statistical significant relationship between types of in-service technical training and types of staff performance measures, roles or reasons mainly in-service technical trainings implemented in industries under MITA were predominated by one type of training (on-the-job training). Therefore, it can inarguably be concluded that in-service technical training in companies under MITA are not directly and tangibly linked to performance measures of employees within MITA.

5.3 Recommendations

In view of the results and conclusions of this study, the following are the recommendations:

- a. The dominance of on-the-job training suggests that this type of training is suitable and valuable to MITA, therefore this type of training is recommended for further development and improvement. The TEVET Authority must look into this type of trainings as key and re-brand its promotion activities within the private sector training programme window.
- b. The dominance of Supervisor or Manager Appraisal system within MITA should be examined since this method is more subjective. Companies in MITA must explore other types of appraisal methods that are more objective, such as Management By Objectives (MBO) and Balance Score Cards which are more versatile and leads to proper and more effective measures of performance. Further investigations should be made on the choice of performance appraisal methods within MITA.
- c. Companies within MITA must build capacity in their Human Resources and Development departments so that they implement and manage the in-service training programmes within the companies very effectively, marching the training policies, systems and methodologies with the objectives of the trainings and performance of both the employees and organisations in their respective companies.
- d. Companies in MITA and others implementing in-service technical training at their workplaces must endeavour to establish sound mechanisms or performance assessment measures that should directly link training implemented and performance of employees in measurable terms to promote and justify costs associated to such trainings.
- e. The TEVET Authority must review its private sector training programme policy scope and technical capacity to embrace this emerging challenge on the market of providing technical support in linking training interventions with employees' performance at the workplace to ensure systematic and effective implementation of trainings in the private sector in Malawi.
- f. Companies in MITA must endeavour upon establishing employees' performance measurement systems that must be able to relate and measure directly employees' job

knowledge, productivity and quality of products resulting from training implemented within the companies for more objective ascertainment of the impact of the training implemented.

5.4 Areas for further research

The results of study has revealed a number of areas for further research in line with both the research question, problem statement and indeed the in-service technical training and performance appraisals or measures implemented in companies under MITA. The following, are therefore, relevant potential areas for further study to broaden and enhance empirical evidence on the relationship between in-service technical training and employees performance particularly in MITA, and private sector in general in Malawi.

1. Investigating the reasons why on-the-job training is a dominant type of training within MITA as compared to the other types of training taking place in industrial grouping.
2. Investigating the reasons why the in-service training implemented in companies under MITA are not necessarily based or dependent on the qualification and work experience of the beneficiary employees.
3. Assessing the factors or reasons why the Supervisor Manager Appraisal (SMA) is the mostly used or dominant appraisal system used in companies under MITA.
4. Determining further why there is no statistically significant relationship between the types of in-service technical training and types of performance appraisal systems used in companies under MITA.
5. Carrying out a further study on the influence of in-service technical training on employee performance with objectives of measuring the constructs of job knowledge, productivity and quality of products between untrained employees and trained employees to determine actual impact of in-service technical training in companies under MITA.
6. Investigating further on the relationship between in-service technical training and

employees' performance in other sectors of the private sector, such as banking, telecommunication, construction, transport, tourism sectors, respectively or overall manufacturing sector in Malawi in order to compare the results, and further enhance the empirical evidence on the relationship between these two variables which is key to the development of the private sector in Malawi.

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Appendices

Appendix A: Survey questionnaire



IN-SERVICE TECHNICAL TRAINING AND PERFORMANCE OF EMPLOYEES WITHIN THE MALAWI INDUSTRIAL TRAINING ASSOCIATION (MITA)

Questionnaire to companies in MITA

Introduction

My name is Elliot Mulanje, an Executive MBA student at the Malawi Polytechnic, Private Bag 303, Blantyre 3. In fulfillment of the MBA degree award, working on and submission of a Dissertation is part of the requirement. I am therefore conducting a survey amongst the companies in the Malawi Industrial Training Association (MITA) on In-service technical training and performance of employees at the workplace.

Your company has been selected because it is one of the member companies within the MITA grouping. The data collected in this survey will solely be used for purposes of the academic study. The directions for completion of the questionnaire are as provided for in each set of questions in the Questionnaire.

Thank you very much in advance for the assistance and sparing your valuable time in completing the Questionnaire.

Yours Sincerely,

Elliot Mulanje

CONTACTS: Cell phone: 0999553142, 0888953142
E-MAIL: mulanje@tevetamw.com; mulanje@yahoo.com

QUESTIONNAIRE 1:

To be completed by Operators, Technicians, Foremen, Supervisors and Line/Middle Managers. Please note; the questions are printed on both sides of the papers (Pages 2 to 7)

Part A: Characteristics of your company

In this part, you characterise your company by answering the questions 1 to 7. *Select one option ONLY that is applicable to your company.*

- 1 What is the size of your Company in terms of workforce or number of employees?
① (1 – 100)
② (101 – 500)
③ (501 above)
- 2 Which department or division do you belong?
① Production
② Engineering
③ Maintenance/Workshop
④ Procurement / Materials]
⑤ Marketing
⑥ Sales
⑦ Finance
⑧ Human Resources
⑨ Other; (please specify) :
-
- 3 What is your position in the company?
① Operator
② Technician
③ Lead Technician
④ Foreman
⑤ Supervisor
⑥ Line/middle Manager
⑦ Senior Manager
⑧ Other; (please specify) :
-

- 4 How many people/ employees are under your Supervision?
- ① None
 - ② (1-10)
 - ③ (11-50)
 - ④ (51-100)
 - ⑤ (101-200)
 - ⑥ (201-500)
 - ⑦ (501 and above)
- 5 What is the average level of Education of most of the employees under your Supervision?
- ① Primary certificate
 - ② Secondary certificate
 - ③ University Degree
 - ④ University Postgraduate Degree
 - ⑤ Professional Qualification
 - ⑥ Other; *(please specify)*
6. What is the minimum number of years of work experience required for effective execution of the job functions of the workforce under your supervision?
- ① (0-5 years)
 - ② (6-10 years)
 - ③ (11-15 years)
 - ④ (16-20 years)
 - ⑤ (21 and above)
- 7 How often does in-service technical training take place at the workplace in your department?
- ① Never
 - ② Rarely
 - ③ Occasionally
 - ④ Frequently
 - ⑤ Always

Part B: In-Service Technical Training

Type of in-service technical training implemented in our department.

8 The following in-service technical training take place in your department. *(Mark all that apply; ticking ‘YES’ or ‘NO’ on ‘a’ to ‘h’)*

REF	Type of in-service technical training	YES	NO
V8a	Induction or orientation training.	①	②
V8b	Job shadowing training.	①	②
V8c	Upgrading / Refresher training.	①	②
V8d	On-the-job training.	①	②
V8e	Coaching / mentoring training.	①	②
V8f	Career or developing training.	①	②
V8g	Apprentice training.	①	②
V8h	Other (specify)_____	①	②

Reasons for implementing in-service technical training

9 Your department implements in-service technical training for the following reasons. *(Mark all that apply)*

REF	Reasons for in-service technical training	YES	NO
V9a	To improve job knowledge and skill.	①	②
V9b	To improve productivity (number/ of quantity/work output).	①	②
V9c	To improve quality (errors, mistakes, rejects, workmanship).	①	②
V9d	To improve creativity and innovativeness.	①	②
V9e	To offer opportunities to employees for career advancements and promotions around the organisation.	①	②
V9f	Other (specify)_____	①	②

Role of in-service technical training

In this part you are presented with statements that assess the role of in service training in your division or company. The response options are: **SD**=Strongly Disagree, **D**=Disagree, **N**=Neutral, **A**=Agree, **SA**= Strongly Agree. **You can respond by simply ticking the appropriate circle.**

REF	Role of in-service technical training	SD	D	N	A	SA
V10a	In-service technical training taking place at your workplace improves job knowledge.	①	②	③	④	⑤
V10b	In-service technical training taking place at your workplace increases productivity at the workplace.	①	②	③	④	⑤
V10c	In-service technical training taking place at your workplace improves quality of products in the company.	①	②	③	④	⑤

Part C: Staff Performance

Staff performance measurement system implemented in your department or company

11 The following staff performance measurement system is used in your department or company. (*Mark all that apply*)

REF	Type of staff performance measurement system	YES	NO
V11aa	Self –appraisal.	①	②
V11ab	Supervisor / Manager appraisal.	①	②
V11ac	Team or Group appraisal	①	②
V11ad	360 –Degree Feedback /Full circle appraisal	①	②
V11ae	Balanced Score Card	①	②
V11af	Other (specify)_____	①	②

The following is used to measure staff performance in your department or company. (*Mark all that apply*)

REF	Staff performance measure	YES	NO
V11ba	Change in levels of Job Knowledge.	①	②
V11bb	Change in employees’ competencies in respective skills.	①	②
V11bc	Timeliness /Rate or speed in executing of tasks.	①	②
V11bd	Employee’s innovativeness/creativity.	①	②
V11be	Rate of quantity /work output.	①	②
V11bf	Quality of work out-put (products).	①	②
V11bg	Number or levels of mistakes/ errors.	①	②
V11bh	Rate or levels of wastages/rejects.	①	②
V11bi	Other (specify)_____	①	②

Staff performance assessment is performed at your workplace for the following objectives/reasons;

REF	Reasons for staff performance measurement	YES	NO
V11ca	Identify performance gaps for implementation of training.	①	②
V11cb	Assess the impact of implemented training programmes.	①	②
V11cc	To improve execution of tasks and activities.	①	②
V11cd	To focus the company’s objectives and expectation.	①	②
V11ce	To determine raises ie pay (salary),bonuses, promotions.	①	②
V11cf	Other (specify)_____	①	②

12. The respective training interventions implemented in our division or department are linked to employees performance measurements (**Tick one which is applicable**).

- ① Strongly disagree
- ② Disagree
- ③ Not sure
- ④ Agree
- ⑤ Strongly agree

13 The in-service technical trainings implemented over the years in our department or division have contributed to the company's growth. (**Tick which one is applicable**)

- ① I strongly disagree
- ② I disagree
- ③ I am not sure
- ④ I agree
- ⑤ I strongly agree

We thank you very much for giving up your valuable time in completing this questionnaire.

Please submit the completed questionnaire to Mr E. Mulanje.