Empirical study of the reverse-causality between organisational performance and employee behaviour in the agricultural manufacturing sector of Malawi

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DECLARATION

I, Ronnie Timpuza Mvula, hereby declare that this dissertation is my own work. The dissertation will was submitted to meet the requirements for awarding of the degree of Doctor of Philosophy (PhD) in the field of Human Resources Management at the University of the Witwatersrand, Johannesburg. I declare that the dissertation has not been submitted before for the award of any degree or examination at this or any other University**.**

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I recognise that it was my responsibility to conduct this research in an ethical manner and according to guidelines of the University of the Witwatersrand, and according to any laws or legal frameworks that may apply, as well as according to the norms and expectations of the Management discipline.

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ABSTRACT

Many organisations claim that Human Resources are their critical resource. However, what is most critical is not merely the human resources but how the Human Resources are managed. Human Resource Management is achieved through practices that the firm implements; these give the firm sustained competitive advantage. Many studies have found positive and significant relationship between HR management and firm performance. Previous studies have also studied reverse causality investigating whether organisational performance affects HR management policies and found significant positive relationship implying that it is good performing organisations that can afford adopting HRM practices. The purpose of this study was to investigate whether organisational performance motivates how employees behave at work in the reverse causality in the agricultural manufacturing firms in Malawi. To achieve this purpose a survey design was adopted using quantitative research strategy. Data were collected from a probability sample of 77 managers and 308 employees totalling 385 participants. Descriptive and inferential statistics using Structural Equation Modelling (SEM) were used to analyse and test seven hypotheses.

The proposed relationships were tested using a number of statistical methods. Adequate reliability was achieved on all measurement scales. Confirmatory factor analysis was conducted on the content and structure of the measured constructs and were confirmed necessary. Reasonable fit was achieved for all the refined measurement models. A Lisrel based SEM was applied to examine whether the model fitted the data obtained from the sample and test the relationships between latent variables. Consistent with previous research; results of SEM revealed that Human Resource Management (HRM) practices are significant correlates of organisational performance. Further results showed positive relationships between business strategy and HRM practices; HRM practices and organisational performance. Significant negative relationship was found between employee attitudes and employee behaviour and employee behaviour and organisational performance.

It also revealed that organisational performance positively and significantly affects employee behaviour (reverse causality). The positive effect implies that organisational performance is increasing employee absenteeism and disputes which is a negative effect. This shows that employee behaviour is driven by the performance of the organisation. The study recommends that agricultural manufacturing firms in the medium to large scale sectors in Malawi should embrace effective HRM practices to improve performance and competitiveness. Furthermore, the study recommends that firms should focus on employee behaviours as drivers of performance; they should look at organizational performance as driving employee behaviour. Managers should seriously consider motivation of employees based on firm performance to counter increasing negative employee behaviour..

The study contributes to existing literature on the management of Human Resources and firm performance. It provides insights on the relationships between the constructs. Practical implications are also provided to managers to help enhance organisational performance that can motivate employee behaviour.

Limitations of the study and suggestions for further research are also stated.

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- To my wife and children.

DEDICATION

I have always wondered how it would feel to receive a touching note from my kid, thanking me for being a good father. While I wait, I don't want to keep you waiting any longer.

I dedicate this to my mother Ellina Mvula and my aunt Lenitta Mvula for bringing me up like this. You encouraged me from day one of my school life all the way to date. I have left you alone many times to pursue my studies away from home and from you but you always encouraged me to go.

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LIST OF ABBREVIATIONS

AGFI : Augmented Goodness of Fit Index

AMO : Ability + Motivation +Opportunity

ANOVA : Analysis of Variance

ASWAP : Agriculture Sector Wide Approach

AVE : Average Variance Extracted

BSFAC-1 : Business Strategy Indicator 1

BSFAC-2 : Business Strategy indicator 2

BSTTRAT : Business Strategy

CAP : Chapter

CFI : Composite Fit Index

COM : Compensation

COMESA : Common Market for Eastern and Southern Africa.

CVM : Common Variance Method

EA : Employee Attitudes

EA-1 : Employee attitude indicator one

EA-2 : Employee attitude indicator two

EATTIT : Employee Attitudes

EB : Employee Behaviour

EB-1 : Employee Behaviour indicator one

EB-2 : Employee behaviour indicator two

EBEHAV : Employee Behaviour

EFA : Exploratory Factor Analysis

E-HRM : Electronic Human Resource Management

GDP : Gross Domestic Product

GFI : Goodness of Fit Index

GoM : Government of Malawi

GST : General systems theory

H1 : Hypothesis one

HPWS : High Performance Work Systems

HRM : Human Resource Management

HRMP : Human Resource Management Practices

HRMP : Human Resource Management Practices

IFI : Incremental Fit Index

KMO : Kaiser-Meyer-Olkin

KSAs : Key Success

LISREL : Linear Structural Relations

MANOVA : Multiple Analyses Of Variance

MITC : Malawi Investment Trade Centre

NFI : Normed Fit Index

OCB : Organisational Citizenship Behaviour

OP-1 : Organisational Performance indicator one

OP-2 : Organisational Performance indicator two

ORGPERF : Organisational Performance

PA : Performance Appraisal

PCA : Principal Component Analysis

PFA : Principal factor Analysis

RBT : Resource Based Theory

RBV : Resource Based View

RMSEA : Root Mean Square Error Approximation

ROA : Return on Assets

ROE : Return on Equity

RS : Recruitment and Selection

SCA : Sustainable Competitive Advantage

SEM : Structural Equation Model

SHRM : Strategic Human Resource Management

SMEs : Small and Medium Enterprises

SPSS : Statistical Packages for Social Science

TD : Training and Development

UK : United Kingdom

USA : United States of America

VRIN : valuable, rare, costly to imitate and non-substitutable

VRIO : valuable, rare, costly to imitate and organised

WEIRD : Western, Educated, Industrialised, Rich and Democratic

WFPMA : World Federation of People Management Associations

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION AND STUDY OVERVIEW

Human resources are the most critical factor required to achieve organisational success in the most efficient and effective way (Lee, Lee & Wu, 2010) because they can learn, grow and contribute firm performance (Fitz-enz, 1995). Access to machinery, equipment and other assets is not the differentiating factor anymore as these can be bought. This is why a company that lost all its equipment but kept the skills and knowhow of its workforce could be back in business relatively quickly. A company that lost its workforce, while keeping its equipment, would never recover (Becker, Huselid & Ulrich, 2001). It is the management of human resources rather than reliance on advanced technology or patents or strategic position that help firms achieve competitive advantage (Becker, 2001).

Proving the value that human resource management adds to the firm has become increasingly important since the 1990s (Arthur, 1994;; Huselid, 1995; Guest, 1997; McDuffie, 1995 Paauwe, 1997). Plethora of studies has shown positive and significant relationship between HRM practices and organisational performance (Katuo & Budhwar, 2008; Katuo, 2012, 2013 Wright & Gardner, 2000). However, some shortcomings have been identified in these studies. Level of analysis has varied from plant (Appelbaum, Bailey, Berg & Kallenberg, 2000; Arthur, 1994; MacDuffie, 1995; Youndt et al. 1996; Thompson, 2000;) to business unit and corporate levels (Huselid, 1995).

HRM practices have been described differently; some authors have looked at the level or amount of the practice or coverage e.g. how much training the employee receives while others have looked at the percentage of employees covered by that practice (Huselid, 1995). Human resources are one of the important considerations for strategy formulation and implementation (Johnson & Scholes, 2010). According to Porter (1997) a business strategy refers to the long-term direction and scope of an organization. In coming up with a strategy the firm must consider its long-term; markets to compete; activities to be involved within those markets(scope);

resources required to compete (skills, assets, finances); external factors that affect the business (environment); and stakeholder values and expectations (Johnson & Scholes, 2010).

An organization can pursue different strategies but Porter (1980, 1985) advocates three generic business strategies of cost, innovation, and quality. These can be used by any business regardless of the product, sector and industry. This study adopts these three generic strategies. The business strategy that a firm pursues affects and informs the type of human resource strategy and practices it implements.

Human resource practices are organisational activities aimed at managing the pool of human resources and ensuring that organisational resources are directed at achieving the organisational goals as set out in the strategic plan (Dessler, 2010; Barney, 2001). An organisation strategy should align human resource practices required to achieve it. The following human resource practices were analysed in the present study (1) Recruitment and selection, (2) training and development, (3) performance appraisal and (4) Compensation (Gamage, 2015; Dessler, 2008, Katuo & Budhwar, ; Fisher 2006).

Employee attitudes are viewpoints about aspects of the job, careers and their organisations (Saari, 2004). Attitudes affect employees' feelings about their job and the work environment whether they are happy or not. Employee attitude has three variables (1) commitment, (2) satisfaction, and (3) motivation. Employees who have positive high commitment, job satisfaction and motivation work for the organisation's benefit (Becker et al. 1997).

Employee behaviour refers to how employees conduct themselves at work. The behaviour that employees display at work is guided by the attitudes they have about the job and work environment (Grobler, 2002). Although employee attitudes are central to strategic human resource management (Boxall & Purcell, 2002); they are not sufficient to improve organisational performance until they affect employee behaviour.

Organisational performance refers to the comparison of the value produced by the firm against the value expected by owners of capital (Aladwan, Ramudu & Fish, 2011). Various variables have been applied to measure organisation performance like productivity (Huselid, 1995; Combs, 2006); profitability (Gong, 2009); market performance (Chuang & Liao, 2010). The present study measured organisational performance using four manufacturing specific variables of (1) cost reduction, (2) flexibility, (3) time and (4) quality improvement.

1.2 REVERSE CAUSALITY

In the HRM practices and organisational performance relationship the usual causal pathway that most theorists have suggested is a one way forward causality (Katuo & Budhwar, 2008; Katuo, 2011, 2010, 2012; Edwards, 2012; Amin, 2015).This clearly shows a sequential order in which enactment of HRM practices leads to HRM- related outcomes of employee attitudes (motivation, commitment and satisfaction) and employee behaviour (turnover, absences, disputes) which in turn affect organisational performance.

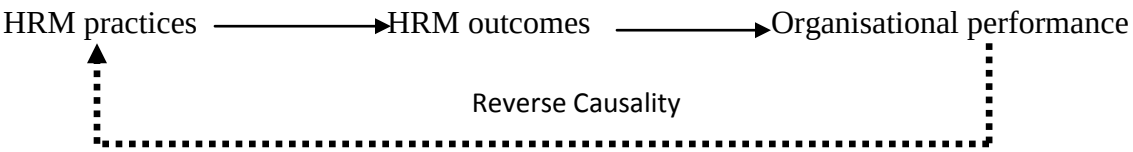

Figure1. 1: Reversed Causality

To the contrary, reserve causality is a concept of causality that looks at causality in a different opposite direction as shown above. While forward causality looks at the effect of causes; reverse causality looks at the causes of effects (Gelman, 2013). This study investigated the reverse causality of organisational performance and employee behaviour.

1.3 STATEMENT OF THE PROBLEM.

The agricultural sector in Malawi employs 80% of the total national workforce, contributes over 80% to the country's foreign exchange earnings, accounts for 39% of the gross domestic product (GDP) and contributes significantly to national and household food security (Government of

Malawi, 2010). Agriculture is the vehicle that drives the Malawi economy; therefore, human resources are the fuel driving that vehicle.

Malawi Government introduced the Agriculture Sector Wide Approach (ASWAP) in 2010 in order to spur agricultural productivity and agro processing and value addition. However, these may not be achieved if issues of human resources management and firm performance are not fully understood in this sector in Malawi.

Various research frameworks have proposed that human resource management practices lead directly or indirectly to organisational performance through mediating variables of HRM outcomes (Wright, 2005; Jiang, 2012b). However, this one-way forward causality has been criticized as being unsatisfactory (Katuo, 2012). Different authors have argued that rather than human resource management practices leading to higher organisational performance; it is highly performing firms that can afford human resource management practices (Edwards & Wright, 2001; Katuo, 2012; & Edwards, 2010).

In view of this, a number of reverse causality studies (Katuo, 2012; Edwards, 2010) have been undertaken. However, systematic literature search conducted in this study revealed that no study has investigated the reverse causality of employee behaviour and organisational performance. The proposed study therefore develops and tests an alternative view of the association depicting the influence of organisational performance on employee behaviour (turnover, absenteeism and disputes - labour relations).

1.5 PURPOSE OF THE STUDY.

The study aims to investigate whether organisational performance influence employee behaviour in agricultural manufacturing firms in Malawi.

1.5.1 Research Questions

The overarching research question to be addressed by this study is: does organisational performance motivate employee behaviour in the Malawi agricultural manufacturing sector? The following questions provide further guide for the conduct of the study:

1. What is the relationship between business strategy and human resource practices?

2. What is the relationship between human resource practices and employee attitudes?
3. What is the relationship between employee attitudes and employee behaviour?
4. What is the relationship between employee behaviour and organisational performance?
5. What is the relationship between human resource practices and organisation performance without the mediating effect of employee attitudes and employee behaviour?
6. Does organisational performance affect employee behaviour?
7. Is the causal relationship stronger in the forward or reverse causality?

1.5.2 Specific Objectives

The proposed study seeks to achieve the following objectives:

1. Examine the effect of organisational age, size and union intensity on the HRM practices and organisational performance in the agricultural manufacturing sector
2. Investigate the impact of HRM practices on organisational performance in the agricultural manufacturing sector.
3. Examine the reversed causality of organisational performance on employee behaviour on the relationship between HRM practices and organisational performance in the agricultural manufacturing sector.

1.5.3 Research Gaps

Previous studies on reverse causality have investigated HRM practices (Katuo, 2012); organisational performance and employee attitudes (Edwards, 2010); organisational performance and business strategy (Hertog, 2004). However, no previous study has investigated the reverse causality of whether organisational performance causes employee behaviour. This is the gap the study sought to fill. Consequently, it is not clear whether organisational performance affects how employees behave at work.

1.5.4 Justification for the study

Regardless of existing studies (e.g., Wright, Gardner & Moynihan, 2003) there continues to be academic debate on whether human resource management affect organisational performance and whether human resource management adds value to the bottom line of organisational performance (Martell & Carroll, 1995). Organisational performance has often been regarded as a dependent variable and many studies have attempted to investigate how organisational

performance can be improved. This study challenges the unidirectional approach and investigates whether organisational performance motivates employee behaviour.

Value addition and agro processing is one of Malawi's ASWAP document pillars which calls for enhanced agricultural manufacturing. This can only be achieved if human resource practices in these firms embrace the concepts of employee commitment, motivation and job satisfaction in order to solicit positive behaviours that translate into good firm performance from its workforce. The Malawi Growth and Development Strategy (GoM, 2011) also aims to increase manufacturing output with growing value addition. However, the sector output has stagnated with low capacity utilization across all sub-sectors hindered by poor management, which includes human resources. The outcome of the study will assist Malawi increase manufacturing output through adoption of HRM practices that enhance higher manufacturing performance. Furthermore, managers will appreciate effect of organisational performance on employee behaviours.

1.6 VARIABLES OF THE STUDY.

The variables of the study are discussed in the next section. The linear relationships of the variables are presented in the conceptual model (See Figure 2.1). The model provides a framework explaining how HRM practices affect organisational performance and how organisational performance motivates employee behaviour.

1.6.1 Business Strategy

There are many strategies a firm can pursue to achieve competitive advantage these include generic corporate strategies (growth, stability, defensive, and combination strategies), generic business strategies (cost leadership, innovation and quality enhancement) which adopt the competitive advantage concept (Porter, 1985). Other strategies are competitive product strategies (defenders, prospectors, analyzers, and reactors) which emphasize on strategic choices made to link the firm with its product market (Miles & Snow, 1984).

This study adopted Porters business generic strategies because it has shown to positively predict organisational effectiveness (Youndt et al. 1996). It is generally believed that HRM practices and firm performance depends on contextual factors like business strategy. Therefore, for HRM

policies to be effective; they must be consistent with business strategies. (Gomez-Mejia & Balkin, 1992). Porter (1995) identified three generic business strategies like cost reduction, quality enhancement and innovation. Business strategies also have an impact on HRM practices (Schuler & Jackson, 1987).

Firms pursuing a cost leadership strategy minimize overhead costs and maximize economies of scale thereby achieving positive firm performance (Schuler & Jackson, 1987). Quality strategy aims at delivering quality products and services but also resource effectiveness and productivity (Johnson & Scholes, 2010). Innovation strategy makes the firm a unique producer thereby gaining competitive advantage (Segev, 1989)

1.6.2 Human Resource Management Practices

HRM practices refer to organisational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfilment of organisational goals (Schuler & Jackson, 1987; Schuler & MacMillan, 1984; Wright & Snell, 1991). These practices differ from one organisation, country and industry to another.

Different researchers have attempted to identify the type of HRM practices applicable in different sectors. Pfeffer (1994) identified 16 practices which are known as best practice which were later reworked to seven practices: employment security; selective hiring; extensive training; reduction in status differences; self managed team and team working; high compensation contingent on performance of organisation and information sharing.

One of the questions that must be addressed in HRM research is whether or not there is a single set of practices that represent a "universally superior approach" to managing people (Chandler & McEvoy, 2000). Theories on best practices or high commitment suggest that universally, certain HRM practices, either separately or in combination are associated with improved organisational performance.

Redman and Matthews (1998), identified a "HRM bundle" of key practices which support service organisations quality strategies and these are: extensive remuneration systems, for

example, bonuses available for staff willing to be multi-skilled; training and learning, for example, front line staff having enhanced interpersonal and social skills; careful recruitment and selection, for example quality recruitment, zero defects recruitment, right first time recruitment; employee involvement, for example, keeping employees informed of key changes in the organisation; team working and flexible job design, for example, encouraging a sense of cohesiveness and designing empowered jobs; and performance appraisal with links to contingent reward systems, for example, gathering customer feedback to recognize the work done by employees over and above their expected duties, which in turn is likely to lead to a bonus for staff.

1.6.2.1 Recruitment and selection

The two words are used interchangeably to mean the same but they are different. Recruitment is the process by which organizations identify and attract individuals to fill job openings (Amin, 2014; Armstrong, 2012; Fisher, 1999; Noe, 2008; Ritson, 2011). Recruitment constitutes one of the major functions of HRM because it helps organizations identify and acquire the best pool of employees that in turn lead to better organizational performance (Redman, 2012).

Selection is the process of reducing the number of applicants and choosing those with relevant qualifications (Bohlander & Snell, 2007). Without proper selection the organization cannot achieve its objectives and experience human resource management problems including low productivity, high employee turnover, employee stress and high absenteeism rates (Storey, 2007; Way et al. 1998; Weil, 1995).

Recruitment and selection activities are important to an organisation because they help it identify and select employees with the right skills, abilities, knowledge and attitudes who will help meet the strategic goals of the firm. Organisations require talented and skilled workers (Liao & Chu, 2006) that create cooperation and cultural fit with the organisation (Williams, 2001) and competitive advantage.

1.6.2.2Training and Development

Training is the process of equipping new or existing employees with abilities, skills and knowledge to enable them perform better in their current jobs (DeNisi & Griffin, 2001; Li et al. 2008). It modifies employee skills and attitudes (Herold & Fedor, 2003). Training improves employees' capabilities which are crucial in improving overall organizational performance (Mackelprang et al. 2012; Millar & Stevens, 2012). This study used five items referring to individual and team training and development: monitoring training and development, individual and team training and development, work design, and performance appraisal (Katou & Budhwar, 2007).

Development is the process by which employees acquire abilities; skills and knowledge to enable them perform better in their future responsibilities (Li et al. 2008). Two were used referring to competency, cooperation between management and employees, cooperation among employees. This is so because although competencies are assumed to be foundational to all performance improvement (Harde, 2003; Hortwitz, 1999;), they are not sufficient for improving organisational performance unless employees are cooperated and motivated (Lopez et al. 2005).

1.6.2.3 Performance appraisal

Performance appraisal is the process of assessing employee performance by determining and communicating how well the employee is performing on the job (Byars & Rue, 2004). It is an objective employee assessment that includes an outline of improvement measures (Osman et al. 2011). It involves bi-annual and annual interviews between the subordinate and the superior to discuss job performance for the previous half year or year and subsequent action plans to improve performance (John & Steven, 2000). Previous research shows significant relationship between performance appraisal and organizational performance (Khan, 2010; Qureshi et al. 2010; Abdullah, 2009). On the other hand, ineffective appraisal can lead to low morale, decreased employee productivity that decrease organizational performance (Osman, 2011).

1.6.2.4 Compensation

Compensation is any monetary or non-monetary reward given to employees for their contribution to the organization (Pedro & Vicente, 2007). Compensation may directly or

indirectly affect employee attitudes of satisfaction and motivation that leads to diminishing employee behaviour of turnover, retain competent employees, enhance performance and disputes (Katuo, 2012, Pedro &Vicente, 2007). It helps improve quality of products and services and increases sales (Venkatesh, 2006; Chiu et al. 2002)

1.6.3 Employee Attitudes

Employee attitudes are viewpoints about aspects of the job, careers and their organisations (Saari, 2004). The work situation and the work itself are the major causes of employee attitude. Judge and Church (2000) found that when employees were asked to rate different facets of their job such as pay, promotion, supervision, co-workers etc; the nature of their job emerged to be the most important affecting their job satisfaction.

Employee attitudes are affected by sound selection methods and a good match between employees and the job. Selection should ensure employees are selected and placed into jobs most appropriate for them which in turn help to build their job satisfaction, motivation and commitment. When employees are trained and developed; when their performance is evaluated and are informed of how well they are doing; and when their efforts are appropriately rewarded; they become motivated, satisfied and committed. Katuo and Budhwar (2006, 2008) and Katuo (2010) classified employee attitudes as motivation, commitment and satisfaction. When employees are happy they tend to be more productive (Saari, 2004).

1.6.3.1 Commitment

It is the psychological attachment that binds the employee and the resultant loyalty an employee has for the organisation (Armstrong, 2012; Meyer, Allen 1991; Ritson, 2011). Committed employees have positive feelings about the firm, are involved and attached to the firm. They feel obliged to remain with the firm (Meyer, 2002).

1.6.3.2 Satisfaction

It is an employee attitude about how contented he or she is about the job (Nel, 2004). It is measured using satisfaction survey which assesses issues related to workload, compensation, perceptions of management, teamwork, flexibility, resources etc. (Armstrong, 2012; Rafique,

Tayyab, Kamran, Ahmed, 2014; Ritson, 2011). These issues are very important for firms which want to retain their employees, keep their employees happy and reduce turnover.

1.6.3.3 Motivation

It is the organisational systems of practices designed to stimulate intrinsic motivation (Hartog & Verburg, 2004). Motivation is encouraged by such factors as management and leadership actions, treating employees with respect, employee recognition, above industry to average compensation and benefits (Tamer & Elliot, 2015).

1.6.4 Employee Behaviours

Motivated, satisfied and committed employees develop organisational citizenship behaviour (OCB) which is discretionary job performance (Youndt et al. 1996). In OCB employees go beyond their prescribed job requirement behaviours that are not recognized by the formal reward systems (Mester, 2003; Organ, 1988). Employees are engaged in helping behaviours towards individuals and the organisation (Mester, 2003; Organ, 1988). Essentially all employees have the capacity to display discretionary behaviour but it rests with the organisation to trigger these behaviour that lead to higher organisational performance beyond basic job requirement (Hutchinson, 2003). This study has classified employee behaviour as turnover, absenteeism and disputes. It is important to note that these are negative employee behaviours.

1.6.4.1 Employee Turnover

It is the measure of how long employees stay with the firm and also how often employees have to be replaced (Khan, 2014; Price & Mueller, 2001). Turnover can be voluntary where the employee by his own volition decides to quit. Involuntary turnover is when the employee has been laid off for many reasons (Khan, 2014).

Turnover can cost an organisation directly or indirectly and affect its performance. Direct costs include the cost associated with relocation, pay compensation, pay terminal benefits, hire and train new employees to take up the vacated posts. Indirect costs are difficult to quantify but include lost sales, lost customers due to lost business networks, inexperienced staff or short of staff, loss of knowledge of the firm operations, lack of institutional memory, and loss of important routines. These affect the firm performance (Khan, 2014)

1.6.4.2 Employee absenteeism

It is non-attendance at work. It could be caused by sickness, looking after a sick relation, annual leave, compassionate leave, maternity, paternity, adoption, time off for public or trade union activities, care for dependents, attending to funerals etc. It is a significant cost to a firm and negatively affects firm performance (Bennet, 2002).

1.6.4.3 Disputes

It is any difference between an employer or employers' organisation and employees or a trade union, as to the employment or no-employment, or the terms of employment, or the conditions of labour or work done or to be done, of any person, or generally regarding the social or economic interest of employees (Labour Relations Act, 1996) The disputes affect organisational performance through lost time, reduced production, lost sales and absence from work in the event of strikes, stay a ways, go slow etc. (Walker & Hamilton, 2011)

1.6.5 Organisational performance

This is a dependent variable which measures the bottom-line on which HR practices have an impact (Wang et al. 2002). The organisational performance construct is usually measured by items such as effectiveness, i.e. if the organisation meets its objective; efficiency, i.e. if the organisation uses the fewest possible resources to meet its objectives; development, i.e. if the organisation is developing in its capacity to meet future opportunities and challenges, satisfaction of all participants-owners and investors, customers, society, other organisations, and organisational members, innovation, for products and processes, and quality, percentage of products of high quality (Wang et al. 2002).

1.7 REVERSE CAUSALITY: ORGANISATIONAL PERFORMANCE EFFECT ON EMPLOYEE BEHAVIOUR.

The issue of causality is, of course, implied, presupposed or presumed in research on the HRM-P link i.e. introducing some bundle of HRM practices *causes* increased performance. This is forward causality. The same assumptions are applied in reverse causality that organisational performance in return (in reverse) causes changes in HRM practices. The whole point of this research is based upon the belief that there exists a statistical association (a causal claim)

between organisational performance and employee behaviour so that a causal claim can be made, to the effect that organisational performance motivates employee behaviour.

This study then, tests a prediction or hypothesis to the effect that these organisational performance indicators are associated with employee behaviour. Three important ideas are assumed in this empirical research on organisational performance and employee behaviour reverse linkage. These are that (i) the reverse relationship exists (ii) the existence of the reverse relationship can be established or tested using typical quantitative techniques and (iii) the relationship is negative and flows from organisational performance to employee behaviour.

In examining the Human Resource management practices and organisational performance relationship, it is implicitly assumed that HR practices lead to organisational performance. It is noted that HR practices influence organisational performance directly as in hypothesis 5 or indirectly through employee attitudes and behaviours as in hypotheses 3 and 4. Training can improve efficiency directly, by improving employee knowledge, abilities and skills. Compensation and promotion can improve organisational development indirectly through improving employee attitudes of satisfaction and motivation thereby diminishing employee behaviours of turnover and disputes. The positive employee behaviours affect organisational behaviour. An organisation that is performing well assures employees as a going concern and real wage rises thereby making employees stay longer with the organisation (counter of turnover). Real wages rise reduce instances of disputes.

This study is an extension of Katuo (2012) work. While Katuo studied the reverse causality of organisational performance on HRM policies; this study examined the reverse causality of organisational performance on employee behaviour. Furthermore; while Katuo used four HRM policies (Resourcing, Development, and Rewards and Relations) this study used four generic HRM practices (recruitment & selection, training & development, performance appraisal and Compensation). Katuo used subjective organisational performance indicators of effectiveness, efficiency, development and stakeholder satisfaction in service industry. This study applied manufacturing specific organisational performance indicators of cost reduction, time

(Throughput), quality improvement and flexibility. Both studies used control variables except that Katuo used two variables (sector and firm size) while this study used three variables (firm age, size and union intensity). Both studies used generic business strategies, employee attitude indicators and employee behaviour indicators.

1.8 CONTROL

Three control variables of firm age, size and union intensity were included in the Human Resource practices and organisational performance model of the research design to avoid results of the analyses being erroneous (Boselie et al. 2005).

Age of the firm was considered in order to make sure the firm is not new so that they may not have put in place the human resource management practices**.** Age of the organisation was determined as when it was established. In this study, organisations that are three years old and beyond were considered.

Firm size was based on the logarithm of number of employees. In this study size refers to medium and large organisations i.e. 20 employees and above. This was controlled because medium and large firms are more likely to establish Human Resource practices due to economies of scale (Huselid, 1995; Datta et al. 2005). Medium and Large firms have more resources than small enterprise firms as such they can afford to introduce a range of human resource practices.

Union intensity was based on the number of employees as union members expressed as a percentage. According to the Malawi Labour Relations Act No 6 of 1996; a firm is considered and recognised for collective bargaining if it meets the threshold of 20% of the total number of employees.

1.9 OVERVIEW OF THE STUDY.

Chapter 1 has dealt with the antecedents of HRM practices and organisational performance relationship model. It further discussed the concept of reverse causality investigating whether the performance of an organisation motivates how employees behave at work. It also focused on the definition of the research domain, the objectives of the study and the importance of this research.

Chapter 2 is a comprehensive literature review, with the main concepts of the study being discussed in detail. Definitions and conceptualisations of business strategy, human resource management practices, employee attitude, employee behaviour, organisational performance, control variables and reverse causality have been provided.

Chapter 3 is a detailed discussion of the methodology. It provides a detailed description of the research design, the sample and the data collection procedures that have been employed. The measuring instruments used for each of the variables in the study are defined and described. Furthermore, the statistical analyses used to analyse the data are discussed.

Chapter 4 presents the research results. It describes the data analysis in detail, providing the results of the analyses. Furthermore, it reports on the testing of the research hypotheses that were hypothized.

Chapter 5 presents Discussion, conclusions and recommendations of the study. The results are interpreted and discussed. Limitations of the study and suggestions for improving future research are also proposed. Managerial and theoretical contributions of the study are stated. It ends with managerial implications and concluding remarks.

1.10. SUMMARY

The chapter has dealt with the antecedents of HRM practices and organisational performance relationship model. It further discussed the concept of reverse causality investigating whether the performance of an organisation motivates how employees behave at work. It also focused on the definition of the research domain, the objectives of the study and the importance of this research. The next chapter reviews literature relating to the study and discusses theoretical perspectives underpinning the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 CHAPTER OVERVIEW

This chapter reviews literature on general human resource management theories as they apply to human resource practices and firm performance. Brief reviews of methods and results obtained by other research works on the topic have been reviewed. Literature has been reviewed on contemporary scholarly debate on the relationship between human resources practices and firm performance and reverse causality to identify what has already been empirically studied in order to distinguish this study from prior studies. Theoretical perspectives are discussed explaining their relevance to the study. Some empirical studies based on the theoretical perspectives are also included. Research gaps have been identified from the review and articulated.

2.2 INTRODUCTION

The first systematic empirical studies on HRM- performance linkage were published in 1994 (Arthur 1994, 1995; McDuffie, 1995; Huselid 1995). Although the bulk of literature seems to accept that HRM practices have a significant impact on organisational performance, there are however two different approaches in scientific literature. Edgar, Geare, (2009) and Paauwe (2009) argue that there is the conviction concerning the link while others doubt about the link and/or even denial about the link itself. Studies about the relationship between HRM practices and organisational performance have focused on both manufacturing and service sectors using both objective (financial) and subjective (non-financial) performance measures. These studies have largely considered forward causality with a few studies focusing on different aspects of reverse causality.

2.3 CONCEPTUALISING THE CONSTRUCTS

2.3.1 Human Resource Management

According to Storey (1995; 2007); Hall and Torrington (1998), Human Resource Management is a distinctive approach to employment management which seeks to obtain competitive advantage through deployment of a highly committed and skilled workforce, using different techniques**.**

Furthermore, human resource management is concerned with examining how employees can be made more productive and satisfied (Racelis, 2010). To achieve this, organisations must regard the development of superior human resources as an essential competitive requirement that requires good and careful planning, hard work and evaluation (Ivancevich, 2003; Racelis, 2010). Employees being a source of competitive advantage require that firms must adopt human resource practices that make the best use of its employees.

Similarly, HRM also results in profitability gains, high company survival rates and stock prices increasing. Huselid, (1995) in a study of 968 firms found that a one standard deviation increase in high performance work practices was associated with a relative decrease of 7.05% in staff turnover. Similarly, Terpstra and Rozell, (1993), found a positive relationship between use of human resource staff practices and profit growth. Guest (2002) argues that how HR practices impact on organisational performance depends on how employees respond to HR practices. This implies that negative employee perception leads to low performance and vice versa. Ekaterini (2010); Wright et al. (1994) and Huselid (1995) reaffirm that the nature of the human capital and how it is managed have an impact on employees and firm performance.

According to Koch and McGrath (1996); HRM can help organisations improve organisational behaviour in areas like staff commitment, competency and flexibility, which in turn lead to improved staff morale and eventually better organizational performance. To develop a sound HRM system, the firm needs effective HRM practices. So, what are these human resource management practices?

2.3.2 Human Resource Management Practices

According to Schuler and Jackson, (1987); Schuler and MacMillan, (1984); Wright and Snell, (1991) HRM practices refer to organisational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfilment of organisational goals. These practices differ from one organisation, country and industry to another.

Different researchers have attempted to identify the type of HRM practices applicable in different sectors. Pfeffer (1994) identified 16 practices which are known as “best practices”. This

was later reworked to seven practices (citation): employment security; selective hiring; extensive training; reduction in status differences; self managed team and team works; high compensation contingent on performance of organisation and information sharing.

However, according to Chandler and McEvoy (2000), one of the questions that must be addressed in HRM research is whether or not there is a single set of practices that represent a "universally superior approach" to managing people. Theories on best practices or high commitment suggest that universally, certain HRM practices, either separately or in combination are associated with improved organisational performance.

In Redman and Matthews (1998); Marler (2013), a "HRM bundle" of key practices which support service organisations quality strategies was identified and these are: (1) extensive remuneration systems, for example, bonuses available for staff willing to be multi-skilled; (2) training and learning, for example, front line staff having enhanced interpersonal and social skills; (3) careful recruitment and selection, for example quality recruitment, zero defects recruitment, right first time recruitment; (4) employee involvement, for example, keeping employees informed of key changes in the organisation; (5) team working and flexible job design, for example, encouraging a sense of cohesiveness and designing empowered jobs; and (6) performance appraisal with links to contingent reward systems, for example, gathering customer feedback to recognize the work done by employees over and above their expected duties, which in turn is likely to lead to a bonus for staff.

Saxena and Tiwari (2009) examined the HRM practices implemented by leading IT companies in India like TATA, Infosys and Wipro. They developed the 3cTER Framework of HRM practices and identified: Employer-Employee Relations; recognition through rewards; training and development; career Development; culture building; compensation and benefits as important HRM Practices.

2.3.3 Nature of Human Resource Management Practices

Human Resource Management researchers have devoted significant efforts towards demonstrating that the ways people are managed, especially through HRM practices; have strong

linkage with performance (Buoziute, Rafanaviciene, Pundziene & Turauskas, 2009; Guest, 2011; Pundziene, Alonderiene, Buoziute, 2007). However, there appears to be no agreement on the nature of HRM (Paauwe & Boselie, 2005). There is no single agreed or fixed list of HR practices or systems of practices that are used to define or measure human resource management.

HRM practices have been described differently by different authors. Bjorkman, (2001) described them as "High-performance practices" which Huselid, (1995) listed as: comprehensive employee recruitment and selection, incentive compensation and performance management systems, and extensive employee involvement and training. It has been demonstrated that these practices do improve abilities, skills and knowledge of current and potential employees, reduce shirking, increase their motivation and retain quality employees while encouraging poor and no performers to leave (Racelis, 2010). Some authors have tried to categorize HRM practices as "high performance work systems- HPWS" (Appelbaum et al. 2000). Others have described them as "high commitment management" (Arthur, 1994; Pfeffer, 1998; Wood and de Menezes, 1998) or "high-involvement" (Guthrie, 2001). However; positive results appear to be revealed regardless of the definition of HRM practices and the combination of the HRM practices. This explains why scholars have used different combinations of HR practices like Katuo, 2012 (12 items) Gamage, 2015 (4 items), Boselie, 2005 (26 items) but each finding positive relationships between HR practices and firm performance.

Huselid (1995) seminal work investigated 11 HRM practices (personnel selection, labour management participation, incentive compensation, performance appraisal, grievance procedures, information sharing, job design, attitude assessment, recruitment efforts, promotion criteria and employee training and found a significant positive relationship between high work practices like compensation and employee outcomes (Muchhal, 2014). Similarly, Teseema and Soeters (2006) investigated 8 HR practices (recruitment and selection, placement, training, compensation, employee performance evaluation, promotion, grievance procedure, and pension or social security) and found positive relationship between HR practices and employee performance (Jiang et al. 2012). On HRM practices (compensation, promotion and performance evaluation) relationship with University lecturers' performance in Pakistan; it was revealed that

compensation and promotion were significantly correlated with performance (Shezad et al. 2008; 2011). Compensation had a strong and positive significant relationship with lecturers performance implying that the more lecturers are compensated fairly, the more they will perform better. Promotion and performance evaluation were insignificant because these are usually vague and not properly and fairly practiced (Shezad, 2011)

Furthermore, Delaney and Huselid (1996) used recruitment and selection, training and development, participation and reward as HR practices. Employee productivity, product quality and firm flexibility improves by use of training and development, team work, performance appraisal, compensation/incentives, human resources planning and employment security as HR practices by Lee and Lee, (2007). Qureshi et al. (2010) identified selection system, training, job definition, performance appraisal, compensation, and career planning and employee participation as HR practices.

Similarly, Boselie et al. (2005) identified 26 different practices that are used in different 104 studies, of which the top four, in order of popularity were: (1) training and development; (2) contingent pay and reward schemes; (3) performance management (including appraisals); and (4) careful recruitment and selection. Likewise, Nyandiko and Ongeri (2015), Gamage, (2015); Dessler, (2008), Katuo & Budhwar, (2007) and Fisher (2006) applied the same four HRM practices.

Consequently, this study applied these same four HRM practices as they generally reflect the main objectives of the majority of strategic HRM programmes, which are, to identify and recruit strong performers, provide them with the skills and confidence to work effectively, to monitor their progress towards the required performance targets and reward staff well for meeting or exceeding them (Batt, 2002; Paauwe & Boselie, 2005). These practices broadly correspond to the so called High Performance Work systems; and are associated with AMO theory (Paauwe, 2009; Edwards & Wright, 2001). Furthermore, these four HR practices are synergetic as they feed into each other.

2.3.4 Factors Affecting Human Resource Management Practices and Firm performance.

HRM practices differ from one country, organisation and industry, to another. Factors which affect implementation of HRM practices include external as well as internal (Ozutku & Ozturkler, 2009). This is partly because different countries operate in different political, economical, social and technological contexts resulting into different labour laws and practices.

Internal factors affecting Human Resource practices include: organisational size, (McPherson 2005; Jackson et al. 1989); organisational structure,(Garwin, 1986; Hudson et al. 2000); business strategy, (Milkovichan & Boudreau 1991; Schuler 1992); human resource strategy, (Gatavan et al. 2008); history, tradition and past practices, (Pardo & Fuentes, 2003); top management, (Kane & Palmer 1993); Ondrack & Nininger, 1984line management, (Alas et al. 2008; Okpara & Wynn, 2007); academic and professional influences, (Kane & Palmer 1995).

External factors affecting HR practices include: economic changes, (Saton & Wang, 1994); technological changes, (DeFillipi, 2002, Gatavan et al. 2008); national culture, (Chandrakumara & Sparrow, 2004); legislations and regulations, (Kane & Palmer, 1995); actions of competitors, (Poole & Jenkins, 1996; Narsimha, 2000), actions of unions, (Kochan et al. 1984) and globalization, (Tayeb, 1998). This study took into consideration firm age (3 years and above), firm size (medium to large employing 20 and above employees) and union presence as important factors affecting HRM practices and firm performance.

2.3.5 Human Resource Policies Vs Human Resource Practices

Some studies have used HR policies (Katuo, 2012) others have used HR practices (Bharti, 2015; Ogunyomi & Bruning, 2016; Mukanzi, 2013; Ogunyomi & Bruning, 2016). How do these differ and how do they impact on firm performance? Human Resource policies and practices have been used interchangeably to mean the same thing in other studies. Policies refer to activities for employees and done by employees while practices are ways or methods by which the policies are implemented (Torrington, 2014).

2.4 MANUFACTURING PERFORMANCE

Manufacturing performance refers to a measure of how firms in the manufacturing sector are performing compared to manufacturing indicators (Pintzos, 2012). Manufacturing firm

performance can be looked at from the socio-economic perspective that looks at profit as the most common feature of the firm's performance. Other indicators are: internal rate of return, productivity, effectiveness, capacity utilization, market share, growth of output, and net present value (Leong et al. 1990; Ward et al. 1995 & 1998; White, 1996).

While it is widely accepted to use objective indicators to measure manufacturing performance like financial indicators; the accountancy protocols on which financial indicators are criticised for lacking credibility. This is so because of a number of corporate financial scandals where accounting records have been cooked to portray a false picture of the firm performance. This makes financial indicators not to be very reliable indicators. The Enron scandal is a case in point. Furthermore, managers are more likely to act on the basis of their subjective perceptions of firm performance, often in relation to performance of competitors than solely on objective performance.

Furthermore, Wright et al. (2003) argue that financial performance lies at the distant end of the causal chain, and that outcome measures that are more closely linked to HRM might be more appropriate to consider. This is consistent with literature of the measures that have been reported like labour turnover, aspects of productivity (Sirmon, et al. 2003). It is therefore important to use a range of proximal (closer) than distal (distant) measures and examine how HR practices relate to each of these.

Accordingly, many researchers agree that we need to use more non-financial performance measures relevant to the organisation's own situation and adequately gauge manufacturing performance. These provide a better description of what goes on in the production of goods than what financial measures do. Examples of non-financial measures of performance are efficiency, dependability, quality, product and volume flexibility, cost reduction, high performance design, on time delivery and reliability (Skinner, 1974; Hayes & Wheelwright, 1978; Krajewski & Ritzman, 1987; Hill, 1989; DeMeyer, 1990). Two later studies, Ward et al. (1995 & 1998) factor analyzed items relating to manufacturing priorities into four being (1) cost, (2) quality, (3) time

and (4) flexibility. This study adopted these same measures because they relate to manufacturing measures of performance.

2.5 HUMAN RESOURCE MANAGEMENT IN MALAWI

Malawi is a member of the World Federation of People Management Associations (WFPMA) through the Africa block of Africa Human Resources Confederation (AHRC) comprising 28 African Countries [1](WFPMA, 2014). Locally, the Institute of People Management Malawi (IPMM) incorporated in 1984, is a professional association of HR managers aimed at promoting human resource management in Malawi. The institute has developed a piece of legislation, which is not enacted yet, to guide the practice of human resource management in Malawi in order to bring order to the profession. This legislation aims at ensuring that only qualified HR personnel are allowed to practice.

Human Resource Management is guided by the Labour Laws which include: Malawi constitution (1994), the Labour Relations Act of 1996 (CAP 54:01); Occupational Safety, Health and Welfare Act No. 21 of 1997 (CAP 55:07); the Employment Act No 6 of 2000 (CAP 55:01), and Workers Compensation Act No. 7 of 2000 and the Pension Act of 2011. These provide minimum provisions that affect how employees are used at work leading to organisational performance. In terms of recruitment and selection, organisations are required not to recruit children less than 14 years (Employment Act, 2000). The law provides K962 per day (K25, 012.00 per month) as the minimum wage (1US$=K730). Firms that pay way above this can motivate their employees and diminish employee turnover. The Law provides 8 hours of work per day and maximum of 48 hours per week (employment Act, 2000). Firms can exceed this limit and pay employees over time in order to meet their productivity targets. These laws place a lot of focus on employee rights at the workplace.

[1] Algeria, Angola, Benin, Botswana, Burkina Faso, Cameroon, Chad, Ethiopia, Kenya, Malawi, Mali, Mauritania, Mauritius, Morocco, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

In general some of the critical provisions include (1) non-discrimination based on sex, gender, colour, race, religion, gender, height when employing people; (2) the right to equal pay for work of equal value on legal tender; (3) minimum wage of K976/8 hr day; (4) employer to provide an itemized pay statement i.e. pay slip; (5) no unauthorized deductions on anybody's pay and even if authorized; it should not exceed 50% of the employee's net pay (Employment Act, 2000).

When employees' services have been terminated; payment (severance, notice pay, holiday pay, salary in lieu of notice) must be paid within 7 days (sec 53(1). Similarly; pension benefits must be made available within 6 weeks (employment Act, 2000: 53(2))

The country is however faced with lack of enforcement mechanisms of these labour provisions. There are no human resource management enforcement agencies to police enforcement of labour laws like we have the Bureau of Standards which enforces adherence to certain standards, Medical Council that polices how the medical profession operates; Road Traffic which enforces adherence to traffic regulations by making snap checks on vehicles. No one monitors whether the minimum wage, the hours of work, payment of terminal benefits within six weeks of termination, among others, are adhered to. This promotes a lot of industrial unrest and abuse in Malawi.

All employees on first appointment pending permanent established position are subjected to probation period, i.e. period of observing the employee performance. The probation period depends on the firm specific conditions of service. However, the Employment Act (2000) section 26 provides that probation period shall not, in any event, exceed 12 months. Many firms do not follow this provision as many employees can go up to ten years without being confirmed. This adversely affects employee motivation. However, due to high unemployment rates, employees do not ask for their confirmation for fear of reprisals.

Government and private sector organisations use both internal and external recruitment methods through advertising of the vacant positions. Appointments are made on merit and open to all with relevant qualifications and experience. Top positions appointments are normally made by the Board while Management of the firm handles recruitment for lower positions.

The human resource management practices used in Malawi are not different from what literature highlights like the high-performance work systems as well as the traditional human resource management practices of recruitment and selection; training and development; performance appraisal and compensation. However, these HR practices are engrained in the culture of Malawi e.g. where the employer is responsible to provide a coffin, transport and be present during burial and are expected to speak. Burial is usually a day after one's death and workmates are expected to attend and pay their last respects leaving the organisation work.

Like many countries in the world and the region, in Malawi HRM professionals have been affected by HIV/AIDS, social, economical and political challenges like political instability, inflation, globalisation and a call to corporate governance. This calls for the profession to meet a lot of employee demands in order to match the cost of living influenced by these factors. Malawi is currently coming up with a qualification framework for human resource.

2.6 THE MALAWI MANUFACTURING SECTOR.

According to Comesa (2009) the Malawi industrial sector contributed 19% to GDP in 2009, while manufacturing alone contributed 10% which had been at this since 2000's (World Bank, 2010). In analyzing employment in Malawi in 2010; it was noted that manufacturing plays a fairly small role in Malawi's economy as it only attracted 5% of the working population; while 80% are involved with agricultural labour (ILO, 2010). This shows how under developed the manufacturing sector is.

Main players of the manufacturing sector are textiles, footwear and clothing, agro processing (tea, sugar, tobacco, soya, and macadamia nuts) and building materials i.e. cement and joinery (World Bank, 2012). World Bank (2010) observed that manufacturing market is limited due to the small domestic market. However, with the new initiatives government is implementing of, among others, promoting purchase of locally made goods; this is likely to change. Low productivity, high transport costs and shortage of skilled workers limit the capacity for exporting manufactured goods (World Bank, 2010)

2.7 HUMAN RESOURCE MANAGEMENT RESEARCH PERSPECTIVES

Human Resource management and organisational performance research is advanced both theoretically and empirically (Huselid, 1995, Huselid, Jackson & Schuler, 1997; Pfeffer, 1994). Academic literature takes various perspectives exploring and demonstrating the value that HRM adds to organisations. These perspectives are four: (1) the universalistic, (2) contingent, (3) configurational and (4) contextual (Martin-Alcazar, Romero-Fernandez & Sanchez-Gardey, 2005).

2.7.1 The Universalistic or "Best Practice"

It argues that in order to beat competitors, firms need to identify and implement "best HR practices" regardless of the firm context (Boxall & Purcell, 2000). This also implies that the relationship between a dependent and an independent variable is universal across firms (Beer et al.2015). It further assumes that: (1) there is a linear relationship between HR practices and organisational performance; (2) "best practices" are universally accepted and successful; (3) organisational performance is best measured in terms of financial performance like profits, market share and sales levels.

Various empirical research support this model (Delaney & Huselid, 1995, Ichniowski & Shaw, 1999; Koch & McGrath, 1996; Pfeffer, 1994; ; Terpstra & Rozell, 1993) who investigated HRM practices and showed their positive impact on organisational performance, measuring a number of key indicators. Other studies investigated the effect of HR bundles on performance (Becker, Huselid, Pickus & Sparatt, 1997; Huselid, 1995; Youndt, Dean & Lepak, 1996). The thinking is that bundles (a system) of HR practices are more than the sum of its parts consequently; they can better enhance organisational performance than single HR practices (Perry-Smith & Baum, 2000). A bundle refers to interrelated and internally matching practices, which create conditions supporting employee motivation that leads to better performance (MacDuffie, 1995)

Proponents of this perspective argue that there is an identifiable set of best HRM practices which have universal, additive and positive effects on firm performance (Laugen & Boer, 2007). However, these authors have little agreement among themselves regarding which HRM practices lead to better performance (Becker & Gerhart, 1996). High-performance work systems studies

differ regarding HR practices to be included. According to Delaney, Lewin and Ichniowski, (1989) these include selection, performance appraisal, incentive compensation and job design. However, Huselid (1995) adds on three more. Pfeffer (1994) uses 16 practices while Hoque (1999) uses a list of 23 HR practices.

The notions sound logical and reasonable because use of a greater range of identified HRM practices is better than using fewer or single practices in promoting organisational performance. However, the perspective has been challenged for a number of limitations. Purcell (2001) argues that by adopting "best HR practices" model both individually or collectively; firms are likely not to differentiate themselves with other firms in the competition. It is like all firms will adopt the same practices and no firm will have competitive advantage.

Similarly, it is argued that organisations differ in their goals, technology use, information systems, their competitive environments as well as the nature and characteristics of their staff. This poses a challenge for managers to adopt one approach and succeed.

Best HRM practices can add or destroy value depending on the competencies of management. Boxall and Purcell (2000) question what goals are served by the "best practice" perspective? Is it survival or seeking sustained competitive advantage? Boxall and Purcell argue that if the goal is survival, then all firms have to implement it to remain viable in business, which is impossible logically. Furthermore, if it aims at achieving sustainable competitive advantage; then only a few organisations can achieve it and the best practice then ceases to be universal.

The other question is whose goals are being served by the best practice perspective. Are they good for both shareholders and employees' interests? If they are for both, then no one will object to them, and will likely be abandoned if they are bad for both parties. If the practices are good for shareholders and bad for employees, then the conflicting interests between shareholders and employees will arise resulting in poor organisational performance (Lewin, 2001). The perspective does not take into account differences in culture and institutional settings.

The other problem of the universalistic approach is diffusion and the question is: if best practices do exist, why then do smart organisations do bad things? (Pfeffer, 1996; Purcell, 1999). The linear and over simplistic logic of the model is also criticized for failure to account for impacts of moderating variables like business strategy, firm size, union intensity, the environment and stage of life cycle of the firm (Boxall & Purcell, 2001). In view of all these, researchers have shifted their research interest to alternative models like the contingency perspective (Purcell, 1999).

2.7.2 The Contingency perspective

Baird and Meshoulam (1988) proposed a stage matrix for HRM activities by clearly discussing the "fit" issues between HRM and other factors like organisational life stage and strategy. In order to achieve business success, the firm must fit its HR activities with two factors simultaneously (Baird & Meshoulam, 1988); (1) fit with the organisation evolution stage i.e. from informal, (more flexible younger organisations) to more formal and professional as the firm matures (Boxall & Purcell, 2000). This fit is termed "External" or "vertical". (2) The firm must also have "internal or horizontal" fit where HR policies and practices support each other.

Delery and Doty (1996) argue that the relationship between the relevant independent variable and the dependent variable varies based on influences like company size, company age, technology, and capital intensity, degree of union intensity, industry/sector, ownership and location. This underscores the importance of contingency factors on HRM practices as well as on organisational performance. Most literature proposes that HRM performance linkage is largely influenced by competitive strategies of the firm. Becker et al. (1997) and Guest (1997) present two models to show the impact of business strategy on HRM and performance linkage, which are different in content but similar in format.

Becker et al. (1997) proposes a model that suggests business strategy shapes HRM system which in turn influences excellence leading to firm performance. It is argued that best practice is only a necessary condition but not sufficient condition for organisation success. Strategic decisions are crucial in helping individual HR practices align with other HRM practices to promote business priorities. This underscores the importance of business strategies pursued by the firm in stimulating organisational performance.

Guest's (1997) model assumes that the underlying goal of any organisation is to attain positive financial outcomes. Strategies chosen by an organisation will determine what HRM practices the organisation adopts. In this model Porter's three generic business strategies of cost leadership, differentiation and focus were pursued (Ekatereni, 2010). Instead of HRM systems, the chosen HR practices influence employees' behaviour and firm HRM performance and financial outcomes. It is also assumed that higher organisational performance can only be achieved when HRM outcomes of commitment, quality and flexibility are attained. The two models share some common characteristics i.e. the HRM practices and performance relationship is assumed to be linear and causal. The vertical fit between HRM and strategies is emphasized. Superior performance heavily lies on employee behaviour that is necessitated by strategy and reward and controlled by HR practices (Paauwe, 2004).

Delery and Doty (1996) observe that the linear HRM –performance linkage by the contingency perspective is more complex than the universalistic perspective. They observe that there exists an interactive relationship between the variables instead of a one-way relationship. Further, the relationship between the independent and dependent variable is different for various levels of the main contingency variable. This means one has to select a theory of business strategy and specify how HR practices interact with the business strategy to enhance firm performance. Furthermore, the model does not consider the reversed causality.

However, there are a number of questions raised about this model e.g. how many boxes should be there between HR practices and firm performance in the model and what should they contain as constructs and variables? (Wright & Paauwe, 2004). Becker et al. (1997) included three boxes of (1) employee skills, (2) employee motivation and (3) employee behaviour (productivity, creativity, discretionary effort). Purcell et al. (2003) stressed the role of line managers, relevance of skills, motivation and opportunity to participate as important boxes. Wright and Nishii (2006) distinguished between intended and actual HRM practices. This shows that the number of boxes cannot be definitive or complete.

Wright and Gardner (2005) question how many items should be in each box, relating to the linearity of the models. Wright and Gardner suggest that the complex reality is oversimplified by the linear and causal process in the models. Picturing the relationships between variables as interactive has been an attempt made by some authors to address this weakness.

Researchers can add any number of boxes and content therein that they want; however, this would make the study unmanageable. Boxall and Purcell, (2000) make similar observations that the contingency model is too thick as it throws in everything including the" kitchen sink". They advocate models that focus on the important connections only. Hope-Hailey, Farndale and Truss (2005) and Wright and Gardner (2005) argue that the primary issue in model development is not the number of boxes but that any theoretical or empirical effort should at least specify some mediating variables.

This study adopts the contingency research perspective, where in a linear and causal relationship; business strategy moderates HR practices which in turn influence organisational performance mediated by employee attitudes and behaviours. A reversed causality dimension is investigated between organisational performance and employee behaviour arguing that the output of this model which is organisational performance can become the input motivating and causing employee behaviour.

2.7.3 The configurational perspective

This emphasizes the importance of internal aspects of the HRM function. It views HRM as a multidimensional set of elements, which when combined in different ways can form an infinite number of configurations (Luo, 2010) from which practitioners can pick different ideal patterns of how to manage human resources efficiently and effectively (Martin-Alcazar et al. 2005). In order to achieve good firm performance HRM systems must be consistent with organisational conditions and the environment, and the system elements must be internally coherent (Doty, Glick & Huber, 1993)

Paauwe (2004) argues that the configurational perspective is more complex than the universalistic and contingency approaches. Firstly, the configurations or patterns of factors

indicate non-linear effects and are of higher order interactions that are not captured by the contingency theories. The configurational perspective hereby assumes multiple unique configurations of the factors that result in superior performance. The configurations remain theoretical without empirical support (Delery & Doty, 1996). In this regard, achieving business success there is need to identify HRM configurations which maximize the internal (horizontal) fit, and link them to maximize the external (vertical) fit.

2.7.4 The Contextual perspective

This undertakes a descriptive and global explanation using a broader model. It seeks to explain what is contextually different and why (Brewster et al. 1999). Attention has moved to the HRM system relationship and its context (Martin-Alcazar et al. 2005). Contextual proponents argue that context is conditioned by HRM strategy. The value that strategies add to the firm is not only judged by their contributions to organisational performance; but also by how they influence other internal aspects of the firm, like HRM functions and the external environment.

The contextual perspective is relatively new compared to the other three perspectives and has been ignored by many reviewers. Contextual perspective limits its contribution to theoretical development of HRM and firm performance linkage because of its descriptive nature. It is thus required that HRM is studied in a broader environment thereby considering the influence of different industries and nations; laying a foundation for international HRM (Ferris et al. 1999). It also adopts a multi-stakeholder approach (Schuler & Jackson, 2000) incorporating interest and influence of ignored stakeholders like unions (Guest, 1990).

The current study adopts the contingency perspective because it recognises the importance of the environment of the organisation (strategy, firm age, size and union intensity). These factors have an effect on organisational performance. Table 2.1 Highlights of various research perspectives that guide research assumptions, levels of analysis, relationship between variables and methodology employed.

Table 2. 1: Four Research perspectives

Perspective	Basic Assumption	Relationship among variables	Level of analysis	Methodology
Universalistic	Existence of best human resource management	Linear, and can be universally generalized	Single practice: One single practice leads to superior performance	Sets of practices: A certain set of practices leads to superior performance. They do not consider synergistic or interdependent relationships or integration mechanisms. Additive focus.
Contingent	There are no "best practices". HRM effects depend on a third variable such as corporate strategy or internal and external environment	The relationship between dependent and independent variable will be mediated by contingency variables	Single practice: Many studies with a contingent perspective just focus on a single practice	Set of practices: In some cases, studies with a contingent perspective focus on a set of practices, but again without defining parallel configurations. The effects are also cumulative, and although there are constant calls for analyzing the internal fit, the integration of practices is not studied.
Configurational	It is possible to identify SHRM patterns from the combination of elements that built the HRM system. Those patterns could equally be efficient.	Focusing on how the HRM patterns affect the organisational performance as a whole	They always adopt systematic level of analysis	Set of Practices. HRM as a multidimensional set of elements, which when combined in different ways can form an infinite number of configurations from which practitioners can pick different ideal patterns of how to manage human resources efficiently and effectively
Contextual	SHRM is understood as something broader than managerial decisions. It is considered as part of a bigger social macro-system that both influences and is influenced by the HRM strategy.	HRM variables are integrated into a supra-system	Supra-organisational level of analysis	Set of practices: Context is shaped by HRM strategy.

Source: Adapted from Martin-Alcazar et al. (2005)

2.8 RELATIONSHIP BETWEEN CONSTRUCTS AND HYPOTHESIS DEVELOPMENT

In studying this relationship; human resource practices is the independent variable while organisational performance is the dependent variable. Business strategy is the moderating variable moderating human resource practices while employee attitudes and employee behaviour are mediating variables. These variables are discussed below.

2.8.1 Business Strategy

According to Porter (2010) a business strategy refers to the direction and scope of an organization in the long term. Business strategies classification will follow methodologies of Snell and Dean (1992), Youndt et al. (1996), and Huang (2001). There are different strategies that a firm can pursue to gain and maintain competitive advantage. Literature generally cites three generic strategies an organisation can pursue: (1) generic corporate strategies (defensive, growth, stability and combination strategies) which are adopted and followed by the entire organisation (Anthony, 1996; Katuo, 2012). Generic business strategies (cost leadership, innovation, and quality enhancement) which adopt the idea of competitive advantage (Porter, 1985). (3) Competitive product strategies, (defenders, prospectors, analyzers and reactors) which involves the strategic choices the firm takes in order to link the firm with the environment. i.e. the product market and establish the firm business direct.

Katuo (2012) found that improvement of organizational performance depends heavily on business strategies pursued by an organization. This finding is critical because it shows that business strategies provide the initial driver in improving organizational performance. This is the reason firms must ensure that there is fit between human resource practices and business strategy. Human resource management must be integrated with strategy in order to gain competitive advantage (Bayo-Moriones, 2002). This study used generic business strategies because literature has shown these to be powerful predictors of firm performance (Youndt, 1996). This was measured by 8 items (cost reduction, customer service, distribution channels, quality enhancement, brand image, innovation, improvement for existing products, wide range of products)

2.8.1.1. The cost leadership strategy

This entails being the low-cost producer in an industry for a given level of quality (Johnson & Scholes, 2010) The firm sells its products either at average industry prices to earn a profit higher than that of rivals, or below the average industry prices to gain market share (Johnson & Scholes, 2010).

2.8.1.2. The Innovation strategy

This demands the development of a product or service that offers unique attributes that are valued by customers and that customers perceive to be better than or different from the products of the competition. The value added by the uniqueness of the product may allow the firm to charge a premium price for it. The firm hopes that the higher price will more than cover the extra costs incurred in offering the unique product (Johnson & Scholes, 2010; Porter, 2010).

2.8.1.3. The quality enhancement strategy

This concentrates on a narrow segment and within that segment attempts to achieve either a cost advantage or differentiation. The premise is that the needs of the group can better be serviced by focusing entirely on it. A firm using this strategy often enjoys a high degree of customer loyalty, and this entrenched loyalty discourages other firms from competing directly (Porter, 2010; Johnson & Scholes, 2010).

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The cost dimension is comprised of the cost reduction item; while the quality dimension comprises of customer service, brand image, quality enhancement, and distribution channels items; and the innovation dimension is comprised of; improvement of goods, innovation, and wide range of product items (Sanz-Valee et al. 1999).

2.8.1.4. Business strategies effect on Human Resource Management Practices

Two basic fundamental approaches exist in the Human Resource Management performance link debate. These are the "best practice" approach and the "best-fit" approach (Wright & Gardner, 2003). The best practice approach is also called the "universalistic model." The approach advocates independence; supporting the idea that business strategies and HRM practices are mutually independent in determining organisational performance (Katuo & Budhwar, 2010). The best –fit approach also called contingency model advocates sequence, supporting the idea that business strategies are followed by HRM practices in determining organisational performance (Katuo & Budhwar, 2010). This study focuses on the contingency model as the preferred one (Katuo & Budhwar, 2012; Torrington, Hall, Taylor & Atkinson, 2014)**.**

According to Porter (1985) an organisation can pursue three generic business strategies and these are cost leadership, innovation and focus. Johnson and Scholes (2010). Gomez-Mejia and Balkin (1992) contend that

the best strategy is one which is based on the resources of the organisation. Thus, Human resource practices can only be effective if they are consistent with business strategies. A recruitment and selection plan will be effective if it draws from the business strategy. Human resource requirements must be drawn from the business strategy (Senyucel, 2009; Garner, 2012). Without regard to the business strategy, the organisation will either be overstaffed or under staffed.

When pursuing an innovation strategy, organisations will emphasize HR practices that promote interdependent, cooperative behaviour and foster the exchange of ideas and taking risks. In the case of a quality strategy, the emphasis is on seeking to promote quality by ensuring highly reliable behaviour from individual employees that identify themselves with the organisational goals. A cost leadership strategy, HR aims at maximizing efficiency through monitoring by managers and closely controlling employee activities (Katuo & Budhwar, 2010; Schuler & Jackson, 1987). This therefore suggests that business strategy is followed by human resource practices in determining organisational performance (contingency theory). In view of this, the study hypothesizes that:

Hypothesis 1. There is *a positive relationship between business strategy (cost, innovation and quality) and human resource practices (recruitment and selection, training and development, performance appraisal and compensation).*

2.8.2 Human Resource Management Practices

Four human resource management practices have been identified because of their synergy.

2.8.2.1 Recruitment and selection

Recruitment is the process by which organizations identify and attract individuals to fill job openings (Amin, 2014; Fisher, 1999; Noe, 2008; Armstrong, 2012; Ritson, 2011; Mathis & Jackson, 2010). It is one of the major functions of HRM as it helps organizations recruit and select the best pool of employees that in turn lead to better organizational performance (Redman, 2012).

Bohlander and Snell (2007) define selection as the process of reducing the number of applicants and choosing those with relevant qualifications. If the suitable applicants are not assessed through recruitment and selection; the organized might recruit unsuitable candidates and fail to achieve its set objectives. The organisation might also experience human resource management problems including low productivity, high employee turnover, employee stress and high absenteeism rates (Storey, 2007). When the best people are selected for the job, production increases (Mina et al.2012). Recruitment and selection activities help to search for desired skills of

employees. Organisations require talented and skilled workers (Liao & Chu, 2006) that create cooperation and cultural fit with the organisation (Williams, 2001) and enhance competitive advantage.

2.8.2.2 Training and Development

Training refers to process of equipping new or existing employees with abilities, skills and knowledge to enable them perform better in their current jobs (DeNisi & Griffin, 2001; Li et al. 2008). It aims at modifying employee skills and attitudes (Herold & Fedor, 2003). Training improves employees' capabilities which are crucial in improving overall organizational performance (Mackelprang et al. 2012; Millar & Stevens, 2012). For the training construct this study used five items referring to individual and team training and development: monitoring training and development, individual and team training and development, work design, and performance appraisal (Katou & Budhwar, 2010).

Development is the process by which employees acquire abilities; skills and knowledge to enable them perform better in their future responsibilities (Li et al. 2008). Two items will be used referring to competency, cooperation between management and employees, cooperation among employees. This is so because although competencies are assumed to be foundational to all performance improvement (Hortwitz, 1999; Harde, 2003), they are not sufficient for improving organisational performance unless employees are cooperated and motivated (Lopez et al. 2005).

2.8.2.3 Performance appraisal

It is the process of assessing employee performance by determining and communicating how well the employee is performing on the job (Byars & Rue, 2004). It is an objective employee assessment that includes an outline of improvement measures (Osman et al. 2011). It involves annual interviews between the subordinate and the superior to discuss job performance for the previous year and subsequent action plans to improve performance (John & Steven, 2000). Previous research shows significant relationship between performance appraisal and organizational performance (Abdullah, 2009; Khan, 2010; Qureshi et al. 2010;). On the other hand, ineffective appraisal can lead to low morale, decreased employee productivity that decrease organizational performance (Osman, 2011). For performance appraisal to be effective; employees must know what is expected of them and how their performance and results will be measured by the organisation (Rosemond & Ernesticia, 2011)

2.8.2.4. Compensation

It is any monetary or non-monetary reward given to employees for their contribution to the organization (Pedro & Vicente, 2007). Compensation may directly or indirectly affect employee attitudes of satisfaction and motivation that leads to diminishing employee behaviour of turnover, retain competent employees, enhance

performance and disputes (Katuo, 2012, Pedro &Vicente). It helps improve quality of products and services, increases sales (Venkatesh, 2006; Chiu et al. 2002)

2.8.2.5 HRM Practices effect on employee attitudes

In examining the relationship between Human Resource practices and organisational performance, many researchers have argued that employee attitudes like satisfaction, motivation and commitment do mediate the relationship between HR practices and organisational performance (Purcell & Hutchinson, 2007). A typical example is where Delery and Doty (1996); argue that HRM practices positively affect organisational performance through creation of staff that is committed and motivated. Another support for using employee motivation as mediating variable between HRM practices and organisational performance is provided by Fey, (2000). Guest (2001) applied employee commitment and satisfaction or employee flexibility, quality and commitment, as mediating variables. Employee satisfaction and motivation were used as HRM mediating outcomes between HRM practices and organisational performance by Boselie et al. (2001). Employee motivation was used as mediating variable between HRM systems and organisational performance (Park et al. 2003).The intervening variable of employee commitment has demonstrated affecting organisational performance (Paul & Anantharaman, 2003). Human Resources practices are the vehicles through which business planned strategic activities are implemented. A Business strategy is a mere plan its execution and implementation is driven by the human resource practices available to the organisation.

Careful recruitment and selection of staff into the organisation is a very important practice because this helps to bring people with the skills and behaviours that the organisation requires. Training and development as a human resource practice helps to update the employee skills and abilities to fit with the activities and functions of the organisation. This motivates the staff as they become more competent and contribute effectively to the organisation. Performance appraisal helps staff be aware of how well or badly they are performing. It helps the managers to identify performance gaps in staff and find ways of remedying such gaps through on or off the job training. Compensation is a way by which employees are rewarded for their performance. It helps to motivate employees when their contribution can be recognized and rewarded. There are different ways by which staff are rewarded and incentivized like merit pay, bonuses; having shares etc. these human resource practices have a positive impact on the employee attitudes. In view of this, the study formulates the following hypothesis:

Hypothesis 2. *There is a positive relationship between human resource practices (recruitment and selection, training and development, performance appraisal and compensation) and employee attitudes (employee satisfaction, commitment, motivation).*

2.8.3. Employee Attitudes

How employees behave at work usually depends on how they feel about being there. Understanding how employees behave at work requires understanding their work attitudes. Attitude refers to opinions, beliefs, and feelings about our environment. Employee attitudes are viewpoints about aspects of the job, careers and their organisations (Saari, 2004). The work situation and the work itself are the major causes of employee attitude. Judge and Church (2000) found that when employees were asked to rate different facets of their job such as pay, promotion, supervision, co-workers etc. The nature of their job emerged to be the most important factor affecting their job satisfaction. Three job attitudes are important here; satisfaction with the job, commitment to the organisation, and motivated by the organisational policies and practices (Sandberg, 2008).

Employee attitudes are affected by sound selection methods and a good match between employees and the job. Selection should ensure employees are selected and placed into jobs most appropriate for them which in turn helps to build their job satisfaction, motivation and commitment (Hassan, 2016). When employees are trained and developed; when their performance is evaluated and are informed of how well they are doing; and when their efforts are appropriately rewarded; they become motivated, satisfied and committed (Hassan, 2016). Katuo and Budhwar (2006, 2008) and Katuo (2010) classified employee attitudes as motivation, commitment and satisfaction. When employees are happy they tend to be more productive (Saari, 2004).

2.8.3.1 What causes positive attitude?

Employees pay attention to several factors about their work environment such as characteristics of the job i.e. how the job activities are organized; how they are treated i.e. leadership actions; the relationships they have with co-workers and managers and the degree of stress the job entails.

2.8.3.1.1 Job characteristics

Employees are committed, motivated and satisfied in jobs that allow them use a variety of skills, which give them autonomy, when they receive feedback on the job and when the job entails performing significant tasks (Mathieu & Zajac, 1990). However, presence of these will affect employee attitudes differently because of different employee personalities (Loher, Noe, Moeller & Fitzgerald, 1985).

2.8.3.1.2 Organisational justice

This is a feeling of how fairly employees are treated, including fairness of firm policies and procedures, fair and kind treatment by supervisors, fairness of pay and other rewards (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter & Ng 2001; Meyer, Herscivitch & Topolnytsky, 2002). These can positively or negatively affect employee attitudes.

2.8.3.1.3 Relationships at Work

The people employees interact with at work affect employee attitudes. Issues are on how friendly they are, are the employees socially accepted, and are the employees treated with respect? Employee relationship with the manager also matters. How considerate is the manager, is there trust built between them? (Bauer, Bodner, Erdogan, Truxillo & Tucker, 2007; Gerstner & Day, 1997; Judge, Piccolo & Ilies, 2004; Kinicki, Mckee-Ryan, Schriesheim & Carson, 2002; Meyer, Herscivitch & Topolnytsky, 2002; Miller, Rutherford & Kolodinsky, 2008; Van de Voorde & Beijer,2015). Relationships can positively or negatively affect employee attitudes.

2.8.3.1.4 Stress

The amount of stress in a job affects employee attitude. Stress is caused by interpersonal issues (organisational politics, conflicts with co-workers) environmental factors (noise, heat or insufficient ventilation); organisational factors (pressure to avoid making mistakes, job security worries). The higher the stress the lower the positive attitude tends to be (Kinicki, Mckee-Ryan, Schriesheim & Carson, 2002; Podsakoff, LePine & LePine, 2007). Given that attitudes give a clue of who would leave or stay, who will perform better or the possibility of disputes; tracking satisfaction, commitment and motivation levels is critical and helpful for managers.

2.8.3.2 Commitment

It is the psychological attachment that binds and the resultant loyalty an employee has for the organisation (Meyer, Allen 1991; Armstrong, 2012; Ritson, 2011). Committed employees have positive feelings about the firm, are involved and attached to the firm. They feel obliged to remain with the firm (Meyer, 2002).

2.8.3.3 Satisfaction

It is an employee attitude about how contented an employee is about the job (Nel, 2004). It is measured using satisfaction survey which assesses issues related to workload, compensation, perceptions of management, teamwork, flexibility, resources etc. (Rafique, Tayyab, Kamran & Ahmed, 2014; Armstrong, 2012; Ritson, 2011). These issues are very important for firms which want to retain their employees, keep their employees happy and reduce turnover.

2.8.3.4 Motivation

It is the organisational systems of practices designed to stimulate intrinsic motivation (Den Hartog & Verburg 2004). Motivation is encouraged by such factors as management and leadership actions, treating employees with respect, employee recognition, above industry to average compensation and benefits (Tamer, 2015).

2.8.3.5 Employee attitudes effect on employee behaviours

Based on the resource-based view (RBV) theory (Barney, 1991), it is argued that HRM practices like recruitment, rewards, development, and relations play an important role in building the human capital pool of an organisation through developing its rare, inimitable and no-substitutable internal resources (Katou & Budhwar, 2010). The Resource based view philosophy is that HRM practices have a direct impact on employee attitudes, like employee motivation, satisfaction and commitment which then influence employee behaviour like employee turnover, absences and disputes which directly affect organisational performance (Boselie et al. 2010; Boxall & Steeneveld, 1999). In addition, the resource-based view advocates that business performance differences can be explained by the ability of a firm to exploit the inimitable characteristics of its resources and not merely to the HRM practices which are easily copied (Wright et al. 2003)

It is however assumed that only when positive employee attitudes and behaviours are attained will higher organisational performance be achieved (Guest, 1997). Furthermore, it is assumed that positive employee attitudes will yield low absences, disputes and turnover (Sturges et al. 2005; Pare & Tremblay, 2007; Perryer et al. 2010). Consequently, the study hypothesizes that:

Hypothesis 3: *There is a negative relationship between employee attitudes and employee behaviours (employee absences, turnover and disputes).*

2.8.4 Employee Behaviours

Motivated, satisfied and committed employees develop organisational citizenship behaviour (OCB) which is discretionary job performance (Youndt et al. 1996). In OCB, employees go beyond their prescribed job requirement behaviours that are not recognized by the formal reward systems (Mester, 2003; Organ, 1988). Employees are engaged in helping behaviours towards individuals and the organisation (Mester, 2003; Organ, 1988). Essentially all employees have the capacity to display discretionary behaviour but it rests with the organisation to trigger these behaviour that lead to higher organisational performance beyond basic job requirement (Hutchinson, 2003). This study has classified employee behaviour as turnover, absenteeism and disputes.

2.8.4 .1 Employee Turnover

It is the measure of how long employees stay with the firm and also how often employees have to be replaced (Khan, 2014; Price & Mueller, 2001). Turnover can be voluntary where the employee by his own volition decides to quit. Involuntary turnover is when the employee has been laid off for many reasons (Khan, 2014). Turnover can cost an organisation directly or indirectly and affect its performance. Direct costs include the cost associated with relocation, pay compensation, pay terminal benefits, hire and train new employees to take up the vacated posts. Indirect costs are difficult to quantify but include lost sales, lost customers due to lost business networks, inexperienced staff or short of staff, loss of knowledge of the firm operations, lack of institutional memory, and loss of important routines. These affect the firm performance (Khan, 2014).

2.8.4 .2 Employee absenteeism

It is non-attendance at work. It is unscheduled absence from work (Gale, 2003). Absences are costly to the firm and negatively affect firm performance (Bennet, 2002). Managers have to find a replacement for the absent employee; other employees have to work overtime to cover the absent employee (Gale, 2003). Absences are caused by health-related issues such as acute or serious illness, accidents, and acute stress (Kelliher & Anderson, 2010). Work life balance caused absences include attending a funeral, wedding, skipping work to study for an exam, annual leave, compassionate leave, maternity, paternity, adoption, time off for public or trade union activities, care for dependents. Giving employees flexible working hours would deal with this because as employees manage their own time; they are less likely to be absent. (Kelliher & Anderson, 2010,).

2.8.4 .3. Labour relations/ dispute

It is any difference between an employer or employers' organisation and employees or a trade union, as to the employment or no-employment, or the terms of employment, or the conditions of labour or work done or to be done, of any person, or generally regarding the social or economic interest of employees (Labour Relations Act, 1996). The disputes affect organisational performance through lost time, reduced production, lost sales and absence from work in the event of strikes, stay a ways, go slow etc. (Walker & Hamilton, 2011)

2.8.4 .4 Employee behaviours effect on organisational performance

The performance of any organisation largely depends on the human resources available to it consistent with the resource based view of the organisation (Katou & Budhwar, 2010). It also depends on the processes and technology the organisation has (Curtis et al. 1995). For the human resources to work effectively with the available processes and technology; the employees must be competent enough with skills and abilities. The employees must again be in the right numbers otherwise the processes and technology will be underutilized;

overworked or not used properly and will easily malfunction (Katuo, 2012; Park et al. 2003; Pfeffer, 1994; Richardson and Thompson, 1999; Timothy, et al, 2011;). The employees must also be satisfied (Boselie et al. 2001; Guest, 2001); committed (Beer et al. 2014; Ulrich, 1997; Yeung and Berman, 1997) motivated (Arthur, 1994; Fey et al. 2000; Guest, 1999; Schuler,1998); cooperated (Guest, 1997; Park et al.. 2003); available in the organisation (counterpart of turnover) (; Boselie et al. 2001; Fey et al. 2000); and lastly the employees must be present (counterpart of absenteeism) (d'Arcimoles, 1997; Boselie, 2001).

Although employee attitudes are at the heart of strategic human resource management (Boselie et al. 2010; Boxall & Purcell, 2002), they are not sufficient to improve organisational performance up until they affect employee behaviour like absences, turnover and disputes. In view of the job performance theory (Campbell, 1997), it is the employees' attitudes that have an impact on employee behaviour (Luna-Arocas & Camps, 2008) which subsequently have an impact on organizational performance (Wright et al. 2003). It is therefore noted that employee behaviour mediates the relationship between employee attitudes and organisational performance. In the case of high employee absences, turnover and disputes the organisational performance will be impacted negatively. The study therefore hypothesizes that:

Hypothesis 4*:* *There is a negative relationship between employee behaviours and organisational performance.*

2.8.5 Organisational performance

How HRM practices impact on firm performance has widely been investigated in previous studies (Luc Sels et al. 2006; Teo et al. 2011; Zheng et al. 2006;). Different performance measures have been used including profitability, return on Investment (ROI), firm earnings, labour productivity, and product quality (Datta et al. 2005; Stup et al. 2006; Teo, 2011; Way, 2002;). Other studies have used effectiveness, i.e. if the firm meets its objective; efficiency, i.e. if the organisation uses the fewest possible resources to meet its objectives; development, i.e. if the organisation is developing in its capacity to meet future opportunities and challenges, satisfaction of all participants-owners and investors, customers, society, other organisations, and organisational members, innovation, for products and processes, and quality, percentage of products of high quality (Wang et al. 2002). This is a dependent variable which measures the bottom-line on which HRM practices have an impact on organisational performance (Wang et al. 2002).

2.8.5.1 The Nature of Performance

Performance is a multidimensional construct (Ostroff & Bowen, 2000) and has been conceptualized differently with different types of performance measures (Dyer & Reeves, 1995). Four performance measures have been

highlighted (i) HRM related outcomes (absenteeism, turnover, individual or group performance); (ii) Organisational outcomes (productivity, quality, efficiencies); (iii) Financial outcomes (profitability, return on assets, return on investment, sales); (iv) Market based outcomes (market value) (Boselie & Van der Wiele, 2002; Paauwe & Boselie, 2005). According to Wright (2003); this categorization of outcomes has a significant importance exploring HRM-performance link and the relevance lies in two aspects: some outcomes like human resource outcomes (employee attitudes and employee behaviours) are more proximal to human resource practices than others and that the impact that human resource practices have on more distant outcomes e.g. firm performance are through the impact on more proximal outcomes. This implies that distance matters very much in as far as the impact of Human Resource practices is concerned.

To truly demonstrate the impact of HRM practices on profitability, it is basically to see how they impact close outcomes and more distant outcomes like financial performance. Outcome measures that are more closely linked to HRM should be more appropriate to consider in the study like labour turnover, aspects of productivity (David, 2003). Based on the overview by Boselie et al. (2005), Paauwe (2009) conclude that financial measures are only represented in half of all articles (104) included in their analysis. In the same connection, it is important to consider the role and value of subjective and objective indicators (Guthrie, 2001). Objective measures are being challenged because of corporate financial scandals that portray a false picture of the firm performance.

2.8.5.2 Human Resource Practices effect on Organizational performance

Competency is an important factor affecting organisational effectiveness because when employees are incompetent they will not help the organisation to perform well (Fey et al. 2000; Katuo, 2012). Further to this, absenteeism and turnover may negatively affect effectiveness of the organisation (Katuo, 2012; Boselie et al. 2001). If the organisation cannot retain its staff; it will not be able take advantage of the human assets it has developed within the organisation (Katuo, 2012; Fey et al. 2000). Employees who have good behaviours and attitude are more likely to be committed and work for the benefit of the organisation and in return positively affect the organisational performance. The study hypothizes that:

Hypothesis 5. *There is a positive relationship exists between human resource practices and organisational performance* .

2.9 REVERSE CAUSALITY

A number of studies have investigated the reverse causality in the HRM practices and organisational performance model (Katuo, 2012, De Beer et al. 2013; Tsai, et al. 2010;). Reverse causality is illustrated by an example like where the organisation with high profit as an organisational performance indicator would have a higher willingness to invest in human resource management practices. Massimino and Kopelman (2012) agree that high performing organisations will have the resources they can afford to share with employees and yield higher compensation, training and create opportunities for staff growth. This perspective was confirmed with Schneider et al. (2003) whose study revealed that profitability more likely causes job satisfaction than job satisfaction causes profitability (Paauwe & Boselie, 2005) . De Beer, Pienaar and Rothmann (2013) investigated reverse causality between engagement and burnout in South Africa and found that burnout had significant negative longitudinal relationship with colleague and supervisor support.

Tsai, Edwards and Sengupta (2010) observed that in order to improve organisational performance, inputs from human resource practices and employee attitudes are very critical. They also noted that changes in the organisational performance affect HRM practices and employee attitudes. The authors reported that organisational performance affects employee attitudes and HRM practices more than vice versa. This demonstrates the importance of the reverse causality in the HRM and performance linkage model. However, literature is scarce of any study examining reverse associations between organizational performance and employee behaviour as distinct from other studies which studied reverse associations of organisational performance and employee attitudes, business, engagement and HRM practices. Although use of longitudinal data is the most appropriate to draw reverse causality associations from (De Beer 2010; Tsai et al. 2010), this study used cross-sectional data due to resource constraints. As noted by Schneider, (2003), empirical investigations of causal priorities are scarce because they need access to data collected over multiple time periods. Kopelman (2010) and de Beer, Pienaar and Rothmann (2013) used time-lagged and longitudinal investigation respectively.

2.9.1 Reverse causality: Organisational performance effect on employee behaviour

In examining the Human Resource practices and organisational performance relationship, it is implicitly assumed that HRM practices lead to organisational performance (Ben et al. 2013). It is noted that HRM practices influence organisational performance directly as in hypothesis 5 or indirectly through employee attitudes and behaviours as in hypotheses 3 and 4. Training can improve efficiency directly, by improving employee knowledge, abilities and skills. Compensation and promotion can improve organisational development indirectly through improving employee attitudes of satisfaction and motivation thereby

diminishing employee behaviours of turnover and disputes (Sinikka & Stavrou, 2013). The positive employee behaviours affect organisational behaviour. An organisation that is performing well assures employees as a going concern and real wage rises thereby making employees stay longer with the organisation (counter of turnover) (Sinikka & Stavrou, 2013). Real wages rise reduces instances of disputes. Drawing from the above discussion, this study hypothesizes that:

Hypothesis 6: *There is a negative relationship between organisational performance and employee behaviour.*

2.10 CONTROLS

Control variables as inclusion/exclusion criteria of firm size, age and union intensity were included in the Human Resource practices and organisational performance model of the research design to avoid results of the analyses being erroneous (Boselie et al. 2005). The aim was to include other organisational and environmental forces that are connected to adoption of both HRM practices and organisational performance (Delaney & Huselid, 1996; Guest, 2001; Katuo, 2012).

Firm size was based on the logarithm of number of employees. In this study size refers to medium and large organisations i.e. 20 employees and above. This is an inclusion/exclusion criterion because medium and large firms are more likely to establish Human Resource practices due to economies of scale (Flood & McCurtain, 2009; Datta et al. 2005). Medium and Large firms have more resources than small enterprise firms as such they can afford to introduce a range of human resource practices. Furthermore, medium and large organisations are more likely than small organisations to pursue well developed HRM practices.

Age of the firm was considered in order to make sure the firm is not new so that they may not have put in place the human resource management practices**.** It includes any confounding values and maturity effects of the firm. In this study, organisations that are three years old and beyond were considered. It is claimed that unions affect performance of the firm and adoption and implementation of HRM practices.

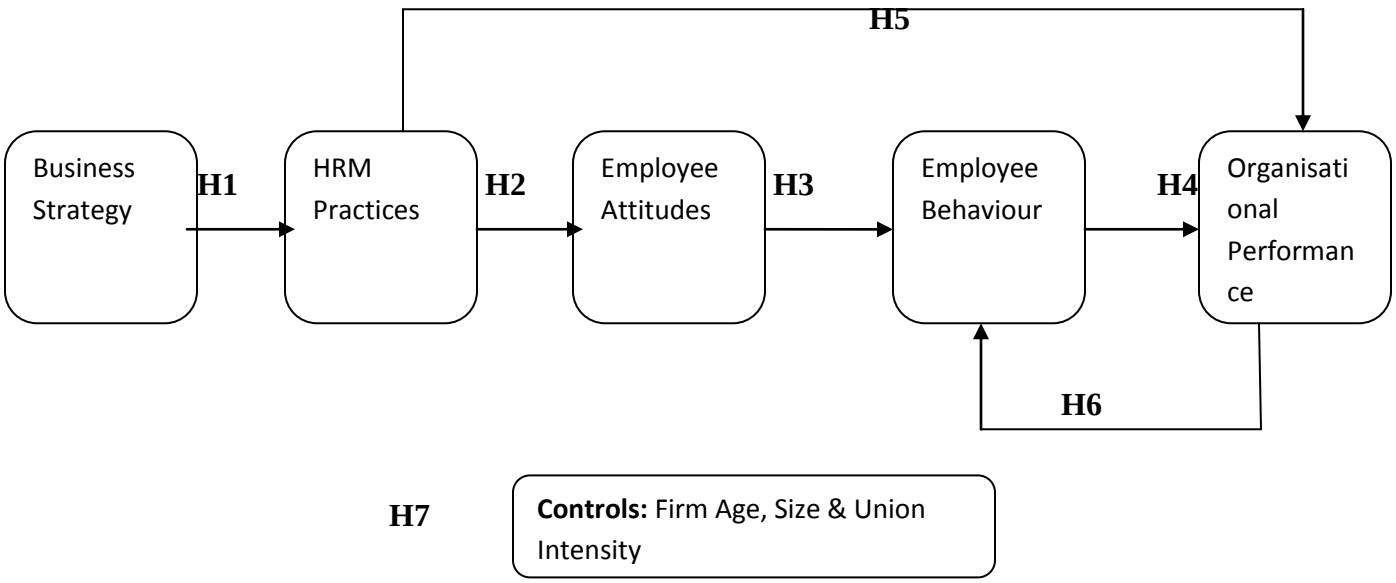
Union intensity

7-a. Controls (firm age, size & union intensity) influence HRM practices.

7-b. Controls (firm age, size & union intensity) influence organisational performance

2.10.1 Conceptual model

In view of the concepts and relationships discussed about the study; a conceptual model adopted from Katuo (2012) is depicted in Figure 2.1.



Adopted from Katuo (2012)

Figure 2. 1: Conceptual Model

2.11 THEORETICAL FRAMEWORK

Ten years after Guest 1997 article; an overview of theories (Boselie et al. 2005) has provided some answers although not conclusive. Boselie (2005) analyzed 104 empirical articles on human resource management and performance linkage. The authors found and concluded that there are three most commonly used theories when examining the relationship between HRM and performance. These are contingency theory; the AMO framework and resource-based view (RBV). However, because of a new dimension of reverse causality added to the model; a general systems theory has been added which was not in the previous studies reviewed by Boselie, (2005).

Based on past research on reversed causality in HRM practices and firm performance model; different theoretical backgrounds have been employed. In this study, the theoretical perspectives are guided by the conceptual framework of the study where business strategy moderates HRM practices which in turn affect firm performance mediated by employee attitudes and employee behaviours. A reverse dimension is investigated arguing that firm performance motivates employee behaviour. The study is guided by two main theoretical perspectives: the contingency theory and the Resource –based Theory. These will be discussed to justify their choice as the bedrock theories for this study. Different empirical studies investigating reversed causality in the HRM practices and organisational performance model have applied different theoretical backgrounds. Wright and McMahan (1992) and Jackson and Schuler (1995) investigated six theoretical perspectives that determine HRM practices in firms. These are behaviour perspective, resource-based theory, transaction cost theory, resource dependency theory, institutional theory and cybemetics theory.

2.11.1 Resource based theory

In explaining sources of competitive advantage, strategic management literature presents two perspectives. The first one is Porters five forces perspective and Kim and Oh (2004) resource-based theory (RBT) (Barney, 1991 & Grant, 1991). Porter's five forces model describes competitive advantage as superior performance that an organisation achieves by offering cost advantage (Porter, 1985). In this regard; competitive advantage is attributed to the external environment which a firm must respond to by erecting entry barriers to competitors through, capital requirements, product differentiation, among others.

The Resource-based theory as another model of competitive advantage assumes that the desired outcome of management effort in the firm is sustainable competitive advantage (SCA). This allows the firm to earn returns which are above industry average (Fahy & Smithee 1999). In this model SCA is seen as emanating from the

distinctive resources that a firm has which give it an edge over its competitors. An organisation is seen as a bundle of specialized resources which are deployed and used to create a unique and privileged market position for the organisation (Ghemawat, 1986; Singh, 2016). It therefore implies that managers of any firm have the responsibility to identify, develop and deploy crucial resources to maximize returns (Fahy & Smithee 1999). The RBT looks at the linkage between strategy and the internal resources of the organisation in order to achieve sustainable competitive advantage instead of focusing on the industry environment which is typical of porters five forces model in the traditional strategic analysis paradigm (Wright et al. 1994; Newbert, 2008; Takeuchi et al. 2007; Wright et al. 2001)

The theory assumes that factors that an organisation owns and controls and the capacity to deploy resources are heterogeneously distributed and imperfectly immobile. This allows for differences in firm resource endowments a situation which persists over time. It is hypothesized therefore that if an organisation possesses and exploits its rare and valuable resources and capabilities, it will attain competitive advantage. If these resources and capabilities are inimitable and non-substitutable; the organisation will sustain the competitive advantage. A firm's resources include; knowledge, all assets, capabilities, firm attitudes, organisational processes, information that the organisation controls enabling it to conceive and implement strategies that help to improve its effectiveness and efficiency (Singh, 2016). Resource heterogeneity means the distribution of different resources in the firm. It also means the productive resources used in the organisation have intrinsically differential levels of efficiency where others are superior to others. In this regard; firms endowed with superior resources tend to be economical in production and effective in the market as compared to those without superior resources (Singh, 2016).

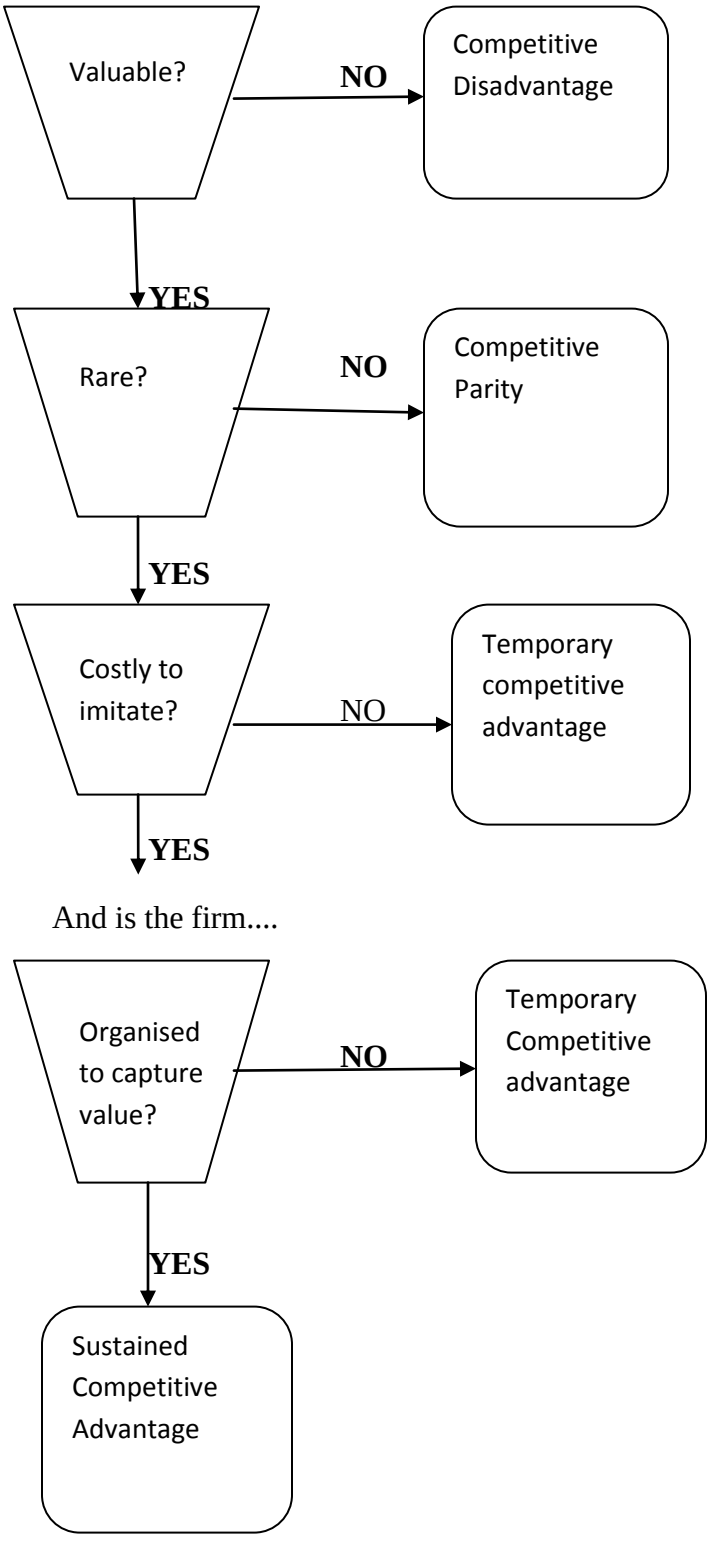
Immobility of resources refers to inability of competing firms to obtaining resources from other firms (Singh, 2016; Hassan, 2016). Several reasons explain this: Firstly, where the resources property rights are not well defined (Dierickx & Cool, 1989); secondly when the resources cannot be used outside the firm (Williamson 1975); thirdly; when the resources are used in conjunction with another or when resources have high economic value when employed together (Hassan, 2016) and fourthly; when there are high transaction costs associated (Singh, 2016). In view of the immobile resources not being tradable; or have less value to other users, they remain bound to the organisation and are available for use for the long run. In this regard; the resources become a source of competitive advantage to the organisation. Heterogeneity and immobility of resources are necessary but not sufficient basis for resources of a firm to hold potential for sustainable competitive advantage. Four other attributes must be met to provide sustainable competitive advantage. These include firstly that the

resources must add value to the organisation; secondly, the resources must be rare amongst competitors; thirdly, the resources must be imperfectly imitable and fourthly; the resources must not be strategically substitutable with another resource by another competing firm (Barney, 1991; Singh, 2016). Question of value: Resources are considered to be of value if they help the organization to increase the value they offer to customers. This is achieved through increased differentiation and/or reducing the cost of production. Resources that cannot meet these criteria lead to competitive disadvantage for the firm (Barney, 1991; Grant, 1991; Hassan, 2016).

Question of rarity: Resources are considered rare if they can only be acquired by one or few companies. It results in competitive parity when more than few companies have the same resource or capability. If a large number of firms possess a particular valuable resource, the resource becomes a source of competitive parity not competitive advantage or sustainable competitive advantage (Barney 1991; Hassan, 2016). Question of limitability: At least temporary competitive advantage is achieved by firm that has valuable and rare resource. Furthermore, the resource must be costly to imitate or substitute it for a rival in order to achieve sustainable competitive advantage. Question of organization: Resources themselves do not confer any advantage for a firm if it is not organised to capture the value from them. If the firm is able to exploit the valuable, rare and imitable resources it can achieve sustained competitive advantage (Barney, 1991; Grant, 1991; Singh, 2016).

This is referred to as the valuable, rare, costly to imitate and non-substitutable (VRIN) framework as it examines whether the resources and capabilities are valuable, rare, costly to imitate and non-substitutable (VRIN). The VRIN framework was later improved to valuable, rare, costly to imitate and organised (VRIO) by adding the consideration of whether the company is organized to exploit the resources (Barney, 1991; Grant, 1991; Singh, 2016) as shown in Figure 2.2.

Is the resource or capability…



Source: Adapted from Rothaermel (2013)

Figure 2. 2: Identification of resource or capability.

2.11.2 Contingency theory

The theory acknowledges the interrelationships between sub-systems in an organisation but goes further to acknowledge that there is no "best way" to manage an organization. The approach to human resource management follows the similar lines of thought (Jackson & Schuler, 1987; Snell & Youndt, 1995; Delery & Doty, 1996). It suggests that there is no "Ideal" collection of human resource strategies that all organisations should adopt but this depends on the nature of the business strategy; resources available to the firm and the environment (Context) in which the firm is operating (Johnson & Scholes, 2010). The theory argues that an organisation's HR practices effectiveness depends on presence or absence of certain contingency factors like strategy, sectors or countries (Konter, 2014). This underscores the importance of context. This means HRM practices are consistent or contingent with organisational business strategies (Katuo, 2011). On the other hand; contrary to the "best practice" (universalistic) paradigm on HR and firm performance which argues that there is "one best way" of managing employees applicable to all organisations (Truss; Mankin & Kelliher, 2012), the contingency theory argues that the "one best way" to manage employees varies from one organisation to another (Gobler & Warnich, 2012). In seeking better organisational performance, the human resource management practices must fit with the business strategy (Singh, 2016)

2.11.3 AMO theory

The theory argues that organisational performance is best served by staffs that have the ability to do the work, who possess the necessary skills and knowledge; who are "motivated" to work and who have the "opportunity" to arrange their skills in doing their work (Appelbaum, 2000; Bailey, Berg & Kalleberg, 2012). This model suggests that performance is a function of Ability + Motivation +Opportunity hence the acronym "AMO" (Singh, 2016)

Work performance depends on the ability, motivation and opportunity for staff to make their contribution and maintain their well-being. If one of the factors is zero, then the total equation becomes zero too. According to the AMO theory; job performance is determined by Abilities, Motivation and Opportunities. This is to say, the employee's ability, the desire and opportunity to make a contribution (Appelbaum et al. 2000). It is possible to have employees who are very competent and motivated, however if the employees do not have the opportunity to make a contribution, or indeed if they do not thrive, then this goes beyond their performance on the job (Appelbaum et al. 2000). The thinking behind the AMO theory is that there is no single specific HRM practices list that can influence performance. It suggests that the whole process depends on HRM architecture which covers practices designed to build and retain human capital and influence employee behaviour.

According to the HRM architecture, there is a variety of HRM policy domains which includes ability, motivation, opportunity which are determined based on organisational context like industry, culture and country. In order to turn AMO into action the human resource policies required are training and development; career opportunities linked to ability and skill, recruitment and selection, rewards and benefits which are linked to motivation and incentive and involvement, work-life balance, team working, job challenge and autonomy linked to opportunity to participate.

Responding to AMO policies, staff will be committed, motivated and job satisfied which are attitudinal outcomes. The attitudes will in turn lead to employees showing a range of positive behavioural outcomes. The decision employees take like making right choices about how to do a job like; care, innovation, speed and style are at the centre of the employment relationship. These are strongly connected to performance outcomes. When employees are motivated and satisfied, they are more likely to engage discretionary behaviour to help the organisation succeed (Appelbaum, 2000). In this regard, it is argued that one of the functions of AMO is to help develop attitudes or feelings of commitment, satisfaction and motivation in many employees as these translate into discretionary behaviour (Singh, 2016).

2.11.4 General systems theory

While the RBT and AMO claim one direction relationship in the HRM practices and performance linkage; general systems theory (GST) adds a reversal causal effect of firm performance. Employee skills and abilities are inputs while employee attitudes and behaviours are cellular mechanisms while firm performance is the output which in turn generates inputs required to maintain the system (Katz & Kahn, 1966). It argues that performance outputs generate inputs or feedback to the HRM practices and organisational performance linkage (Shin & Konrad, 2014). It is implied that in order to understand the HRM practices and firm performance relationship, consider the feedback loop from organisational performance to employee behaviour, which is reversal causality.

Wright and Snell (1991) using the general systems theory consider an organisation as a system receiving inputs from the environment then processing the inputs into outputs. There are different types of organisational systems and organisational HRM is one of such important systems (Ferguson & Reio, 2010) where employees are the inputs to the system and organisational performance is the output of the system. Through distinct, interrelated activities and processes the system converts inputs to achieve organisational performance. The

argument is that HRM practices encourage positive employee attitudes and behaviours that lead to organisational performance (Bowen & Ostroff, 2004; Lepak et al. 2006). This study employed the general systems theory to illustrate that an organisation system consists of different subsystems which work together to transform the inputs into outputs. The HRM as a subsystem consists of HRM practices as independent variables which affect organisational performance as a dependent variable (Alsabbah & Ibrahim, 2014).

2.12 EXISTING KNOWLEDGE IN THE FIELD

The body of research examining the relationship between Human Resource Management practices and firm performance has grown over the years. Mohinder and Katuo (2007) investigated the relationship between HRM practices and organisational performance in the hotel industry and found positive relationship. Recruitment and selection, man power planning, job design, training and development, quality circle, and pay systems were used as HRM practices. Organisational performance was measured using sales growth, productivity, profitability, goal achievement, and good service quality. The study used both objective and subjective measures of organisational performance. However, the study did not consider the effect of control and mediating variables. In another study, Atteya (2012) proposed and tested an integrative model of HRM practices that examined the mediating variables in the HRM practices and organisational performance relationship in Egypt. The study found that HRM practices indirectly influence job performance. The study used 13 HRM practices items as developed by Tsaur and Lin (2002). The study controlled for firm size, firm age, capital intensity, and hotel category. Both studies did not consider the reverse effect of any of the variables in the model.

Similarly, Dimba (2010) investigated HRM practices and firm performance in Kenya to establish the direct or indirect relationship between the two using employee motivations as a mediating variable. The study found that HRM practices and firm performance are positively related. HRM practices used in the study were training and development, compensation systems, performance appraisal and flexible work systems. Organisational performance was measured using image, interpersonal relations, and product quality. Furthermore, Karen (2010) tested a model in which HRM inputs like motivation and employee skills and HRM practices (training, development, profit sharing) contribute to organisational outputs and firm performance. Results suggest that HRM practices influence firm performance with regard to return on assets, percent growth, and quality control measures and market to book ratios. The study controlled for organisation type, firm size and union status. Peng & Luo (2010) investigated how HRM contributes to improved organisational performance in the large-scale hotel sector in New Zealand. The study found that HRM and organisational performance are positively related. Furthermore, Razouk (2011) examined high-performance work systems and performance of SMEs. The study found simultaneous and longitudinal correlations between high-performance work systems (appraisal,

participation, sharing information, compensation and communication) and all performance indicators. The study also found that controlling for past performance made these effects disappear in a reverse causality. Firm performance was measured using profitability, degree of innovation and social climate. Extraneous variables of market structure, business strategy and stock exchange were controlled.

Mukanzi (2013) investigated the influence of HRM practices on firm performance of the banking sector in Kenya. The study used recruitment and selection, training and development, performance appraisal and reward/compensation as HRM practices. Performance was measured using both objective (net profit, return on assets, return on equity & annual sales growth) and non-objective measures (productivity, market share, image and interpersonal relations). The HRM practices measures used in this study are consistent with what this study has employed. These are traditional HRM practices employed in strategic human resource management. Shin, (2017) and Georgios (2014) investigated the relationship between human resource practices, knowledge management, organisational learning and organisational capabilities and their impact on organisational performance. The study found that manufacturing firms using best HRM practices attain higher performance through interaction of HRM practices with knowledge management, organisational learning and creation of organisational capabilities. Similarly, Amin (2014) examined the impact of HRM practices on the performance of a public university and found that HRM practices (recruitment, training, performance appraisal, career planning, employee participation, job definition, and compensation) have a significant relationship with university performance. Khan (2014) investigated the factors that affect employee turnover in an organisation in Pakistan. They study used retirement benefits, job security and financial crises as to measure how they impact turnover. The study revealed that retirement benefits have more impact on turnover than job security and that financial crises have moderate effect. Darwish, Singh, and Wood (2016) investigated the specific set of HRM practices on organisational performance and found a positive relationship. The study used recruitment and selection, training, internal career opportunity, performance appraisal, intrinsic incentive rewards, extrinsic incentives and rewards and perceived financial performance. Organisational performance was measured using return on assets (ROA) and return on equity (ROE). The study controlled for firm size and age.

Gamage (2015) investigated the role of HRM practices in improving labour productivity in manufacturing SMEs in Japan using HRM outcomes as mediating variables. A strong positive relationship was found between HRM practices and labour productivity. Staffing, training, and development, performance evaluation and compensation were used as HRM practices. Occupational health and safety, job satisfaction, employee commitment employee attitudes, employee motivation, employee loyalty, employee involvement and workplace

cooperation were used as HRM practices. However the study did not account for control and mediating variables as well as the reverse effect of the variables. Similarly, Bharti (2015) investigated how automated paperless HRM practices impact on organisational performance in the banking sector. E-HRM measures were: e-recruitment, E-learning, E-succession planning. Study showed positive relationship with organisational performance by increasing efficiency, reduces cost, leads to competitiveness, improves competitiveness, improves quality, and helps retain employees. Furthermore, Ogunyomi and Bruning (2015) investigated the relationship between HRM practices and financial and non-financial performance of SMEs in Nigeria. Found partial support of a model of positive relationships between certain HRM practices and firm performance. Nyandiko and Ongeri (2015) examined the relationship between strategic human resource management practices and organisational performance of a seed company in Kenya. HRM measures used were employee development, motivation, maintenance and staffing. Found positive relationship between SHRM practices and the firm performance. However, these studies did not investigate the reverse effect of any of the variables.

Most of the studies in HRM practices and organisational performance have been conducted in the Western, educated, industrialised, rich, and democratic (WEIRD) countries (Henrich et al. 2016) including on the domestic operations of the United States of America (USA) firms (Appelbaum et al. 2000; Batt, 2002; Guthrie, 2001; Huselid, 1995; Ichniowski, Shaw, 1999; McDuffie, 1995, Barti, 2015; Cooke, 2015; Barti, 2015). Other studies were also conducted in the United Kingdom (UK) and other parts of Europe (Guest & Hoque, 1994; Hoque, 1999, Hartog & Verburg, 2004; Guthrie, 2001; Kapondoro 2015) and Asia (Huang, 2001; Huang & Cullen, 2001, Khatri, 2000; Luo, 2010; Georgious, 2014; Shin, 2017; Mak & Akhtar, 2003; Wan, Kok & Ong, 2002). In Africa, similar studies have been conducted in Ghana (Seidu, 2011), Egypt (Atteya, 2012), Kenya (Dimba, 2010); Nigeria (Odalipo, 2014) and South Africa (Walter, 2006). In all these studies, a positive relationship was found between human resource management practices and firm performance. Also, all these studies took a forward causality of human resource practices and organisational performance. Very few studies have been conducted in Africa and Malawi in particular. In Malawi (Bakuwa, 2011; Nkhwangwa, 2014) studied human resources management but investigated other aspects and not how Human Resource practices impact on organisational performance and the reverse of organisational performance effect on employee behaviour. There are no published Malawi company-level studies exploring the relationship between HRM practices and organisational performance. There is therefore need for a comprehensive study that would determine whether the findings reported in American, Indian, Malaysian, Greece, Egyptian, South African, and Ghanaian firms are consistent with Malawi and therefore can be replicated in Malawi.

Other studies showing the relationship between HRM practices and organisational performance have been summarized as shown in the Table 2.2

Table 2. 2: Studies showing the relationship between HRM practices and organisational performance

AUTHOR	MOTIVATION FOR STUDY	HR PRACTICES MEASURED	RATIONALE FOR INCLUSION	HOW PRACTICE WAS MEASURED	DEPENDENT VARIABLE	HOW DEPENDENT VARIABLE WAS MEASURED	FINDINGS
Huselid (1995)	Theory and Conventional wisdom suggest that HR practices can provide a direct and economically significant contribution to firm performance. However little empirical evidence exists.	Thirteen practices measured at two bundles - (a) employee skills and organisational structures (quality management circles, teams; and (b) employee motivation performance appraisals	Included 10 practices that Delaney, Lewin, & Ichniowski (1989) included. Also added three practices found to affect firm performance: (1) intensity of recruiting efforts (2) average number of training hours per employee per year (3) promotion criteria- seniority Vs Merit	Firm data was collected on survey sent to the senior human resource professionals in each firm.	Turnover, productivity, corporate financial performance	Turnover question about annual rate on survey Productivity logarithm of sales per employee Corporate financial performance	Investments I n HR practices associated with lower employee turnover and with greater productivity and corporate financial performance.
Nishii, Lepak & Schneider (2008)	Examined the effects of Hr attributions on firm performance across units within an organisation	Five Hr attribution items listed for each of the five HR practices: staffing, training, benefits pay, and scheduling	Developed items and practices based on two rounds of five focus groups and research literature	Department level. Survey data collected from employees within each department, managers and	Customer satisfaction with people	Department employees were rated by customers in a survey	The attribution that HR practices are motivated by the organisation's concern for enhancing service quality and employee well-being

				customers of each department.			was positively related to employee attitudes, the attributions focused on reducing costs and exploiting employees was negatively associated with attitudes, and the external attributions involving union compliance was not significantly associated with attitudes. In turn unit level attitudes were significantly associated with the two dimensions of OCVBs, and OCB-helping was significantly related to customer satisfaction.
Gong, Law, Chang & Xin, (2009)	Examined how HR practices relate to firm performance and test the resource-based theory and social exchange theory in such an examination	Eight practices classified into the maintenance-oriented HR subsystem and performance-oriented HR subsystem	Included 8 practices resulting from a review of 48 strategic Hr studies published in 9 major journals and research volumes (e.g. Delery & Doty 1996)	Firm-level data collected from two sources (cities). First survey sent to President/Vice Presidents, HR Managers and middle level managers from each firm. Second survey sent to	Profit, Total sales growth, market share, total asset growth, after tax return on total assets, after tax return	President/Vice Presidents, reporting ratings of firm performance in terms of Profit, total sales growth, market share, total asset growth,	Found support for two-factor model. Results indicate that the performance-oriented HR subsystems had a positive relationship with firm performance and that the relationship was mediated by middle manager's affective commitment. The maintenance-

				President/Vice Presidents, HR Managers and middle level managers from each firm.	on total sales, Labour productivity.	after tax return on total assets, after tax return on total sales, labour productivity	oriented HR subsystems had a positive relationship with middle manager's continuance commitment not their affective commitment and firm performance.
Combs, Liu, Hall & Ketchen (2006)	They used meta-analysis to estimate the effect size and test whether effects are larger for (a) HPWP systems versus individual practices, (b) operational versus financial performance measures, and (c) manufacturing versus service organisations	13 practices classified as HPWP: incentive compensation, training, compensation level participation, selectivity, internal promotion, Hr planning, flexible work, performance appraisal, grievance procedures, teams, information sharing, and employment security.	Included practices based on research review of 92 studies, including (Becker & Gerhart, 1996; Huselid, 1998; Ferris et al. 1999; Wood, 1999; Wright & Boswell, 2002; Wright, Gardner, Moynihan & Allen, 2005)	The "study" is the unit of analysis in meta-analysis (Hunter & Schmidt, 1990), within study correlations was averaged to drive the overall relationships for each study.	Operational performance, accounting returns, Growth market returns, financial performance	Divided organisational performance measures into 5 dimensions: productivity, retention, accounting returns, growth, and market returns. Categorized productivity and retention measures as operational performance and accounting returns, growth, market returns, and financial performance.	Found that HPWS affect organisational performance. Secondly find support for the hypothesis that systems of HPWPs have stronger effects than individual HPWPs. Thirdly, contrary to SHRM theory, the relationship appears invariant to choice of organisational performance measure. Fourthly, the relationship is stronger when researchers examine systems of HPWPs among manufacturers
Takeuchi, Chen & Lepak (2009)	Examined social mechanisms through which HPWS relate to employee attitude and behaviours	13 practices were measured as two bundles-(a) employee skills and organisational structures (quality management circle, teams) and (b) employee	Included the 13 practices developed by Huselid (1995)	Establishment -level survey of Managers HR practices in each establishment.	Employee job satisfaction and employee affective commitment	Collected subordinate employee assessment of job satisfaction, and affective	Results from cross-level analysis indicated that the relationships between establishment-level

	using a multi-level theoretical perspective.	motivation (Performance appraisals)				commitment.	HPWS and employee job satisfaction and affective commitment were fully mediated by establishment-level concern for employees' climate.
Kehoe & Wright (2010)	Few studies have considered the important role of employees' perceptions of HR practice use. They examined the relationships between employees' perceptions of high-performance HR practice use in their job groups and employee absenteeism, intent to remain with the organisation, and OCB, dedicating a focus to the possible role of affective commitment in these relationships	15 items compiled from SHRM literature(HR Practices) aimed at improving employees' KSAs and motivation and opportunity to perform: selective staffing (formal selection test, structured employment interviews); employee participation (formal participation processes, fair complaint procedures, employee autonomy in job design): performance based compensation(bonuses based on group, and individual performance outcomes, merit based pay rises); formal performance evaluation; regular information-sharing communication; merit based promotion opportunities; extensive formal training.	Included items and Hr practices based on previous empirical research in SHRM literature. Specifically, Huselid (1995); Combs et al. (2006); Sun et al. (2007)	HR directors administered survey to a randomly selected group of 20% or more of employees in their unit in a large food service organisation.	Organisational Citizenship behaviour, intent to remain with the organisation, absenteeism	Employees reported estimates of OCB, intent to remain in the organisation, and absenteeism	Employees' perceptions of high performance HR practices use at the job group level positively related to all dependent variables and that affective organisational commitment partially mediated the relationship between HR practice perceptions and OCB and fully mediated the relationship between HR practice and intent to remain with the organisation.
Chuang & Liao, (2010)	They investigated the intermediate linkages between HR practices and	35 items including 6 HR practices: staffing, training, involvement/participation, performance appraisal,	Practices and items included were based on a literature	Business-unit level data collected on survey sent to	Market performance: marketing, sales growth,	Managers reported of ratings of annual market	Managers' reports of HPWS positively related to employees' reports

	organisational performance in the service context. Specifically, they investigated employee shared climate perceptions at the business unit level. Secondly examined HPWS as the antecedent of the unit's climate. Further examined both collective in-role task performance and collective extra-role citizenship behaviour as the consequence of the climate.	compensation/rewards and caring	review and interview with store managers and frontline employees. Some items and practices were adapted from Lepak & Snell (2002), and Batt (2000)	managers and employees of multiple service stores over periods	profitability, market share	performance on four items: marketing, sales growth, profitability, market share.	of the store's concern for customers and concern for employees. Second, the climate of concern for customers mediated the relationship between HPWS and employee service performance, whereas the climate of concern for employees mediated the relationship between HPWS and employee helping behaviour provided to co-workers. Further that both types of employee behaviour contribute to the business unit's market share, sales growth and profitability.
Snape & Redman (2010)	Examined the relationship between HR practices conceptualized at the workplace level, and individual employee attitudes and behaviour	10 multiple HR practices that address the recruitment, development, motivation, and involvement of employees.	Items and practices based on research studies-Dyer & Reeves, (1995)	Work-place level data collected on survey sent to managers provide separate ratings for managers and professionals as one group and for all	Compliance, altruism, in-role behaviour	Obtained data from employee self reports of employee behaviour.	Findings suggest that there is a positive impact of HRM practices on organisational citizenship behaviour, through an effect on perceived job influence/discretion

				other employees.			
Sun, Aryee & Law (2007)	Examined the patterns of relationships conducive to organisational performance and the behaviours that create and sustain these relationships	HR practices: selective staffing, extensive training, internal mobility, employment security, clear job description, result-oriented appraisal, incentive reward, participation.	Developed items for the domains of HR practices based on research literature- Bae & Lawler (2000) which was developed by Snell & Dean (1992) and Delery & Doty (1996)	Multi-level survey of (a) HR Managers and (b) Supervisors of frontline subordinates, and (c) customer contact employees from hotels located in eastern coastal province of China	Turnover, Profitability	Turnover, question regarding annual rate on HR Manager surveys. Productivity logarithm of sales per employee	Studies revealed high performance HR practices to be related to service oriented OCB and to the performance indicators of turnover and productivity. Service-oriented OCB was related to turnover, productivity and unemployment
Liao, Toya, Lepak & Hong (2009)	Relatively few studies have examined employee perspectives with the HPWS, and the influence of HPWS on individual performance. They also examine whether unit-level employee service performance translates into important performance metric for service organisations	HR practices for the service quality: extensive service training, information sharing, self management service teams and participation, compensation contingent on service quality, job design for quality work, service quality based performance appraisal, internal service, selective hiring, employment security, and reduced status differentiation.	Selection of HR practices based on prior literature, but especially, the prescription of Schneider et al... (1998); and Batt (2002); Delery & Doty (1996), and frameworks of HPWS by Pfeffer (1998), and Zacharatos et al. (2005)	Multi-level of (a) bank branch senior managers (b) employee supervisors, (c) customer contact employees, (d) branch customers and (e) headquarters from a national bank in Japan	Employee overall service performance, customer satisfaction	Employee direct supervisors rated employee general service performance. Employee knowledge intensive performance. Branch customers rated customer satisfaction.	Findings indicate that significant differences between management and employee perspectives of HPWS. Employee perspectives of HPWS was positively related to individual general service performance via the mediation of employee human capital and POS, and was positively related to individual knowledge intensive service performance via the mediation of employee human

							capital and psychological empowerment. Management perspective of HPWS was related to human capital and both types of service performance. Overall knowledge-intensive performance was related to overall customer satisfaction with the branch's service.

Gittell, Seidner & Wimbush (2010)	Examines relationships between employees as the primary causal mechanism that connects high-performance work systems and performance outcomes.	HR practices: cross functional selection, cross-functional conflict resolution, cross-functional performance measurement, cross functional rewards, cross functional meetings, and cross-functional boundary spanners	HR practices selection based on the research literature-specifically Lawrence & Lorsch (1968); Gittell, (2000), Guthrie & Hollensbe, (2004)	Individual and unit level data from (hospital Administrator interviews), Care Provider surveys, Patient surveys and Patient Hospitalization records	Quality outcomes (patient-perceived quality of care) Efficiency outcomes (patient length of stay)	Patient surveys and hospitalization records from hospital administrators	They find high-performance work practices that positively predict the strength of relational coordination among doctors, nurses, physical therapists, social workers and case manager, in turn predicting quality and efficiency outcomes for their patients. Relational coordination mediates the association between HPWS and outcomes.

Source: Adapted from Gibson, Porath, Benson & Lawler III (2007 p. 1470-1473) including those published after 2007

2.13 SUMMARY

Research has shown a positive relationship between human resource practices and organisational performance. Although, research has shown significant positive relationship in the reverse causality than forward causality; there has not been significant research in this area in different sectors and contexts. The chapter has reviewed literature regarding the main concepts of the study. Definitions and conceptualisations of business strategy, human resource management practices, employee attitude, employee behaviour, organisational performance, control variables, reverse causality and theoretical perspectives have been provided. Chapter three discusses the research design and methodology that were followed in conducting the empirical study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter describes the research setting where the study was conducted, data collection procedures, measures of the variables in the conceptual model and the analytical techniques that were employed to test the hypotheses. The chapter addresses issues relating to: (1) the research paradigm; (2) research methodology; (3) the data collection instrument and (4) finally data analysis techniques.

Following an in-depth review of the constructs in Chapter two; relationships between human resource management practices and organisational performance as moderated by business strategy and mediated by employee attitudes and employee behaviour were suggested for research. A conceptual model with structural relations was conceived from the literature review in order to determine the specific nature of the relationships. Data was analysed, results were discussed, conclusions were drawn and recommendations for future research were stated.

3.2 RESEARCH METHODOLOGY

The collective term for the structured process for conducting research is referred to as research methodology. It is a way of serving the epistemic ideal of science (Babbie & Mouton, 2006). In order to search for valid explanations; science is attached to an epistemic imperative, whose explanations can only be regarded as viable if the explanation closely fits the data available. If the methodology used is only partially explained; it would be difficult to evaluate the merit of the conclusions drawn. According to Babbie and Mouton (2006) description of the methodology used would help other researchers identify methodological gaps and thereby determine the extent to which the gap would influence the validity of the conclusions. To establish the reader's confidence in the scope and quality of the procedures that were used in this study, the research process and the choice of the methodology that were used in this study are discussed in the following sections. This chapter also discusses the following: the research design, sampling

strategy, data collection procedure, the measuring instruments, and a description of the statistical analysis procedures that were used to analyse collected data.

3.2.1 Research design and justification

In order to test the structural relations as hypothesized in the conceptual structural model (Figure 2.1) an appropriate research design was required. It is a general plan in which the researcher tries to find answers to the research question, explaining the source of data and possible constraints (Pallant, 2013). According to Mouton and Babbie and Mouton (2001) and Kothari (2004) a research design is a plan, blueprint or guideline on how research should be done. It is determined by the research problem and the type of evidence needed to address the research problem. It attempts to provide empirical evidence that can be interpreted in favour or against the hypothesis to be tested.

Specific structural relationships between latent variables have been presented depicting hypotheses linking the variables. In order to test empirically the merit of the structural relationships a plan was designed. This plan is referred to as a research design (Kerlinger & Lee, 2000). It is a guideline on how research will be done (Babbie & Mouton, 2001). Different research strategies are applied like survey; experiments, case study, grounded theory, ethnography and action research (Saunders et al. 2000; Pallant, 2013). Experiments and surveys are classified as quantitative while the other four are qualitative (Veerayangkur, 2000; Pallant, 2013). This study employed use of a survey through a questionnaire. This is a popular and common strategy in scientific finding in business and management research. It collects data by asking respondents the same set of questions (Saunders et al. 2000). It permits collection of large data from a sizeable population in an economical way. It gives more control over the research process. In this study; delivery and collection of the questionnaire was employed by the researcher because this ensures a high response rate.

Descriptive study design was used to gain an overview of the situation regarding the variables and explore facts about the population. Correlation design was also used to empirically test the relationship between HRM practices and organisational performance. Regression design was used to test the reverse causality between organisational performance and employee behaviours.

On the time basis, this study used a cross-sectional design where data was collected only at once. Cross-sectional studies are relatively quick, cost effective, do not require follow up and are easy to collect data (Kerlinger & Lee, 2000; Bhattacherjee et al. 2012).

The research design aims to provide answers to the research question, and it also endeavours to control variance (Kerlinger & Lee, 2000). Variance, according to Theron (2007), represents the extent to which the value of a variable differs/varies across units of analysis. The unambiguousness, with which the empirical evidence can be interpreted for or against the operational hypotheses, is largely determined by the degree to which the research design is able to minimise error variance, maximise systematic variance and control extraneous variance (Kerlinger, 1973).

Development and validation of the conceptual model (Figure 2.1) involves facilitating the research process, arriving at a particular research design. The plan and structure of the current study can best be achieved within the realms of the quantitative research design. According to Cooper and Schindler (2003) quantitative research design is systematic scientific investigation of quantitative properties and phenomena and their relationship. Quantitative approach aims at developing and employing mathematical models, theories and/or hypotheses pertaining to a phenomenon. Provision of measurement is very central to quantitative research, because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships (Pallant, 2013). It is further argued that quantitative research allows for data to be tested rigorously using statistical means that enhance reliability (Leedy & Ormrod, 2001).

This study applied correlational research which aims at examining and describing the associations and indirect relationships in data. It also allows the researcher to objectively establish the variables that are closely associated with each other or influence one another. Precisely, independent and dependent variables were observed across individuals in order to identify any patterns of relationships between the two and measure the strength of a particular relationship (Gravetter & Forzano, 2006). Although correlation cannot be used to demonstrate cause-and-effect relationships between variables; this approach offers strong support to the

structural equations model theory which is used to test the validity of theories about sequential relationships between two or more variables and determine the combination of variables that predict a particular variable (Kerlinger, 1992).

3.2.1.1 Survey Research

To provide answers to the research questions a survey methodology using standardized measuring instrument was used. This involved collection of primary data. Survey research involves the administration of questionnaires to a sample of respondents that form part of a population, in order to discover the relative incidence, distribution, and interrelations of sociological and psychological variables (Kerlinger & Lee, 2000, Samuel; Shields et al, 2015; Nardi, 2015, 2016). Surveys take various forms including mail, self-administered, face-to-face and telephone surveys and they can be utilised for descriptive, exploratory and explanatory research (Samuel, 2016). The self-administered survey (in which respondents independently complete questionnaires) was employed in this study. This method is only appropriate when the population that is being studied is adequately literate– a requirement that was set to all respondents.

3.2.1.2 Research Philosophy

Research must be based on a philosophy of knowledge. A research philosophy is also referred to as a research paradigm i.e. a basic set of beliefs, feelings, and some established practices of theoretical and methodological ideas about the world that guide action (Denzin & Lincoln, 2003; Saunders, Lewis & Thornhill, 2007). A paradigm is a broad view or perspective of something (Taylor, Kermode & Roberts, 2007; Pallant 2013).

Research philosophy determines what the enquiry is and how research will be done. It is the way we think about the progress of knowledge (Mahomed, 2006; Pallant, 2013). This forms a paradigm, an interpretive framework; which influences what should be investigated, how research should be done and how the results are interpreted (Bryman & Bell, 2016; Liu, 2010; Creswell et al. 2017; Veal, 2017; Brannen, 2017). According to Lincoln and Guba (2004) paradigms are distinguished based on three main principles: (1) the stance about reality

(ontology) (2) relationship between the researcher and what is being investigated (epistemology) (3) and the process for gathering knowledge about the world (methodology).

There are different views about how knowledge is developed each being very important in business and management research (Saunders, et al. 2000). Positivist is an epistemological approach advocating application of natural sciences to the study of social reality and beyond (Bryman & Bell, 2016) where the researcher assumes an objective analyst role. Emphasis is on quantifiable observation. Positivist is an epistemological position which advocates use of the natural science to the study of social reality (Bryman & Bell, 2011). It is the dominant view in research linking human resource management and performance (Boselie, 2005).

The main objective of this study is to investigate the reverse causality (mechanisms) between employee behaviour and organisational performance. Given this aim, positivist perspective is more appropriate because it uses survey questionnaire for data collection leading to a statistical investigation. This allows objective analysis of data including hypothesis testing so that relationships can be explained and valid generalisable conclusions made (Ericksson & Kovalainen, 2008; Easterby-Smith, Thorpe & Jackson, 2008).

3.2.1.3 Designing the survey instrument

In order to collect quantitative data through a survey; a questionnaire was designed. It used specific questions to motivate the respondents and limit response error (Pallant, 2013). The process of questionnaire design was guided by the conceptual framework (Figure 2.1) which gave insight on what to include in the questionnaire. Relevant variables were identified and their measures derived from several previous studies (Katuo, 2010, 2012; Guest et al. 2001, 2003). Specific HRM practices and manufacturing specific performance indicators were identified from previous studies as discussed in Chapter two. Questionnaire measures dependent and independent variables with limited researcher interference, as such no manipulations are involved (Tharenou et al. 2007).

3.2.1.4 Measuring Instrument

Two measuring instruments were used; one for employees and another one for managers. The aim was to cross check managers responses with what employees give. The instruments were measuring the same constructs of business strategy, human resource management practices, employee attitude, employee behaviour and organisational performance as developed in the conceptual framework (Figure 2.1).

The questionnaire was divided in two sections. The first section gathered data on the respondents' profile, with questions regarding, gender, age, education, marital status, experience, size of the organisation, union intensity and product the organisation is making. The second section measured manager and/or employee perceptions about business strategy, HRM practices, employee attitudes, employee behaviours and organisational performance their organizations. Measures used in the study are summarised. As discussed in chapter one and two; this study investigated the reverse causality between organisational performance and employee behaviour using the HRM practices and organisational performance link model. To test these relationships; two different questionnaires were used to seek responses from managers and employees. All the variables were measured on a 5-point Likert scale. The actual specific measures used are described below and listed in Appendix 1.2 and 1.3 for managers and employees respectively. The Cronbach's alpha (the realities) for the measurement scales are summarised in Table 4.10b

3.2.1.4.1. Business Strategy

The level of importance of business strategy was measured by eight selected items from cost reduction strategy to customer service strategy as adopted from Katuo and Budhwar, (2010). A sample item is "In your opinion, how would you rate the importance of the cost reduction strategy in your organisation". Respondents were asked to rate the level of importance they attach to the item on a 5-point Likert Scale (1=not at all important to 5=extremely important). The Cronbach's Alpha for this scale was 0.772.

3.2.1.4 .2 Human Resource Management Practices

Unlike Katuo (2012) who used 12 practices; this study used four human resource management practices. These have been chosen because, they are considered the most important practices in strategic human resource management and are synergetic. Literature has also shown that these

have been the most prominent practices used in research (Katuo & Budhwar, 2010; Katuo, 2012). A five-point Likert scale was used.

3.2.1.4 .3. Recruitment and selection

This construct was measured using five items as developed by Katuo, (2012) (2 items) and also used by Huselid, (1995) (2 items) and Guest, et al. (2003) (1 item). Manager and employee respondents were asked to rate the effectiveness of recruitment and selection in the firm on a 5 point-Likert scale (1=not at all effective to 5=highly effective). An example of the question was "In your opinion, how effective is your recruitment process?" The Cronbach's Alpha for this scale was 0.80.

3.2.1.4 .4. Training and Development

Training was measured using five item scales developed by Katuo and Budhwar (2008) (3 items) and Katuo (2012) (2 items). These scales were also used by Ahmad and Schroeder, (2003); Guthrie et al. (2009) and Ngo et al. (2008). Respondents were asked to rate the effectiveness of the organisation training and development programmes and work design programmes on a 5-point Likert scale (1=not at all effective to 5=highly effective). Development was measured by asking respondents to rate employee competences and cooperation amongst them the past three years on a 5-point Likert scale (1=very poor and 5=very good). An example of the question of the training variable was "In your opinion, how effective are your employees training programmes", "In your opinion, how effective are your work design programmes". For the development aspect, an example of the question was "How would you rate employee competences the past three years? How would you rate cooperation among employees the past three years? The Cronbach's alpha for this sub scale was 0.88. This factor was loading together with performance appraisal for employees; as such the two factors were combined and named as development.

3.2.1.4 .5. Performance appraisal

This sub scale was measured by 9 items scale developed by Guest et al. (2003) (3 items); Guthrie et al. (2009) (1 item); Huang, (2001) (3 items) and Akhtar, (2008) (2 items). The respondents were asked to rate their level of agreement with statements pertaining to how performance appraisal is done in the firm on a 5-point Likert scale (1=strongly disagree to 5=strongly agree).

An example of the question of the performance appraisal was "performance appraisal is fair and unbiased". The Cronbach's alpha for the sub scale was 0.857. This factor was termed as development for employees.

3.2.1.4 .6. Compensation

The scale was measured by 8 items scale developed by Katuo and Budhwar (2008) (5 items) and Guthrie et al. (2003) (3 items). The respondents were asked to rate the use of compensation measures in the firm on a 5-point Likert scale (1=never use to 5=frequently used). An example of the question of this scale was "how would you rate the use of rewards in your organisation". The Cronbach's alpha for employees was 0.87

3.2.1.4 .7. Employee attitudes

This is a mediating variable. Employees' attitudes were measured using a three items scale of motivation, satisfaction and commitment developed by Parker et al. (2003) and Shields, (2015) (1 item); Katuo (2010, 2012) (2 items). Respondents were asked to rate employee attitude based on employee satisfaction, motivation and commitment in the organisation on a 5-point Likert scale (1=very bad to 5=very good). An example of the question was "How would you rate employee motivation in your organisation the past three years?" The Cronbach's Alpha for this scale was 0.952.

3.2.1.4 .8. Employee Behaviour

This is another mediating variable. Employees' behaviour was measured using a three items scale of turnover (counterpart of staying in the organisation), absenteeism (counterpart of presence) and disputes developed by Richardson and Chmiel et al, 2017; (1999); Guest, (2001) and Katuo, (2012); Raza-Ullah (2014); Brubaker et al. (2014); Giri, (2017) and Katuo and Budhwar, (2010). Respondents were asked to rate employee behaviours in the firm based on the number of voluntary leaves, absences and disputes in the organisation the past three years on a 5 point Likert scale (1= very small and 5=very big). However, Raza-Ullah (2014) changes disputes into litigations. An example of the question was "How would you rate the number of voluntary leaves in your organisation the past three years?" The Cronbach's Alpha for this scale was 0.952

3.2.1.4 .9. Organisational Performance

Organisational performance was measured using five items (Guest, 2001) Respondents were asked to rate their firm manufacturing performance as compared to their competitors using organisational performance indicators of throughput (time), quality of products, delivery flexibility, scope flexibility and production cost reduction on a 5-point Likert-scale of (1= very poor to 5=very good). An example of the question was "How would you rate the overall manufacturing throughput in the past three years?" The Cronbach's Alpha for this scale was 0.929.

The study collected perceptual data and not actual data. This is consistent with previous studies (Delaney & Huselid, 1996; Lahteenmaki et al. 1998; Ngo et al. 1998; Guthrie et al. 2009) which also used perceptual performance indicators. Collecting actual data is challenging in most organisations because such studies are regarded as espionage or spying on them or that the researcher is working for a competing firm. In this regard, firms are unlikely to disclose their actual performance data. It is argued that perceptions about firm performance by respondents are valid performance indicators than actual data (Vlachos, 2008). This is so because self-reported and perceptual measures reflect what is more current than actual data which is derived from annual reports of previous years' performance (Day & Nancy, 1996). On this basis, this study measures HRM practices and organisational performance using perceptions of managers and employees rather than actual data.

3.2.2 Control variables

Organisational size, age and union intensity were used as factors that affect the adoption of HRM practices and organisational performance (Hassan, 2016; Katuo, 2012; Katuo & Budhwar, 2010). Organisation size was determined by the number of employees and ranged from 20 to 121 employees and above. Organisational age ranged from 3 to 26 years and above. Union intensity was examined by different levels ranging from 1-25% to 75-100%.

3.2.1.5 Research setting

This study was conducted in the agricultural manufacturing sector in Malawi in Mulanje, Thyolo, Blantyre, Balaka, Lilongwe and Nkhotakota districts. Agriculture is the main stay of Malawi's economy and agro processing and value addition are some of the major policy directions of the Malawi government. The research population were managers and employees of medium and large Agricultural manufacturing firms in Malawi. The conceptual model was tested using data collected in the field setting. This is consistent with Brewer (2000) who observes that research conducted in the field yields greater external validity is more robust, representative and provides relevant findings.

3.2.1.6 Pilot study

After getting the University Ethics Committee approval, a pilot study was undertaken in order to check if the methods and procedures proposed would work (Arain, Campbell, Cooper & Lancaster, 2011). The pilot sample consisted of two firms i.e. 10% of the projected sample (Sekaran, 2010). The participants were 42 (6 managers and 36 employees). The two firms and its managers and employees were excluded from the sample of the actual study.

The objectives of the pilot study were to pre-test the questionnaire items, detect errors and fine tune them in order to ensure that there is no ambiguity or bias. This stage identified weaknesses and the potential of the research regarding instrument clarity, wording and formatting of the questionnaire. It is important to test the questionnaire before administering it. No validity tests were conducted at this stage because validity tests require sample size of 80 (10 participants per 8 of the parameters) and above for meaningful analysis (Pallant, 2013; Wolf, et al.2013)).

3.3 SAMPLING

3.3.1 Population of the study

A population refers to all items under consideration in any field of enquiry (Kothari, 2004). The target population of interest in this study were all agricultural manufacturing firms in Malawi that have operated for a minimum of 3 years and have a workforce of not less than 20. There are 92 such firms and have been categorized according to region and product they manufacture i.e. tea, cooking oil, sugar, dairy products, confectionary etc. The population of interest is however

49 firms i.e. those that meet the criteria of 3 years old and above (firm age) and having 20 employees and above (firm size).

3.3.2 Sampling frame

This refers to subjects of study and the researched environment (Freeman, 2017). The sampling frame for this study constituted all agricultural manufacturing firms in Malawi. A list of these subjects was obtained from the Malawi Investment and Trade Centre (MITC)[2] and it involved 92 firms.

3.3.3 Sample size

Sample size is a subset of population and it refers to the number of elements included in the study which meets the criteria of representativeness and adequacy (Kothari, 2004). Edriss (2013) notes that a good sample is representative and is drawn using random sampling technique which gives elements equal chance of being selected. (Kothari, 2004) observes that such a sample has a small sampling error, is viable in the context of funds, controls systematic bias; and its results can be universalized.

A sample is considered large enough if it contains at least 30 randomly selected elements (Magnani, 1997). At that level, the sample can be construed as having normally distributed elements that conform to the law of large numbers (central limit theorem). Edriss (2013) further suggests that another way is to consider the number of variables in the model to determine the sample size. This can be done where:

n = 10 times the number of relevant independent variables in a given model = 10K, where K is the number of relevant independent variables included in the model and as long as, 10K is greater than n=30 (the magic number in parametric statistics).

Sample size can be arrived at by using techniques such as census for small populations, using a sample size for a similar study in the past, or using published tables and using formulas (Israel,

[2] The organization promotes production and markets Malawi's goods and services towards the sustainable development through investment and trade with a focused sectoral approach.

2012; Creswell, 2017; Veal, 2017 2012). However, the actual sample size for a survey depends on the type of research and other factors e.g. funding. Yamane (1967) uses the formula:

$$n = \frac{N}{1 + N(e)^2}$$

Equation 1

Where: **n** = Sample Size; N=49=population of interest; **e**=5%=absolute error in estimating **p.** A 95% confidence level and **P**=0.5 are assumed for the equation. This formulation is more precise as agreed by Israel, (2012) where the population size and proportions are known,

$$n = \frac{49}{1 + 49(0.05)^2} = 43$$

Application of equation 1 yielded a sample size of 43 firms representing 89% of the population. However due to resource constraints 30% of the population was surveyed (Magnani, 1997). This gives a sample size of 15 firms. However, invitation was extended to 20 firms in order to make provision for firms that might not give consent to participate in the survey. According to Magnani (1997) this is statistically significant as it can be construed as having normally distributed elements that conform to the law of large numbers (central limit theorem).

3.3.4 Sampling methods

Sampling is the process of selecting a representative number of elements from a population (Edriss, 2013). Probability is where each element of the population has a known probability of being included in the sample (Edmonds & Kennedy, 2012). This study adopted probability sampling procedure using random sampling technique to choose participating firms as employed in similar past studies (Katuo, 2010, 2012; Tsai et al 2011). This procedure is superior to non-probability sampling because elements have equal chance of being selected thereby making it reliable (Bryman & Bell, 2016).The results obtained can also be assured of probability i.e. measure the errors of estimation and significance of the results (Kothari, 2004). Kothari further argues that probability sampling meets the law of Statistical Regularity which posits that when on average a sample is randomly selected, it will have the same characteristics and composition as the universe (Edriss, 2013).

There are two methods of sampling: probability (random samples, stratified samples, systematic samples and cluster samples) and non-probability (accidental samples, quota samples, snowball samples, purposive samples and convenience samples). Probability is the selection of a random sample from the population where each participant has an equal chance of being selected (Babbie & Mouton, 2001). It is regarded as the most accurate, reliable and most widely used in research studies with large representative samples (Edriss, 2013). However, this method is not always practical and attainable hence use of non-probability sampling in selecting research participants.

3.3.4.1 Participating firms

A list of agricultural manufacturing firms was obtained from Malawi Investment and Trade Centre (MITC). Since the population from which to draw the sample is not homogeneous the firms have been stratified according to the products they make and simple random sample was drawn from each stratum where the sample size of each stratum is proportionate to the population size of the stratum using the equation: $n_h = (N_h / N) * n = (4/49)*15$. Proportional sampling is where the population is divided into strata then select subjects proportionally from the different strata (Mason, 2002) (See Appendix 2.1).

3.3.4.2 Research participants

Participants included Human Resources Manager, Operations Manager; Production Manager and Director of Finance from each of the participating companies. This category of employees is considered vital since they hold aggregated key institutional information. This approach is different from previous studies that used a single-rater (Gerhart et al. 2000; MacKinnon et al. 2002; Purcell, 2003) and suffered from reliability efficiency. Batt (1999) Guest and Peccei (2001) used multi-raters and Gerhart et al. (2000) agrees and recommends that at least there must be 4 raters per unit of analysis for HRM indicators and at least 3 for performance indicators.

Using snowball sampling each manager was requested to suggest six best performing employees who had worked not less than 3 years in their department to complete the questionnaire. This category of employees has better institutional memory of the firm and its human resource management practices as suggested by Bjorkman (2011) Marsh, (2016); and Rambiyana, (2016). Since the study employed a pencil and paper method of questionnaire administration; these

employees were sufficiently proficient in English language and had no difficulty in completing the questionnaire. Having 18 employee respondents per firm was consistent with Katuo (2012); Gerhart et al. (2000) who suggest that the reliability of structural measures increases when using 5-10 respondents per firm. Furthermore, Pallant (2013) argues that in order to do structural equation modeling it is necessary to first do exploratory factor analysis whose minimum sample size requirement is 150 respondents plus and there must be a ratio of at least 5 cases (respondents) for each of the variables. This study had a total of 385 respondents (77 managers & 308 employees) which is way above the minimum sample size required for exploratory factor analysis.

Probability random sampling method was employed for firm selection. This was aimed at ensuring that all firms had equal chances of being selected so that data would be collected from a representative sample of the agricultural manufacturing firms. Purposive sampling was used to select managers (research participants) because of their aggregate knowledge. Non probability sampling using snowball technique was used in determining other research participants (employees). The study relied on each manager to refer the researcher to the first employee who in turn referred the researcher to the next employee and so on and so forth.

3.3.5 Data collection procedure

Data was collected from a random sample of Agricultural manufacturing firms in Malawi. In particular, the study focussed on firms in Lilongwe and Nkhotakota (central region), Blantyre, Thyolo, Balaka, and Mulanje (southern region) based on the agricultural products they manufacture. Limiting respondents to Agriculture manufacturing constrains sources of variance associated with employees from a wide variety of functions that could confound the effects of independent variables and therefore allows better drawing of causal inferences.

The point of entry in each firm was the Human Resources Manager who referred the researcher to the other managers (Operations/Production Manager and the Finance Manager). These managers in turn referred the researcher to three employees in their respective departments to complete the questionnaire. Dillman et al. (2014) argues that obtaining support from management is crucial in soliciting trust from respondents, confirms the purported use of the

survey and increasing the probability of having a higher response rate. Data was collected using a self-administered questionnaire using a Likert scale of 1 to 5 measures. The questionnaires were appropriately numbered and items coded accordingly. After the data collection exercise, data was entered into an SPSS version 24 file. This was saved with its own file name before proceeding to clean the data.

Being a paper- and -pencil survey, incidents of social desirability distortion and large proportions of missing values can be very evident. In this regard, data was subjected to cleaning to remove measurement equivalence and comparable item variability (Donovan, Drasgow & Probst, 2000). The data collection method used in this study has some merits: (a) they help to make the analysis of large datasets possible by using computer technology, (b) they are relatively cheap and concise, allowing quick completion, (c) interviewer bias is minimised and is largely accurate, (d) they allow for anonymous and honest responses from respondents, and (e) the problem of missing values in a data set is minimised or even eliminated, (f) are time and resource efficient as they are purpose-designed for quick turnaround with minimal resources (Tharenou et al. 2007), (g) allows identification of attributes of a large population from a small group (Fowler, 2009).. Some demerits of survey research include: (a) the possibility of low response rate and a significant response bias, (b) the researcher has no control over the conditions accompanying the completion of the questionnaire, (c) incomplete questionnaires, and (d) lack of the researcher's observation regarding how respondents react towards questions and the research setting (Babbie & Mouton, 2006; Moser, 2017; Kerlinger & Lee, 2000). In this study, a survey was the preferred procedure for data collection regarding the relationship between HRM practices and organisational performance and the reversed causality. A total of 110 questionnaires were distributed with 77 usable questionnaires for managers. For employees 400 questionnaires were distributed with 308 usable questionnaires received. This represents a 70% and 77% for managers and employees respectively..

3.3.6 Demographic profile of the sample

Table 3. 1: Demographic values used in the study

Individual characteristics	Organisational characteristics
Age (in years)	Sector (in product made)
Gender	Size (in number of employees)
Education (in qualifications)	Percent of union (% of employees in a union)
Experience (in years)	Age (in years)
Position (post held)	
Marital status	

For employees, there were 220 males (71.4%) and 88 females (28.6%). Most employees (51.9%) n=160 were in the age range of 30 to 40 years with n=110 (35.7%) in the age range of 18-29 years. In terms of education, most employees (n=180) 58.4% have a diploma. Most employees (54.2%) n=169 have a 6 to 9 years experience. Most respondents n=101 (32.8%) came from the tea sector. The descriptive statistics are presented in Table 3.1.

For managers, there were 72 males (93.5%) and 5 females (6.5%). Most manager respondents were between 30 to 40 years of age (48%). The majority are married 71 (92%). In terms of education the majority of the Managers 54 (70%) had a first degree. In terms of tenure in post; n=27 had 6 to 9 years' experience representing 35% seconded by 24 (31%) with 1 to 5 years. In terms of organisational size most organisations (n=42) were employing 121 employees and above (54%). In terms of union intensity; most firms (n=28) are in the range of 1 to 25% (36 %). Most firms (n=29) are 26 years old and above (37 %). The descriptive statistics are presented in Table 3.2.

Table 3. 2: Summary of Employee Respondents

Variable	Frequency	Percentage%
Gender		
Male	220	71.4
Female	88	28.6
Age		
18-29	110	35.7
30-40	160	51.9
41-50	29	9.4
51 & above	9	2.9
Marital Status		
Married	265	86.0
Single	40	13.0
Other	3	1.0
Education Level		
Primary Certificate	53	17.2
Diploma	180	58.4
First Degree	27	8.8
Masters Degree	1	0.3
Professional Certificate	7	2.3
Other	40	13.0
Junior Certificate	10	3.2
Malawi School Certificate	27	8.8

Experience		
3-5	62	20.1
6-9	167	54.2
10-15	63	20.5
16-19	10	3.2
20 &above	6	1.9
Product		
Tea	101	32.8
Sugar	21	6.8
Confectionaries	21	6.8
Brewery	16	5.2
Bread	32	10.4
Dairy	50	16.2
Cooking oil	29	9.4
Cigarettes	38	12.3

Source: *Primary data*

Table 3. 3: Summary of Manager Respondents

VARIABLE	FREQUENCY	PERCENTAGE (%)
Position		
Ass HR Manager	1	1.3
Ass Production manager	1	1.3
Director of Finance	2	2.6
Financial Controller	4	5.2
Finance manager	12	15.6
Finance & Administration	1	1.3
General Manager	1	1.3
HR Manager	19	24.7
Operations Manager	17	22.0
Production Manager	19	24.7
Gender		
Male	72	93.5
Female	5	6.5
Age		
18 to 29 years	5	6.5
30 to 40 years	37	48.1
40 to 50 years	25	32.5
51 years and above	10	13.0
Marital Status		
Married	71	92.2
Single	4	5.2
Other(specify)	2	2.6
Other Marital Status		
Widow	1	1.3
Education		
Certificate	6	7.8
Diploma	14	18.2
First Degree	54	70.1
Masters Degree	2	2.6
Professional certificate	1	1.3
Experience		
Less than one year	2	2.6
1 to 5 years	24	31.2
6 to 9 years	27	35.1
10 to 15 years	7	9.1
16 to 19 years	7	9.1
20 years above	10	13.0
Sector		
Tea	31	40.3
Sugar	4	5.2
Confectionaries	1	1.3
Brewery	4	5.2
Bread	8	10.4

Dairy	11	14.3
Cooking oil	10	13.0
Cigarettes	8	10.4
Organisational size		
20 to 60 employees	26	33.8
61 to 90 employees	4	5.2
91 to 120 employees	5	6.5
121 employees &above	42	54.5
Union intensity		
None	21	27.3
1-25%	28	36.4
26-50%	20	26.0
51-75%	4	5.2
76-100%	4	5.2
Age of the firm		
3 to 5 years	18	23.4
6 to 9 years	17	22.1
10 to 15 years	9	11.7
16 to 25 years	4	5.2
26 years & above	29	37.7

Source: *Primary data*

3.4 DATA CLEANING AND SCREENING

Three hundred and eight (308) and seventy-seven (77) responses were received from employees and managers respectively. An initial examination of the responses found no incomplete responses but a few missing data as such no responses were excluded from the analysis. Data entry errors were avoided by using SPSS's feature that defines acceptable value and labels for each variable.

3.4.1 Missing data

Missing data is when valid values on one or more variables are not available for analysis (Hair et al. 2010). A number of missing data identification and remedying steps have been suggested (Hair et al. 2010). Firstly, it is important to identify the type of missing data in the data set i.e. is it ignorable or cannot be ignored. Secondly, consider overall extent of missing data which is determined by calculating the number of cases (questionnaires) with missing data for each variable (item) and the number of variables (items) missing in each case (questionnaire).

According to Hair et al. (2006) when a variable has more than 15% of missing data; the variable is not reliable so it must be deleted. Analysis of missing data in this study reveals that missing data ranges from zero percent to 8% for employees (Table3.4) and zero percent to 5% for Managers (Table 3.5) which is less than 15% consequently none of the 50 and 38 variables respectively was deleted.

Table 3. 4: Summary of Missing values for each variable (item): Employees

Variables	Missing value count	Missing value %	Variables	Missing value count	Missing value %
EBS1	1	2	EPA6	0	0
EBS2	0	0	EPA7	1	2
EBS3	1	2	EPA8	4	8
EBS4	0	0	EPA9	1	2
EBS5	0	0	ECOM1	0	0
EBS6	1	2	ECOM2	0	0
EBS7	0	0	ECOM3	1	2
EBS8	0	0	ECOM4	0	0
ERS1	0	0	ECOM5	2	4
ERS2	0	0	ECOM6	0	0
ERS3	0	0	ECOM7	0	0
ERS4	0	0	ECOM8	1	2
ERS5	0	0	EEA1	0	0
ERS6	0	0	EEA2	1	2
ERS7	1	2	EEA3	0	0
ETD1	0	0	EEA4	0	0
ETD2	0	0	EEA5	0	0
ETD3	0	0	EEB1	0	0

ETD4	0	0	EEB2	0	0
ETD5	1	2	EEB3	0	0
EPA1	2	4	EOP1	1	2
EPA2	0	0	EOP2	0	0
EPA3	0	0	EOP3	0	0
EPA4	0	0	EOP4	0	0
EPA5	0	0	EOP5	0	0
Total number of cases	50		**Total number of cases**	50	

Table 3. 5: Summary of Missing values for each variable (item): Managers

Variables	**Missing value count**	**Missing value %**	**Variables**	**Missing value count**	**Missing value %**
BS1	0	0	PA3	0	0
BS2	0	0	PA4	0	0
BS3	0	0	COM1	1	3
BS4	0	0	COM2	0	0
BS5	1	3	COM3	0	0
BS6	0	0	COM4	1	3
BS7	0	0	COM5	0	0
BS8	0	0	EA1	0	0
RS1	0	0	EA2	0	0
RS2	0	0	EA3	0	0
RS3	0	0	EA4	1	3
RS4	0	0	EB1	0	0

RS5	0	0	EB2	0	0
TD1	0	0	EB3	1	3
TD2	0	0	OP1	0	0
TD3	2	5	OP2	0	0
TD4	0	0	OP3	0	0
TD5	0	0	OP4	0	0
PA1	0	0	OP5	0	0
PA2	0	0			
Total number of cases	38		**Total number of cases**	38	

Hair et al. (2006) further suggests that missing variables for an individual case that are under 10% of the total variables; the case should not be ignored, but be included in the analysis. In the current study, missing variables by cases ranged from 0.3% to 1.0 % for employees (see Table 3.6) and 0% to 3% for managers (see Table 3.7) which is way below 10%, as such none of the 308 and 77 cases respectively was deleted.

Table 3. 6: Summary of missing values by case (questionnaire): Employees

Case Ref. No	Number of missing values	Missing values %	Case Ref. No	Number of missing values	Missing values %
171	1	0.3	270	2	1.0
130	1	0.3	266	1	0.3
104	1	0.3	272	2	1.0
275	1	0.3	128	1	0.3
129	1	0.3	287	1	0.3
275	4	1.0	225	1	0.3
270	1	0.3	130	1	0.3

274	1	0.3	271	1	0.3
120	1	0.3			
Total variables	308		**Total variables**	308	

Table 3. 7: Summary of Missing values by case (questionnaire): Managers

Case Ref. No	Number of missing values	Missing values %
4	1	1.0
26	1	1.0
33	1	1.0
39	1	1.0
45	1	1.0
54	2	3
58	1	1.0
66	1	1.0
68	1	1.0
Total number of cases	77	

In each of the cases above, a middle value of the 5-point Likert scales of 3 was used in all the missing data.

3.5 DATA ANALYSIS

Before proceeding to analyse the data; basic data management techniques as suggested by Hair et al. (2010) were done. These include; data cleaning and screening; analysing and managing missing values; resolving common method bias and detecting multivariate outliers.

3.5.1 Testing Common bias

According to Podsakoff et al. (2003) common bias refers to a variance that occurs due to a measurement method and not due to the constructs that the measures represent. It is also called common method variance (CMV). This would include examples like data collected from the

same respondent for variables (single report) or data collected at one point of time (one time survey). If this bias exists, it may cause measurement error that negatively affects the validity of the conclusions (Podsakoff et al. 2003).

Testing and diagnosis of common bias method uses different methods with Harman's single factor test as the most common (Podsakoff et al. 2003). This method requires loading all measurement items into the factor analysis; then examine the unrotated factor solution due to an exploratory factor analysis to determine the number of factors responsible for the variance in the measurement items. According to Harman's single factor analysis, common method bias occurs only when either one factor accounts for the majority of the covariance (+50%) between the measures or when one factor emerges from the factor analysis (Podsakoff et al. 2003).

In this study; using the unrotated principal component analysis, presence of 10 factors with an eigenvalue of greater than 1 is revealed. This accounts for about 77 % of the variances in the measures. It is also important to note that the first and greatest factor accounts for only 23 % of the variances in the measures that is less than 50% which is required to indicate common method bias. This indicates that one factor did not account for a larger proportion of the variance in the measures and neither did a single factor emerge to represent the variance among all measurement items. This indicates that common method bias due to data collection method is not a concern in the current study.

3.7 STATISTICAL ANALYSIS

3.6.1 Item Analysis

Four factors affect how data is analysed (De Vaus, 2002). Firstly, the number of variables being analysed determines whether a multivariate (three or more variables) bivariate (two variables) or univariate (single variable) will be used. This study investigated the reversed causality of organisational performance and employee behaviour using the HRM practices and organisational performance model. Two variables are involved here firstly, HRM practices and organisational performance and then organisational performance and employee behaviour in the reverse causality. In this regard, bivariate statistics were used. Descriptive statistics of key variables were initially obtained before running the bivariate statistics.

Within the categories mentioned above (univariate, bivariate, multivariate), it is important to decide which analytical technique to use. To do this; it is important to know the level of measurement of the variables. The level of measurement includes: interval, nominal and ordinal (Sapsford, 2006). This study used ordinal level variables which do not require sophisticated analytical techniques.

Thirdly ethics affect how data is analysed. The ethical principles of full, fair, appropriate and challenging analysis were applied (Pallant, 2013). In view of the possibility of the results being falsified and distorted, a number of recommendations are made to curb this. These include reporting negative results and modifying theory instead of selectively reporting positive results or indeed results that support a hypothesis (De Vaus, 2002). The other recommendation is use of appropriate statistical techniques which include use of multivariate analysis to rigorously test scales and evaluate the reliability of scales indicating how free the scale is from random error. This can be illustrated by using the most common method, of an internal consistency score (Pallant, 2013)

The degree to which the items of a scale measure the same underlying attribute is referred to as internal consistency. When the items are highly correlated, the scale has high internal consistency and results in Cronbach's alphas of greater than .70 (Nunnally, 1978). The 50 and 38 items constituting the questionnaires were subjected to item analysis to determine their internal consistency (see section 4.). The results of the item analysis are presented in Chapter 4.

Item analysis aims at determining whether a measurement is reliable or not (Pallant, 2013). Further, it identifies poor items in these scales that do not represent the specific latent variable. These items are unable to differentiate between various states of the latent variable they are meant to explain. These items are considered for deletion (Theron, Spangenberg & Henning, 2004). Nunnally (1978) argues that a measurement is reliable only if it provides the same result, regardless of any opportunities for variation that might occur.

In order to determine the reliability of the scales; coefficient alphas were calculated based on internal consistency. Reliability coefficient size is based on both the average correlation among items (internal consistency) and the number of items in a scale (Nunnally, 1978). All items were subjected to item analysis using SPSS reliability procedure (Version 24) in order to identify and delete poor items. Furthermore; item total correlations were also calculated to ensure internal consistency of the measuring instruments. Item-total correlations of >0.20 were regarded as satisfactory while those <0.20 were suitable for deletion (Nunnally, 1978)

The choice of statistics is determined by the purpose of the analysis. If the study is concerned about summarising patterns of responses to cases in a sample, then descriptive statistics should be used. If the study aims at exploring the relationship among variables, then a number of techniques can be used (Pallant, 2013).

To analyse the relationship between HRM practices and organisational performance, scholars have widely used statistical procedures like factor analysis and regression analysis (McDuffie, 1995; Huselid, 1995; Delaney & Huselid, 1996; Katuo, 2012; Guthrie, 2001; Zheng et al. 2006). This study, adopted the use of descriptive statistics; correlation and regression analysis as performed in SEM. Competing regression analysis was performed separately in order to test mediation.

3.7.2 Exploratory Factor Analysis

Exploratory factor Analysis (EFA) determines if each scale contributes to internally consistent description of the measuring model (Pallant, 2013). It is further used for reducing the number of related variables to a manageable size before using them for further analysis like multiple regressions (Pallant, 2013). It is used for exploring the relationships between a set of interrelated variables that can be represented in terms of a few underlying factors. Uncorrelated factors can also be extracted which can further be used as inputs for regression analysis, because this technique requires an independent variable to be uncorrelated to avoid the possibility of multicollinearity occurrence (Bryman & Bell, 2016).

EFA was performed to investigate the uni-dimensionality of the scales and sub scales. Items contributing to the lack of coherency were detected. The unidimensionality of each scale and sub

scale was confirmed and inadequate factor loadings were removed (Theron et al. 2004). SPSS (version 24) was used to test unidimensionality. The study used Principal Axis Factoring analysis as an extraction technique (Pallant, 2013) and the extracted solution was then subjected to Oblimim rotation with Kaiser Normalisation. After determining the number of significant factors; factor loadings on the rotated matrix were investigated. Poor items were identified and subjected to elimination based on the EFA decision criteria. According to Tabachnick and Fidell, (2001) a factor loading is considered acceptable if it is >0.30.

The purpose of this study is to investigate the reverse causality of organisational performance and employee behaviour using the HRM and performance linkage model. It is not certain whether there are correlations among the variables (independent variables) in the model. Factor analysis is able to reduce these variables to few underlying factors, which can be used to explain changes in the other variables (dependent variables), hence it was used in this study.

Factor analysis involves principal component analysis (PCA) and principal factor analysis (PFA) as analytical techniques. According to Pallant (2011.182), *"both attempt to produce a smaller number of linear combinations of the original variables in a way that captures most of the variability in the pattern of correlations"*

In principal component analysis, original variables are transformed into a smaller set of linear combinations with all of the variance in the variables being used. In the principal factor analysis, factors are estimated using a mathematical model where only the shared variance is analysed (Tabachnick & Fidell, 2007). Tabachnick and Fidell (2007) argue that PCA is a better option if researchers want an empirical summary of the data set. On the other hand, PFA is suitable for a theoretical solution that is not contaminated by unique and error variability. This study found PCA as the suitable factor analysis because it is the most commonly used (Bro et al. 2014) and adopted in previous research (Zheng et al. 2006; Eckardt, Skaggs' & Youndt, 2014; Huselid, 1995). In the current study, factor analysis standard procedure of three steps was followed (Julie, 2006; Pallant, 2013).

3.7.2.1 Assessing the suitability of the data

Data suitability for factor analysis must consider two factors which are the sample size and the strength of the relationships between variables (Pallant, 2013). Tabachnick and Fidell () suggest that a sample size of 150 cases should be enough when factor solutions have high loadings, and also results in strong and few distinctive factors. Nunnally (1978) in trying to justify the sample size proposes a ratio of participants to items of 10:1 i.e. 10 cases for each item to be factor analysed. In this regard, factor analysis is suitable for this study because the data set of 308 for employees' cases is more than 150 (Tabachnick & Fidell, 2007; Pallant, 2013). The data set was also well above the ratios recommended by Nunnally (1978). However; the sample size for managers (77) was way below 150 or indeed meeting the ratio of 10:1 as such no factor analysis was conducted on managers

With regard to the intercorrelations among the items; Tabachnick and Fidell (2007) argue that factor analysis tends to be appropriate if most of the coefficients in the correlation matrix are greater than 0.3. Two other statistical measures are used to evaluate the factorability of data (Pallant, 2013). These are Kaiser-Meyer-Olkin (KMO) which is a measure of sampling adequacy (Kaiser, 1970) and Bartlett's test of sphericity (Bartlett, 1954). Where KMO is greater than 0.6 and the Bartlett's test of sphericity is significant at P>.05 the factor analysis is suitable (Tabachnick & Fidell, 2007).

3.7.2.2 The number of factors to retain

The number of underlying factors to retain is very crucial in factor analysis. The criteria for determining the factors to retain include (1) eigenvalues larger than 1, (2) Scree plot and (3) statistical significance of the separate eigenvalues (Pallant, 2013; Field, 2009).

Kaiser's criterion, also called eigenvalues rule (Kaiser, 1970) recommends retaining all factors with eigenvalues of greater than 1. On this basis, only factors with eigenvalues of 1.0 and above are retained for further investigation in this study. It is argued that eigenvalues represent the total variance amount as explained by that factor (Field, 2009). Field further argues that eigenvalues of greater than 1 stand for a substantial amount of variance. Malhotra et al. (1996) recommend

that extracted factors must account for at least 60% of the variance. This criterion guided this study in retaining the number of factors for each construct.

The above approach of determining the number of factors to retain may not always represent a meaningful factor (Field, 2009), hence use of Catell's Scree test. Catell (1966) suggests that a Scree plot be drawn for each eigenvalue against the number of factors it is associated with. The point of inflexion of the curve determines the cut-off point for retaining factors because these factors contribute the most towards explaining the variance of the data (Pallant, 2013). This study applied Scree plot to determine the number of factors to retain as support to the decision criteria of Kaiser (1970) of eigenvalues of greater than 1.

Horn's parallel analysis is another method used in past research (Choi et al. 2001; Horn, 1995). It involves comparison of the size of eigenvalues with those obtained from randomly generated data set from the same sample size. According to Pallant (2013) eigenvalues that exceed the randomly generated data set are retained. It is however regarded as the least reliable in determining the number of factors to retain because it is forced by sample size. In this regard, this method was not used in determining the factors to retain in the current study.

3.7.2.3 Factor rotation and interpretation

After determining the number of factors to retain; the next step is to try to interpret them. In order to do this; the factors are rotated (Pallant, 2013). Rotation involves rotating the axis within the multidimensional space as was the case with factor analysis. Rotation helps to reduce the number of variables that have a high loading on a factor which in turn improves the interpretability of the factor.

Two methods of orthogonal and oblique rotation were used (Pallant, 2013). The varimax rotation commonly uses orthogonal rotation method which minimises the number of variables with a high loading on each factor (Pallant, 2013) thereby create uncorrelated factors. To the contrary, the Direct Oblimim is commonly used in oblique technique and results in correlated factors. If the factors are to be used in subsequent regression analysis, this one is not recommended. Since the current study used Structural Equation model where no separate regression analysis is done;

direct Oblimim rotation commonly used in oblique rotation was used because of its nonsuitability for subsequent regression analysis.

3.7.3 Confirmatory Factor Analysis

It is a technique by which hypotheses or theories about the structure underlying a set of variables are tested (Pallant, 2013). In this study; LISREL 8.80 (Jöreskog & Sörbom, 2006) was used to perform separate confirmatory factor analyses (CFAs) on the inner and outer models. The results of CFA are discussed per model in terms of important fit indices (see Chapter 4).

The index of Root Mean Square Error of Approximation (RMSEA) was observed as an initial test of model fit and an acceptable model fit (RMESA, 0.08) was obtained (See Table 4.33).

If a poor model fit was obtained (RMSEA.0.08), modification indices of THETA-DELTA were investigated to determine the possibility of increasing the model fit. Modification indices addresses the question of whether fixed parameters when freed, would significantly improve the parsimonious fit of the model. MI indicates the extent to which the chi-square fit statistic would decrease when a currently fixed parameter is freed and the model is re-examined (Jöreskog & Sörbom, 1993). Modification indices of >6.6349 at significance level of 0.01 shows parameters that, when set free, the model fit would significantly improve ($p < 0.01$) (Diamantopoulos & Siguaw, 2000; Jöreskog & Sörbom, 1993).

In the current study, acceptable initial fit was found (RMSEA, 0.08). Consequently, each item was evaluated in terms of its completely standardised factor loadings (LAMBDA-X). Significant item loading should have a value of >0.50 (Diamantopoulos & Siguaw, 2000), however this study, factor loadings of >0.60 were regarded as acceptable as the basis for indicating that the item successfully contributed to the coherency of the scale

3.7.4 The Structural Equation Model

Structural equation Model is a family of a statistical model which explains the relationship among variables (Hair et al. 2010). It is composed of two distinct statistical methods called path analysis and measurement model (Kaplan, 2008). Structural Equation Modelling (SEM) was used in this study. It is also referred to as covariance structure analysis or covariance of structure

modelling (Kline, 2011). It is a confirmatory technique performed by means of a computer program, called LISREL 8.80 Kelloway (1998).

Path analysis tests complex relationships between different variables while measurement model focuses on factor analysis, which is mainly concerned with defining the structural loadings of different observed variables on latent variables (Hair et al., 2010; Salkind, 2010). However, both methods fail to account for latent variables in the analysis and therefore increase the chances of having measurement error. It is for this reason that SEM is recommended as it combines both path and factor analysis to deal with measurement error. This helps to obtain improved parameter estimates both in terms of bias and sampling variability (Kaplan, 2008).

SEM comprises five stages:

1. Model specification
2. Identification
3. Estimation
4. Testing fit
5. Re-specification

Completely standardised solutions or standardised residuals can be used for model modification. This study used the standardised solution because it helped to covariate the observed variables against its corresponding latent variables unlike with residuals where observed variables are linked with other latent variables as such they cannot covariate but they have to be deleted. Deleting would not help to improve the model.

3.7.4.1 Justification for using SEM

Structural Equation Models can also use LISREL programm. SEM was chosen to be used in the current study because:

- SEM is very flexible. It does not only deal with single simple or multiple linear regressions; but with a system of regression equations. (Nachtigall et al. 2003).
- SEM includes a technique of path diagrams and calculation of direct, indirect and total effects from the methodology of path analysis. It further deals with latent

variables i.e. non-observable quantities or observed variables. Latent and observed variables are connected in a measurement model (Edward & Bagozzi, 2000)

- SEM is able to compare the model the empirical data leading to fit-statistics.
- Regression coefficients are not predetermined by the user but estimated and tested with SEM programme.
- SEM allows for conducting and combining a vast variety of statistical procedures like multiple regression, factor analysis, (M)ANOVA, and many more others.

3.7.5 The Measurement Model (Outer Model)

To test the research hypothesis a measurement was developed including 5 latent variables and 12 observed variables. A measurement can only be established when the variables have been defined and the relationship between the latent and observed variables specified (Hair et al. 2010). Several steps were followed to establish the measurement as identified by Hair et al. (2010:969) in Figure 3.1

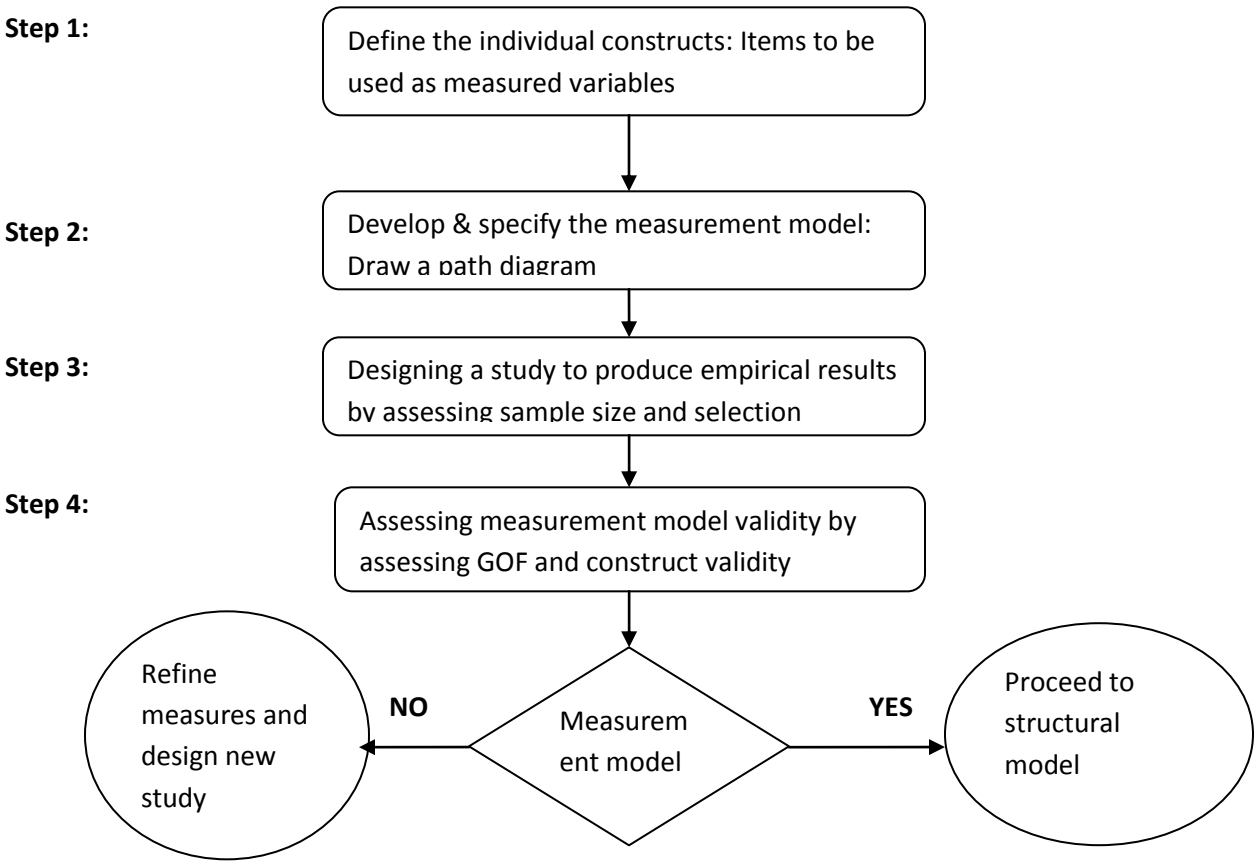


Figure 3. 1:Four Stage process for developing a Measurement Model

3.7.6 The Structural Model (Inner Model)

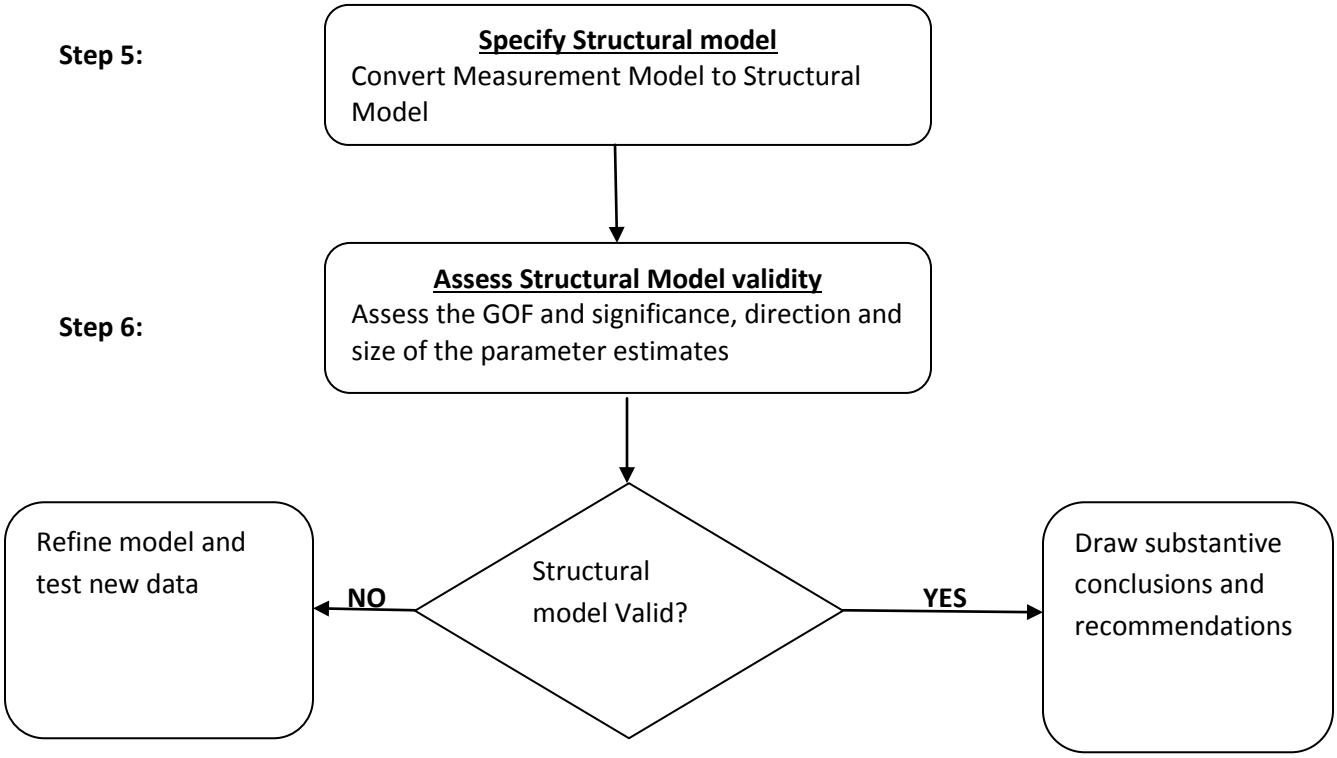
According to Jöreskog and Sörbom, (1996, p.1) a structural model "specifies the causal relationships among the latent variables, describes the causal effects and assigns the explained and unexplained variance". It has a set of linear structural equations.

According to Hair et al. (2010), structural models differ from measurement models because emphasis moves from looking at the relationship between latent and observed variables to looking at the nature and magnitude of relationships between constructs. The exogenous and endogenous constructs to be included in the path analysis were carefully determined. This helped in building the structural model (Hair et al. 2010) and largely depended on the theoretical and hypothesised relationships. The study used the recursive type of structural model because of its use of cross-sectional design which has a unidirectional effect (Kline, 2011).

Two options are available when designing the structural model. These are to treat factor loadings and error variances of the measurement model as fixed parameters thereby not allowing them to be freely estimated again when conducting the structural modelling part of SEM (Kline, 2011; Aladwan, 2012; O'Rourke et al. 2013). The justification for this is that the factor loadings estimated in the measurement model validation phase are already known at this stage and should not be subjected to further validation in the structural model (Kline, 2011, Ramudu, 2013). This permits easier estimations of the structural model. The second option is to freely estimate the factor loadings and error covariance of the measurement model again in the structural model (Kline, 2011; Aladwan 2012). It is argued that freely estimating the model again may reveal changes in model fit between measurement and structural models due to the measurement model errors (Hair et al. 2010).

This study employed the second option as the more appropriate because it allowed the researcher to compare and assess the closeness of fit of the structural model against the measurement model. The structural model was therefore assessed and validated in terms of model fit, magnitude of variance explained (R^2) and the direction and significance of the different structural paths.

Figure 4.3 illustrates the structural model based on the theoretical arguments presented in Chapter 2. Organisational performance is presented as the dependent or endogenous variable in the study and is indicated by the symbol ORGPERF. Human Resource Management practices are the independent or exogenous variables indicated by the symbol HRPRACT. Various paths between the variables are presented. They represent the relationships between different constructs. In order to test and validate the structural model, Hair et al. (2010) proposed a two-step process, as shown in Figure 3.2



Source: Hair et al. (2010, p629)

Figure 3. 2: Two Stage Process for Developing a Structural Model

3.7.7 The Research Hypotheses

In order to address the research questions for this study, 7 hypotheses were formulated to examine the relationships between HRM practices, employee attitudes, employee behaviour and organisational performance. The aim of this study coupled with findings of previous studies; believe that the proposed relationships between the constructs in the model do exist. The hypotheses and their associated research questions are listed below:

Hypothesis 1

There is positive relationship between business strategy and human resource management practices

Research Question

What is the relationship between business strategy and human resource management practices?

Hypothesis 2

There is a positive relationship between human resource practices and employee attitudes

Research Question

What is the relationship between human resource management practices and employee attitudes?

Hypothesis 3

There is a negative relationship between employee attitudes and employee behaviours

Research Question

What is the relationship between employee attitudes and employee behaviour?

Hypothesis 4

There is a negative relationship between employee behaviours and organisational performance.

Research Question

What is the relationship between employee behaviour and organisational performance?

Hypothesis 5

There is a positive relationship between human resource practices and organisational performance

Research Question

What is the relationship between human resource practices and organisation performance without the mediating effect of employee attitudes and employee behaviour?

Hypothesis 6

There is a negative relationship between organisational performance and employee behaviour

Research Question

Does organisational performance motivate employee behaviour in the Malawi agricultural manufacturing sector?

Is the relationship stronger in the forward causality or reverse causality?

Hypothesis 7

7-a. Controls (firm age, size & union intensity) influence HRM practices.

7-b. Controls (firm age, size & union intensity) influence organisational performance.

3.8. ASSESSING MODEL FIT

Structural Equation Modelling is often used to assess model fit. A wide range of goodness-of-fit statistics has been developed to assess a model's overall fit. Goodness-of-fit indices are means for assessing absolute and comparative fit (Kelloway, 1998). Goodness-of-fit analyses were conducted for both the measurement and structural models.

3.8.1 Absolute Fit

Absolute fit indices assess how well a model reproduces the sample data (Kline.2011). It is concerned with model-to-data matrix correspondence. Chi-square statistic is the first measure of absolute fit. It measures overall fit and provides a test of perfect fit. When a Chi-square is statistically significant; the model is rejected (Diamantopoulos & Siguaw, 2000).

3.8.2 Comparative Fit

Comparative fit presents the relative improvement in model fit as compared to the statistical base model. Comparative fit measures are the Normed-fit Index (NFI), the Non-Normed Fit Index (NNFI), the Incremental Fit Index (IFI), the Comparative Fit Index (CFI), the Relative Fit Index (RFI) and the Adjusted Goodness-of-fit Index (AGFI). All of these fit indices have a range of 0 to 1. Values closer to one, especially values > 0.90, represent good fit (Kelloway, 1998).

Table 3. 8: Criteria of goodness-of-fit indices

Absolute fit measures	
Minimum fit function Chi-Square	A non-significant result indicates model fit.
χ^2/df	Values between 2 and 5 indicate good fit.
Root Mean Square Error of Approx (RMSEA)	Values of 0.08 or below indicates acceptable fit, those below 0.05 indicate good fit, and values below 0.01 indicate outstanding fit.
P-Value for Test of Close Fit (RMSEA <0.05)	Values > 0.05 indicate good fit.
90% Confidence Interval for RMSEA	This is a 90% confidence interval of RMSEA testing the closeness of fit, i.e., testing the hypothesis H_0: RMSEA < 0.05).
Root Mean Square Residual (RMR)	Lower values indicate better fit with values below 0.08 indicative of good fit.
Standardised RMR	Lower values indicate better fit, with values less than 0.05 indicating good fit.
Goodness of Fit Index (GFI)	Values closer to 1 and > 0.90 represent good fit.
Incremental fit measures	
Normed Fit Index (NFI)	Values closer to 1 indicate better fit, with values > 0.09 indicative of good fit.
Non-Normed Fit Index (NNFI)	Higher values indicate better fit, with values > 0.90 being indicative of good fit.
Adjusted Goodness of Fit (AGFI)	Values closer to 1 indicate better fit, with values > 0.90 being indicative of good fit.
Comparative Fit Index (CFI)	Values closer to 1 indicate better fit, with values > 0.90 being indicative of good fit.
Incremental Fit Index (IFI)	Values closer to 1 indicate better fit, with values > 0.90 being indicative of good fit.
Relative Fit Index (RFI)	Values closer to 1 indicate better fit, with values > 0.09 being indicative of good fit.

(Diamantopoulos & Siguaw, 2000; Kelloway, 1998)

3.8.3. Hierarchical Multiple Regression

Hierarchical multiple regression was used to test the ability of organizational age, size and union intensity to predict Human Resource Management Practices on one hand and organisational performance on the other. Hierarchical multiple regression was preferred because of its ability to assess one independent variable or a block of independent variables added to the prediction of the independent variable while controlling for the previous variables.

Before conducting a hierarchical multiple regressions, statistical analysis assumptions were tested. A sample size of 308 was deemed sufficient given three independent variables that were to be included in the analysis (Tabachnick & Fidell, 2001). Also, the assumption of singularity was met since the independent variables were not a combination of other independent variables. A two-stage hierarchical multiple regression was conducted where organisational age and size were entered at stage one of the regression to control for union intensity. Union intensity was entered at stage two. The relationship variables were entered in this order because it appears chronologically appropriate that unionism would only be considered after organisational age and size are considerably higher.

3.8.4 Reliability

The measurement model was assessed for reliability and validity (Henseler et al. 2009). The first criterion was to check internal consistency reliability using the traditional criterion of Cronbach's Alpha (Cronbach, 1951). Cronbach's Alpha provides an estimate of reliability based on the indicator inter-correlations and assumes that all indicators are equally reliable. Since Cronbach's Alpha tends to provide a severe underestimation of the internal consistency reliability of latent variables; a different measure of composite reliability was used (Moonen-Van Loon et al.2013; Lareau, 2017). An internal reliability value of above 0.70 and values between 0.80 and 0.90 are considered satisfactory in the early stages of research and in more advanced research stages respectively (Nunnally & Bernstein, 1994).

3.8.5 Validity

Convergent validity shows whether a set of indicators represent the same underlying construct. This representation is demonstrated by test for unidimensionality. Average variance extracted (AVE) is used as a criterion for convergent validity (Fornell & Larcker, 1981). AVE values of

0.50 represent sufficient convergent validity. This means that the construct explains more than half of the variance of its indicators on average (Götz, Liehr-Gobbers & Krafft, 2009).

3.9 RESERACH ETHICS

Consent to conduct the survey was obtained from the firms to be surveyed. The consent letters were submitted along with the application for ethics (non medical) clearance. Ethics is important in conducting research. This study abode by the guidelines set by the University of Witwatersrand Ethics Committee in conducting research. This research obtained ethics clearance approval (approved research protocol) from the Wits Non-Medical Ethics Committee (Appendix 3.3). The approved copy of the managers and employees survey questionnaires are included (Appendix 1.1 and 1.2) Based on ethics guidelines, participation was voluntary with guaranteed informed consent, anonymity and confidentiality (De Vaus, 2002).

During data collection, respondents were told that their participation was entirely voluntary despite the researcher being granted consent by management of each organisation surveyed. The respondents were assured that the study would not collect identifying information about them e.g. their names, address, email address or phone numbers. Similarly, the research would not link individual responses with participants' identities. Furthermore, their identity and that of the organisation was treated with utmost confidentiality. The respondents were assured that every effort would be made to ensure that the data they provide cannot be traced back to them in the report, presentations and other forms of dissemination.

The study was approved by the University of the Witwatersrand non-Medical Ethics committee (Protocol Number:H15/09.25) to be conducted in agricultural manufacturing firms in Malawi during the period 18th September 2015 to 1st November, 2018. (See appendix 3.1).

3.10 CHAPTER SUMMARY

The chapter has stated the hypotheses for the study and the research methodology to test the hypotheses. It has also provided an overview of the research design, sampling technique and the resultant measuring instruments and statistical analyses that were employed. The next is chapter four which presents results of the statistical analyses.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.0 INTRODUCTION

Results from factor analysis of business strategy, HRM practices, employee attitudes, employee behaviour and organisational performance are presented. Reliability and item analysis of each construct is presented. Furthermore, dimensionality, bivariate, regression, correlation analyses, measurements of structural models and relationship between latent variables is presented.

4.1 MISSING VALUES

Missing data is when valid values on one or more variables are not available for analysis (Hair et al. 2010). A number of missing data identification and remedying steps as suggested by Hair et al. (2010) and explained in Chapter three section 3.4.2 have been applied.

4.2 COMPARATIVE ANALYSIS OF RESPONDENTS PERCEPTIONS

This section presents managers and employees perceived responses on the variables investigated in the study.

4.2.1 Business Strategy

Figures 4.1 and 4.2 show how managers and employees responded to the questions pertaining to Business Strategy respectively. The scale has eight items. The managers found business strategy to be extremely important (77%) as a driver of organisational performance. In particular, both managers and employees felt having a wide variety of products (innovation strategy) as the most extremely important strategy (76% and 59% respectively). This was followed by the quality enhancement strategy (75% and 58% respectively). Improving existing products (innovation strategy) was also rated highly (72%). From the three generic strategies; this study revealed that managers feel innovation strategy was extremely important followed by quality strategy. However, they do not find cost leadership strategy that important (55%).

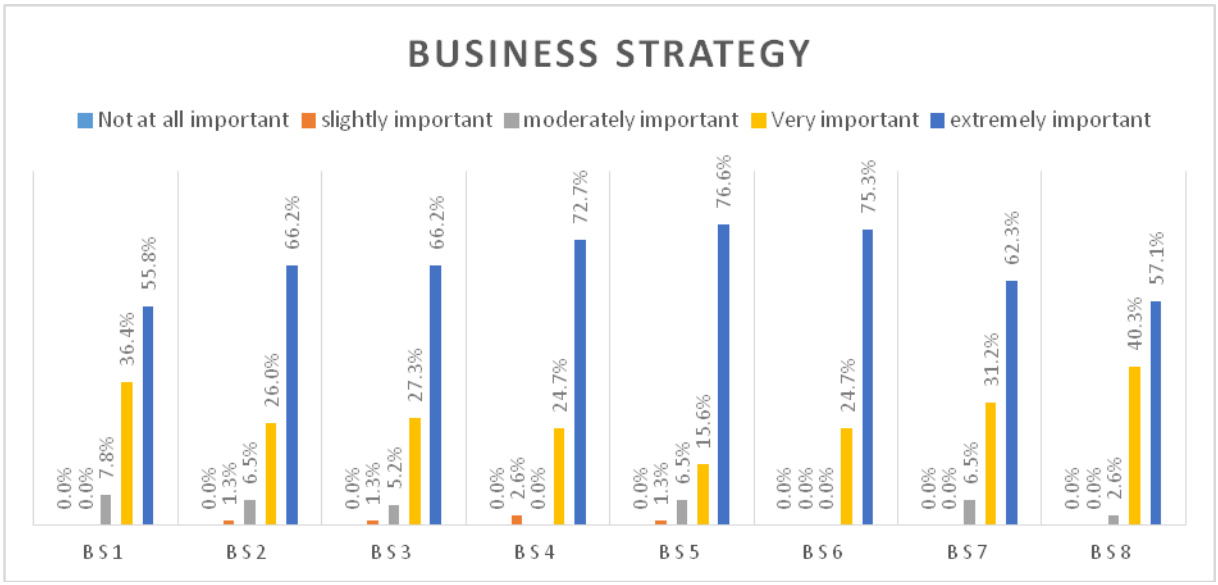


Figure 4 1: Business Strategy (Managers)

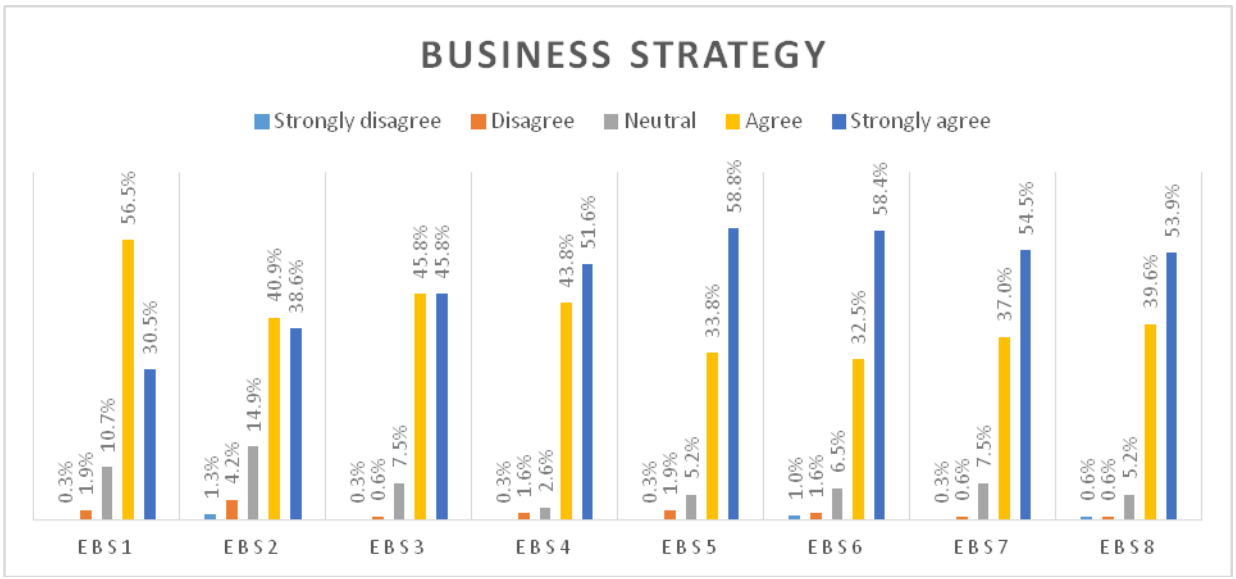


Figure 4 2: Business Strategy (Employees)

4.2.2 Recruitment and selection.

Figures 4.3 and 4.4 provide information on the views by managers and employees towards the recruitment and selection process employed by the organization.

The managers considered all aspects of recruitment and selection as very important, but only placement of the right person on the right job as extremely important (55%). About 62% of the managers consider the recruitment process to be very important. Recruitment process was seconded by filling posts with qualified individuals from the same organization which was reported as very important (61%) by managers. Employees strongly agreed (55%) that the selection process indeed selects those that have the required knowledge and skills in the organization. A significant proportion of the employees (53%) also strongly agreed that there was formal induction, orientation and familiarization process designed to help the new recruits understand the organization. Lastly, 59% of the employees strongly concurred that applicants undergo structured interviews before being hired.

In summary, the results indicated that managers considered recruitment and selection as a very important component, while employees viewed this as an extremely important component. This shows that employees highly consider the recruitment and selection procedures than the managers.

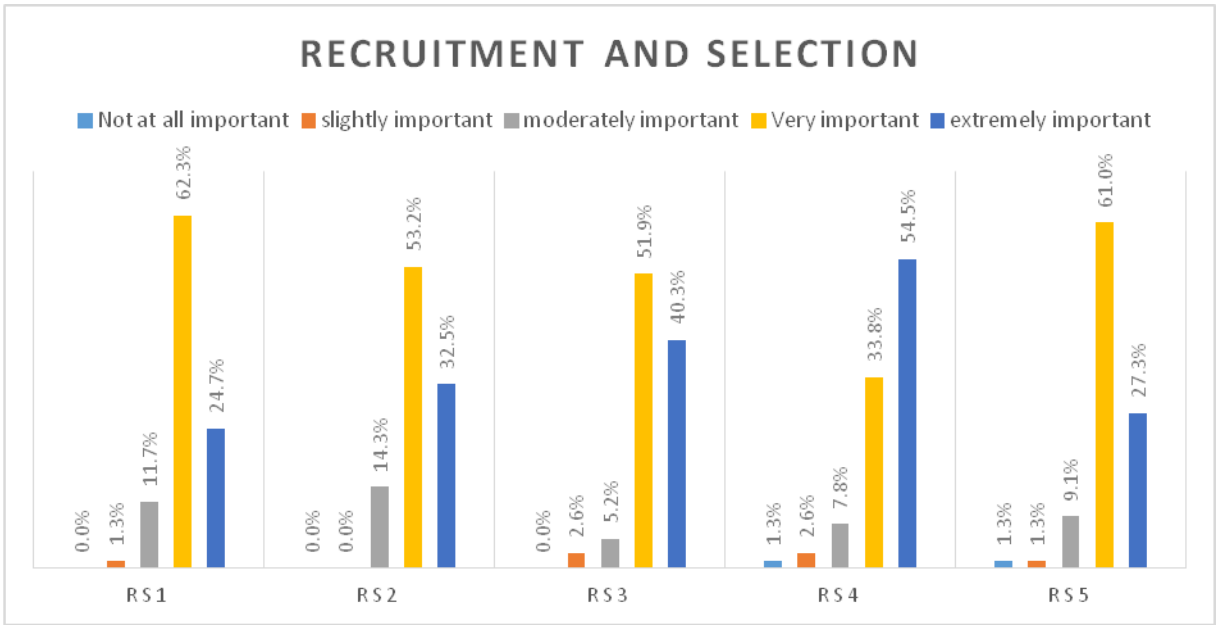


Figure 4 3: Recruitment & Selection (Managers)

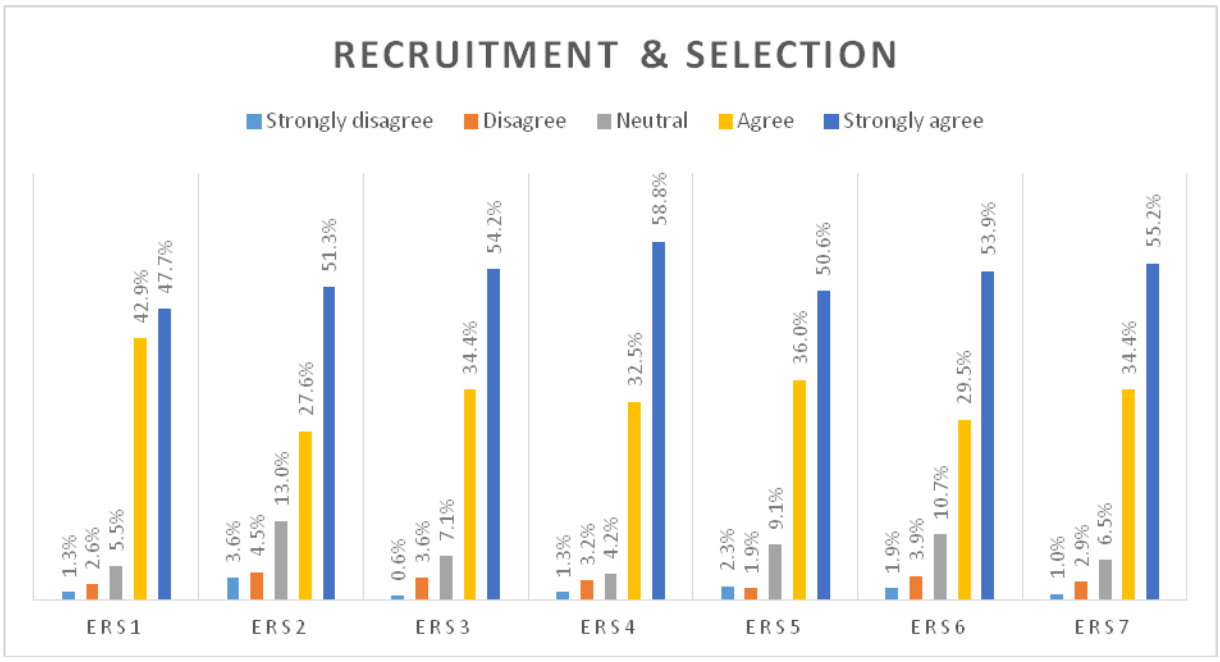


Figure 4 4: Recruitment & Selection (Employees)

4.2.3 Training and development.

Figures 4.5 and 4.6 provide an analysis of the perceptions of managers and employees on the effectiveness of training and development in the organization. Managers felt that both training and development programs for employees are equally extremely important (58%). Managers felt that identification of training needs amongst employees in the organization was also extremely important and effective (57%). However, managers indicated that the employee's competences are not quite extremely important.

A large proportion of employees strongly agreed (45%) that the training needs that are identified are realistic and based on the organization's business strategy (ETD4) as well as that the trainings (45%) improved the employees' decision-making skills (ETD5). It was also noted that 45% of employees strongly agreed that the organization provides training opportunities for learning and growth. About 49 % percent of the employees also agreed that the organization conducts extensive training for its employees. To sum up, Managers considered training and development as extremely important to the institution as all variables under Training and development were rated as extremely important and above half apart from employees' competences. As for the employees, they seemed to be satisfied with aspects of training and development in the institution.

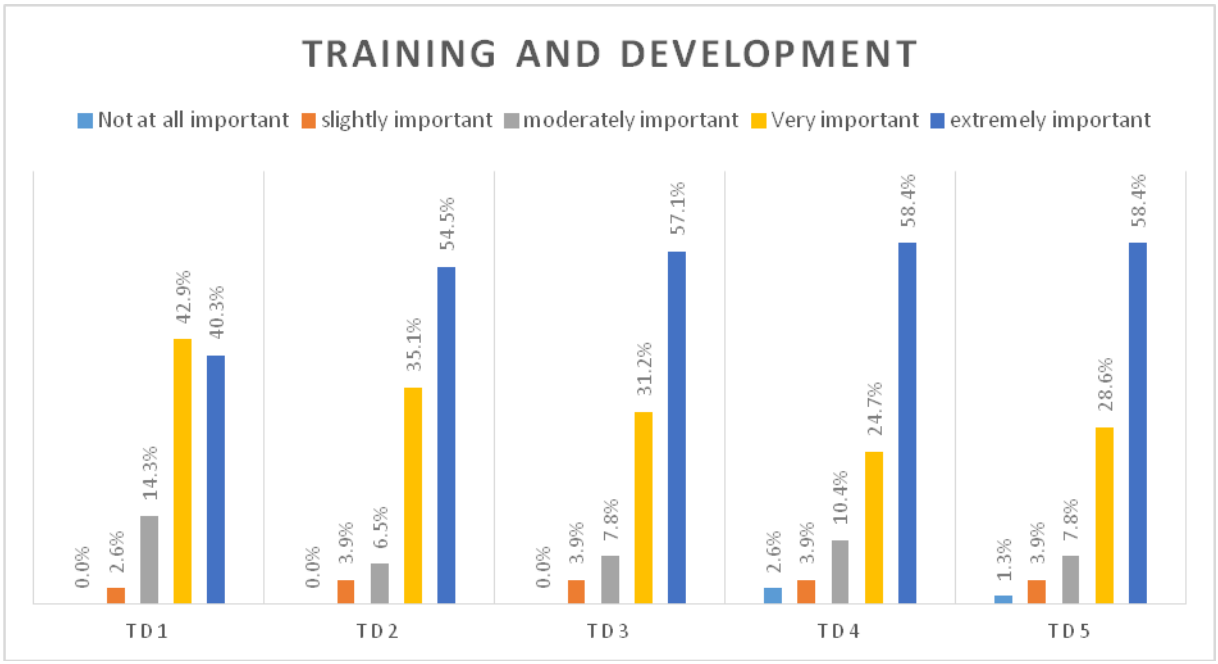


Figure 4 5: Training & Development (Managers)

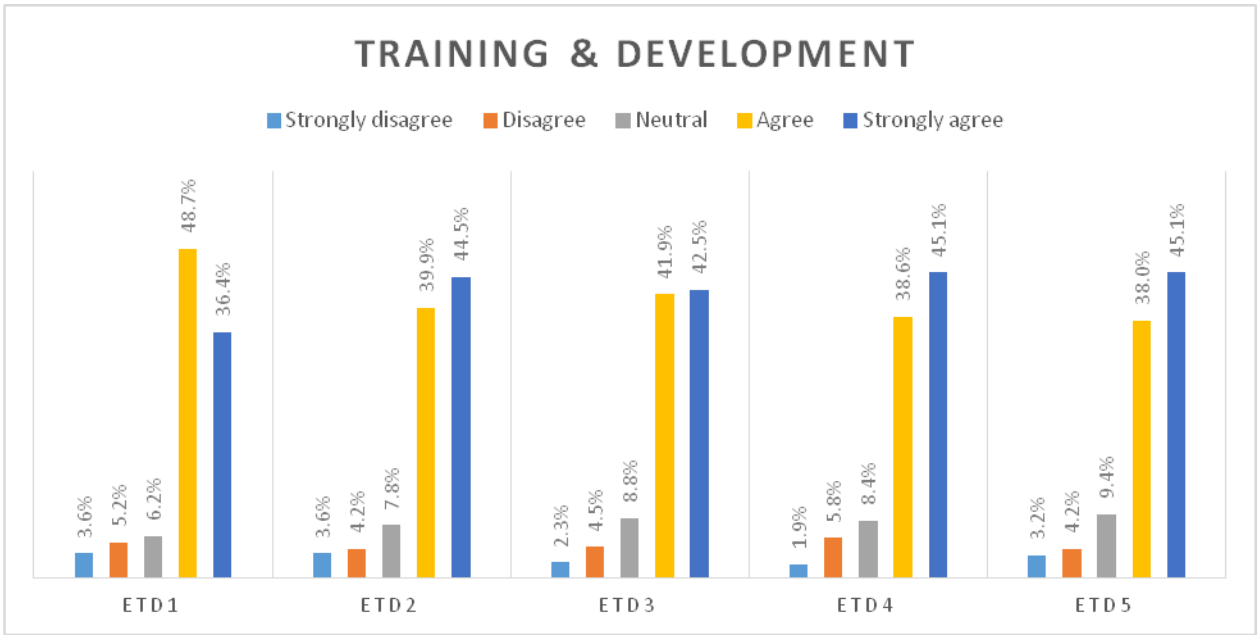


Figure 4 6: Training & Development (Employees)

4.2.4 Performance Appraisal.

Figures 4.7 and 4.8 provide results of the managers' and employees' opinions on the use of certain performance appraisal tools.

Managers felt that all performance appraisal tools and aspects are extremely important except for the use of performance appraisals (PA1) which was deemed very important (48 %). About 57% of the managers felt that upfront communication about the objectives of performance appraisal (PA4) was the most extremely important factor. However, only 42% of the employees strongly agreed that they clearly understood the objectives of performance appraisals. This means that despite managers' upfront communication about the objectives of performance appraisal; less than half of the employees still don't understand the objectives of appraisals. Managers rated use of performance data in decision making (PA3) at 51% and 41% by employees. Use of written performance appraisals was not extremely important to the managers (31%). Nonetheless, 47 % of the employees strongly agreed that there was a formal and written performance appraisal system.

Employees (46%) indicated that they receive feedback of their performance appraisal results. Employees (45%) also indicated that performance was based on objective quantifiable results and that the performance appraisal had a strong influence ((44%) on individual and team behaviour. Despite the employees not strongly agreeing that the performance appraisals were fair and unbiased, about 51% agreed that the appraisals were fair and unbiased. It can be concluded that both managers and employees considered performance appraisals as extremely important. However, less than half of the employees did not strongly agree with all the variables of performance appraisal in the organization.

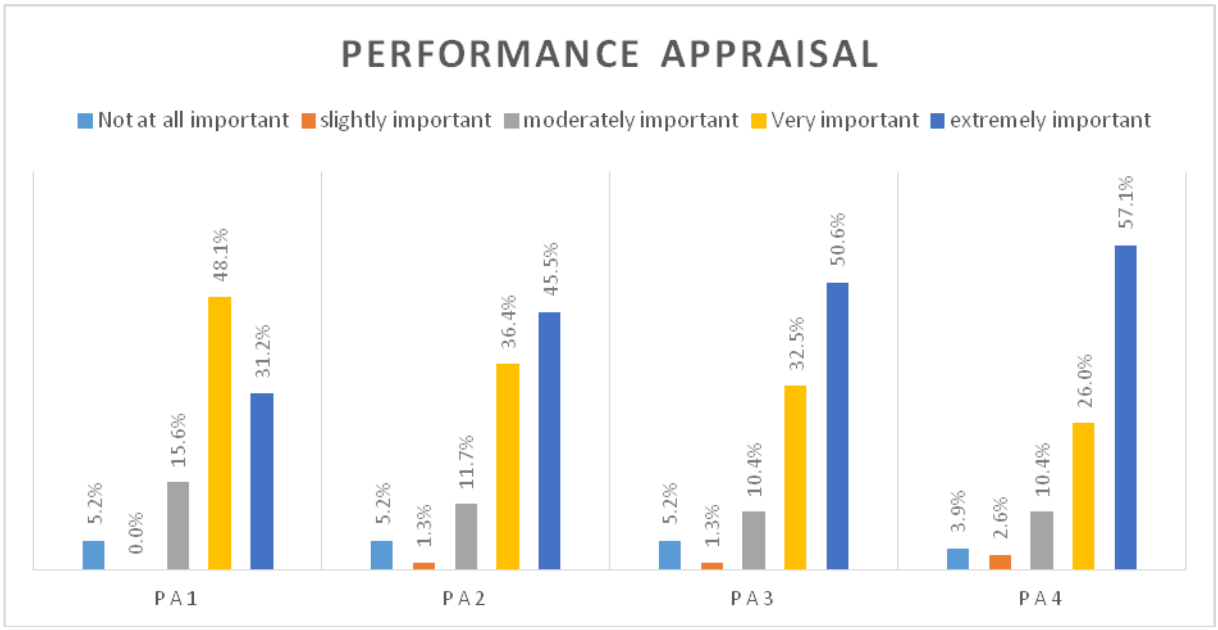


Figure 4 7: Performance appraisal (Managers)

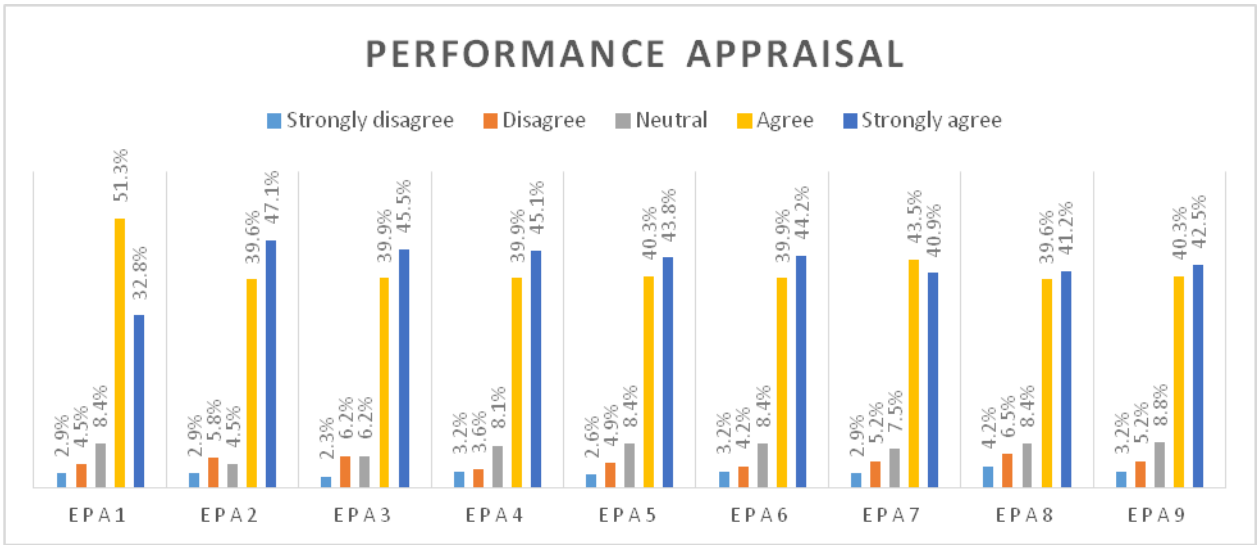


Figure 4 8: Performance appraisal (Employees)

4.2.5 Compensation.

Figure 4.9 provides results on the how managers use and value compensation. Figure 4.10 shows how employees felt about the rewards and compensation provided by the employers. From the managers' point of view, results showed that over half of the managers rated all the 5 aspects of compensation as extremely important. This is evidenced by all scores being over 50%. This means that managers in the agricultural manufacturing firms in Malawi consider compensation as important tool in the management of their human resources and organisational performance (Danlami et al. 2011).

Managers indicated that matching pay with performance system (COM3) was the most extremely important (69%). This was in line with the employees who strongly agreed (51%) that rewards are linked to performance (ECOM 7) and that compensation was based on employee competence and ability (51%), ECOM8). Use of industry wide benefits (66%) in the organization (COM4) was another important compensation factor. Use of incentives (COM 2) and regular pay revision (COM 5) were also rated highly (62 %). The use of rewards (COM1) was the least extremely important (51%) to the managers.

50% of the employees strongly agreed that the organization makes all payment due to the employees in time (ECOM 3). Employees also expressed satisfaction (50%) with the rewards that they receive from the organization (ECOM 4) despite rewards being the least extremely important to the managers. A significant proportion (49%) of the employees indicated that they were satisfied with the incentives that the institution provides (ECOM 6). Though 54 % agreed that they were adequately paid, the employees however did not strongly agree (27%) that the employees were paid adequately (ECOM 1) at 27 % indicating a feeling of underpayment. This shows how important pay and incentives are as motivators for employees as compared to managers.

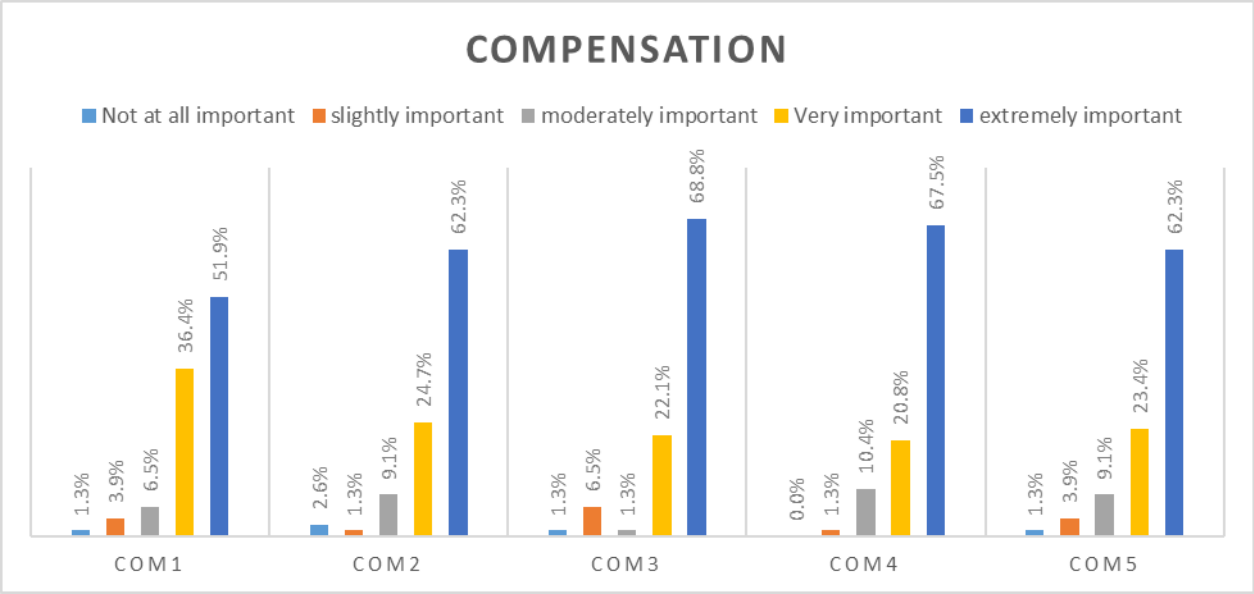


Figure 4 9: Compensation (Managers)

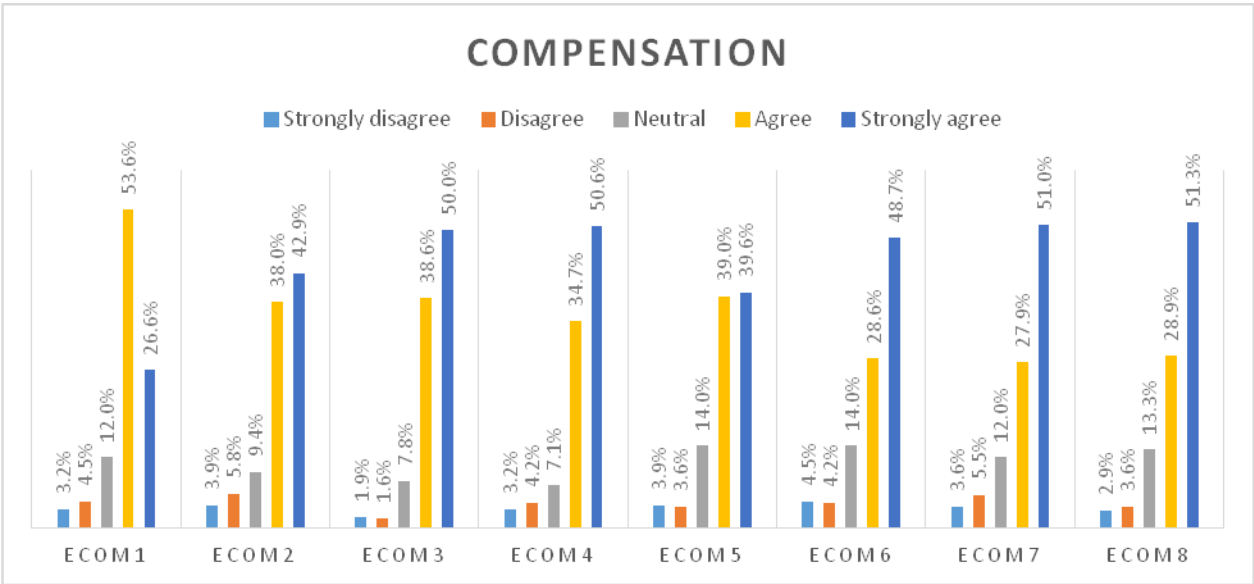


Figure 4 10: Compensation (Employees)

4.2.6 Employees Attitude.

Figures 4.11 and 4.12 give a summary of results on how managers and employees felt about the employees' attitudes. About 47 % of the managers reported that the employee's commitment (EA2) has been very good over the years and it was considered extremely important. Similarly, the employees equally strongly agreed that the employees were proud to work for their organizations (EAS4) and felt a strong sense of loyalty (51%) to their organizations (EEA5)

51%. Employee's satisfaction (EA3) was rated at 46 %. However, managers felt that the employees' motivation (EA 1) had not been very good over the past three years. This was evidenced by reports from the employees which indicated that very few employees strongly agreed to like working at the institution (EEA1), rated by 36%. Less than half of the employees are equally strongly satisfied with their jobs (EEA3) and that they would recommend the organization to others (EEA2) at 48 %.

The results indicate that there was good commitment and satisfaction from the employees with their jobs. However, they did not like working for their organization hence the low motivation.

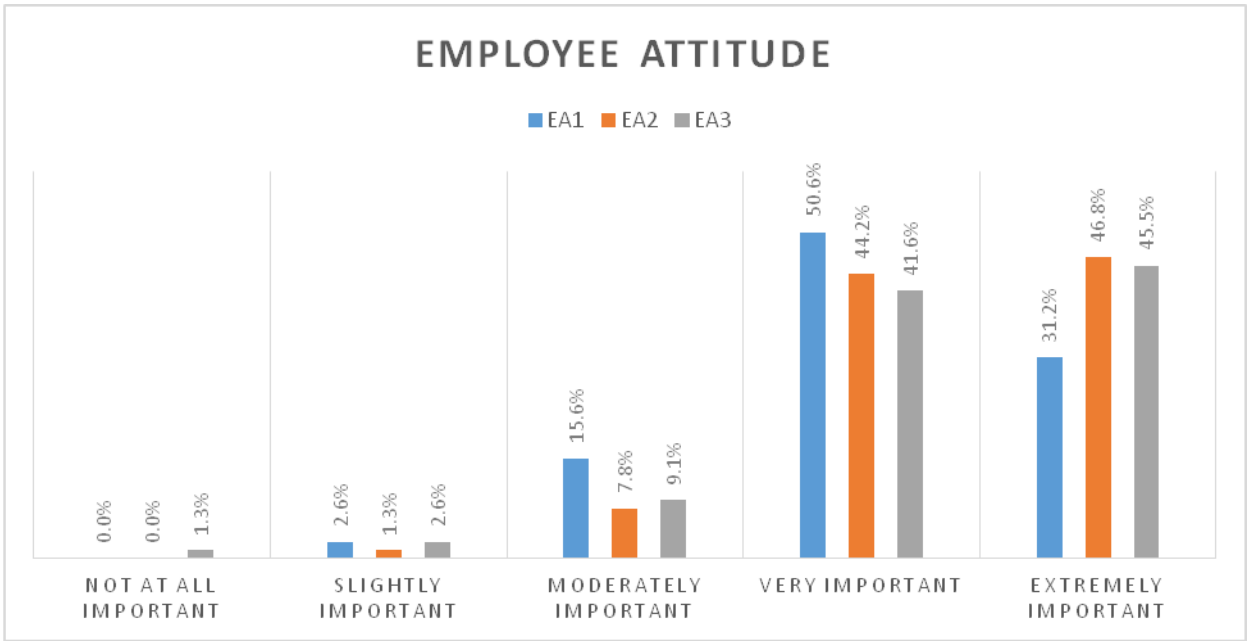


Figure 4 11: Employee attitude (Managers)

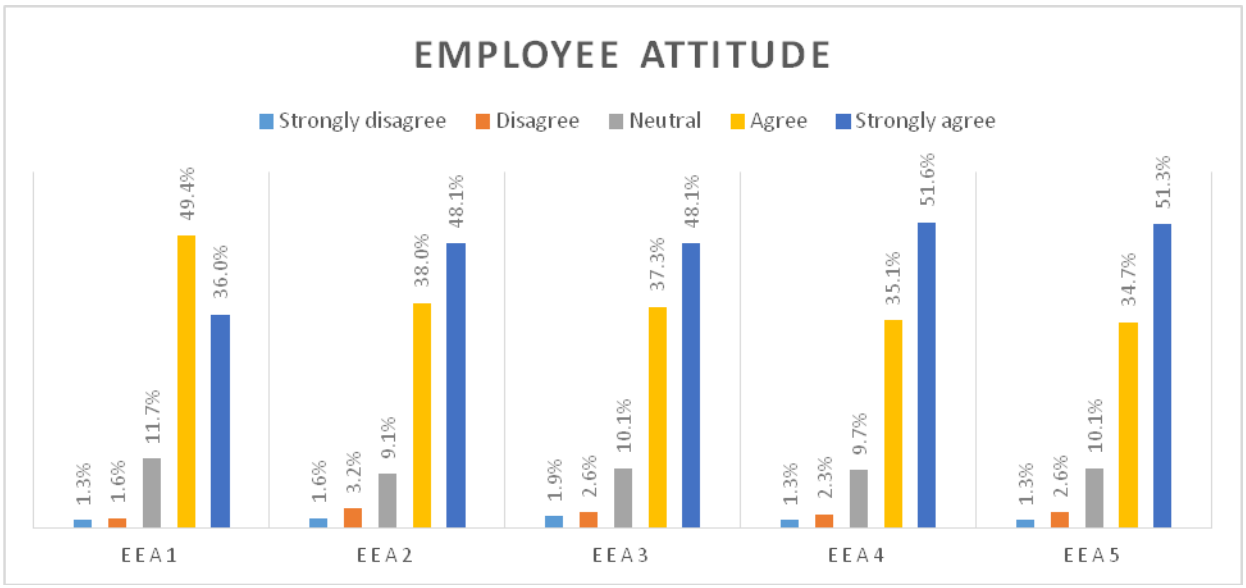


Figure 4 12: Employee attitude (Employees)

4.2.7 Employee behaviour.

Figures 4.13 and 4.14 provide results of the analysis of responses on employee behaviour from both employees' and managers' perspectives. About 66% of the managers indicated that the number of voluntary leaves in the organization (EB1) was very small, implying that most of the employees were relieved of their duties or contracts expired. However, 59% of the employees reported that they quit or voluntarily leave the organization (EEB3). Employees also strongly agreed (54%) that over the past 3 years there had been many disputes between employees and managers (EEB1) which on the contrary was reported to be very small (59%) by managers (EB3). About 51% of the managers also indicated the number of employees absent for work in the organization (EB2) had been very small. On the other hand, employees strongly agreed (55%) that most of the employees absent themselves from work (EEB2). In summary, the managers presented a very impressive behaviour of the employees, however the employees' responses indicated otherwise. There was need to clarify what absenteeism meant as the findings revealed different understanding of the nature and degree of absenteeism, as well as leaving the organisation.

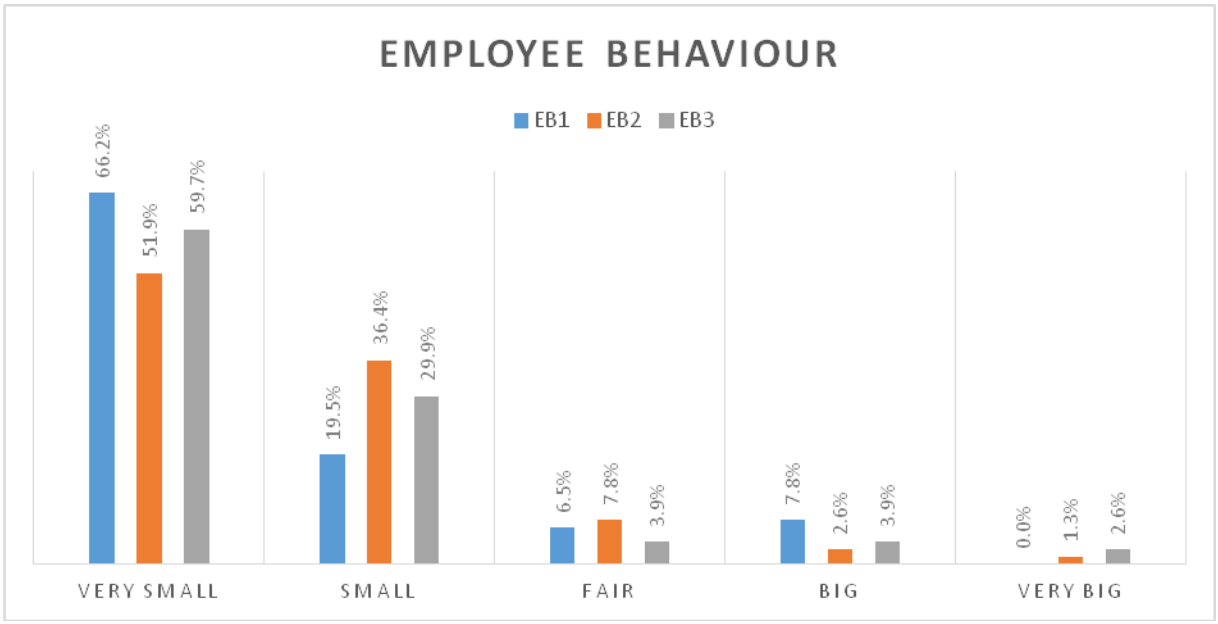


Figure 4 13: Employee Behaviour (Managers)

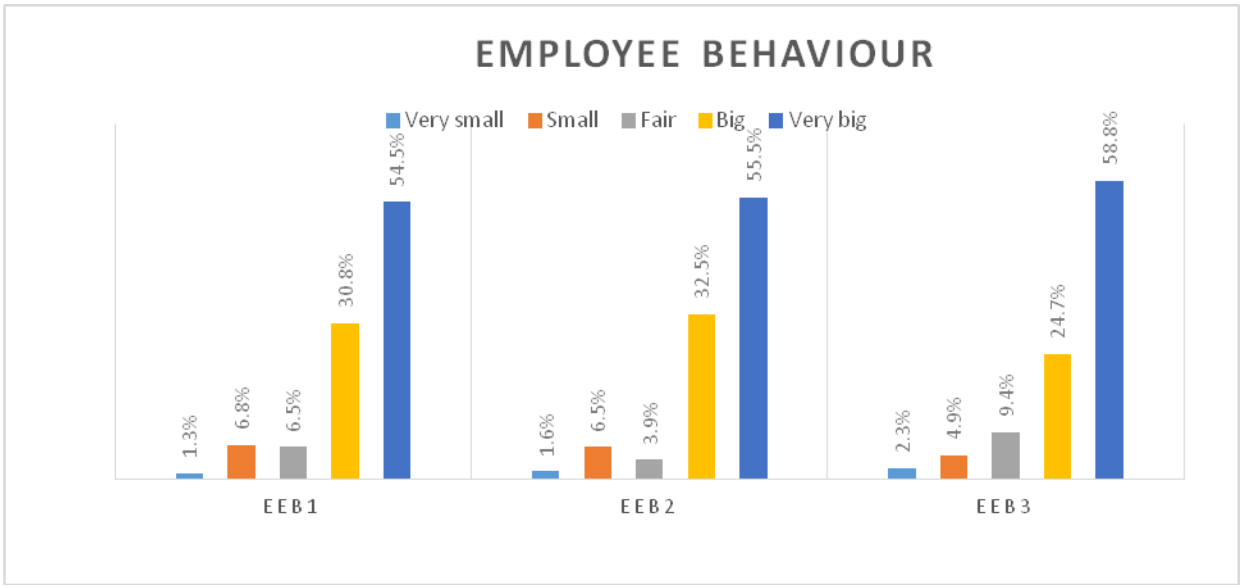


Figure 4 14: Employee Behaviour (Employees)

4.3.8 Organizational performance.

Figures 4.15 and 4.16 provide results of managers and employees perceptions on organizational performance respectively. About 66% of the managers and 63% of the employees rated the overall reduction of cost of production (OP5) of the organization as extremely important.

Managers also indicated that the overall organizational scope flexibility (OP3) was extremely important (61%) as well as product delivery flexibility (OP3) which was rated at 60 %. The same proportion of the employees also strongly concurred (EOP3) on delivery flexibility. However less than half of the managers found the overall manufacturing throughput in the past three years to just be very good. Similarly, most employees did not strongly agree that the company takes the shortest time to make products. Employees also strongly agreed (60%) that the organization can deliver different types of products as per customer needs. With regard to the quality of products, 59% and 58% of the employees and managers respectively indicated that the company makes the best quality products. Both managers and employees indicated a significant organizational performance with all but throughput being extremely important (50%) to both managers and employees.

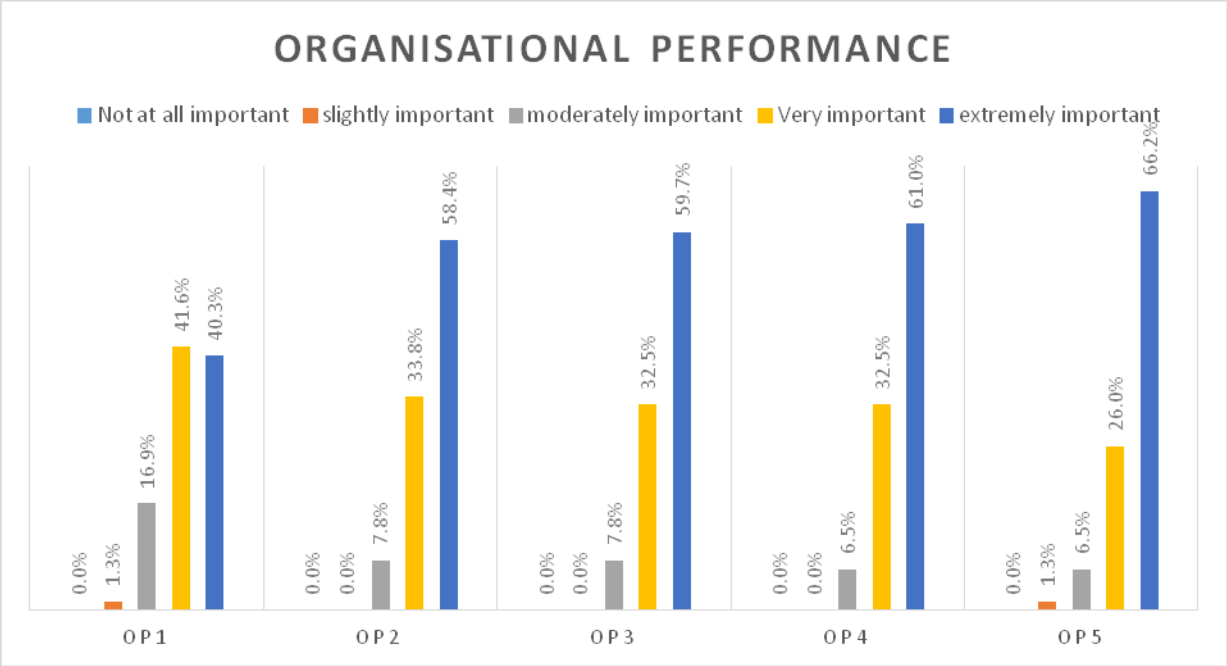


Figure 4 15: Organisational Performance (Managers)

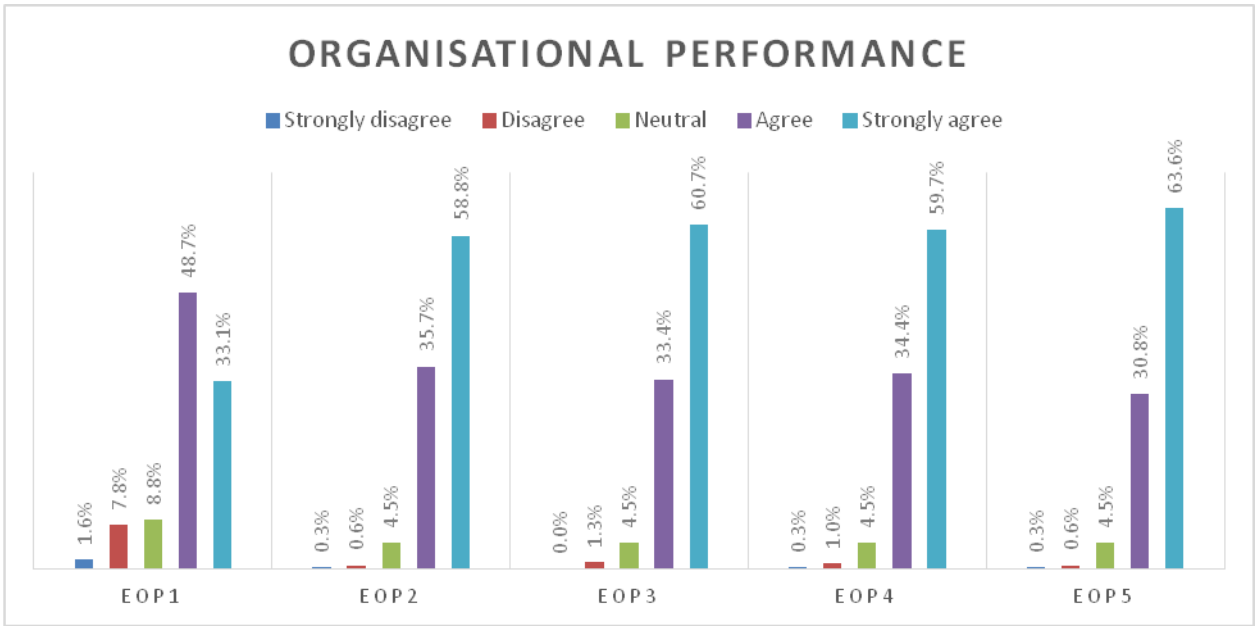


Figure 4 16 : Organisational Performance (Employees)

4.3 ITEM ANALYSIS

All the measurement scales were subjected to item analysis in order to ensure internal consistency. It was also used to identify items that did not contribute to the internal description of the latent variables. SPSS (Version 24) was used to perform item analysis.

From the item analysis; reliabilities of each scale were established. Cronbach's alpha as an indicator of the reliability of the scale should be >0.70 in order to be a reliable item (Kerlinger & Lee, 2000; Nunnally & Marlowe, 1997; Pallant, 2013). In the current study, a Cronbach's alpha loading of >0.70 was regarded as acceptable and used for further analysis as this was deemed good or acceptable (Hair et al. 1998; Tabachnick & Fidell, 2007). Reliability values of <0.70 therefore qualified for elimination. Only reliabilities for employees were subjected to further analysis because of the low Managers sample size.

The corrected Item-Total Correlation was another important consideration as it indicates the degree to which each item correlates with the total score. Values < 0.20 may indicate that the item is not measuring the specific scale (Nunnally, 1978). The removal of such items was considered as they may lead to a higher Cronbach's alpha.

Table 4. 1 : Interpretation of value loadings (Hair, Tabachnick & Fidell, 1988)

AUTHOR	CRONBACH'S ALPHA VALUE	INTERPRETATION
Hair et al. (1998) Tabachnick & Fidell (2007)	0.32	poor
	0.45	Fair
	0.55	Good
	0.63	Very good
	0.71 & above	Excellent

Table 4. 2: Interpretation of value loadings (Kaiser & Field, 2005)

AUTHOR	CRONCHBA'S VALUE	ALPHA INTERPRETATION
Kaiser & Field (2005)	0.5	Acceptable
	0.5-7.0	Mediocre
	0.7-0.8	Good
	0.8-0.9	Great
	0.9	Superb

Table 4. 3: Interpretation of value loadings (Nunnally)

However, Nunnally provides the following guidelines

AUTHOR	CRONBACH'S ALPHA VALUE	INTERPRETATION
Nunnally (1967)	Below 0.70	Limited applicability
	0.70-0.79	Adequate
	0.80-0.89	Good
	0.90 & above	Excellent

The study applied Hair et al. (1998) and Tabachnick and Fidell (2007) as they are more recent than Nunnally (1967).

4.2.1 Reliability Results: Business Strategy

Appendix 4.2 and 4.3 show item analysis for business strategy scale (BS) for managers and employees respectively. The scale has eight items and shows Cronbach's alpha of 0.83 and 0.88 for managers and employees respectively. This shows that the scale has an excellent reliability. All the eight items loaded between 0.79 - 0.83 for managers and 0.86-0.88 for Employees as such no item was dropped for further analysis. This shows that the data collected was reliable and results can be generalised with the target population.

4.2.2 Human Resource Management practices

This scale has four sub scales: recruitment and selection; training and development; performance appraisal and compensation.

4.2.2.1 Reliability Results: Recruitment and selection

Appendix 4.4 and 4.5 present item analysis for recruitment and selection sub scale (RS). The scale has 5 items for managers and 7 items for employees and shows Cronbach's alpha of 0.93 and 0.88 for managers and employees respectively. This shows an excellent reliability as there was no item with item total correlations below 0.7. Furthermore, all the five (0.816-0.871) and seven (0.915-0.931) items loaded above 0.7. This was an excellent loading as described by Hair et al. (1998) and Tabachnick and Fidell (2007). The researcher therefore retained all the seven indicators of recruitment and selection for employees for further analysis. This shows that the data collected was reliable and results can be generalised with the target population.

4.2.2.2 Reliability Results: Training and Development

Appendix 4.6 and 4.7 present item analysis results for training and development sub scale (TD) for manager and employee respondents are presented. The scale has five items loading between .816-. 871 and .910- .931 for managers and employees respectively with Cronbach's alpha of .86 and .94 respectively. This shows excellent reliability as no item has a factor loading below .70 (Hair et al. 1998; Nunnally, 1976). This shows that the data collected was reliable and can be generalised to the target population.

4.2.2.3 Reliability Results: Performance appraisal

Appendix 4.8 and 4.9 present item analysis results for performance appraisal sub scale (PA) for manager and employee respondents. The scale has four items for Managers and nine items for employees with a Cronbach's alpha of .96 for both Managers and employees. This shows an excellent reliability. All items loaded above 0.70 (.932-.953) and (.955-.960) for Managers and employees respectively as such no item was dropped for further analysis. Furthermore, this implies that the gathered data was reliable and can be generalised to the target population.

4.2.2.5 Reliability Results: Compensation

Appendix 4.10 and 4.11 present item analysis for compensation sub scale (COM). The scale has five and eight items with a Cronbach's alpha of 0.91 (.871-.907) and 0.94 (.929-.944) for managers and employees respectively. The scales show excellent reliability (Nunnally, 1967) as such no item was dropped for further analysis. This means also that the data collected was reliable and its results can be generalised to the target population of the respondents.

4.2.3 Reliability Results: Employee attitude

Appendix 4.12 and 4.13 show Cronbach's alpha value of 0.75 (.627-.738) and 0.91 (.870-.916) for managers and employees respectively for item analysis associated with employee attitude scale (EA). The scale consists of three items. The scales show excellent reliability except for EA1 and EA2 which had <.70 loadings for managers. All five items loaded above 0.70 for employees as such no item was dropped for further analysis. The Cronbach's alpha values imply that the data collected was reliable and its results can be generalised to the target population of the respondents.

4.2.4 Reliability Results: Employee behaviour

Appendix 4.14 and 4.15 present items analysis associated with employee behaviour scale (EB). The scale consists of three items with a Cronbach's alpha of 0.81 (.631-.807) and 0.85 (.735-875) for managers and employees respectively. This reflects an excellent reliability (Nunnally, 1976).

No item on the scale was deleted for further analysis. The alpha values show that the data which was collected was reliable and can be generalised to the target population of the respondents.

4.2.4 Reliability Results: Organisational performance

Appendix 4.16 and 4.17 present items analysis for the organisational performance scale (OP). The scale consists of five items with a Cronbach's alpha of 0.85 and .78 for managers and employees respectively. This shows an excellent reliability (Nunnally, 1967). All the five items loaded above 0.7 except EOP 4 (.669) which was deleted for further analysis. The alpha value of 0.79 implies that the data that was collected was reliable and its results can be generalised to the target population of the respondents.

4.2.5 Summary of the item analysis results

Table 4.4 provides a summary of the item analysis performed. All the scales had Cronbach's Alpha values exceeding the required 0.70 cut off with high item-total correlations. All items were therefore internally consistent and reliable.

Table 4. 4: Summary of Managers and Employees reliability and item analysis.

Scale	Subscale	Median (Std Deviation)		# of items		Factor Loading		Cronbach's Alpha	
		M	E	M	E	M	E	M	E
Business Strategy		36.84 - 3.285	34.92 -4.326	8	8	0.786-0.832	0.859-0.883	0.83	0.88
Human Resource Practices	Recruitment & selection	21.08 - 2.896	30.34 (5.210	5	5	0.903-0.925	0.915-0.931	0.93	0.93
	Training & development	21.74 - 3.743	20.81 -4.321	5	5	0.871-0.932	0.910-0.931	0.87	0.94
	Performance appraisal	16.68 - 3.844	37.39 -7.699	9	5	0.932-0.953	0.955-0.960	0.96	0.96
	compensation	22.23 - 3.745	33.23 -6.759	5	9	0.871-0.907	0.929-0.944	0.91	0.94
Employee Attitudes		12.74 - 1.867	21.37 -3.648	3	5	0.627-0.788	0.870-0.916	0.75	0.91
Employee Behaviour		4.81 - 2.294	12.97 -2.53	3	3	0.631-0.807	0.735-0.875	0.81	0.85
Organisational Performance		22.23 - 2.655	22.19 -2.612	5	5	0.783-0.849	0.699-0.831	0.85	0.78

M=Managers; E=Employees; Source: *Primary data*

4.3 Inter correlation analysis

Table 4.5 shows how each variable correlates with another. Inter correlation was carried out to show how the variables in the study relate to each other; the state of mutual dependence of the variables. A value of 1.00 indicates how the variable correlates with itself. Results show that the highest association is between human resource practices and employee attitudes correlation coefficient = 0.796 significant at ($\rho < 0.05$). Human resource management practices have relatively strong association with employee behaviour with correlation coefficient = 0.715

significant at ($\rho < 0.05$). Furthermore; human resource management practices have relatively strong association with business strategy with correlation coefficient =0.696 significant at ($p< 0.05$). There is also relatively strong association between employee attitudes and employee behaviour correlation coefficient =0. 631; between employee attitudes and organisational performance correlation coefficient =0.632 and between employee behaviour and organisational performance correlation coefficient =0.622. There is moderate association between business strategy and employee behaviour with correlation coefficient =0.536 significant at P<0.05) and employee behaviour with correlation coefficient =0.54 significant at P< 0.05. The results indicate that employee attitudes has the strongest association with business strategy with correlation coefficient =0.525 significant at 0.05.

Table 4. 5: Correlation Matrix

	BSTRAT	EATTIT	EBEHAV	ORGPERF	HRPRACT
BSTRAT	1.00				
EATTIT	0.525	1.00			
	(0.052)* 10.053				
EBEHAV	0.536	0.631	1.00		
	-0.061 8.83	(0.052)* 12.22			
ORGPERF	0.637	0.632	0.622	1.00	
	-0.056 11.34	(0.047)* 13.433	-0.058 10.786		
HRPRACT	0.696	0.796	0.715	0.682	1.00
	(0.047)* 14.791	(0.031)* 25.37	(0.055)* 13.022	(0.042)* 16.157	

Note: *0.05 degree of significance

4.4 DIMENSIONALITY ANALYSIS

4.4.1 Dimensionality

Unidimensionality can be tested in different ways (Tate, 2003). To establish unidimensionality, one of the following two conditions from the results of an exploratory factor analysis must be met (Reckase, 1999). Firstly, a factor analysis on the inter-item correlation matrix should

indicate that the first factor accounts for at least 20% of the variance of the unrotated factor matrix. Secondly the eigenvalues of the first factor should very clearly exceed that of the second factor. In Wiberg (2004) a high Cronbach's alpha was also used as an indicator of unidimensionality.

The factor analysis which was performed on the items using extraction method of principal component analysis showed that the first factor had the initial eigenvalues (24.1) clearly exceeding that of the second factor 3.8, (See Figure 4.17) as shown in the Scree plot for the 50 item Likert scale.

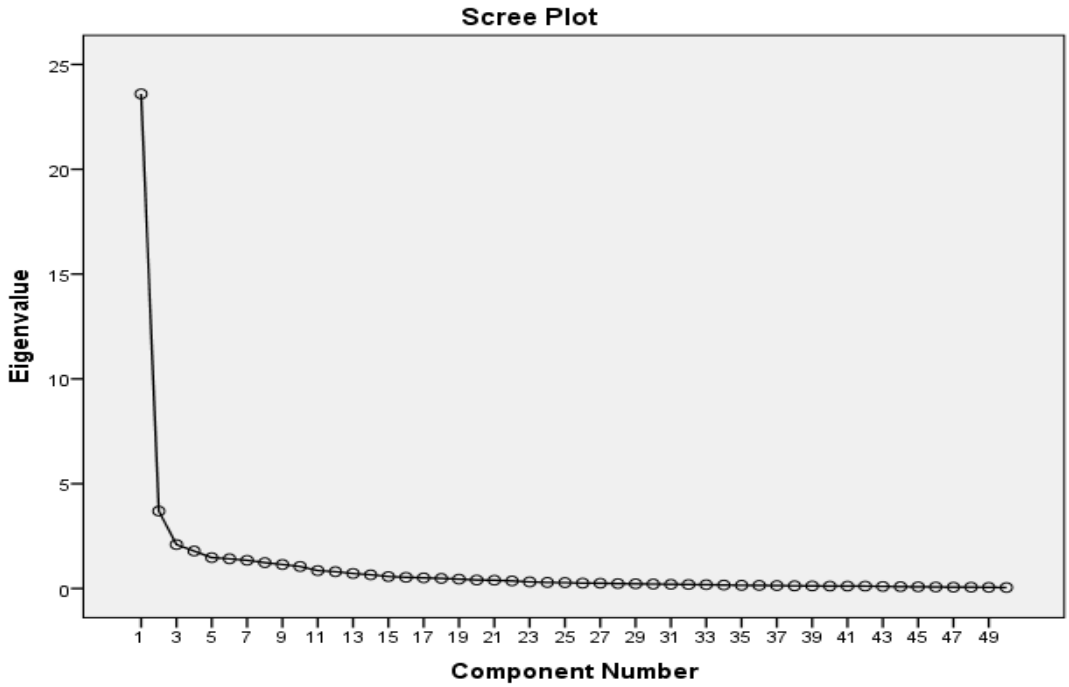


Figure 4 17: Scree Plot

Lord (1980) suggests that if the first eigenvalues is large enough compared to the second; and the second eigenvalue is not much larger than any of the others; then the instrument may be considered approximately uni-dimensional. The Cattell (Cattell, 1966) Spree plot for the 50 item Likert scale (Figure 4.17) shows this pattern. The plot indicates that a single factor underlies the data.

The steep slope shows the large factors associated with the loading greater than the eigenvalues of 1. The gradual trailing off (Scree) shows the rest of the factors lower than eigenvalues of 1 (retain). There were ten factors whose eigenvalues was greater than 1 and one extracted communality factor distinctly high than others, implying that the test was uni-dimensional in nature. Furthermore; it can be concluded that the 50 items are one-dimensional

4.4.2 Exploratory Factor Analysis

In order to analyse the interrelationships of the items and suggest items for deletion (Hair et al. 2006); exploratory factor analysis (EFA) was conducted using principal axis factoring analysis was used as an extraction technique. The extracted solution was then subjected to oblimin rotation with Kaiser Normalisation.

Before undertaking EFA, measures of sampling adequacy were evaluated to determine if the correlation matrix of the items constituting the scale was suitable for factor analysis. In this study, a Kaiser-Meyer-Olkin (KMO), which is a measure of sampling adequacy, read 0.921 (>0.60) and significant (P<0.001). It is recommended to accept values greater than 0.5 as acceptable; values between 0.5 and 0.7 as mediocre; and values between 0.7 and 0.8 as good, while values between 0.8 and 0.9 are great and values above 0.9 are superb (Kaiser, as cited in Field, 2005).

Eigenvalues were also investigated to determine which factors to retain for further analysis. Kinnear and Gary (2004) argue that any factors with eigenvalues of less than 1 must be excluded from the analysis. Factors were considered satisfactory if their loading was greater than 0.70. When the value of the loading is higher, the more the factors explain the total variance of scores on the concerned variable (Kinnear & Gray, 2004). Principal Axis Factoring analysis was used as the extraction technique (Pallant, 2013). The extracted solution was then subjected to oblique rotation.

After the number of significant factors had been determined, the factor loadings on the matrix (See Figure 4.17) were studied. Poor items were identified and subjected to elimination

according to the EFA decision criteria (See Table 4.22). A factor loading was considered acceptable if it loads > 0.70 (Kamarul, 2012).

The Scree plot can be used to determine the number of factors to be retained. The use of the Scree plot involves inspecting the point at which the shape of the curve changes direction and becomes horizontal (Pallant, 2013). It is argued that all factors above the elbow, or break, in the plot should be retained, as these factors contribute the most to the explanation of the variance in the data set (Catell, 1966).

Decision rules guiding the number of factors to be extracted were:

- Factors whose eigenvalues are >1.00Factors (Kaiser, 1961).
- Any Item loading >0.30 on any factor would be excluded (Field, 2005; Pallant, 2013; Tabachnick & Fidell, 2001).
- Any item not loading >0.30 on more than one factor would be excluded if the difference between the higher and the lower loading was<0.25 (Nunnally & Bernstein, 1994; Tabachnick & Fidell, 2001).

4.4.2.1 Business strategy scale

The business strategy scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.827 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005). Only two factors (EBS1 and EBS2) with eigenvalues greater than 1 were obtained. The Scree plot also suggested that two factors should be extracted. The factor matrix (see Appendix 4.19) indicated that all the items loaded satisfactorily (> 0.50) on the two factors. These factors accounted for 33.30% and 63.26% of the variance respectively.

4.4.2.2 Human Resource Practices Sub-Scale (Recruitment and Selection)

The recruitment and selection sub scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.899 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (ERS1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.20) indicated that all the items loaded satisfactorily (> 0.50) on one factor and this factor accounted for 67.39% of the variance.

4.4.2.3 Human Resource Practices Sub-Scale (training and development)

The training and development sub scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.856 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (ETD 1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.21) indicated that all the items loaded satisfactorily (> 0.50) on one factor and this factor accounted for 74.76% of the variance.

4.4.2.4 Human Resource Practices Sub-Scale (Performance Appraisal)

The performance appraisal sub scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.911 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (EPA1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.22) indicated that all the items loaded satisfactorily (> 0.50) on one factor and this factor accounted for 83.57% of the variance.

4.4.2.5 Human Resource Practice sub-scale (compensation)

The compensation sub scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.911 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (ECOM 1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.23) indicated that all the items loaded satisfactorily (> 0.50) on one factor and this factor accounted for 67.49% of the variance.

4.4.2.6 Employee Attitude scale

The employee attitude scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.812 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (EEA 1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.24) indicated that all the items loaded satisfactorily (> 0.50) on one factor and this factor accounted for 67.61% of the variance

4.4.2.7 Employee Behaviour scale

The employee behaviour scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.695 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (EEB 1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.25) indicated that all the items loaded satisfactorily (> 0.50) on one factor and this factor accounted for 66.83% of the variance.

4.4.2.8 Organisational Performance scale

The organisational performance scale achieved uni-dimensionality. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.703 (> 0.60) and a significant ($p < 0.001$) Bartlett's test of sphericity were achieved, indicating sufficient evidence that the correlation matrix was factor analysable (Field, 2005)

Only one factor (EOP 1) with eigenvalues greater than 1 was obtained. The Scree plot also suggested that a single factor should be extracted. The factor matrix (see Appendix 4.26) indicated that all the items loaded satisfactorily (> 0.50) except EOP1 (0.390) on one factor and this factor accounted for 48.12% of the variance.

4.5 MEASUREMENT AND STRUCTURAL MODELS

The aim of Structural Equation Modelling (SEM) is to provide a quantitative test of a theoretical model using different models to show relationships among observed variables (Hair et al. 2014). It also aims at determining the extent to which the proposed theoretical model is supported by data. If the data does not support the model; then the model can be modified and tested again.

Covariance based SEM, as used in this study, is superior because it emphasises on normality of data distribution (Ringle, Sarstedt & Straub, 2012). Violation of data normality can produce unintended biases in the final statistical analyses (Fornell & Bookstein, 1982).

A Structural Equation Model has two sub models; the inner and outer models. The inner model (structural model) specifies the relationship between independent and latent dependent variables while the outer model (measurement model) specifies the relationships between latent variables and their observed indicators (Hair et al. 2011). Both the measurement and structural models were evaluated.

4.5.1 Guidelines for Model Measurement and Structural Evaluation

A two- step process is followed when using SEM. This involves separate assessments of the measurement and structural models. Firstly, the measures of reliability and validity are examined according to certain criteria associated with reflective and formative model specification. Table 4.29 summarises the validity guidelines for measurement and structural models evaluation. The structural model can only be analysed after the measurement model has been validated.

Table 4. 6:Validity guidelines in Structural Equation Modelling (SEM)

	Validity Type	Criterion	Guidelines
Measurement Model	Internal consistency		CR>0.7 (Exploratory study) CR>0.8 (Advance research) CR>0.6 (lack reliability)
	Indicator reliability	Indicator loadings	Item's loading >0.7 and significant at least at the 0.05 level
	Convergent Validity	AVE	AVE>0.50
	Discriminant Validity	Cross loading Fornell and Lacker	Item's loading of each indicator is highest for its designed constructs. The square root of AVE of a construct should be greater than the correlations between the construct and other construct in the model
Structural Model	Model Validity	(R^2)	0.67-Substantial 0.333-Moderate 0.190-Weak
	Model Validity	Path Coefficients	At least 0.100 and at significance of 0.05

Source: Kamarul (2012)

4.5.2 The Measurement Model

The measurement model is comprised of the relationship between observed variables against their respective latent constructs. Figure 4.18 shows that the model consists of 20 variables in total, of which 6 are latent variables and 14 are observable variables. A total of 12 free parameters is estimated which includes 15 regression weights, and 12 measurement errors; due to which the degree of freedom for the model is 44.

In order to determine accuracy of the measurement model, construct validity and reliability were evaluated. Similarly, convergent and discriminant validity were calculated. It is suggested that any item whose loading is less than 0.4 should be deleted (Duarte & Raposo, 2014; Hair et al. 2014; Hair et al. 2012; Hulland, 1999). Based on this criterion, the model was filtered by deleting all items that loaded below 0.4. However, this study deleted all items loading below 0.7 and retained all items loading between 0.7 and 0.8 as suggested by Kamarul (2012) that item loadings should be >0.7.

After examining the factor loadings on the rotated matrix; it was found that out of 50 items, 23 items were to be deleted. These include EBS4, EBS5, ERS1, ERS2, ERS3, ERS7, ETD1,

ETD4.ETD5, EPA7, EPA8, EPA9, ECOM1, ECOM2, ECOM3, ECOM4, ECOM6 ECOM8, EEA2, EEA4, EEA5, EOP4 and EOP5. This means 27 items were retained for the model (See Table 4.31).

Table 4. 7: Construct Validity

Constructs	Items	Loadings	Deleted due to low loading
Business strategy	EBS1	0.760	EBS4
	EBS2	0.672	EBS5
	EBS3	0.721	
	EBS6	0.767	
	EBS7	.0.845	
	EBS8	0.781	
Human resource management practices			
			ERS1
	ERS3	0.663	ERS2
	ERS4	0.755	ERS7
	ERS5	0.732	
	ERS6	0.706	
	ETD2	0.718	ETD1
	ETD3	0.729	ETD4
	ETD4	0.637	ETD5
	ETD5	0.683	
	EPA1	0.759	
	EPA2	0.804	EPA7
	EPA3	0.784	EPA8
	EPA4	0.814	EPA9
	EPA5	0.784	

	EPA6	0.721	
	ECOM5	0.700	
	ECOM7	0.700	ECOM1
			ECOM2
			ECOM3
			ECOM4
			ECOM6
			ECOM8
Employee attitudes	EEA1	0.781	EEA5
	EEA2	0.685	
	EEA3	0.775	
	EEA4	0.662	
Employee behaviour	EEB1	0.797	
	EEB2	0.722	
	EEB3	0.747	
Organisational performance	EOP1	0.719	EOP4
	EOP2	0.828	EOP5
	EOP3	0.815	

4.5.2.1 Convergent validity

In testing the measurement model, the first step involved testing convergent validity. This was tested using factor loadings, composite reliability and average variance extracted (Hair et al. 2010; Vigneron et al. 2017). Convergent validity helps to establish construct validity by demonstrating that the constructs are distinct from each other (Campbell & Fiske, 1959). Hair et al. (2010) argue that an outer loading of 0.70 is acceptable. Fornell and Lacker (1981) suggest that the value of composite reliability (CR) for each construct should exceed 0.70 while the value of average variance extracted (AVE) must exceed 0.50 for the convergent validity to be assured. From the current study, the CR and AVE values of the constructs included in the model are all

above acceptable reliability levels (composite reliabilities above .70 Cronbach's Alphas above .70 and AVE above .50)

Table 4. 8: Convergent Validity

	Mean (Std Dev)	Cronbach's	%variance Explained	AVE	Composite reliability
EATTIT	21.37 (3.648)	.908	18.713	.605	.754
EBEHAV	12.97 (2.530)	.849	6.400	.572	.800
ORGPERF	22.19 (2.612)	.799	6.822	.622	.831
HRPRACT	30.44 (5.997)	.943	37.694	.658	.711
BSTRAT	34.92 (4.326)	.883	18.713	.602	.883

4.5.2.2 Discriminant Validity

The second step was measurement of the discriminant validity. This was applied to check if the construct is exclusive from other constructs by empirical standard (Hair et al. 2014). Discriminant validity is the extent to which a particular latent construct differs from other latent constructs (Duarte & Raposo, 2010). In the current study, discriminant validity was assessed using AVE as suggested by Fornell and Larcker (1981). To achieve this, correlations among latent variables were compared with square roots of average variance extracted (Fornell & Larcker, 1981). Discriminant validity is established when the square root of the AVE from the construct is greater than the correlation shared between the construct and other constructs in the model (Chin, 1998). Mohsin, et al 2017; Vigneron et al.2017 suggest that for discriminant validity to be attained, initial cross loadings of the items must correspond to their constructs and they must be greater than the other constructs.

Table 4.9 shows that the correlations among the latent constructs, compared with the square root of AVE (**in bold face**) were all greater than the correlations among latent constructs, suggesting adequate discriminant validity (Fornell & Larcker, 1981).

Table 4. 9: Discriminant validity

	EATTIT	EBEHAV	ORGPERF	HRPRACT	BSTRAT
EATTIT	**0.778**				
EBEHAV	0.575	**0.756**			
ORGPERF	0.590	0.618	**0.789**		
HRPRACT	0.805	0.734	0.704	**0.811**	
BSTRAT	0.562	0.512	0.491	0.698	**0.776**

Note: The square roots of the constructs' AVE values are shown in the diagonal line (**in bold**); non-diagonal elements are latent variable correlations.

4.5.2.3 Measurement Model goodness-of-fit

The first step in doing SEM is to confirm the measurement model using confirmatory factor analysis. CFA was used in order to confirm or reject the measurement theory. After the model had been confirmed; SEM was carried out on the measurement model to achieve goodness-of-fit. The degree of model fit, adequacy of the factor loadings, standardised loadings and explained variances for the measured variables were determined using this process.

Confirmatory factor analysis was performed on all the five scales. This was aimed at investigating the goodness-of –fit between the measurement model and the obtained data. The results showed a good fit for the measurement model (See Table 4.8 and 4.9). This suggests that the hypothesised structure fit the data better. LISREL 8.80 **(**Jöreskog & Sörbom, 1996**)** was used to perform separate confirmatory factor analyses (CFA) on all five latent scales.

The initial results based on the fit index of the Root Mean Square Error of Approximation where RMSEA < 0.08 showed a reasonable good model fit. Similarly RMSEA < 0.05 showed a very good fit of the data (Diamantopoulos & Siguaw, 2000). Different further steps were followed based on whether the results indicated good or poor model fit. If the evaluated model showed

poor fit, the modification indices were investigated in order to determine the possibility of increasing model fit.

The fit of the model can be improved by freeing of model parameters (Diamantopoulos & Siguaw, 2000). This requires investigating the theta-delta modification indices. Large modification index values (> 6.6349 at a significance level of 0.01) show parameters that, if set free, the model fit would improve significantly ($p < 0.01$) (Diamantopoulos & Siguaw, 2000; Jöreskog & Sörbom, 1993). In this study, attempts were made to improve the goodness of fit indices by using the theta-delta modification indices.

4.5.2 Evaluating the Measurement Model Fit

The goodness-of-fit statistics for measurement model are indicated in Table 4.38 as discussed in following section.

5.4.2.1Absolute fit

Confirmatory factor analysis was performed on all items (after reliability testing, see Table 4.14). The initial inspection of the fit statistics, revealed that good model fit had been achieved with RMSEA=0.0495 being within reasonable limits (<0.08). The fit of the measurement model was improved by using theta-delta modification indices. Table 4.14 shows that the refined measurement model presented acceptable fit with data.

The standardised Root Mean Square Residual (SRMR) value of 0.0245 was below the 0.05 threshold, providing evidence of relatively good model fit. A positive picture was also expressed by the Goodness of Fit Index (GFI). The GFI value of 0.955 for the measurement model is close to 1 and above 0.90. This indicates that good absolute fit was achieved for the measurement model.

4.5.2.2 Comparative fit

The incremental fit indices show that the measurement model achieved Normed Fit Index (NFI=0.987), Non-Normed Fit Index (NNFI=0.991), Comparative Fit Index (CFI=0.994), Incremental Fit Index (IFI) =0.994 and Relative Fit Index (RFI=0.980) indices which are > 0.90, which represents good fit. These comparative indices therefore, appear to reveal a positive picture of model fit. It therefore can be concluded that the measurement model provides a

credible explanation of the observed covariance matrix (See Table 4.14). All observed variables loaded significantly (>0.50) on the latent variable (see Table 4.10). This shows that all the items significantly represent the dimension they were designed to reflect.

Table 4. 10: Completely Standardised Solution

LAMBDA-X

	BSTRAT	EATTIT	EBEHAV	ORGPERF	HRPRACT
EA-1	--	0.939	--	--	--
EA-2	--	0.938	--	--	--
EB-1	--	--	0.844	--	--
EB-2	--	--	0.876	--	--
OP-1	--	--	--	0.860	--
OP-2	--	--	--	0.858	--
TRAIND	--	--	--	--	0.790
PAPPRA	--	--	--	--	0.866
COMP	--	--	--	--	0.846
BSFAC-1	0.837	--	--	--	--
BSFAC-2	0.723	--	--	--	--
RECRUIT	--	--	--	--	0.827

4.5.2.3 Modification of the measurement model

Hair et al. (2010) recommends a modification of the initial model where it is found applicable. Modification is achieved based on indicators such as modification indices (MI$\geq$4), standardised residuals (<|4.0|), path estimates (>0.5) ideally $\geq$0.7 and must be significant), squared multiple correlations (SMC or Reliability $\geq$0.3). These model diagnostics are applied to suggest some changes to the model.

In order to determine the extent to which the structural model explains the observed covariances among the apparent variables; modification was conducted. The study indicated that the largest modification index was that for the factor loading associated with latent variable of "Employee Attitudes" for the indicator of *"benefits received being the same as other organisations'* of the Compensation observed variable (ECOM5: 6.323, see Table 4.10). This indicates that, if this parameter were to be freely estimated in a subsequent model, the overall x^2 value would drop by at least this amount.

Table 4. 11: Modification Indices for LAMBDA-X

LAMBDA-X

	BSTRAT	EATTIT	EBEHAV	ORGPERF	HRPRACT
EA-1	2.088	--	0.705	2.475	0.002
EA-2	2.166	--	1.203	2.345	0.002
EB-1	0.354	5.706	--	0.010	--
EB-2	0.252	5.368	--	0.004	0.239
OP-1	3.612	3.252	0.322	--	--
OP-2	--	--	--	--	--
TRAIND	2.739	0.038	0.789	3.278	--
PAPPRA	1.612	3.183	0.814	0.106	--
COMP	1.293	6.323	4.041	0.014	--
BSFAC-1	--	0.357	2.229	4.595	2.093
BSFAC-2	--	0.517	3.916	6.139	--
RECRUIT	1.919	0.004	0.026	2.013	--

The standardised expected changes (see Table 4.12) show the expected values in the standardised solution if the parameters were freed. Turning to the parameter change statistic related to modification index parameter; we find a value of 0.165. This represents an approximate value that the newly estimated parameter would assume (Bryne, 2013). In this case, the proposed

structural model appears to fit the data reasonably well because the expected change is minimal. Inspection of the modification indices for the Beta matrix also suggests that there are no additional paths between any endogenous latent variables that would significantly improve the fit of the proposed structural model.

Table 4. 12: Standardised Expected change for LAMBDA-X

	BSTRAT	EATTIT	EBEHAV	ORGPERF	HRPRACT
EA-1	0.048	--	-0.028	0.056	0.002
EA-2	-0.055	--	0.053	-0.059	0.002
EB-1	-0.050	0.357	--	0.011	--
EB-2	0.040	-0.381	--	-0.005	0.064
OP-1	-0.153	0.176	-0.045	--	--
OP-2	--	--	--	--	--
TRAIND	-0.087	-0.012	-0.047	-0.091	--
PAPPRA	0.062	-0.092	-0.046	0.015	--
COMP	-0.063	0.165	0.110	0.006	--
BSFAC-1	--	0.031	-0.082	-0.190	0.125
BSFAC-2	--	-0.040	0.125	0.220	--
RECRUIT	0.071	0.004	-0.009	0.071	--

Similarly, the completely standardised solution estimates (See Table 4.13) indicate that the solution is admissible because none of the parameters exceeds unity in absolute value.

Table 4. 13: Completely Standardised Solutions

LAMBDA-X

	BSTRAT	EATTIT	EBEHAV	ORGPERF	HRPRACT
EA-1	--	0.939	--	--	--
EA-2	--	0.938	--	--	--
EB-1	--	--	0.844	--	--
EB-2	--	--	0.876	--	--
OP-1	--	--	--	0.860	--
OP-2	--	--	--	0.858	--
TRAIND	--	--	--	--	0.790
PAPPRA	--	--	--	--	0.866
COMP	--	--	--	--	0.846
BSFAC-1	0.837	--	--	--	--
BSFAC-2	0.723	--	--	--	--
RECRUIT	--	--	--	--	0.827

PHI

	BSTRAT	EATTIT	EBEHAV	ORGPERF	HRPRACT
BSTRAT	1.000				
EATTIT	0.525	1.000			
EBEHAV	0.536	0.631	1.000		
ORGPERF	0.637	0.632	0.622	1.000	
HRPRACT	0.696	0.796	0.715	0.682	1.000

THETA-DELTA

EA-1	EA-2	EB-1	EB-2	OP-1	OP-2
0.118	0.119	0.288	0.233	0.261	0.264

THETA-DELTA

TRAIND	PAPPRA	COMP	BSFAC-1	BSFAC-2	RECRUIT
0.376	0.250	0.285	0.299	0.477	0.316

4.5.3 Fitting the overall Measurement model

The path diagram in Figure 4.18 presents the refined measurement model. The diagram illustrates that all items constituting the scales used in the study appear to load significantly on their respective latent variables.

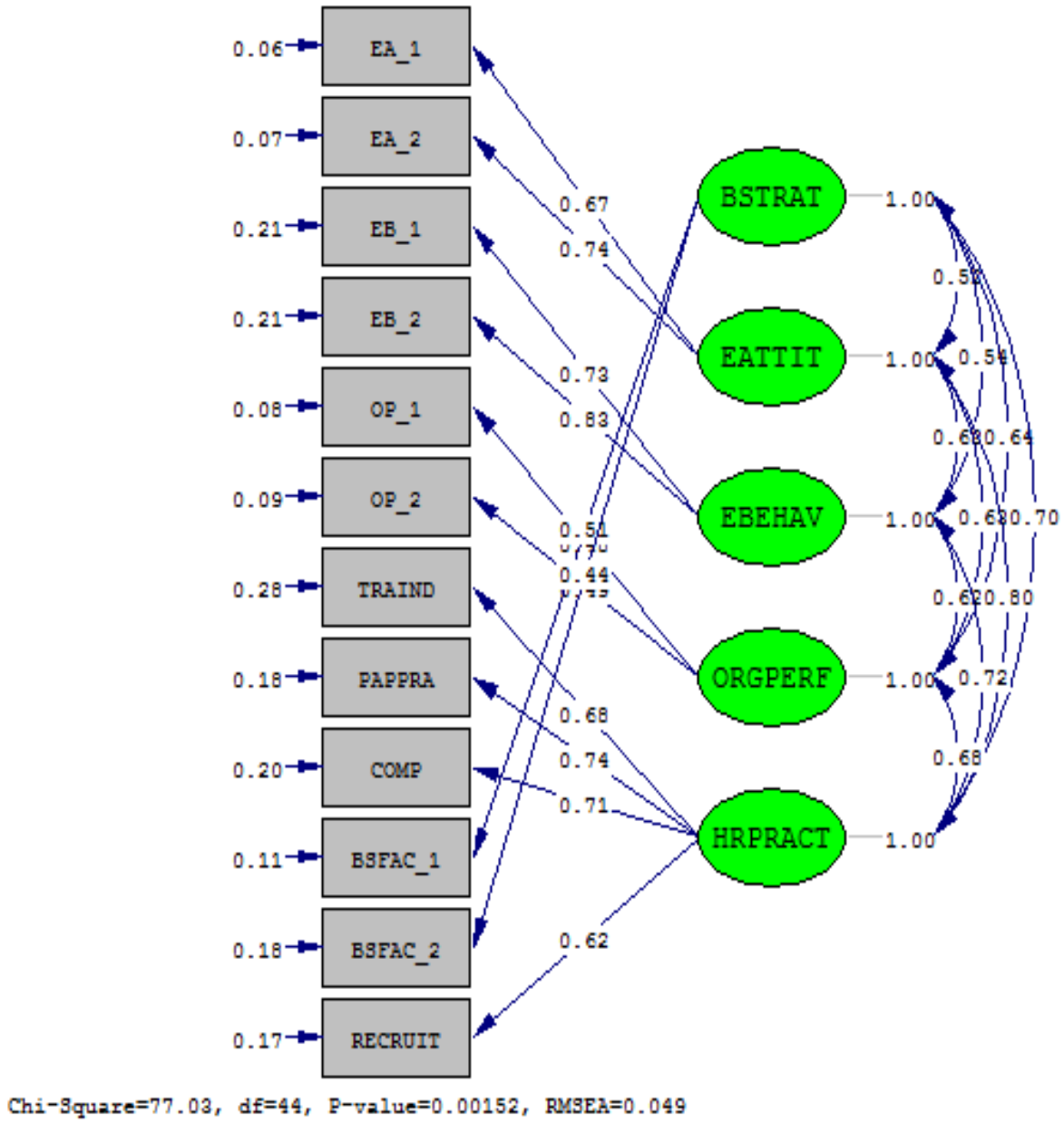


Figure 4 18: Path Diagram for the overall refined Measurement Model

KEY:

BSTRAT: Business Strategy; **EATTIT:** Employee Attitudes; **EBEHAV:** Employee Behaviour; **HRPRACT:** Human Resource Management Practices; **ORGPERF:** Organisational Performance; **BSFAC:** Business Strategy Factor; **EA:** Employee attitude; **EB:** Employee Behaviour; **OP:** Organisational performance; **TRAIND:** Training and Development; **PAPPRA:** Performance appraisal; **COMP:** Compensation; **RECRUIT:** Recruitment and Selection.

4.5.4 The Structural Model

After the measurement model was concluded to be acceptable; the second stage of SEM was carried out. This was aimed at developing a structural model to verify the hypotheses for the causal relationships between variables as guided by literature. Figure 4.19 shows the relationship between the variables. The model consists of 17 variables in total, of which 5 are latent variables and 12 are observable variables. A total of 6 free parameters is estimated which includes 16 regression weights, 4 variances, 2 correlations and 12 measurement errors; due to which the degree of freedom for the model was 48. Boxes represent exogenous or endogenous observed variables while the circles represent the related latent variables.

Having already done Confirmatory Factor Analysis on the measurement model; CFA was done again in the structural model. This was aimed at investigating the goodness-of –fit between the structural model and the obtained data. LISREL 8.80 (Jöreskog & Sörbom, 1996; Diamantopoulos & Siguaw, 2000) was used to perform separate confirmatory factor analyses (CFA) on all five latent scales (See Figure 4.19).

5.4.4.1Absolute fit

Confirmatory factor analysis was performed on all 25 items in the HRM practices scale (after reliability testing (see Table 4.17). The initial inspection of the fit statistics, revealed that good model fit had been achieved with RMSEA=0.0563 being within reasonable limits (<0.08). The fit of the structural model was improved by using theta-delta modification indices (see Table 4.13). The standardised Root Mean Square Residual (SRMR) value of 0.0376 was below the 0.05 threshold, providing evidence of relatively good model fit. A positive picture was also expressed by the Goodness of Fit Index (GFI). The GFI value of 0.944 for the structural model was close to 1 and above 0.90. This indicates that good absolute fit has been achieved for the structural model (See Table 4.13).

4.5.4.2 Comparative fit

The incremental fit indices confirm the validity of the structural model that it adequately represents the entire set of relationships. Goodness of fit indices of Normed Fit Index (NFI=0.983), Non-Normed Fit Index (NNFI=0.989), Comparative Fit Index (CFI=0.992),

Incremental Fit Index (IFI) =0.992 and Relative Fit Index (RFI=0.977) achieved which are > 0.90, represent good fit. These comparative indices therefore, appear to reveal a positive picture of model fit. It therefore can be concluded that the structural model provides a credible explanation of the observed covariance matrix. Moving from Model 1 to Model 2; Model 2 appears to be better than model1 on the basis of a better significant *p*-value of 0.000. Similarly, model 2 has a higher degree of freedom (48). Higher degree of freedom is preferred than lower degree of freedom. The RMSEA and parsimonious have also slightly improved in model 2 (See Table 4.14).

Table 4. 14: Goodness-of-fit indices

Goodness –of- fit results	**Model 1**	**Model 2**
Absolute predictive fit		
X^2	83.346	104.266
	(p<0.000314)	(p<0.000)
Degrees of freedom(df)	44	48
Expected cross-validation index (ECVI)	0.472	0.504
Comparative fit		
NFI	0.987	0.983
NNFI	0.991	0.989
CFI	0.994	0.992
IFI	0.994	0.992
GFI	0.955	0.944
PGFI	0.539	0.581
RMR	0.0137	0.0185
SRMR	0.0245	0.0376
RMSEA	0.0495	0.0563
RFI	0.980	0.977
SANTORRA-BENTLER	77.034	94.754

4.5.5 Validating the Structural Model

Structural models are assessed by R^2 values and path coefficients. Unlike the measurement model; the structural model focuses on latent variables. Table 4.15 presents R^2 values of the endogenous variables in the model. In the Lisrel output, R^2 are presented as squared multiple correlations.

The R^2 values ranged between 0.05 and 0.70. The lowest value was that of organisational performance (0.49), which indicates that the whole model accounted for only 49% of the reported variance in organisational performance. Employee attitudes and employee behaviour obtained moderate R^2 values of 0.56 and 0.51 respectively. The highest R^2 value was that of human resource Management practices (0.70) indicating that the total model explains about 70% of the variance explained in the HRM practices scale.

In terms of path coefficients; there are 7 paths that were hypothesised in the study. All paths showed significant relationship between the variables except hypothesis 6 which was not supported (See Figure 4.38). Furthermore; the X^2 statistic for goodness-of-fit was 48, degree of freedom was 104.266 and the *p*- value was 0.0000 (See Table 4.15)

Table 4. 15: Squared multiple correlations (R^2).

	BSTRAT
EATTIT	0.562
	(0.049)
	11.443
EBEHAVE	0.512
	(0.052)
	9.855
ORGPERF	0.491
	(0.051)
	9.616
HRPRACT	0.698
	(0.058)
	11.978

Similarly, squared multiple correlations of the manifest variables are indicative of the degree to which the indicators are free from measurement error (the closer to 1 the better the manifest variable acts as an indicator of the corresponding latent variable). In this study; the R^2 values are moderate to high ranging from 0.096 to 0.886) suggesting that manifest variables are reasonably successful as measures of the latent variables in the model (See Table 4.16).

Table 4. 16: Squared Multiple Correlations for Y-Variables

EA-1	EA-2	EB-1	EB-2	OP-1	OP-2
0.886	0.877	0.707	0.772	0.769	0.708

Squared Multiple Correlations for Y-Variables

TRAIND	PAPPRA	COMP	RECRUIT
0.615	0.742	0.714	0.682

THETA-DELTA

BSFAC-1	BASFAC-2
0.096	0.186
(0.024)	(0.021)
4.059	8.782

4.5.6 Structural Model Modification

Hair et al. (2010) recommend a modification of the initial model where it is found applicable. Modification is achieved based on indicators such as modification indices (MI$\geq$4), standardised residuals (<|4.0|), path estimates (>0.5; ideally $\geq$0.7 and must be significant), squared multiple correlations (SMC or Reliability $\geq$0.3). These model diagnostics are applied to suggest some changes to the model.

In order to determine the extent to which the structural model explains the observed covariance among the apparent variables; modification was conducted. The study showed that the largest modification index was that for the factor loading associated with employee behaviour for the indicator of *"production cost reduction"* on the Organisational Performance latent variable (EOP1: 10.102; see Appendix 4.26). This corresponds to the squared multiple correlations R^2 for that indicator (.829=.767). In this case x^2 drops by .62 if the indicator was allowed to freely load

on both employee behaviour indicator 2 (EB-2) and latent variable employee behaviour instead of just loading on EB-2 indicator. This indicates that, if this parameter were to be freely estimated in a subsequent model, the overall x^2 value would drop by at least this amount.

The standardised expected changes (See Appendix 4. 27) shows the expected parameter change statistic related to modification index of value -0.383. This represents an approximate value that the newly estimated parameter would assume (Bryne, 2010). In this case, the proposed structural model appears to fit the data reasonably well because the expected change was minimal. Inspection of the modification indices for the Beta matrix also suggests that there are no additional paths between any endogenous latent variables that would significantly improve the fit of the proposed structural model.

Similarly, the completely standardised solution estimates (see Table 4.17) indicate that the solution was admissible because none of the parameters exceeds unity in absolute value. Further, Table 4.17 indicates the correlation between indicator and the factor. It also shows a standardised regressive path reflecting the degree of standardised score change in the indicator given a standardised unit increase in the factor. For example, the results show that; a one-unit increase in employee attitudes (EATTIT) increases employee satisfaction (EA-1) by 0.941

Table 4. 17: Completely Standardised Solutions

LAMBDA-Y

	EATTIT	EBEHAV	ORGPERF	HRPRACT
EA-1	0.941	--	--	--
EA-2	0.936	--	--	--
EB-1	--	0.841	--	--
EB-2	--	0.879	--	--
OP-1	--	--	0.877	--
OP-2	--	--	0.841	--
TRAIND	--	--	--	0.784
PAPPRA	--	--	--	0.861
COMP	--	--	--	0.845
RECRUIT	--	--	--	0.826

PHI

Note: this matrix is diagonal

EATTIT	EBEHAV	ORGPERF	HRPRACT
0.351	**0.921**	**1.766**	**0.513**

THETA-EPS

EA-1	EA-2	EB-1	EB-2	OP-1	OP-2
0.114	0.123	0.293	0.228	0.231	0.292

THETA-EPS

TRAIND	PAPPRA	COMP	RECRUIT
0.385	0.258	0.286	0.318

THETA-DELTA

BSFAC-1	BSFAC-2
0.262	0.503

Although standardised residuals and modification indices provide specific information on how the model can be improved; the model review was not done in this study, because there were no justifiable empirical or conceptual grounds (MacCallum, Roznowski & Necowitz, 1992). Furthermore; a theoretical specification search aimed at revising the model based solely on large standardised residual or modification indices can result in further model misspecification and over fitting like inclusion of unnecessary parameter estimates arising from chance associations in the data (Little, 2013).

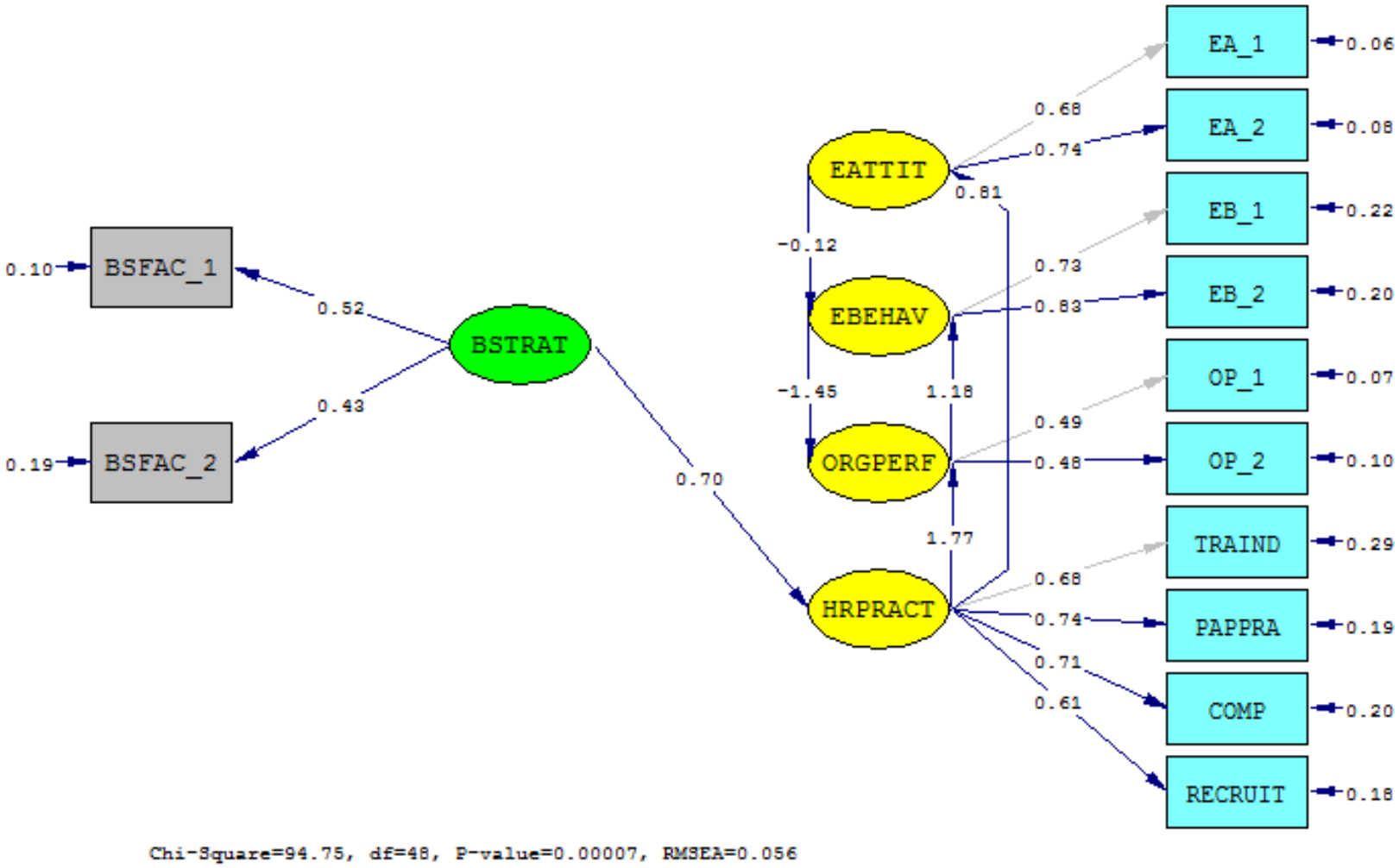


Figure 4 19: Structural Model

KEY:

BSTRAT: Business Strategy; **EATTIT:** Employee Attitudes; **EBEHAV:** Employee Behaviour; **HRPRACT:** Human Resource Management Practices; **ORGPERF:** Organisational Performance; **BSFAC:** Business Strategy Factor; **EA:** Employee attitude; **EB:** Employee Behaviour; **OP:** Organisational performance; **TRAIND:** Training and Development; **PAPPRA:** Performance appraisal; **COMP:** Compensation; **RECRUIT:** Recruitment and Selection.

4.6 RELATIONSHIP BETWEEN LATENT VARIABLES

Based on the results of the fit indices, the structural model can be concluded to fit the data well. The next step was to test the relationships between endogenous and exogenous latent variables. The aim was to assess whether the linkages specified in the conceptual model are supported by the data (Diamantopoulos & Siguaw, 2000).

Three relevant issues had to be considered first in order to assess the relationships. The first consideration was to examine the signs of the parameters representing the paths between latent variables. The aim was to determine whether the direction of the hypothesised relationships was theoretically determined (Edwards & Bagozzi, 2000). The second consideration was to investigate the magnitude of the estimated parameters. This investigation provides information about the strength of the relationships. The third consideration was the R^2 which indicates the amount of variance in the endogenous variables explained by the latent variables linked to it (Diamantopoulos & Siguaw, 2000).

The parameters that were assessed were the freed elements of gamma (see Table 4.18) and beta (β) matrices (see Table 4.10). The Unstandardised gamma matrix was used to evaluate the strength of the estimated path coefficients. According to Diamantopoulos and Siguaw, (2000) the Unstandardised estimates are significant if t >1.96. A significant Y estimate suggests that the related hypothesis will be rejected.

Gamma is a measure of the relationship between two ordinal variables that are either continuous or discrete. It is one kind of correlation measure but unlike Pearson's coefficient which is labelled as R; gamma is not affected by outliers i.e. highly unusual points (Diamantopoulos & Siguaw, 2000) Gamma deals with data that may have many ties. Gamma of above zero represents positive relationship, while below zero represents a negative or inverse relationship and near zero means little relationship.

In the current study, the relationship between Business Strategy and HRM practices yielded gamma 0.698 which was above zero and means a positive relationship. Furthermore, this means that a unit increase in HRM practices yields 0.698 unit increase in Business strategy.

Gamma like other correlation coefficients ranges from -1 to +1 each of which indicates perfect relationship. No relationship is indicated by 0. In this study gamma of 0.698 was near +1 therefore a positive relationship was achieved and therefore a strong relationship.

Gamma can also be interpreted as a proportion of pairs of ranks that agree in ranking out of all possible pairs. The current study shows a positive relationship between all pairs relating to business strategy i.e. organisational performance and business strategy; employee behaviour and business strategy; employee attitude and business strategy; HRM practices and business strategy.

Table 4. 18: Beta Matrix

	EATTIT	EBEHAV	ORGPERF	HRPRACT
EATTIT	--	--	--	0.805
				(0.054)
				14.832
EBEHAV	-0.122	--	1.182	--
	(0.216)		(0.302)	
	-0.563		3.913	
ORGPERF	--	-1.448	--	1.766
		(0.913)		(0.709)
		-1.585		2.490
HRPRACT	--	--	--	--

GAMMA

	BSTRAT
EEATTIT	--
EBEHAV	--
ORGPERF	--
HRPRACT	0.698
	(0.058)
	11.978

According to Cohen and Holliday (1982) correlations coefficients of less than 0.39 are low; of 0.40 to 0.69 are modest and of above 0.70 are high.

4.6.1 Relationship between Business strategy and HRM practices

The analysis found a significant, positive relationship (0.70) between business strategy and Human HRM practices (see Table 4.18 & Figure 4.19). Thus, Hypothesis 1, stating a positive relationship between the two variables, was supported. The estimated regression analysis also confirms Hypothesis 1 (t = 11.978, p < .0001) (see Table 4.26).

Furthermore, results show that cost leadership (0.52 x 0.70=0.364) and quality (0.43 x 0.70=0.301) as antecedents of business strategy both have positive effect on HRM practices thus supporting hypotheses 1. (See Figure 4.19)

4.6.2 Relationship between HRM practices and employee attitudes

The analysis found a significant, positive relationship (0.81) between Human HRM practices and employee attitudes (see Table 4.18 & Figure 4.19). Thus, Hypothesis 2, stating a positive relationship between the two variables, was supported. The estimated regression analysis also confirms Hypothesis 2 (t =14.832, p <. 0001) (see Table 4.26).

Results also show that recruitment and selection (0.61 x 0.81=0.4941), training and development (0.68 x 0.81=0.5508), performance appraisal (0.74 x0.81=0.5994) and compensation (0.71

x0.81=0.5751) as antecedents of HRM practices all have a positive effect on employee satisfaction and commitment. Thus, supporting hypothesis 2 (See Figure 4.19)

4.6.3 Relationship between employee attitudes and employee behaviour

The analysis found a significant, negative relationship (-0.12) between employee attitudes and employee behaviour (see Table 4.18 & Figure 4.19). Thus, Hypothesis 3, stating a negative relationship between the two variables, was supported. The estimated regression analysis also confirms Hypothesis 3 (t = -0.563, p <. 0001) (see Table 4.26).

Results also show that employee satisfaction (0.68 x -0.12=-0.0816), and employee commitment (0.74 x -0.12= -0.888) as antecedents of employee attitude both have a negative effect on employee behaviour. Thus, supporting hypothesis 3 (See Figure 4.19)

4.6.4 Relationship between employee behaviour and organisational performance

The analysis found a significant, negative relationship (-1.45) between employee behaviour and organisational performance (see Table 4.18 & Figure 4.19). Thus, Hypothesis 4, stating a negative relationship between the two variables, was supported. The estimated regression analysis also confirms Hypothesis 4 (t = -1.585, p <. 0001) (see Table 4.26).

Results further show that absenteeism (0.73 x -1.45= -0.72) and disputes (0.83 x -1.45= -0.62) as antecedents of employee behaviour both have a negative effect on organisational performance thus supporting hypothesis 4 (See figure 4.19).

4.6.5 Relationship between HRM practices and organisational performance

The analysis found a significant, positive relationship (1.77) between Human HRM practices and organisational performance (see Table 4.18 & Figure 4.19). Thus, Hypothesis 5, stating a positive relationship between the two variables, was supported. The estimated regression analysis also confirms Hypothesis 5 (t = 2.490, p <. 0001) (see Table 4.26).

Results also show that recruitment and selection (0.61 x 1.77 =1.08), training and development (0.68 x 1.77=1.20), performance appraisal (0.74 x 1.77=1.31) and compensation (0.71 x

1.77=1.26) as antecedents of HRM practices all have a positive effect on employee satisfaction and commitment. Thus, supporting hypothesis 5 (See Figure 4.19)

4.6.6 Relationship between organisational performance and employee behaviour

The analysis found a significant, positive relationship (1.18) between employee behaviour and organisational performance (see Table 4.18 & Figure 4.19). Thus, Hypothesis 6, stating a negative relationship between the two variables, was not supported. The estimated regression analysis also confirms Hypothesis 6 ($t = 3.913$, $p <. 0001$) (see Table 4.26).

The results further show that cost reduction (0.49 x 1.18= 0.58) and throughput time (0.48 x 1.18=0.57) as antecedents of organisational performance both have a direct positive effect on employee behaviour thus rejecting hypothesis 6 (See Figure 4.19).

Table 4.19 presents a summary of the results of hypothesis testing. From the seven hypotheses that the study investigated; only one hypothesis was not supported.

Table 4. 19: Results of hypothesis testing

PATH	HYPOTHESIS	RESULT
Business Strategy → HRM Practices	1	Support
HRM Practices → Employee Attitudes	2	Support
Employee attitudes → Employee behaviour	3	Support
Employee behaviour → Organisational Performance	4	Support
HRM Practices → Organisational performance	5	Support
Organisational Performance → Employee behaviour	6	Reject
Firm age, size and union intensity → HRM practices	7a	Partial support
Firm age, size and union intensity → Organisational Performance	7b	Partial support

4.6.7 The influence of controls (organisational age, size & union intensity) on Human Resource Management Practices.

Moderation takes place when the relationship between variables is dependent on a third variable which is referred to as the moderator. The effect of the moderator on the relationship between the variables is termed as an interaction. According to Cohen et al. (2003); moderation analysis involves use of linear regression analysis.

Two hypotheses regarding control variables (firm age, size and union intensity) were tested using hierarchical regression in order to estimate the net effect of the variables on the independent variable (firm age, size and union intensity) and dependent variable (HRM practices on one hand and organisational performance on the other). This approach is consistent with Katuo (2008) Katuo (2012) Shin (2017) Bryne (2016) and Khilji (2006). Two models are presented in tables 4.20 to 4.22 and tables 4.23 to 4.25 based on the regression results each of the independent variables contributes to the explanation of variance in the separate dependent variables .Detailed explanation of each model is presented.

The model summary of organisational age, size and union intensity and Human Resources Management practices shows the coefficient of determination (R^2) under model one was .004, which meant that organisational age and size explained 0.4% of the variation in Human Resources Management practices and 99.6% of the variations remaining unexplained. Model two had R^2 of .048 which meant that model two explained 4.8% of the variation in HRM practices and left 95.2 % of variations unexplained. Thus, model two showed a relatively good fit than model one implying that union intensity had the greatest effect on human resource management practices (See Table 4. 20). The R square change shows how much of the overall change was explained by union intensity. Table 4.20 shows that union intensity explains an additional 4.4% of the variance in human resource management practices even when the effects of organisational age and size are statistically controlled. This was a significant contribution, as evidenced by the sig. F value of .000 for this line.

Table 4. 20: Model Summary of organisational age, size & union intensity and Human Resource Management practices

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.062[a]	.004	-.003	16.68223	.004	.588	2	305	.556	
2	.219[b]	.048	.039	16.33477	.044	14.114	1	304	.000	.739

a. Predictors: (Constant), Number of employees, Years of firm existence

b. Predictors: (Constant), Number of employees, Years of firm existence, percentage of unionism

c. Dependent Variable: Human resource management practices

ANOVA was used to assess the overall significance of the hierarchical regression model (See Table 4.21). Under model one, the F-value (2,305) =.588, P<.005 (i.e. 0.556) and accounted for 0.4% of the variance in HRM practices. For model two, the F-value (3,304) =5.113, P<.005 (i.e. 0.002) and accounted for 4.4% of the variance in HRM practices. The table indicates that the model as a whole was significant.

Table 4. 21: Analysis of Variance Statistics of organisational age, size and union intensity

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	327.288	2	163.644	.588	.556[b]
	Residual	84880.569	305	278.297		
	Total	85207.857	307			
2	Regression	4093.151	3	1364.384	5.113	.002[c]
	Residual	81114.706	304	266.825		
	Total	85207.857	307			

a. Dependent Variable: Human Resource Management practices

b. Predictors: (Constant), Number of employees, Years of firm existence

c. Predictors: (Constant), Number of employees, Years of firm existence, percentage of unionism

The study also examined how well each of the variables (organisational age, size and union intensity) contributed to human resource management practices (See Table 4.22). Statistically significant beta path coefficients of less than .005 were achieved. Organisational age, size and union intensity exhibited significant interactions with human resource management practices. Organisational age had positive beta value of .042 interacting effect with human resource management practices. Organisational size and union intensity had negative beta values of -.006 and -.233 interacting effect with human resource management practices respectively.

Thus, hypothesis 7a suggesting a positive relationship between organisational age and human resource management practices was partially supported. This was so because a positive relationship between firm size and union intensity and human resource management practices was not supported. Beta values represent the unique contribution of each variable, when the overlapping effects of all other variables are statistically removed. The most important predictor of HRM practices was organisational age which explained 4.2% of the variation in HRM practices. Together, the three variables accounted for 4.8% of the variance in HRM practices.

Table 4. 22: Coefficients of organisational age, size and union intensity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	94.684	2.009		47.120	.000	90.730	98.638					
	Years of firm existence	-.521	.898	-.050	-.580	.562	-2.289	1.247	-.061	-.033	-.033	.438	2.281
	Number of employees	-.107	.621	-.015	-.172	.863	-1.328	1.114	-.052	-.010	-.010	.438	2.281
2	(Constant)	99.672	2.374		41.990	.000	95.001	104.343					
	Years of firm existence	.442	.916	.042	.482	.630	-1.361	2.245	-.061	.028	.027	.404	2.474
	Number of employees	-.040	.608	-.006	-.066	.948	-1.236	1.156	-.052	-.004	-.004	.438	2.283
	percentage of unionism	-3.702	.985	-.233	-3.757	.000	-5.641	-1.763	-.216	-.211	-.210	.817	1.225

a. Dependent Variable: Human Resource Management Practices.

4.6.8 The influence of controls (organisational age, size & union intensity) on Organisational performance.

The model summary of organisational age, size and union intensity and organisational performance showed the coefficient of determination (R^2) under model one was .003, which meant that organisational age and size explained 0.3% of the variation in organisational performance and with 99.7% of the variations remaining unexplained. Model two had R^2 of .010 which meant that model two explained 1% of the variation in organisational performance and left 99 % of variations unexplained. Thus, model two showed a relatively good fit than model one implying that union intensity had the greatest effect on organisational performance (See Table 4.23). The R square change shows how much of the overall change was explained by union intensity. Table 4.23 shows that union intensity explained an additional 0.7% of the variance in organisational performance even when the effects of organisational age and size are statistically controlled. This was not a significant contribution, as evidenced by the sig. F value of .147 for this line.

Table 4. 23: Model Summary

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.056[a]	.003	-.003	1.74749	.003	.472	2	305	.624	
2	.100[b]	.010	.000	1.74430	.007	2.119	1	304	.147	1.365

a. Predictors: (Constant), Years of firm existence, Number of employees

b. Predictors: (Constant), Years of firm existence, Number of employees, percentage of unionism

c. Dependent Variable: Organisational performance

ANOVA was used to assess the overall significance of the hierarchical regression model (See Table 4.24). Under model one, the F-value (2,305) =.472, P<.005 (i.e. 0.624) was obtained and accounted for 0.3 % of the variation in organisational performance. For model two, the F-value (3,304) =1.022, P<.005 (i.e. 0.383) was obtained accounting for 0.7% of the variance. This means that both models one and two were significant with P values less than .005.

Table 4. 24: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.880	2	1.440	.472	.624[b]
	Residual	931.389	305	3.054		
	Total	934.269	307			
2	Regression	9.328	3	3.109	1.022	.383[c]
	Residual	924.942	304	3.043		
	Total	934.269	307			

a. Dependent Variable: Organisational Performance

b. Predictors: (Constant), Years of firm existence, Number of employees

c. Predictors: (Constant), Years of firm existence, Number of employees, percentage of unionism

The study also examined how well each of the variables contributed to Organisational Performance (See Table 4.25). Statistically significant beta path coefficients of less than .005 were achieved. Organisational age, size and union intensity exhibited significant interactions with organisational performance. Organisational age had positive beta value of .026 interacting effect with organisational performance. Organisational size and union intensity had negative beta values of -.044 and -.092 interacting effect with organisational performance respectively.

Thus, hypothesis 7b suggesting a positive relationship between organisational age, size and union intensity and organisational performance was partially supported. This is because a positive relationship between firm size and union intensity and organisational performance was not supported. The most important predictor of organisational performance was organisational age which explained 2.6% of the variation in organisational performance. Together, the three variables accounted for 1.0% of the variance in organisational performance.

Table 4. 25: Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	13.267	.210		63.027	.000	12.852	13.681					
	Number of employees	-.036	.065	-.048	-.551	.582	-.164	.092	-.055	-.032	-.031	.438	2.281
	Years of firm existence	-.011	.094	-.010	-.117	.907	-.196	.174	-.046	-.007	-.007	.438	2.281
2	(Constant)	13.473	.253		53.153	.000	12.974	13.972					
	Number of employees	-.033	.065	-.044	-.509	.611	-.161	.095	-.055	-.029	-.029	.438	2.283
	Years of firm existence	.029	.098	.026	.295	.768	-.164	.221	-.046	.017	.017	.404	2.474
	percentage of unionism	-.153	.105	-.092	-1.456	.147	-.360	.054	-.095	-.083	-.083	.817	1.225

a. Dependent Variable: Organisational performance.

4.7 REGRESSION ANALYSIS

Regression is a statistical technique for studying linear relationships. It mainly focuses on the dependent variable. The aim is to predict the value of the dependent variable or to estimate the effect of some explanatory variable on the dependent variable (see Table 4.26). The estimated regression weight for employee attitudes on HRM practices was 0.805 with a standard error of 0.054 (See Table 4.26). This loading was significant because its associated Wald statistic is greater than 1.96 (14.832). This shows that HRM practices exert a significant influence on employee attitudes. It means that one-unit increase in HRM practices results in 0.805-unit increase in employee attitude. This demonstrates a positive association between the constructs.

The estimated regression weight loading for employee behaviour on employee attitudes was -0.122 with a standard error of 0.0216 (See Table 4.26). This loading was significant because its associated Wald statistic is greater than 1.96 (-0.563). This shows that employee behaviour exert a significant influence on employee attitudes. It means that one-unit increase or decrease in employee attitudes results in -0.122 unit decrease in employee behaviour. This demonstrates a negative association between the constructs.

The estimated regression weight loading for employee behaviour on organisational performance was 1.182 with a standard error of 0.302. This loading was significant because its associated Wald statistic is greater than 1.96 (3.913). This shows that organisational performance exert a significant influence on employee behaviour. It means that one-unit increase in organisational performance (production cost reduction and throughput time) results in 1.182-unit increase in employee behaviour. This demonstrates a positive association between the constructs.

The estimated regression weight loading for organisational performance on employee behaviour was -1.448 with a standard error of 0.913 (See Table 4.26). This loading was significant because its associated Wald statistic is greater than 1.96 (-1.585). This shows that employee behaviour exert a significant influence on organisational performance. It means that one-unit increase in

employee behaviour (absenteeism and disputes) results in -1.448 unit decrease in organisational performance. This demonstrates a negative association between the constructs.

The estimated regression weight loading for organisational performance on HRM practices was1.766 with a standard error of 0709 (See Table 4.26). This loading was significant because its associated Wald statistic is greater than 1.96 (2.490). This shows that HRM practices exert a significant influence on organisational performance. It means that one-unit increase in HRM practices results in -1.766-unit increase in organisational performance. This demonstrates a positive association between the constructs. The estimated regression weight loading for HRM practices on business strategy was 0.698 with a standard error of 0058 (See Table 4.26). This loading was significant because its associated Wald statistic is greater than 1.96 (11.978). This shows that business strategy exerts a significant influence on HRM practices. It means that one-unit increase in business strategy results in 0.698-unit increase in HRM practices. This demonstrates a positive association between the constructs

Table 4. 26: Estimated Regression Weights

	EATTIT	EBEHAV	ORGPERF	HRPRACT
EATTIT	--	--	--	**0.805**
				(0.054)
				14.832
EBEHAV	**-0.122**	--	**1.182**	--
	(0.216)		**(0.302)**	
	-0.563		**3.913**	
ORGPERF	--	**-1.448**	--	**1.766**
		(0.913)		**(0.709)**
		-1.585		**2.490**
HRPRACT	--	--	--	--

GAMMA

	BSTRAT
EEATTIT	**--**
EBEHAV	**--**
ORGPERF	**--**
HRPRACT	**0.698**
	(0.058)
	11.978

4.7.1 Evaluating Mediation

There are four steps to assess and establish mediation **(**Baron & Kenny, 1986; Judd & Kenny, 1981, and James & Brett (1984). Using the four steps, the current study is a relationship between (i) HRM practices (initial or causal variable) and organisational performance (the outcome) denoted by hypothesis 5 (ii) HRM practices (the initial variable) and employee attitudes and behaviour (the mediators), denoted by hypothesis 2 and 3 (iii) and that the mediators affect the outcome variable denoted by hypothesis 4. Collins et al. (1998) state that step 1 is unnecessary.

Mediation was tested using regression analysis. Table 4. 27 shows that HRM practices as an initial variable was correlated with organisational performance (1.77). HRM practices are also correlated with employee attitudes as a mediator (0.81). Employee attitude was also correlated with employee behaviour as another mediator (-0.12). Employee behaviour as a mediator was correlated with organisational performance as an outcome (1.18).

The regression analysis has shown that all variables are associated with each other. The estimated mediation (the indirect effect) was the product of the estimated regression coefficient for (1) Business strategy & HRM practices path; (2) HRM practices & employee attitudes path; (3) employee attitude & employee behaviour path; (4) employee behaviour & organisational performance path (Kenny, Kashy & Bolger, 1998). The direct effect was the product of the

estimated regression coefficient of Business strategy and HRM practices and the HRM practices and organisational performance path.

4.7.1.1 Assessment of direct and indirect paths

This was assessed using the additives relationship assumption. According to this approach, the effects are additive such that the direct effect plus the indirect effect add up to the total effect. Additive relationship is applied when HRM practices have independent and non-overlapping effects on outcome. According to Katuo (2008), this translates into a case where the effect of simultaneous use of the HRM practices is higher as compared to use of anyone HRM practice alone. The simultaneous effect should not be more than the sum of the individual effects of each HRM practice (Delery, 1998).

Table 4.27 shows the direct, indirect and total effects of statistically significant relationships as shown in the tested structural model. Results reveal that HRM practices (0.70, directly) and organisational performance (1.24 indirectly) are positively affected by business strategy. This means that business strategy was the driver of organisational performance. Similarly, it means HRM practices are contingent on business strategy. Furthermore, although there was no direct effect of business strategy on organisational performance; their indirect impact on organisational performance was very strong (1.24). Similarly, business strategy indirect effect on employee attitudes and employee behaviour was significant (0.57 and 0.46) respectively.

The total effects of most variables, (except employee attitude & employee behaviour -0.12; employee attitude & organisational performance -1.57 and employee behaviour & organisational performance -1.45) are strongly and positively influenced by HRM practices.

Table 4. 27: Standardized total, direct and indirect effects

Descriptions	Direct effects	Indirect effects	Total effects
Business strategy ⟶ Organisational Performance	0.00	1.24	1.24
Business strategy ⟶ HRM practices	0.70	0.00	0.70
Business strategy ⟶ Employee attitudes	0.00	0.57	0.57
Business strategy ⟶ Employee behaviour	0.00	0.46	0.46
HRM Practices ⟶ Organisational Performance	1.77	0.00	1.77
HRM Practices ⟶ Employee attitudes	0.81	0.00	0.81
HRM practices ⟶ Employee behaviour	0.00	0.70	0.70
Employee attitude ⟶ Employee behaviour	-0.12	0.00	-0.12
Employee attitude ⟶ Organisational performance	0.00	-1.57	-1.57
Employee behaviour ⟶ Organizational performance	-1.45	0.00	-1.45
Organisational performance ⟶ Employee behaviour	1.18	0.00	1.18

In terms of mediation, the study findings reveal that employee attitudes and employee behaviour serially mediate the relationship between HRM practices and organisational performance. This finding supports the notion that HRM practices influence organisational performance through creation of employees who are skilled and have the required attitudes and behaviours (Doty & Delery, 1997; Fey et al. 2000).

The findings also partially support Guest (2001) and Boselie et al. (2003) for employee satisfaction and commitment as antecedents of employee attitudes. It also supports the argument that HRM practices help employees attain skills and competences that affect organisational performance. Consistent with Purcell, Kinnie and Hutchinson (2003) this study found that employee commitment and satisfaction are important mediators between HRM practices and firm performance.

4.7.1.2 Testing mediation through competing regression

Competing regression was used to test whether employee attitudes and employee behaviour mediate the relationship between HRM practices and organisational performance (Baron & Kenny, 1986; Katuo, 2011). Since the mediation is a hypothesised causal chain where one variable (X) affects another variable (M) which in turn affects another variable, which affects a fourth variable (Y).

The results show that for every one -unit increase in employee behaviour (holding employee attitude constant) employee attitude increases by 0.619 (See Table 4.28). This denotes a large and direct effect of employee attitudes on employee behaviour. Furthermore, 28.6% of the variance in employee behaviour was explained by employee attitude (See Table 4.29). This shows how useful employee attitude was in predicting employee behaviour.

F-tests the significance of the model. It tests hypothesis 1 which states that there was a negative relationship between employee attitudes and employee behaviour. To reject this hypothesis sig. must be less than 0.05. This model was significant as sig is above 0.05 (sig. 1) thus supporting the hypothesis. The results further show that for every one -unit increase in organisational performance (holding employee attitude constant) increases employee attitude by .404 (See Table 4.28). This represents a medium and direct effect of employee attitudes on organisational performance. Results also show that a 31.9% of variance in organisational performance was explained by employee attitudes (See Table 4.29)Employee attitude indirect effect on organisational performance was 0.249 (i.e. 0.801 x 0.081) while its direct effect was 0.404.

Furthermore, for every one-unit increase in organisational performance (holding employee attitude constant) increases employee attitude by .282 and employee behaviour by .251 (See Table 4.28). These results represent a small relationship. Results also show that 38.4% of variance in organisational performance was jointly explained by employee attitude and employee behaviour (See Table 4.29).

Additionally, for every one-unit increase in organisational performance (holding employee behaviour constant) increases employee behaviour by.307 (See Table 4.28). This represents a

medium and direct effect of employee behaviour on organisational performance. Results also show that 24.6% of variance in organisational performance was explained by employee behaviour (See Table 4.29).

Lastly, results show that for every one -unit increase in employee behaviour (holding organisational performance constant) increases organizational performance by .801 (See Table 4.28). This represents a large relationship. Results further show that 24.6% of variance in organisational performance was explained by employee behaviour (See Table 4.29).

Table 4. 28: Coefficients

Model	**Unstandardised coefficients**		**Standardized coefficients**			**95.0% confidence interval for B**		**Collinearity statistics**	
	B	**Std error**	**Beta**	**t**	**Sig.**	**Lower bound**	**Upper bound**	**Tolerance**	**VIF**
1.(Constant)	1.680	.242		6.941	.000	1.203	2.156		
Employee attitudes	.619	.056	.535	11.082	.000	.509	.728	1.000	1.000
a. Dependent variable: Employee behaviour									
1.(Constant)	2.709	.146		18.494	.000	2.421	2.997		
Employee attitude	.404	.034	.565	11.966	.000	.338	.471	1.000	1.000
a. Dependent variable: Organisational performance									
1(constant)	2.127	.175		12.135	.000	1.782	2.472		
	.282	.046	.365	6.157	.000	.192	.373	.605	1.654
	.251	.046	.322	5.436	.000	.160	.342	.605	1.654
a. Dependent variable: Organisational performance									
1(Constant)	3.108	.135		22.948	.000	2.841	3.374		
Employee behaviour	.307	.031	.496	9.999	.000	.247	.368	1.000	1.000
a. Dependent variable: Organisational performance									
1.(Constant)	.769	.358		2.149	.032	.065	1.474		
Organizational performance	.801	.080	.496	9.999	.000	.643	.959	1.000	1.000
a. Dependent variable: Employee behaviour									

Similarly, using the joint significance test significance of the effect of employee attitudes on employee behaviour (0.801, See Table 4.28) and the effect of employee behaviour on

organisation performance (0.307, See Table 4.28) were tested. The study found that both were significant. It is therefore concluded that there was evidence consistent with indirect effect (Baron & Kenny, 1986) proving that there was mediation effect.

Table 4. 29: Model Summaries

Regression of Employee behaviour on employee attitudes				
Model Summary[b]				
Model	**R**	**R squared**	**Adjusted R squared**	**Std error of the estimated**
1	.535[a]	.286	.284	.71350
a. Predictors: (Constant), Employee Attitudes				
b. Dependent Variable: Employee Behaviour				
Regression of organisation performance on employee attitudes				
Model Summary[b]				
Model	**R**	**R squared**	**Adjusted R squared**	**Std error of the estimated**
1	.565[a]	.319	.317	.43186
a. Predictors: (Constant), Employee Attitudes				
b. Dependent Variable: Organisational Performance				
Regression of organisation performance on employee behaviour and employee attitudes				
Model Summary[b]				
Model	**R**	**R squared**	**Adjusted R squared**	**Std error of the estimated**
1	.620[a]	.384	.380	.40218
a. Predictors: (Constant), Employee Behaviour, Employee Attitudes				
b. Dependent Variable: Organisational Performance				
Regression of organisational performance on employee behaviour				
Model Summary[b]				
Model	**R**	**R squared**	**Adjusted R squared**	**Std error of the estimated**
1	.496[a]	.246	.244	.45427
a. Predictors: (Constant), Employee Behaviour				
b. Dependent Variable: Organisational Performance				

Regression of employee behaviour on organisational performance

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.244	.73330	.246	99.976	1	306	.000

a. Predictors: (Constant), Organisational Performance

b. Dependent Variable: Employee Behaviour

4.9 SUMMARY

The chapter reported on the study findings. An investigation and refinement of the measuring scales was the first task of the chapter. This was followed by examining the data and correcting it wherever possible. Statistical outcomes of the hypothesised relationships were tested. The following chapter five discusses conclusions from the study results in greater depth. Recommendations for future research, study limitations and possible managerial implications will be presented in the conclusion.

CHAPTER FIVE

DISCUSSION OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The earlier chapters have outlined why this study was undertaken. This chapter discusses key findings of the thesis. The discussion centres on answering three key research questions (1) do HRM practices affect performance of agricultural manufacturing firms in Malawi, (2) does the performance of the agricultural manufacturing firms motivate how employees behave at work? (3) Is the causal relationship stronger in the forward or reverse causality in the Malawi agricultural manufacturing sector?

In an attempt to answer research question one; a comprehensive literature review was carried out in Chapter two. The aim was to identify and discuss HRM practices that relate to manufacturing in general and apply them to the Malawi agricultural manufacturing in particular. A conceptual framework has been tested from the contingency theory, resource based theory, general systems theory and the AMO theory. In the conceptual framework four HRM practices were hypothesised to directly or indirectly influence four organisational performance indicators. To answer this question a survey was conducted using a questionnaire. Based on the conceptual model seven hypotheses were tested. The discussion focuses on examining the results of five hypotheses with regard to question one. The hypotheses were: H1, H2, H3, H4, and H5

In order to answer the second question, a conceptual framework was tested that was developed from general systems theory perspective. In the conceptual model four organisational performance factors were hypothesised to motivate three employee behaviours (Details in Chapter 3). The results of hypothesis 6 will be discussed. In order to answer the third question, a comparison was made of the forward and reverse causality figures to derive which one has a better rating. The rest of the chapter presents key research findings around research questions and hypotheses discussed in detail. It also outlines theoretical and practical contributions of the study. Then it addresses several limitations of the thesis and finally provides future research directions in the area of HRM.

5.2 AIM OF THE STUDY

The aim of this study was to investigate whether organisational performance influence employee behaviour in agricultural manufacturing firms in Malawi using the Human Resource Management practices and organisational performance Model

This study is important because literature is scarce of studies of this nature in Malawi and no study has investigated reversed causality of organisational performance and employee behaviour. However other studies have compared HRM practices direct and indirect effect on organisational performance.

5.2.1 Objectives of the study

The specific objectives were:

1. Examine the effect of organisational age, size and union intensity on the HRM practices and organisational performance in the agricultural manufacturing sector
2. Investigate the impact of HRM practices on organisational performance in the agricultural manufacturing sector.
3. Examine the reversed causality of organisational performance on employee behaviour on the relationship between HRM practices and organisational performance in the agricultural manufacturing sector.

Research questions

1. What is the relationship between business strategy and human resource practices?
2. What is the relationship between human resource practices and employee attitudes?
3. What is the relationship between employee attitudes and employee behaviour?
4. What is the relationship between employee behaviour and organisational performance?
5. What is the relationship between human resource practices and organisation performance without the mediating effect of employee attitudes and employee behaviour?
6. Does organisational performance affect employee behaviour?
7. Is the causal relationship stronger in the forward or reverse causality?

5.2.2 Conceptual framework

The conceptual framework of this study is guided by the resource based theory (Barney, 1991) and the contingency theory (Fiedler, 1964). In order to understand how human resources can be acquired, trained and developed, assessed and rewarded appropriately; using organisational human resources practices. This is an attempt to turn employees into rare, inimitable, non-substitutable and valuable resources and create sustained competitive advantage. In this regard; the resource based theory was used. The contingency theory justifies the inclusion of external factors in the model to reflect the effect of control factors on human resources practices and organisational performance. This study has included organisational age, size and union intensity as control factors.

5.3 SUMMARY AND DISCUSSION OF KEY FINDINGS

The study research objectives aimed at ensuring that the measurement scales used to assess the relationships were valid and internally reliable. This helped to ensure that the best statistical results are attained when further analyses were done. Dimensionality and factorial validity were assessed using exploratory factor analysis (EFA). Confirmatory factor analysis was performed to assess whether the measurement and the overall structural model displayed acceptable model fit. The key findings are discussed in the following section.

5.3.1 The effect of organisational age, size and union intensity on HRM practices and organisational performance

The first objective was to investigate the effect of organisational age, size and union intensity on HRM practices and Organisational performance. Hierarchical multiple regression was used to investigate the effect. Findings revealed that union intensity had an additional 4.4% of variance on HRM practices and an additional 0.7% of variance on organisational performance when organisational age and size are statistically controlled. The results show that union intensity has a more significant contribution to HRM practices than organisational performance. This is explained by the fact that unions play a critical role in accepting, promoting or rejecting certain HRM practices. The finding is consistent with Katuo (2012) who found insignificant effect of organisational age and size on HRM practices and organisational performance.

On how well each of the three variables contributed to HRM practices and organisational performance; Organisational age had positive beta values (.042) and (.026) interacting effect with HRM practices and organisational performance respectively. Organisational size and union intensity had negative beta values (-.066 & -.044 and -.233 & -.092) interacting effect with HRM practices and organisational performance respectively. This shows that organisation age is the greatest predictor of HRM practices and organisational performance. Age of the firm is very critical for the firm in adopting HRM practices. When the firm gets older it becomes more conversant with HRM practices and their effect towards management of its staff. Better management of staff would result in better organisational performance. It is for this reason that the study chose firms that are three years old or more as they would have well established HRM practices that would positively affect organisational performance.

5.3.2 Do HRM practices affect organisational performance?

The second objective was to investigate the effect of HRM practices on organisational performance in the agricultural manufacturing sector in Malawi. This relationship was investigated as both a direct and indirect linkage (through mediation variables of employee attitudes and behaviours) between HRM practices and organisational performance. The study findings provide an affirmative response to the question as discussed in the subsequent sections.

5.3.2.1 The direct link

In the direct linkage; HRM practices and organisational performance relationship was investigated. The results show a direct, significant positive effect of HRM practices on organisational performance (1.77, P=0001). This finding is consistent with Boselie et al. (2005) who found that HRM policies have a direct linkage with organisational performance. The results support hypothesis 5 which states that there is a positive relationship between HRM practices and organisational performance. The results reveal a number of interesting results.

With respect to HRM practices, performance appraisal (.74 x1.77=1.31), compensation (.71 x 1.77=1.26) and training and development (.68 x 1.77=1.20) had the greatest direct positive effect

on organisational performance. Similarly, performance appraisal was the dominant indicator of HRM practices where one-unit increase of performance appraisal causes .74 unit increases in HRM practices. Additionally, the improvement of organisational performance depends much more heavily on HRM practices pursued by the organisation (total standardised effect =1.77, P=0001) compared to the extent of business strategy adopted (total standardised effect 0.70 x 1.77=0.57). This finding is different from Katuo (2012) who found organisational performance to be heavily dependent on business strategy than HRM practices. Although business strategy is the initial driver of organisational performance; but HRM practices constitute the daily operational details that directly affect organisational performance. It is surprising that compensation appeared to have the least effect on HRM practices.

These results are consistent with previous research. A positive relationship between human resource practices and manufacturing firm performance has been demonstrated before (Katuo, 2008; Katuo & Budhwar, 2010; Katuo, 2012).The results also show that business strategy has a direct positive relationship with HRM practices confirming hypothesis 1. These results suggest that Business strategies are followed by human resource management practices in determining organisational performance (Katuo & Budhwar 2010). This study therefore supports the contingency perspective represented by the link between business strategy and human resource management practices in the model.

With regard to the contingency perspective, results show that agricultural manufacturing firms put more emphasis on cost leadership and innovation (improvement of service and goods). This is because firms believe it is hard to compete with imported goods which are cheaper and as a result they try to gain competitive advantage through innovation and cost leadership (make products at the cheapest cost). In this regard, agricultural manufacturing firms put more emphasis on performance appraisal and compensation in order to attract employees' commitment and satisfaction.

5.3.2.2 The indirect link (mediation)

The other linkage between HRM practices and organisational performance is where employee attitudes and behaviours mediated linkage through hypotheses 2, 3 and 4.

In terms of hypothesis 2 the results show a direct and positive effect (0.81, P=0001.) of HRM practices on employee attitudes through employee satisfaction and commitment as antecedents of employee attitudes. This finding supports hypothesis 2. Furthermore; all HRM practices indicators show a positive effect on improving employee attitudes with performance appraisal having the dominant effect. Recruitment and selection has the least effect on HRM practices (0.61) and indeed on improving employee satisfaction and commitment (0.49). This is explained by the fact that recruitment and selection concerns individuals who are not working for the organisation as yet while others (training & development, performance appraisal & compensation) deal with individuals after they are employed (Gatewood, Feild & Barrick, 2010). Similarly training and development has an effect on employee attitudes by enhancing employee abilities, skills and knowledge. This helps to empower employees to perform better resulting in improved organisational performance through shorter throughput time and quality products (Brown et al; 2011). Thus, the study supports the philosophy of the resource-based view of the firm where HRM practices directly impact on employee attitudes, which in turn affect employee behaviour which subsequently affect organisational performance.(Perryer et al, 2010) HRM practices motivate employees to be committed and satisfied with the organisation. This in turn makes employees stay on with the firm (counter of turnover) and minimise opportunities of absenteeism and disputes. Training helps to raise the value of human capital (resource based view) and image of the firm and remain competitive. Risks and safety problems at work are reduced due to training (Bitsch & Harsh, 2004). Training that focuses on occupational health and safety aspects reduces workplace job-related injuries which helps to lower employee absenteeism arising from injuries at work.

Performance appraisal is an important employee development tool. It guides an employee on the path to corporate advancement. Employees get clear of what is expected of them as such performance appraisal acts a motivation for an employee. Compensation influences employee motivation, satisfaction and commitment to the firm. It results in reduced absenteeism and fewer disputes. Low pay contributes to job dissatisfaction. In view of the largest standardized coefficients, it is evident that performance appraisal (0.74) and compensation (0.71) are the dominant HRM practices that improve employee satisfaction and commitment.

Hypothesis 2 supports the Resource Based view where through the HRM practices the firm attempts to achieve competitive advantage by creating a pool of human resources that are rare, valuable and difficult to imitate (Barney, 1991). HRM practices show a direct effect on employee attitudes, which subsequently affect employee behaviours that in turn affect organisational performance (Guest & Conway, 2004; Perryer et al. 2010).

In terms of hypothesis 3 the results show that employee attitudes have a negative direct effect on employee behaviour (-0.12, P=0001). Attitudes especially job satisfaction and organisational commitment, are strong drivers of employee behaviour (Messersmith, Patel & Lepak, 2011). When employees are not happy with some of HRM practices followed by the firm; they tend to be dissatisfied which results into high levels of absenteeism and disputes (Shammot, 2014). When employee fear losing their jobs due to poor economy they tend to lose trust with management and argue more with management to have a pay rise in order to offset the effect of inflation. Employees may absent themselves in order to go and look for alternative sources of extra money.

In terms of hypothesis 4, results show that employee behaviour (absenteeism and disputes) have a direct negative effect on organisational performance. Worker absenteeism and disputes negatively cost the organisation in terms of productivity and profits. An organisation cannot afford to manufacture a product in the shortest time (throughput) and make quality products when employee absenteeism and disputes are putting a huge financial burden on it (Duggan, 2011). Assembly lines of agricultural manufacturing firms work better when every employee is present. Absenteeism and disputes are very critical in the manufacturing assembly line because of the value of the individual employee specialisations on the assembly line that cannot easily be replaced. When an employee is absent management must scramble to find a replacement that is not usually as proficient as the absent employee. This reduces quality of the product and throughput time.

Hypotheses 3 and 4 support the AMO theory where the firm gives employees the ability, motivation and opportunity to exercise their skills. According to Jiang et al. (2013) when abilities, motivation and opportunities of employees are positively influenced by employee perceived positive HRM practices; employees' behaviour and performance is enhanced. This

means that if an organisation wants to improve its performance; it must develop and implement good HRM practices (recruitment & selection; training & development; performance appraisal; and compensation) that will positively shape employee behaviour (Boxall & Purcell, 2003; Lepack et al. 2006). HRM outcomes like employee attitudes (satisfaction & commitment) and employee behaviour (absenteeism & disputes) mediate the relationship between HRM practices and organisational performance. In order to improve organisational performance, levels of employee satisfaction and commitment must be enhanced; and employee absenteeism and disputes must be reduced.

According to AMO theory; organisational interests are served better when there is a system that pays attention to employees' ability, motivation and opportunity (Jiang et al. 2013). Firms should therefore attempt to firstly increase employees' ability i.e. the knowledge and skills to do the job; secondly motivate employees through internal and external rewards, balance between work and life, performance reviews, feedback and career development; and thirdly provide opportunities for employees to contribute to the firm.

These results of the mediated link depict both positive (H2) and negative significant relationships (H3, H4) between HRM practices and organisational performance through employee attitudes and behaviours. The mediated link yields -0.76 beta value which is lower than that of the direct link (1.77) in hypothesis 5. This means that the effect of HRM practices on organisational performance is better when unmediated (H5) unlike when mediated (H2, H3, and H4). This is contrary to Katuo (2012) who found that the mediated link was better than the direct link in the Greek context. However the study findings support the basic equation in the HRM practices and performance relationship which states that HRM practices directly affect performance (Boselie et al. 2005) In view of both a direct link and an indirect link existing between HRM practices and organisational performance; it is concluded that employee attitudes and employee behaviour partially mediate the relationship between HRM practices and organisational performance (Baron & Kenny, 1986; Katuo, 2008). This may imply that HRM practices used in the agricultural manufacturing sector do not promote good employee attitudes to positively affect organisational performance. This implies that organisational manufacturing firms focus more on

productivity and less on the staff welfare. The mediated linkage is supposed to be the best because it takes into consideration the human side of enterprise..

Furthermore, the results show that employee attitudes (satisfaction & commitment) and employee behaviours (absenteeism & disputes) partially mediate the relationship between HRM practices and organisational performance (Baron & Kenny, 1986). It can therefore be concluded that both a direct and indirect link exists between HRM practices and organisational performance (Huselid, 1995). This finding supports the notion that HRM practices affect organisational performance through creation of a skilled workforce with appropriate attitudes and behaviours (Delery, 1996; Guest, 2001 & Boselie et al. 2001). The study shows that this chain holds in agricultural manufacturing firms as it holds in other firms. However, the results show that employee attitudes and behaviour do not play well the role of mediators.

5.3.3 Is the reverse causality stronger than forward causality?

The third objective was to find out if reverse causality exists between organizational performance and employee behaviour. Prowse and Prowse (2010) argue that reverse causality is a critical issue that must be investigated. Regarding forward causality, the study revealed existence of this as shown in the earlier discussion. The study found that the forward causality of HRM practices on organisational performance is contingent on business strategies and that it is better unmediated (yielding 1.77 beta value) than mediated(yielding -0.76 beta value).

Examining the effect of employee behaviour on organisational performance (forward causality) results showed that a unit increase in employee behaviour (i.e. increase in absenteeism and disputes) reduces organisational performance by -1.45. Reducing organisational performance has a negative effect. With regard to reverse causality, the study found that a unit increase in organisational performance positively influences employee behaviour (1.18) i.e. it increases incidents of absenteeism and disputes, thus rejecting H6. The total standardized effect is much higher computed to be equal to 1.18 (standard error=0.07, exact significance level=0.001), implying that in Malawi agricultural manufacturing firms increasing organisational performance increases employee behaviour (absenteeism and disputes). The finding is strange because normally good organisational performance would result into good employee behaviour in

increased presence (counterpart of absenteeism) and industrial peace (counterpart of disputes) as argued by Katuo and Budhwar (2010).However, the result of good organisational performance increasing employee absenteeism and disputes is explained by the expectations that employees have regarding the good organisational performance. It is organisational performance that leads to high employee absenteeism and disputes (employee behaviour) and therefore organisational performance has a negative effect (increased absenteeism and disputes).

To prove reverse causality, the negative effect of employee behaviour on organisational behaviour (H4) should also be demonstrated as the negative effect of organisational performance on employee behaviour (H6) in the reverse. This would answer the question as to which construct negatively affects the other more. It must be understood that the employee behaviours being used in this study are negative behaviours (absenteeism and disputes); so it is either we increase these behaviours (negative) or we reduce them (positive). Increased organisational behaviour leading to increasing employee absenteeism and attitudes maybe explained by the expectations employees have as advanced by the expectancy theory Adams, 1965; Walster, Berscheid, & Walster, 1973) that employees have because of increased performance. It is important to note that the nature of the employee behaviours used in the study can have a negative effect (when they increase) as well as a positive effect (when they decrease). .

From this study reverse causality has been proven because organisational performance increase affects increase in employee absenteeism and disputes. Increased absenteeism and disputes are not positive attributes about employee behaviour; they are negatives attributes. From this study, forward causality (beta -1.45 with regression coefficient -1.448) compared with reverse causality (beta 1.77 with regression coefficient 1.182). This is supported by the regression analysis results which showed that a one unit increase in organisational performance resulted in 1.182 increase in employee behaviour (absenteeism and disputes). This finding is inconsistent with Katuo (2012) and Katuo and Budhwar (2010) who found a direct and positive relationship of the reverse causality. It is clear from this comparison that it is organisational performance that affects employee behaviour more than employee behaviour affecting organisational performance. Organisational performance affects employee behaviour more than employee behaviour affecting

organisational because employee behaviour (absenteeism and disputes) are incidents of absenteeism only affect a few individuals while disputes rarely occur in a month or year in the organisations. Organisational performance is a continuous concern for the firm every month and year. The study found that only 36% of the firms studied in agricultural manufacturing are unionised. This means that most of the employees can not benefit from the collective bargaining that unionism accords an employee as such individual mechanisms (absenteeism and disputes) of dealing with unmet expectations take centre stage.

Unlike Katuo (2012) who used efficiency, effectiveness, development and stakeholders' satisfaction; these indicators are distal to organisational performance. They do not directly relate to employee behaviour. These indicators may come about due to machinery that the firm is using which can be automated leaving out the human aspect in the formula. Similarly, Wright et al. (2003) argue that financial performance lies at the distant end of the causal chain, and that outcome measures that are more closely linked to HRM might be more appropriate to consider. This is consistent with literature of the measures that have been reported like labour turnover, aspects of productivity (David, 2003). It is for these reasons that this study used a range of proximal than distal measures and examine how HR practices relate to each of these organisational performance indicators.

Short throughput time refers to the ability to make a quality product with the shortest time. This can be achieved through efficient operations, process technology and/or scale economies (Vickery et al. 1997). Throughput time and quality products are performance indicators which are directly and negatively affected by employee behaviours like absenteeism and disputes. They are proximal factors which in turn feed into distal performance indicators like profits (Wright et al. 2003). When a firm makes quality products; this translates into more sales at premium prices thereby earning more profits. Likewise, when it takes the shortest time (throughput) to make its product; the firm becomes more efficient by using fewer resources (cost efficient) thereby earning more profits. A firm that is making more profits can be viewed as a going concern. Employees expect that the firm can afford to effect pay increases and thereby reduce incidences of disputes and absenteeism of its staff. In the event that no pay rise is effected; employee

disputes arise. This shows how increasing organisational performance can increase employee behaviour (absenteeism and disputes). Increase in absenteeism and disputes are obviously a negative effect of organisational performance on employee behaviour. This further shows that in the HRM practices and organisational performance relationship; reverse causality is stronger than forward causality of employee behaviour. It may be concluded from this finding that organisations that are performing better in their manufacturing have the ability to retain their employees. Consistent with the general systems theory, the results suggest that organisational performance, as an output of the HRM practices and organisational performance relationship; has direct positive and significant influence on employee behaviour. Throughput and quality helps the firm to earn higher profits. With high profits, employees expect the firm to attend to union demands like better conditions of service (better health service, family friendly facilities, thirteenth cheque etc) which result in positive employee behaviours such as presence (counterpart of absenteeism) and industrial peace (counterpart of disputes) (Katuo & Budhwar, 2010). This study therefore supports the general systems theory represented by the relationship between organisational performance and employee behaviour.

5.3.4 Does organisational performance motivate employee behaviour?

The current study had set out to investigate the reversed causality of organisational performance and employee behaviour. The study hypothesized that there is a negative relationship between organisational performance and employee behaviour i.e. a unit increase in organisational behaviour reduces incidents of absenteeism and disputes. This would be of a positive development with positive effect. The hypothesis (H6) suggests that improvement in organisational performance (improved throughput and quality) leads to deterioration of employee behaviour (absenteeism and disputes). While it was hypothesized that employee behaviour negatively affects organisational performance (-1.45); the study showed that it is organisational performance that negatively affects employee behaviour by increasing employee absenteeism and disputes (1.18). The results of the reversed causality did not support the hypothesis as the result was in the opposite direction (positive) to the direction expected (negative). This implies that if organisational performance increases disputes and absenteeism will go up. Absenteeism will go up because the employees will be stressed up and fatigued due to more work or more hours of work in order to increase productivity. Improved throughput may attract more and

higher productivity. Improved quality will mean paying more attention to manufacturing standards. Improved throughput time and quality translates into more distal performance indicators of efficiency and profitability. The hypothesis was investigated by means of SEM analysis and the resulting model was found to be a good fit to the sample data. Control variables paths (firm age, size and union intensity) were specified with all the variables having a significant relationship with their counterparts. This is explained by motivational theories. Instead of only looking at HRM practices being the motivators of employee behaviour; the study shows that the performance of the firm can motivate negative employee behaviours.

Employees feel a legitimate expectation that their work life will improve as they expect better compensation from the organisation based on improved manufacturing throughput and quality of the organisation. Improved throughput time would mean less staff required to manage the manufacturing flow of work because some sections are mechanized or indeed some stages of the manufacturing process removed from the system. De Lange et al (2004) argue that fatigued employees, due to more work aimed at making maximum use of the short throughput time and the need for more quality products, would translate into more absenteeism from employees. Employees would, perceive their work environment more negatively. Fatigue may negatively affect employees' health which would in turn make them absent from work and raise a number of demands for better conditions of employment with the employer. The study therefore has proven that organisational performance motivates and promotes these negative employee behaviours (absenteeism and disputes).

The study further found that organisational performance is negatively affected by disputes (0.82x -1.45=0.73) more as compared to absenteeism (0.72 x -1.45=-0.62). This result is consistent with the regression analysis which found that a one unit increase in employee behaviour (absenteeism and disputes) resulted in a -1.448 unit decrease in organisational performance. This is explained by the fact that absenteeism can involve only very few employees of the organisation unlike disputes (strikes) which involve almost all the employees. This translates into great losses due low productivity. Managers should therefore try to avoid incidents of employee disputes by implementing good HRM practices that will create good employee attitudes that will in turn lead

to good employee behaviours. Results show that increasing manufacturing throughput (0.87) would drive employee absenteeism and disputes more than increasing quality products (0.85). Although literature talks about total quality management (TQM) employees in the agricultural manufacturing are more concerned with the actual manufacturing process line which they are in control of. Issues of quality assurance could be in the realm of some other staff. Managers should pay particular attention to manufacturing through put as this increases incidents of employee absenteeism and disputes because of the stress associated with it.

It is important to note that the effect of organisational performance on employee behaviour is also affected by the age of the firm. This study targeted medium to large firms employing about 25 and above employees. Organisations of this size have more employees and have enough manufacturing equipment. It is therefore expected that employees from these firms are better informed of what is expected as their benefit when the firm performs better. Organisations under study had gone past the formation or initial stage where organisational performance levels are merely acceptable. In the subsequent stages of the organisation cycle; adaptive behaviour can be expected to decline (Greve, 1998). This represents the stage where indeed organisational performance affects employee behaviour.

The results show that organisational performance has a direct positive effect on employee behaviour supporting the general systems theory where the output of the HRM-organisational performance link has become input in influencing employee behaviour.

5.4 COMPETING REGRESSION ANALYSIS

Competing regression analysis showed that employee attitudes (satisfaction & commitment) have a greater direct effect (.404) on organisational performance than the direct effect of employee behaviour of .307 (absenteeism & disputes) on organisational performance. The total effect of employee attitudes (.282) and employee behaviour (.251) on organisational performance is .071. The total effect (.071) demonstrates that employee attitudes had the greatest effect on organisational performance. This demonstrates how important employee attitudes are in affecting organisational performance as compared to employee behaviour. This is so because attitudes are internal to the individual and they take long time to develop. On the contrary,

behaviours are easy to detect, monitor and control. Many organisations have measures in place that reward/reinforce good employee behaviour or punish bad employee behaviours at work but have no similar measures that reward/reinforce good employee attitude or punish bad employee attitudes. This shows how employee attitudes are generally overlooked at work

5.5 CONTROL VARIABLES

Meaningful control variables were used in the study in order to show the effect of contextual variables on the relationship between HRM practices and organisational performance. However, this study could not exhaust all of these factors.

Organisational age and size do not seem to be closely related. A positive relationship is found for recruitment and selection with organisational age. This finding is consistent with Katuo (2012), who investigated the outcomes of recruitment and selection practices. From four different outcome indicators, firm age is related to one of these four. Delery and Doty (1996) included firm age as one of the control variables and found it to be correlated to three of the seven human resource practices.

5.6 CONCLUSIONS

Employee behaviour is very critical in achieving organisational goals. Employee behaviour has been looked at as only having forward causality effects on organisational performance and not that employee behaviour can be influenced by organisational performance in a reverse causality. This investigation of whether organisational performance affects employee behaviour is critical.

Past research provides sufficient evidence that HRM practices and/or policies have a direct and positive relationship with organisational performance (Katuo, 2010, 2012; Tsai et al. 2011). Past research also demonstrates that organisational performance has a positive and significant reverse causality on HRM practices (Katuo, 2012) but also on employee behaviour mediated by HRM practices (Tsai et al. 2011) However; past research neglected the reverse causality of organisational performance on employee behaviour. In this study, organisational performance is hypothesised to negatively affect employee behaviour.

This is a significant contribution to the field of HRM and agricultural manufacturing and agricultural production in Malawi. The study reveals that if employees are absenting themselves and there are a lot of work place disputes; it is likely that they are not quite satisfied with their jobs and committed to the organisation (Messersmith et al. 2011). This lack of satisfaction and commitment is most likely as a result of bad HRM practices or systems. Managers should therefore stop blaming employees for poor organisational performance but rather fix their HRM practices, policies and systems to improve employee attitudes, behaviours and organisational performance. Improved organisational performance will in turn motivate employees' behaviour of presence (counterpart of absence) and industrial peace (counterpart of disputes) (Katuo et al. 2008).

While not much is known about HRM practices in agriculture in Malawi and in the agricultural manufacturing sector; the sector makes a significant contribution to the Malawi economy in terms of labour, food security and national income. By demonstrating this positive relationship; the study provides the foundation upon which future research can be built to further our understanding of the relationship between organisational performance and employee behaviour in other agricultural sectors like agricultural production and how it works. Further research would investigate whether the relationship between organisational performance and employee behaviour can be mediated. This will help to unlock the "black box" explaining what goes on between organisational performance and employee behaviour in the Malawi agricultural manufacturing sector.

5.7 CONTRIBUTIONS OF THE STUDY

5.7.1 Theoretical contribution

The study contributes to literature in several ways. Firstly, by investigating the relationship between HRM practices and organisational performance, it contributes to both the HRM and organisational performance literature. Secondly, by investigating the reverse causality of organisational performance, it contributes to employee behaviour literature.

Secondly, the findings of this study will assist managers in their understanding of the manner in which HRM practices influence employee attitudes and behaviours in order to help organisations

achieve their goals (Schuler & Jackson, 1987). Thirdly, the study shows in ranking order the importance of the HRM practices used in the study as (1) Performance appraisal, (2) compensation, (3) training & development and (4) recruitment & selection. This shows the important HRM practices that can constitute an HRM strategy. Lastly, another contribution of this study is the inclusion a non-traditional HRM theory of General Systems Theory. This study provided a rationale to offer a theory to explain the causal mechanisms and processes in the model. Katuo (2012) found that it is highly performing firms that can afford HRM policies. Similarly Tsai et al. (2011) found that high performing firms affect employee attitudes mediated by HRM practices. These reverse causality studies did not highlight a theory to back their proposed enquiry of the reverse causality. Furthermore, these studies did not explain how reverse causality is caused. This is the value the current study adds to literature. This theory has added value to HRM literature by explaining how organisational performance becomes an input into employee behaviour (reverse causality).

Finally with regard to theory; the study findings support all theoretical backgrounds supporting the study. However, the study shows a shortfall of the general systems theory as the theory does not clearly show whether the output (dependent variable) when it becomes the input (independent variable) would positively or negatively affect the other variable.

5.7.2 Managerial Contribution.

While appreciating the importance of all the other constructs of business strategy, human resource management practices and employee attitudes; employee behaviour is the most critical factor affecting organisational performance. The findings of this study will help HRM practitioners to design HRM practices that improve organisational performance in Malawi's agricultural manufacturing sector by focussing on firm performance as a driver for employee behaviour.

On the overall, the outcome of the proposed study advances our current knowledge on HRM by testing theory and offering new empirical evidence to explain the interactions between HRM practices and organisational performance and how they affect the performance of agricultural

manufacturing sector in Malawi. It is important to recognise that empirical evidence from this country is new and therefore represents an important contribution to existing body of knowledge.

The study gives insight on the management of employees in general. It provides insight for managers on how employee behaviour relates with organisational performance. Firstly, HRM practices positively affect employee attitudes which affect employee behaviour that in turn affect organisational performance. Managers, policy makers and academicians should find ways to positively affect employee attitudes. Negative employee behaviour negatively affects organisational performance; managers should therefore find ways of avoiding negative employee behaviours. Consistent with contingency theory, the study has shown that business strategies and HRM practices are not mutually independent; consequently firms should develop and implement HRM practices that are contingent on business strategies that they pursue. Organisations should therefore ensure that they have HRM departments that have a voice on the board

The performance of an organisation heavily depends on the level employee attitudes (satisfaction and commitment) and employee behaviours (absenteeism and disputes). Organisations undertaking to develop and implement HRM practices and business strategies; should focus on improving these employee attitudes and behaviours. Performance appraisal, compensation, training & development and recruitment & selection, may constitute in that descending order the important aspects of HRM strategy.

When implementing or choosing business strategy, HRM practices and indicators of organisational performance; managers should take into account employee perceptions about the choices because employees' perceptions are different from those of managers. Managers and employees have different perceptions about the importance and aspects of business strategy, HRM practices, employee attitudes, employee behaviour and organisational performance. They therefore attach different importance to different aspects of these factors.

Cost leadership and innovation may constitute the most important aspects of a business strategy. Employee absenteeism and disputes may constitute the most important aspects of employee behaviour negatively affecting organisational performance. Cost reduction and throughput time may constitute the most important aspects of organisational performance. These implications

point at how managers, policy makers can enhance higher organisational performance and improve employee behaviours at work.

The study contributes to management literature as it adds the much needed empirical evidence in investigating the role of organisational performance as an independent variable and not a dependent variable as most research has done.. Secondly that the sector, firm age, size and union intensity in which an organisation operates presents an important contextual variable. While past research has only investigated organisational performance and HRM practices; this study provides new insights into the casual complexities surrounding employee behaviour and organisational performance. The study provides insights into the relationship between organisational performance and employee behaviour in Malawi. Managers must therefore endeavour to find ways of making organisational performance a motivator of positive employee behaviours.

People behave according to the perceptions they hold. Employees hold different perceptions about how the organisation is performing. Managers may think organisational performance is irrelevant to an employee. What is important is the employees' input in productivity. But the real issue is how the employee perceives that organisational performance. What employees get as a reward like bonuses for promoting good organisational performance may bring in inequalities which will lead to discontent resulting into absenteeism and disputes. This is consistent with equity theory (Adams, 1965; Carell, 1978; Walster et al. 1973). Managers need to make sure that any negative effects arising out performance based payments are minimised or avoided. Performance based rewards perceived as inequitable may create absenteeism and disputes. Good managers anticipate these negative perceptions about rewards for performance. As such they should not let inequities get out of hand but carefully communicate the intended value of the performance rewards to be given and clarify the basis on which the rewards were made (performance appraisal).

When employees put in effort in organisational performance; they have an expectation. When employees have high levels of expectation from the good organisation performance they have contribute to; they expect to be rewarded attractively. If not then employees are demotivated and

display bad behaviours like absenteeism and disputes. Managers must therefore strengthen employees' perceptions of their efforts in boosting organisational performance by assuring them that their efforts are possible and worthwhile. Clarify what is expected in return of their enhancing good organisational performance, tie performance to rewards and ensure that rewards are desirable. Managers must realise that failure to reward can modify employee behaviour. Employees who believe that they deserve a reward for good organisational performance and they do not get it will become disenchanted with their manager and organisation and consequently absent themselves or engage in conflicts with employer or fellow employees.

Employees need feedback from managers about the good performance the firm is enjoying. When employees get feedback of their individual contribution to the good organisational performance it influences motivated behaviour and the opposite is true. Managers should try to motivate employees and tell what they are doing right and what they are doing wrong. In trying to attain good organisational performance; managers must tell individuals what they can do to receive positive reinforcement. Rewards must be provided as closely as possible to the occurrence of good organisational performance.

5.9 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FUTURE RESEARCH

Limitations of this study are highlighted and how they might be addressed in future research. The first limitation is that perceptual measures of performance (subjective measures) were collected. Research indicates that perceptual measures are more appropriate where objective measures are not available. However, objective measures like financial indicators (profitability) have been blamed of not reflecting a true picture of the firm performance. Furthermore, these financial indicators are distal; (distant) measures after the HRM outcomes. However, this study could have been strengthened with use of more objective measures (Wall et al. 2004).

Secondly, the study used a limited number of alternative performance indicators. Previous research has demonstrated the important role that leadership style, organisational and environmental attributes play (Baum, Locke & Smith, 2001). While components of these were used in the current study like business strategy, firm size, age and union intensity; not all the

variables could be included in the study. Other possible variables like leadership behaviours, leader personality, organisational culture, other environmental attributes and other measures of business level strategy could have been used that also contribute to organisational performance. If future research can include these variables; the argument that HRM practices positively affect organisational performance will be strengthened further.

Another limitation of the study was that data on organisational performance was collected from employees and managers requiring them to compare with competitors. Furthermore; they were required to recall how the firm performed the past three years. This was a limitation because of memory lapse for employees who are not very much concerned with firm performance. Future research could address this by targeting managers and supervisory level employees who are close to organisational performance records and indicators. This level of employees has access to annual reports of the firm.

Similarly, sample size is another limitation of the study. While a sample size of 385 respondents (308 employees and 77 managers) is sufficient; it limited performance of additional analysis around the effects of specific products, specific firm sizes, and specific business level strategies employed by organisations in the sample. In particular, the sample size for managers (77) did not permit further analyses. Future research should increase the sample size to allow for additional analyses. The study used snowball sampling for managers to identify employees to be targeted in their respective departments. This is a weaker method. It is recommended that a better and robust methodology could be used

Lastly is a methodological limitation as this study used cross-sectional data. In view of the reversed causality that the study investigated; cross-sectional data is not considered to be sufficient to test reverse causality because it does not have time lags but rather longitudinal data. Future research should consider using longitudinal data in order to build in time lags.

5.10 SUMMARY

The study showed significant relationships between HRM practices and organisational performance and the relationship between organisational performance and employee behaviour. The results make a significant contribution to literature by providing insights into the strengths and direction of the relationships among the latent variables that were studied. Practically it provides useful managerial insights on possible interventions to create and promote a workforce that is committed and satisfied.

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5.11 APPENDICES

Appendix 1 1 : Managers Questionnaire

Questionnaire No.	

MANAGERS QUESTIONNAIRE

UNIVERSITY OF THE WITWATERSRAND; FACULTY OF COMMERCE, LAW AND MANAGEMENT; SCHOOL OF ECONOMICS AND BUSINESS SCIENCES; JOHANNESBURG

This questionnaire contains a number of statements. Please indicate your preference by TICKING (√) against the statements that have options ranging from *"not at all effective"* to *"highly effective", "very bad"* to *"very good", "poor"* to *"excellent"* and by selecting a numerical value against the statements that require one option in numerical values ranging from 1 to 5 (please select only one value between 1 to 5 on all the options against these types of statements).

Your cooperation is earnestly solicited for carrying out an effective research.

SECTION A: PERSONAL INFORMATION

Name of Organisation	
Position of the Respondent	

Please complete the following questionnaire by placing a TICK (√) in the appropriate box

GENDER:

Male	Female
1	2

AGE OF RESPONDENT (How old are you?)

18 to 29 years	30 to 40 years	41 to 50 years	51 Years & above
1	2	3	4

MARITAL STATUS

Married	Single	Other (Specify)
1	2	3

EDUCATION LEVEL: (What is your highest educational qualification?)

Certificate	Diploma	First Degree	Masters Degree	Professional certificate	PhD	Other
1	2	3	4	5	6	7

EXPERIENCE IN POST: (How many years have you worked in this post?)

Less than one year	1 to 5 years	6 to 9 years	10 to 15 years	16 to 19 years	20 years & above
1	2	3	4	5	6

SECTOR: (What product is your organisation producing?)

Tea	Sugar	Confectionaries	Brewery	Bread	Dairy	Cooking oil	Ethanol	Cigarettes	Other(Specify)
1	2	3	4	5	6	7	8	9	10

ORGANISATION SIZE: (Number of Employees in the organisation)

20 to 60 employees	61 to 90 employees	91 to 120 employees	121 to 150 employees	151 to 200 employees	201 employees & above
1	2	3	4	5	6

PERCENTAGE OF UNIONISM (Percentage of organisational employees in a union):

None	1-25%	26-50%	51-75%	76-100%
1	2	3	4	5

AGE OF THE FIRM (Years):

3 to 5 years	6 to 9 years	10 to 15 years	16 to 25 years	26 years & above.
1	2	3	4	5

Please complete the following questionnaire by placing a TICK (√) in the appropriate box

SECTION B: BUSINESS STRATYEGY

Please indicate in your opinion, the extent of the importance of business strategy in each important

CODE	ITEMS	Not at all important	slightly important	moderately important	Very important	extremely important
BS1	In your opinion, how would you rate the importance of the cost reduction strategy in your organisation	1	2	3	4	5
BS2	In your opinion, how would you rate the importance of the price reduction strategy in your organisation	1	2	3	4	5
BS3	In your opinion, how would you rate the importance of the innovation strategy in your organisation	1	2	3	4	5
BS4	In your opinion, how would you rate the importance of the improvement of existing products strategy in your organisation	1	2	3	4	5
BS5	In your opinion, how would you rate the importance of having a wide variety of products strategy in your	1	2	3	4	5

	organisation					
BS6	In your opinion, how would you rate the importance of the quality enhancement strategy in your organisation	1	2	3	4	5
BS7	In your opinion, how would you rate the importance of the distribution channels strategy in your organisation	1	2	3	4	5
BS8	In your opinion, how would you rate the importance of the customer service strategy in your organisation	1	2	3	4	5

SECTION C: HUMAN RESOURCE MANAGEMENT PRACTICES

RECRUITMENT AND SELECTION

Please rate the effectiveness of recruitment and selection in your organisation in each statement below

CODE	**ITEMS**	**not at all effective**	**slightly effective**	**moderately effective**	**very effective**	**highly effective**
RS1	In your opinion, how effective is your recruitment process	1	2	3	4	5
RS2	In your opinion, how effective is your selection process	1	2	3	4	5
RS3	In your opinion how effective is Selection of a candidate in your organization based on his/her merit.	1	2	3	4	5
RS4	In your opinion, how effective is your organization placement of the right person in the right job.	1	2	3	4	5
RS5	In your opinion, how effective filling of vacancies from qualified employees who are working in the organization.	1	2	3	4	5

TRAINING AND DEVELOPMENT

Please rate the effectiveness of training and development in your organisation in the statements below

CODE	**ITEMS**	**not at all effective**	**slightly effective**	**moderately effective**	**very effective**	**highly effective**
TD1	In your opinion, how effective are employee competences	1	2	3	4	5
TD2	In your opinion how effective is cooperation among employees	1	2	3	4	5
TD3	In your opinion, how effective is the identification of training needs	1	2	3	4	5
TD4	In your opinion how effective are training programmes	1	2	3	4	5
TD5	In your opinion how effective are employee development programmes	1	2	3	4	5

PERFORMANCE APPRAISAL

Please rate the use of performance appraisal in your organisation in the statement below

CODE	ITEMS	Never use	Almost never	Occasionally/sometimes	Almost every time	frequently use
PA1	How would you rate the use of performance appraisal in your organisation?	1	2	3	4	5
PA2	How would you rate use of formal & written performance appraisal system	1	2	3	4	5
PA3	How would you rate use of performance appraisal data in making decisions	1	2	3	4	5
PA4	How would you rate upfront communication about the objective of performance appraisal	1	2	3	4	5

COMPENSATION

Please rate the use of compensation in your organisation in the statements below

CODE	ITEMS	Never use	Almost never	Occasionally/sometimes	Almost every time	frequently use
COM1	How would you rate the use of rewards in your organisation?	1	2	3	4	5
COM2	How would you rate the use of incentives in your organisation?	1	2	3	4	5
COM3	How would you rate use of matching pay with performance	1	2	3	4	5
COM4	How would you rate use of industry wide benefits in your organisation	1	2	3	4	5
COM5	How would you rate use of regular pay revisions in your organization.	1	2	3	4	5

SECTION D: EMPLOYEE ATTITUDES

Please rate employee attitudes in your organisation in the statements below

CODE	ITEMS	very bad	Bad	Fair	Good	very good
EA1	How would you rate employee motivation in your organisation the past three years?	1	2	3	4	5
EA2	How would you rate employee commitment in your organisation the past three years?	1	2	3	4	5
EA3	How would you rate employee satisfaction in your organisation the past three years?	1	2	3	4	5

SECTION E: EMPLOYEE BEHAVIOURS

Please rate employee behaviours in your organisation in the statements below

CODE	ITEMS	very small	Small	Fair	Big	very Big
EB1	How would you rate the number of voluntary leaves in your organisation the past three years?	1	2	3	4	5
EB2	How would you rate the number of absences in your organisation the past three years?	1	2	3	4	5
EB3	How would you rate the number of disputes within the organisation the past three years?	1	2	3	4	5

SECTION F: ORGANISATIONAL PERFORMANCE

Please rate the performance of your organisation against your competitors in your industry for the past three years in the statements below.

CODE	ITEMS	very poor	Poor	Fair	Good	Very Good
OP1	How would you rate the overall manufacturing throughput in the past three years?	1	2	3	4	5
OP2	How would you rate the overall quality of products the past three years?	1	2	3	4	5
OP3	How would you rate the overall organisational delivery flexibility?	1	2	3	4	5
OP4	How would you rate the overall organizational scope flexibility?	1	2	3	4	5
OP5	How would you rate the overall cost reduction	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATYION IN THE SURVEY

YOUR TIME AND EFFORT IN COMPLETING THE QUESTIONNAIRE IS MUCH APPRECIATED.

Appendix 1 2: Employees Questionnaire

Questionnaire No.	

EMPLOYEES QUESTIONNAIRE

UNIVERSITY OF THE WITWATERSRAND; FACULTY OF COMMERCE, LAW AND MANAGEMENT; SCHOOL OF ECONOMICS AND BUSINESS SCIENCES; JOHANNESBURG

This questionnaire contains a number of statements. Please indicate your preference by TICKING (√) against the statements that have options by encircling a numerical value against the statements that require only one option in numerical values ranging from 1 meaning you "strongly disagree" to 5 meaning you "strongly agree" (please select only one value between 1 to 5 on all the options against these types of statements).

Your cooperation is earnestly solicited for carrying out an effective research.

SECTION A: PERSONAL INFORMATION

Name of Organisation	
Position of the Respondent	

Please complete the following questionnaire by placing a TICK (√) in the appropriate box

GENDER:

Male	Female
1	2

AGE OF RESPONDENT (How old are you?)

18 to 29 years	30 to 40 years	40 to 50 years	51 Years and above
1	2	3	4

MARITAL STATUS

Married	Single	Other (Specify)
1	2	3

EDUCATION LEVEL: (What is your highest educational qualification?)

Primary Certificate	Diploma	First Degree	Masters Degree	Professional certificate	PhD	Other
1	2	3	4	5	6	7

EXPERIENCE IN POST: (How many years have you worked in this post?)

3 to 5 years	6 to 9 years	10 to 15 years	16 to 19 years	20 years & above
1	2	3	4	5

SECTOR: (What product is your organisation producing?)

Tea	Sugar	Confectionaries	Brewery	Bread	Dairy	Cooking oil	Ethanol	Other(Specify)
1	2	3	4	5	6	7	8	9

DEPARTMENT (Which department do you belong to?)

Human Resources	Finance	Operations/Production
1	2	3

Please complete the following questionnaire by placing a TICK (√) in the appropriate box.

SECTION B: BUSINESS STRATEGY

Please indicate the level of your agreement with the statements below.

CODE	ITEMS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
EBS1	This organisation undertakes to minimize costs of production as important.	1	2	3	4	5
EBS2	This organisation considers price reduction of our products as important.	1	2	3	4	5
EBS3	This organisation takes innovation of the products it makes as important.	1	2	3	4	5
EBS4	This organisation considers improving quality of its existing products important.	1	2	3	4	5
EBS5	This organisation considers important having a wide variety of products.	1	2	3	4	5
EBS6	This firm puts importance on enhancing the quality of its products.	1	2	3	4	5
EBS7	This firm considers distribution channels of its products very important.	1	2	3	4	5
EBS8	This organisation considers customer service to be very important.	1	2	3	4	5

SECTION C: HUMAN RESOURCE MANAGEMENT PRACTICES

RECRUITMENT AND SELECTION

Please indicate the level of your agreement with the statements below

CODE	ITEMS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
ERS1	Applicants are fully informed about the qualifications required to perform the job before being hired.	1	2	3	4	5
ERS2	Applicants undergo a medical test before being hired.	1	2	3	4	5
ERS3	Vacancies are filled from qualified employees	1	2	3	4	5
ERS4	Applicants undergo structured interviews (job related questions, same questions asked of all applicants) before being hired.	1	2	3	4	5
ERS5	Job advertisements in newspapers are used by the company to recruit people.	1	2	3	4	5
ERS6	In this organization, there is formal induction, orientation and familiarization process designed to help the new recruits understand the organization.	1	2	3	4	5
ERS7	Selection system in our organization selects those having the desired knowledge, skills and attitudes.	1	2	3	4	5

TRAINING AND DEVELOPMENT

Please indicate the level of your agreement with the statements below

CODE	ITEMS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
ETD1	This organization conducts extensive training programs for its employees in all aspects.	1	2	3	4	5
ETD2	This organisation provides training opportunities to learn and grow	1	2	3	4	5
ETD3	The objective of the training programmes is complete understanding of different management functions in its totality.	1	2	3	4	5
ETD4	Training needs identified are realistic, useful and based on the business strategy of the organization.	1	2	3	4	5
ETD5	The training programmes have improved my decision-making skills	1	2	3	4	5

PERFORMANCE APPRAISAL

Please indicate the level of your agreement with the statements below

CODE	ITEMS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
EPA1	The performance appraisal is fair and unbiased.	1	2	3	4	5
EPA2	There is a formal & written performance	1	2	3	4	5

	Appraisal system.					
EPA3	Employees receive feedback of performance evaluation results about themselves.	1	2	3	4	5
EPA4	Performance of the employees is measured on the basis of objective quantifiable results.	1	2	3	4	5
EPA5	Appraisal system in our organization is growth and development oriented.	1	2	3	4	5
EPA6	Appraisal system has a strong influence on individual and team behaviour.	1	2	3	4	5
EPA7	Employees are provided performance based feedback and counselling.	1	2	3	4	5
EPA8	The appraisal data is used for making decisions like job rotation, training and compensation.	1	2	3	4	5
EPA9	The objectives of the appraisal system are clear to all employees.	1	2	3	4	5

COMPENSATION

Please indicate the level of your agreement with the statements below

CODE	**ITEMS**	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
ECOM1	Employees are being paid adequately for the work they do.	1	2	3	4	5
ECOM2	Pay increments offered by our organization are satisfactory.	1	2	3	4	5
ECOM3	This organization makes all payments due to us in time.	1	2	3	4	5
ECOM4	Employees are satisfied with the benefits we receive.	1	2	3	4	5
ECOM5	The benefits we receive in our organization are similar to what most of the other organizations in the industry provide to their employees.	1	2	3	4	5
ECOM6	Rewards and incentives are fairly distributed in our organization.	1	2	3	4	5
ECOM7	Rewards in our organization are strictly linked to employee performance.	1	2	3	4	5
ECOM8	In our organization, compensation is decided on the basis of competence or ability of the employee.	1	2	3	4	5

SECTION D: EMPLOYEE ATTITUDES

Please indicate the level of your agreement with the statements below

CODE	**ITEMS**	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
EEA1	Employees like working here	1	2	3	4	5
EEA2	Employees would recommend this organization to others	1	2	3	4	5
EEA3	Employees are generally satisfied with their job	1	2	3	4	5

EEA4	Employees are proud to work for this organisation	1	2	3	4	5
EEA5	Employees feel a strong sense of loyalty to this organisation	1	2	3	4	5

SECTION E: EMPLOYEE BEHAVIOURS

Please indicate the level of your agreement with the statements below

CODE	ITEMS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
EEB1	There are many disputes with the employer in the firm	1	2	3	4	5
EEB2	Many employees do absent themselves from work	1	2	3	4	5
EEB3	Many employees leave or quit this organisation	1	2	3	4	5

SECTION F: ORGANISATIONAL PERFORMANCE

Please indicate the level of your agreement with the statements below

CODE	ITEMS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
EOP1	This organisation takes the shortest time to make a product	1	2	3	4	5
EOP2	This organisation makes the best quality products	1	2	3	4	5
EOP3	This organisation is flexible with delivery of the products	1	2	3	4	5
EOP4	This organisation can deliver different types of products as per customer needs	1	2	3	4	5
EOP5	This organisation works hard to reduce costs	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATYION IN THE SURVEY

YOUR TIME AND EFFORT IN COMPLETING THE QUESTIONNAIRE IS MUCH APPRECIATED.

Appendix 2. 1: Proportionate Sampling

STRATUM	STRATUM POPULATION	SIZE	STRATUM SAMPLE SIZE
Sugar	4	1.6	2
Tea	9	3.6	3

Cooking oil	12	4.8	4
Dairy/Juices	7	2.8	3
Cigarettes	2	0.8	1
Beverages	7	2.8	3
Confectionaries	4	1.6	2
Textiles	2	0.8	1
Ethanol Fuel	2	0.8	1
Total	**49**	**19.6**	**20**

Appendix 1 3: Consent to collect data

LILONGWEDAIRY (2001) LTD.

LONG UFE Mil k

Processors of Dairy Products and Fruit Juices

Tel: +2651 754111/753111
Fax: +2651 752 111
E-mail: asif.karim@lldairy.co.mw
P.O. Box 111
Lilongwe, Malawi

Our Ref:
Your Ref:

University of the Witwatersrand
School of Economics & Business Sciences
Johannesburg
South Africa
9 June 2015

Dear Sir,

REF: CONSENT OF REQUEST TO CONDUCT ACADEMIC RESEARCH - PRIMARY RESEARCHER RONNIE MVULA

We acknowledge your request for Lilongwe Dairy (2001) Limited to be in the sample of organizations for your research and are pleased to give consent to Mr. Ronnie Mvula to collect data for his research from our firm.

As an agricultural manufacturing firm we would be pleased to have a share of the study findings after the research is concluded.

EDWIN CHILUNDO
GENERAL MANAGER - OPERATIONS AND BUSINESS DEVELOPMENT

MDI (2007) (ND) CO. LTD.

Likuni Road
P.O. Box 137
Lilongwe
Malawi

(Processors and Marketers of Quality Food Products)

Tel: +265 (0) 1 766 266
+265 (0) 1 200 430
+265 (0) 1 200 440

6TH October,2014

TO WHOM IT MAY CONCERN

We write to give consent to Mr Ronnie Mvula that he can correct data at our office

on the effects of HRM practices on firm performance.

Yours faithfully,

P P

MANAGING DIRECTOR

Katete Dairy Farm

RE: REQUEST TO CONDUCT ACADEMIC RESEARCH

MR Ronnie Mvula

We are in receipt of your email

We formally acknowledge your intension and we will

Be of your assistance in the period of your research

We hope this is in order

Yours faithfully

Tamara Ngulube

Sales coordinator

Appendix 3 1 Participant consent

EMPLOYEE PARTICIPATION LETTER

Empirical Study of the reverse causality of organisational behaviour and employee behaviour in the Agricultural manufacturing sector of Malawi.

21st October, 2015

Dear Sir/Madam,

My name is Ronnie Mvula and Iam a PhD student in the Management and Human Resource Division at the University of the Witwatersrand, Johannesburg. I am conducting research on the topic "Reverse causality of organisational behaviour and employee behaviour in the Agricultural manufacturing sector of Malawi". Reverse causality is concerned with whether the performance of the firm motivates the behaviour of employees is the Human Resources practices and firm performance model. The purpose of this survey is to investigate how organisational performance motivates employee behaviour.

Studies have shown that human resource management practices influence organisational performance through employee attitudes and behaviour. However, there is no study providing evidence of how organisational performance affects employee behaviour.

As an employee, you are **invited** to take part in this survey by completing a questionnaire. Your response is important and there are no right or wrong answers. This survey is both confidential and anonymous. Anonymity and confidentiality are guaranteed by not needing to enter your name on the questionnaire. Your participation is completely voluntary and involves no risk, penalty, or loss of benefits whether or not you participate. You may withdraw from the survey at any stage.

The first part of the survey captures some demographic data. Please tick whichever boxes are applicable. The second part of the survey comprises 50 statements. Please indicate the extent to which you agree with each statement, by ticking in the appropriate box. The entire survey should take between 15 to 20 minutes to complete. The survey was approved unconditionally by the Wits University Research Ethics Committee (Non-Medical), Protocol Number: H15/09/25.

Thank you for considering participating. Should you have any questions, or should you wish to obtain a copy of the results of the survey, please contact me on +27613093907 or at ronnietimpuzamvula@gmail.com; or 1084466@students.wits.ac.za;
My supervisor's name and email are: Prof. Michael O. Samuel; Email: Olorunjuwon.Samuel@wits.ac.za;

Kind regards

Ronnie Mvula
PhD Student
Division of Management and Human Resources Management.
School of Economic and Business Sciences
University of the Witwatersrand, Johannesburg

MANAGERS PARTICIPATION LETTER

Empirical Study of the reverse causality of organisational behaviour and employee behaviour in the Agricultural manufacturing sector of Malawi.

21st October, 2015

Dear Sir/Madam,

My name is Ronnie Mvula and Iam a PhD student in the Management and Human Resource Division at the University of the Witwatersrand, Johannesburg. I am conducting research on the topic "Reverse causality of organisational behaviour and employee behaviour in the Agricultural manufacturing sector of Malawi". Reverse causality is concerned with whether the performance of the firm motivates the behaviour of employees is the Human Resources practices and firm performance model. The purpose of this survey is to investigate how organisational performance motivates employee behaviour.

Studies have shown that human resource management practices influence organisational performance through employee attitudes and behaviour. However, there is no study providing evidence of how organisational performance affects employee behaviour.

As a Manager, you are **invited** to take part in this survey by completing a questionnaire. Your response is important and there are no right or wrong answers. This survey is both confidential and anonymous. Anonymity and confidentiality are guaranteed by not needing to enter your name on the questionnaire. Your participation is completely voluntary and involves no risk, penalty, or loss of benefits whether or not you participate. You may withdraw from the survey at any stage.

The first part of the survey captures some demographic data. Please tick whichever boxes are applicable. The second part of the survey comprises 28 statements. Please indicate the extent to which you agree with each statement, by ticking in the appropriate box. The entire survey should take between 10 to 15 minutes to complete. The survey was approved unconditionally by the Wits University Research Ethics Committee (Non-Medical), Protocol Number: H15/09/25.

Thank you for considering participating. Should you have any questions, or should you wish to obtain a copy of the results of the survey, please contact me on +27613093907 or at ronnietimpuzamvula@gmail.com; or 1084466@students.wits.ac.za;
My supervisor's name and email are: Prof. Michael O. Samuel; Email: Olorunjuwon.Samuel@wits.ac.za;

Kind regards

Ronnie Mvula
PhD Student
Division of Management and Human Resources Management.
School of Economic and Business Sciences
University of the Witwatersrand, Johannesburg

Appendix 3 2: Ethics Clearance

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Mvula

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H15/09/25**
PROJECT TITLE	Empirical study of the reverse causality between organisational performance and employee behaviour in the agricultural manufacturing sector of Malawi
INVESTIGATOR(S)	Mr R Mvula
SCHOOL/DEPARTMENT	Economic & Business Science/
DATE CONSIDERED	18 September 2015
DECISION OF THE COMMITTEE	Approved unconditionally
EXPIRY DATE	01 November 2018

DATE 02 November 2015 **CHAIRPERSON** _____
(Professor J Knight)

cc: Supervisor : Professor O Samuel

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Appendix 3 3: Approved PhD title

UNIVERSITY OF THE
WITWATERSRAND,
JOHANNESBURG

Private Bag 3 Wits, 2050
Fax: 0270865536132
Tel: 02711 7178005

Reference: Ms Makgethoa.Makgoga
E-mail: Makgethoa.Makgoga@wits.ac.za

06 January 2017
Person No: 1084466
PAG

Mr RT Mvula
Lilongwe University Of Agriculture And Natural Resource
Bunda College Campus
Box 219
Malawi

Dear Mr Mvula

Doctor of Philosophy: Approval of Title

We have pleasure in advising that your proposal entitled *Empirical study of the reverse-causality between organisation performance and employee behaviour in the agricultural manufacturing sector of Malawi* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Marike Bosman
Faculty Registrar
Faculty of Commerce, Law & Management

Appendix 4 1: Rotated Component Matrix

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
EPA4	.795	.187	.129	.302	.181	.132
EPA5	.788	.211	.154	.258	.157	.186
EPA2	.773	.235	.188	.241	.125	.114
EPA3	.759	.239	.181	.297	.128	.110
EPA6	.757	.252	.253	.121	.146	.201
EPA7	.737	.326	.208	.014	.184	.199
EPA1	.725	.191	.149	.244	.141	.030
ETD3	.720	.194	.176	.224	.113	.181
EPA9	.709	.328	.235	.038	.140	.257
ETD5	.706	.414	.121	.224	.075	.062
ETD2	.696	.265	.251	.218	.108	.125
EPA8	.675	.319	.219	.088	.115	.312
ETD4	.671	.295	.091	.216	.138	.189
ERS4	.322	.766	.235	.190	.142	.140
ERS5	.291	.749	.226	.132	.185	.123
ERS1	.227	.725	.285	.183	.129	.065
ERS6	.376	.720	.235	.161	.154	.089
ERS3	.435	.680	.161	.258	.133	.146
ERS7	.371	.635	.031	.006	.225	.179
ERS2	.366	.575	.169	.386	.130	.196
EEA3	.274	.286	.812	.174	.106	.188
EEA1	.191	.238	.810	.102	.152	.093
EEA2	.357	.157	.697	.216	.031	.300
EEA4	.344	.297	.692	.239	.133	.140
ECOM5	.354	.264	.217	.739	.155	.135
ECOM7	.462	.246	.171	.699	.108	.257
ECOM6	.471	.264	.230	.674	.090	.245
ECOM8	.478	.216	.274	.668	.065	.191
EBS3	.182	.118	.135	.089	.850	.107
EBS4	.148	.117	.186	.007	.825	-.042
EBS1	.062	.205	-.059	.049	.714	.139
EBS2	.349	.161	.113	.209	.668	.262
EEB1	.149	.149	.110	.086	.106	.791

EEB3	.304	.097	.184	.226	.132	.770
EEB2	.259	.187	.206	.173	.139	.758

Appendix 4 2: Reliability and item analysis for Business Strategy.

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BS1	32.36	8.971	.367	.363	.832
BS2	32.27	8.464	.474	.407	.818
BS3	32.26	7.932	.657	.652	.791
BS4	32.17	7.984	.697	.640	.786
BS5	32.17	8.116	.598	.591	.800
BS6	32.09	8.900	.658	.553	.800
BS7	32.29	8.549	.515	.456	.811
BS8	32.30	8.817	.510	.384	.812

Source: *Primary data*

Reliability Statistics for Business Strategy Scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.827	.833	8

Source: *Primary data*

Appendix 4 3: Reliability and item analysis for Business Strategy

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EBS1	30.77	15.487	.491	.412	.883
EBS2	30.81	13.845	.605	.543	.876
EBS3	30.56	14.423	.744	.709	.859
EBS4	30.47	14.628	.721	.691	.862
EBS5	30.43	14.298	.722	.671	.861
EBS6	30.46	13.878	.738	.712	.859
EBS7	30.47	14.686	.671	.706	.866
EBS8	30.46	15.292	.550	.505	.878

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.883	.886	8

Appendix 4 4: Reliability and item analysis for Recruitment and Selection (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
RS1	16.97	5.868	.680	.646	.844
RS2	16.90	5.726	.700	.708	.839
RS3	16.78	5.385	.790	.682	.816
RS4	16.70	4.870	.754	.658	.826
RS5	16.96	5.880	.564	.424	.871

Source: *Primary data*

Reliability Statistics for Training and Development sub scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.868	.871	5

Source: *Primary data*

Appendix 4 5: Reliability and item analysis for Recruitment & Selection (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ERS1	26.01	20.954	.754	.599	.924
ERS2	26.16	19.090	.752	.606	.927
ERS3	25.96	20.318	.832	.748	.917
ERS4	25.90	20.084	.860	.805	.915
ERS5	26.03	19.960	.807	.742	.919
ERS6	26.05	19.353	.830	.729	.917
ERS7	25.94	21.423	.670	.485	.931

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.932	.934	7

Appendix 4 6: Reliability and item analysis for Training and Development (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TD1	17.53	9.910	.707	.607	.925
TD2	17.34	9.437	.824	.708	.905
TD3	17.32	9.327	.827	.738	.904
TD4	17.42	8.167	.856	.860	.899
TD5	17.35	8.836	.827	.806	.903

Source: *Primary data*

Reliability Statistics for Recruitment and Selection subscale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.925	.926	5

Source: *Primary data*

Appendix 4 7 Reliability and item analysis for Training and Development (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EDT1	16.72	12.137	.823	.922
EDT2	16.64	11.672	.887	.910
ETD3	16.63	12.233	.854	.916
ETD4	16.62	12.354	.806	.925
ETD5	16.64	12.323	.773	.931

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.936	.936	5	

Appendix 4 8: Reliability and item analysis for Performance Appraisal (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PA1	12.68	8.854	.859	.806	.953
PA2	12.52	8.174	.929	.890	.932
PA3	12.45	8.146	.926	.883	.932
PA4	12.38	8.554	.860	.799	.952

Source: *Primary data*

Reliability Statistics for Performance Appraisal sub scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.956	.956	4

Source: *Primary data*

Appendix 4 9: Reliability and item analysis for Performance Appraisal (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EPA1	33.33	48.560	.764	.960
EPA2	33.17	46.964	.841	.956
EPA3	33.19	46.931	.863	.955
EPA4	33.19	46.761	.878	.955
EPA5	33.21	46.853	.874	.955
EPA6	33.22	46.816	.857	.955
EPA7	33.25	47.211	.836	.957
EPA8	33.32	46.421	.807	.958
EPA9	33.26	46.999	.823	.957

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.961	.961	9

Appendix 4 10: Reliability and item analysis for compensation (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
COM1	17.90	9.200	.773	.723	.895
COM2	17.81	8.922	.787	.773	.892
COM3	17.73	8.490	.884	.807	.871
COM4	17.69	10.007	.747	.720	.902
COM5	17.82	9.230	.719	.691	.907

Source: *Primary data*

Reliability Statistics for compensation sub scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.913	.914	5

Source: *Primary data.*

Appendix 4 11: Reliability and item analysis for Compensation (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

ECOM1	29.27	37.450	.650	.944
ECOM2	29.13	34.498	.819	.933
ECOM3	28.90	38.084	.663	.943
ECOM4	28.98	35.084	.822	.932
ECOM5	29.16	34.860	.819	.933
ECOM6	29.10	33.520	.868	.929
ECOM7	29.06	33.762	.867	.929
ECOM8	29.01	34.902	.825	.932

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.942	.941	8

Appendix 4 12: Reliability and item analysis for employee attitude (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EA1	8.64	1.708	.613	.397	.627
EA2	8.38	1.869	.609	.390	.642
EA3	8.47	1.647	.529	.280	.738

Source: *Primary data*

Reliability Statistics for employee attitude scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.751	.757	3

Source: *Primary data*

Appendix 4 13: Reliability and item analysis for Employee Attitude (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

EEA1	17.20	9.275	.703	.901
EEA2	17.10	8.492	.789	.883
EEA3	17.10	8.080	.878	.863
EEA4	17.04	8.435	.849	.870
EEA5	17.05	9.287	.630	.916

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.908	5

Appendix 4 14: Reliability Statistics for employee behaviour (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EB1	3.25	2.557	.626	.464	.764
EB2	3.16	2.528	.761	.583	.631
EB3	3.21	2.614	.587	.390	.807

Source: *Primary data*

Reliability Statistics for employee behaviour scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.806	.810	3

Source: *Primary data*

Appendix 4 15: Reliability and item analysis for Employee Behaviour (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EEB1	8.67	3.318	.625	.875
EEB2	8.63	2.982	.777	.735
EEB3	8.64	2.875	.760	.749

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.849	.849	3

Appendix 4 16 Reliability and item analysis for Organisational performance (Managers)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
OP1	18.14	4.492	.605	.617	.840
OP2	17.84	4.765	.668	.719	.818
OP3	17.83	4.458	.805	.716	.783
OP4	17.81	4.738	.715	.700	.808
OP5	17.78	4.937	.548	.580	.849

Source: *Primary data*

Reliability Statistics for Organisational performance scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.851	.855	5

Source: *Primary data*

Appendix 4 17: Reliability and item statistics of the Organisational Performance scale (Employees)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EOP1	18.15	4.496	.364	.831
EOP2	17.67	4.666	.620	.719
EOP3	17.65	4.548	.672	.702
EOP4	17.66	4.478	.679	.699
EOP5	17.62	4.849	.549	.741

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.779	.803	5

Appendix 4 18: Results of exploratory factor analysis: Business Strategy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.827
Bartlett's Test of Sphericity	Approx. Chi-Square	1551.409
	df	28
	Sig.	.000

Factor Matrix[a]

	Factor	
	1	2
EBS1	.512	.396
EBS2	.642	.391
EBS3	.801	.339
EBS4	.775	.198
EBS5	.780	-.081
EBS6	.826	-.329
EBS7	.773	-.499
EBS8	.597	-.265

Extraction Method: Principal Axis Factoring.

a. 2 factors extracted. 12 iterations required.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.498	56.231	56.231	4.163	52.038	52.038	2.664	33.299	33.299
2	1.268	15.851	72.082	.898	11.220	63.258	2.397	29.959	63.258
3	.758	9.481	81.563						
4	.540	6.751	88.314						
5	.348	4.349	92.664						
6	.217	2.708	95.371						
7	.193	2.416	97.788						
8	.177	2.212	100.000						

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Appendix 4 19: Results of exploratory factor analysis: Human Resource Practices Sub-Scale (Recruitment and Selection)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.899
Bartlett's Test of Sphericity	Approx. Chi-Square	1750.428
	df	21
	Sig.	.000

Factor Matrix[a]

	Factor
	1
ERS1	.783
ERS2	.780

ERS3	.866
ERS4	.903
ERS5	.843
ERS6	.860
ERS7	.692

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 4 iterations required.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.029	71.844	71.844	4.717	67.388	67.388
2	.547	7.813	79.657			
3	.442	6.310	85.967			
4	.360	5.139	91.105			
5	.320	4.574	95.679			
6	.171	2.437	98.116			
7	.132	1.884	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 20: Results of exploratory factor analysis: Human Resource Practices Sub-Scale (training and development)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.856
Bartlett's Test of Sphericity	Approx. Chi-Square	1405.133
	df	10
	Sig.	.000

Factor Matrix[a]

	Factor
	1
ETD1	.860

ETD2	.932
ETD3	.892
ETD4	.833
ETD5	.799

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 5 iterations required.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.983	79.670	79.670	3.738	74.755	74.755
2	.455	9.097	88.767			
3	.251	5.029	93.797			
4	.203	4.063	97.860			
5	.107	2.140	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 21: Results of exploratory factor analysis: Human Resource Practices Sub-Scale (Performance Appraisal)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	3409.862
	df	36
	Sig.	.000

Factor Matrix[a]

	Factor
	1

EPA1	.784
EPA2	.863
EPA3	.885
EPA4	.902
EPA5	.897
EPA6	.876
EPA7	.849
EPA8	.821
EPA9	.835

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 4 iterations required.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.881	76.458	76.458	6.622	73.574	73.574
2	.873	9.699	86.157			
3	.365	4.053	90.210			
4	.265	2.944	93.154			
5	.172	1.906	95.061			
6	.147	1.628	96.689			
7	.124	1.382	98.070			
8	.106	1.174	99.245			
9	.068	.755	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 22: Results of exploratory factor analysis: Human Resource Practice sub-scale (compensation)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	2289.478
	df	28
	Sig.	.000

Factor Matrix[a]

	Factor
	1
ECOM1	.666
ECOM2	.840
ECOM3	.680
ECOM4	.847
ECOM5	.847
ECOM6	.901
ECOM7	.899
ECOM8	.855

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 4 iterations required.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.701	71.259	71.259	5.400	67.494	67.494
2	.788	9.851	81.110			
3	.511	6.392	87.502			
4	.298	3.722	91.224			
5	.247	3.093	94.318			
6	.204	2.546	96.864			
7	.145	1.812	98.676			
8	.106	1.324	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 23: Results of exploratory factor analysis: Employee Attitude scale

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.812
Bartlett's Test of Sphericity	Approx. Chi-Square	1184.852
	df	10
	Sig.	.000

Factor Matrix[a]

	Factor
	1
EEA1	.748
EEA2	.833
EEA3	.945
EEA4	.893
EEA5	.661

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 7 iterations required.

Total Variance Explained

Factor	Initial Eigenvalues	Extraction Sums of Squared Loadings

	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.672	73.440	73.440	3.380	67.605	67.605
2	.681	13.623	87.064			
3	.308	6.156	93.219			
4	.217	4.330	97.550			
5	.123	2.450	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 24: Results of exploratory factor analysis: Employee Behaviour scale

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.695
Bartlett's Test of Sphericity	Approx. Chi-Square	436.849
	df	3
	Sig.	.000

Factor Matrix[a]

	Factor
	1
EEB1	.669
EEB2	.894
EEB3	.871

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 9 iterations required.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.310	77.009	77.009	2.005	66.830	66.830
2	.469	15.646	92.655			
3	.220	7.345	100.000			

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.310	77.009	77.009	2.005	66.830	66.830
2	.469	15.646	92.655			
3	.220	7.345	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 25: Results of exploratory factor analysis: Organisational Performance scale

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.703
Bartlett's Test of Sphericity	Approx. Chi-Square	620.949
	df	10
	Sig.	.000

Factor Matrix[a]

	Factor
	1
EOP1	.390
EOP2	.716
EOP3	.842
EOP4	.804
EOP5	.621

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 7 iterations required.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.854	57.078	57.078	2.406	48.115	48.115
2	.831	16.627	73.705			
3	.770	15.392	89.097			
4	.328	6.553	95.650			
5	.217	4.350	100.000			

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.854	57.078	57.078	2.406	48.115	48.115
2	.831	16.627	73.705			
3	.770	15.392	89.097			
4	.328	6.553	95.650			
5	.217	4.350	100.000			

Extraction Method: Principal Axis Factoring.

Appendix 4 26: Modification Indices for LAMBDA-Y

	EATTIT	EBEHAV	ORGPERF	HRPRACT
EA-1	--	0.019	4.800	0.058
EA-2	--	2.837	0.386	0.055
EB-1	4.642	--	0.319	--
EB-2	0.019	--	0.137	0.009
OP-1	2.069	10.012	--	--
OP-2	--	--	--	--

TRAIND	0.092	1.371	5.197	--
PAPPRA	3.862	1.779	0.248	--
COMP	3.491	1.129	0.678	--
RECRUIT	0.104	0.651	0.169	--

Appendix 4 27: Expected Change for LAMBDA-Y

	EATTIT	**EBEHAV**	**ORGPERF**	**HRPRACT**
EA-1	--	-0.004	0.091	-0.014
EA-2	--	0.062	-0.023	0.016
EB-1	0.159	--	0.057	--
EB-2	-0.010	--	0.028	-0.012
OP-1	0.165	-0.383	--	--
OP-2	--	--	--	--
TRAIND	-0.018	-0.062	-0.120	--
PAPPRA	-0.101	-0.065	-0.024	--
COMP	0.121	0.054	-0.042	--
RECRUIT	-0.018	-0.041	0.021	--