

First Generation Meta-Analytic Review of the Influence of Human
Resource Management Single Practices on Organizational
Outcomes: 1985-2015

Chikodi Innocent Okorogu

A dissertation submitted to the Faculty of Business and Law
Auckland University of Technology
in partial fulfillment of the requirement for the degree of
Master of Business (Management)

2015

First Generation Meta-Analytic Review of the Influence of Human Resource Management Single Practices on Organizational Outcomes: 1985-2015

Abstract

This research was prompted by the search for a fundamental theory for human resource management (HRM) after 30 years of existence. Applying first generation meta-analysis, the research aimed at identifying missing links in Jiang et al.'s (2012) A-M-O model. Thirty hypotheses were developed that focused on variables of HRM single practices in the A-M-O strategic bundles and made predictions about how they associate with various organizational outcomes. Data were collected at organizational level from 151 primary studies from 1985 to 2015, which extended Jiang et al.'s (2012) collection by 36 primary studies.

The comprehensive meta-analysis results showed that there were seven missing links in Jiang et al.'s (2012) model and a correlation analysis showed that the three domains of HRM practices – ability-enhancing, motivation-enhancing and opportunity-enhancing – had both direct and indirect significant associations with various organizational outcomes. The significant links completed Jiang et al.'s (2012) model and a new model was proposed for further research that will confirm an acceptable model and theory for HRM. The theoretical and practical contributions of the study are well discussed for research and management practices.

	Table of Contents	Pages
Chapter One: Background, Overview and Structure of Study		
1.1	Chapter introduction	10
1.2	Background of the study	10
1.3	Research problem and research questions	12
1.4	Objective of research	14
1.5	The scope/research design	14
1.6	The theoretical framework	15
1.7	An overview of the study	15
1.8	Structure of the dissertation	17
Chapter Two: Literature Review		
2.1	Chapter introduction	18
2.2	Relevant multi-theoretical framework	18
2.2.1	The A-M-O theory	18
2.2.2	The behavioural perspective of the firm	19
2.2.3	The human capital theory	19
2.2.4	The theory of the resource-based view	20
2.2.5	The knowledge-based view of the firm	20
2.2.6	The social exchange theory	21
2.2.7	The contingency theory	21
2.3	The concept of Human Resource Management	22
2.4	Human Resource Management practices	25
2.5	The concept of strategic Human Resource Management	29

III

2.6	Ability-enhancing HR practices and organizational outcomes	31
2.7	Motivation-enhancing HR practices and organizational outcomes	34
2.8	Opportunity-enhancing HR practices and organizational outcomes	38
2.9	Inter-relationships between organizational outcomes	41
2.10	Relationships between A-M-O-enhancing HR practices and human capital	43
2.11	Relationships between A-M-O-enhancing HR practices and employee motivation	46
2.12	Strategic HR orientation and organizational outcomes	48
2.13	Inter-relationships between proximal and distal organizational outcomes	50
2.14	Proposed research model	54
2.15	Summary of hypotheses	55
2.16	Chapter conclusion	59

Chapter Three: Methods

3.1	Introduction	60
3.2	What is meta-analysis?	61
3.3	Justifying the use of meta-analysis in this study	62
3.4	Handling criticisms of meta-analysis	63
3.5	Research procedure	64
3.5.1	Developing and implementing search strategies	64

3.5.2	Data collection	65
3.5.3	Inclusion and exclusion criteria	66
3.5.4	Coding the studies	67
3.5.5	Filtering and sorting	69
3.5.6	Conceptualising the meta-analysis	70
3.5.7	Confidence interval	72
3.6	Chapter conclusion	73

Chapter Four: Results

4.1	Chapter introduction	74
4.2	General results	74-81
4.3	Ability-enhancing HR practices and organizational outcomes	82
4.4	Motivation-enhancing HR practices and organizational outcomes	83
4.5	Opportunity-enhancing HR practices and organizational outcomes	84
4.6	Possible mediator variables and organizational outcomes	85
4.7	Significant relationships among organizational outcomes	86
4.8	HRM practices' significant covariant relationships	86
4.9	Chapter conclusion	88

Chapter Five:	Interpretation and Discussion of Findings	
5.1	Chapter introduction	89
5.2	Analysis of findings supporting the hypotheses	89-92
5.3	Interpretation of findings	93-100
5.4	Missing links in Jiang et al.'s (2012) model	101
5.5	Implications and contributions of study	104
5.5.1	Theoretical implication and contributions	104-107
5.5.2	Practical implications and contributions	108-110
5.6	Limitations of the study	111
5.7	Areas of future research	112
5.8	Chapter conclusion	112
Chapter Six	Conclusion	113-115
References		116-147

	List of Tables	Pages
Table 1	HRM practices using the A-M-O model	27
Table 2	Organizational outcomes	31
Table 3	Human capital variables	44
Table 4	Employee motivation variables	46
Table 5	Strategic HR orientation variables	48
Table 6	Summary of hypotheses	55
Table 7	Search terms	64
Table 8	General results	74
Table 9	Ability-enhancing HR practices and organizational outcomes	82
Table 10	Motivation-enhancing HR-practices and organ. outcomes	83
Table 11	Opportunity-enhancing HR-practices and organ. outcomes	84
Table 12	Possible mediator variables and organ. outcomes	85
Table 13	Significant relationships among organizational outcomes	86
Table 14	HRM practices' significant covariant relationships	87
Table 15	Analysis of significant findings supporting hypotheses	89
Table 16	New findings	102

ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.



Chikodi Innocent Okunogu

Date: 01/10/2015

VII

Acknowledgements

During our seminal workshop on meta-analysis April 2015, Dr Joseph Damian advised that a research scholar must absorb every academic critique or criticism with a spirit of learning rather than confrontation. This advice helped me a lot, and I remain grateful to him.

My first supervisor Professor Stephen T. T. Teo deserves special thanks for his use of probing questions as a strategy for academic guidance and supervision.

My second supervisor Dr Marcus Ho must be acknowledged for his guidance on critical reasoning. I remain grateful to both men for being strict at all stages of this dissertation. Their being “hard” actually made me strive for excellence.

I can’t forget Dr Josephine Chong, from the Department of Information Systems for great assistance during the data analysis stage when it was necessary to use comprehensive meta-analysis software. She was of great help at such a critical stage of the dissertation.

My friend and work colleague Ashwin Prasad must be acknowledged for helping out with the typing and the drawing of the research model in this dissertation.

To all these people, I say a big thank you. I wish to especially acknowledge authors of all citations in this dissertation, to whom I remain very grateful and have referenced accordingly. Finally, my wife Stella must be acknowledged especially for accommodating my regular absence from her company and for providing emotional support when necessary as well as finance that saw me through in this project. It was a hard 12-month journey, but there is always light at the end of the tunnel.

God bless.

CHIKODI OKOROGU (BSc, MBA, MSc, MBus, MNIM)

First Generation Meta-Analytic Review of the Influence of Human Resource Management Single Practices on Organizational Outcomes: 1985-2015

Chapter One: Background, Overview and Structure of Dissertation

1.1 Chapter introduction

In the introductory section of this dissertation, I will endeavour to establish the need for this study. The trend in the field will be highlighted and some observable issues noted. This will lead to a number of vital research questions, with the objectives and scope of the research clearly stated. The theoretical frameworks will be briefly mentioned. Next I will provide an overview of how the research was conducted and the structure of the dissertation for easy understanding.

1.2 Background of the study

Following the seminal work on Human Resource Management (HRM) by Beer et al. (1984), Beer, Boselie and Brewster (2015) declared that HRM as an academic discipline is now 30 years old. Originally developed as a USA management concept which emphasises the need for organizations to treat workers as valuable assets (Wilkinson, 1990; Beaumont, 1992), HRM has now established itself, gained popularity and developed a strong position (Beer et al., 2015). However, this field of study is yet to have an all accepted fundamental theory on the HRM practices, performance outcomes and how they are linked (see Bos-Nehles, Van-Riemsdijk, and Looise, 2013; Guest, 2011; Boselie, Dietz, and Boon, 2005; Guest, 1997).

I have identified both direct linkage and indirect linkage via intervening variables in the relationship between HRM practices and organizational outcomes in the works of scholars such as Bos-Nehles, Van-Riemsdijk, and Looise (2013), Jiang, Lepak, Hu, and Bear (2012), Fey, Bjorkman, and Pavlovskaya, (2000), Park, Mitsuhashi, Fey, and Bjorkman, (2003) and Paul

and Anatharaman (2003). In the absence of a direct linkage with organizational outcomes, some HRM practices contribute significantly to business performance through the mediation process (Katou and Budhwar, 2006). Beer et al. (1984) identified competence, commitment, congruence and cost-effectiveness as intervening variables, while Becker and Huselid (1998) proposed that intervening variables such as employee skills, employee motivation, and job design and work structure link to operating performance, which in turn influences market value and profit. Ferris et al. (1998) proposed a social context model that identified organizational climate, employee attitude, and employee behaviour as intervening variables. It is important to mention some of the identified positive relationships between various HR practices and organizational effectiveness; for example, with staffing (Terpstra and Rozell, 1993), with the promotion system (Ferris et al., 1992), with training (Bartel, 1994) and with compensation (Gerhart and Milkovich, 1990). While some studies have analysed the effects of HR practices on firm performance (e.g., Delery and Doty, 1996; Delaney and Huselid, 1996), the general consensus among researchers is that HR practices and HRM systems do not directly lead to business performance; rather, they influence firm resources such as human capital or employee behaviours, and these resources and behaviours lead to performance (Delery, 1998; Wright, McMahan and McWilliams, 1994). Empirical tests of models show HR practices have an influence on organizational capabilities which in turn affect performance (McMahan, Virick, and Wright, 1998).

1.3 The Research problem and research questions

Attempts at responding to Guest's (1997) plea for a theoretical foundation for HRM, performance, and how they are linked, have led to various empirical studies on HR single-practices (e.g., Tabiu and Nura, 2013; Loo-See and Leap-Han, 2013; Aldamoe, Yazam, and Hamid, 2013), strategic HRM bundles or configurations (e.g., Bos-Nehles, Van-Riemsdijk, and Looise, 2013; Jiang, Lepak, Hu, and Bear, 2012), and HRM best practices such as high-performance work systems (e.g., Boxall, 2012; Wright, Edwards, and Martyn, 2001), high-involvement work systems (e.g., Boxall and Macky, 2009; Mandelson, Turner, and Barling, 2011) and high-commitment work systems (e.g., Chiang, Shih, and Chu-Chun, 2014; Kim and Wright, 2011). Drawing from the strategic HRM bundle of practices, the Ability-Motivation-Opportunity (A-M-O) framework (Bos-Nehles et al., 2013; Jiang et al., 2012; Boselie et al., 2005; Boxall and Purcell, 2003; Appelbaum et al., 2000), HRM practices are classified into three categories: ability-enhancing, motivation-enhancing and opportunity-enhancing HRM practices (Jiang et al., 2012).

Ability is defined as the HRM-related competences necessary to successfully implement HRM practices on the work floor (Bos-Nehles et al., 2013). The employees' ability to do the work means that they possess the necessary skills and knowledge. Motivation is "the desire and willingness to perform HRM tasks" (Bos-Nehles et al., 2013, p. 865). The motivation to do the job implies that employees will do it because they want to, and are adequately rewarded for their behaviour. Opportunity is provided by the work environment in the form of support and the provision of the avenue necessary to enable the desired behaviour (Bos-Nehles et al., 2013). The employees may possess the needed skills and knowledge, and are well motivated, but without opportunity provided, performance may not occur.

Opportunities are represented by environmental contextual mechanisms that enable actions (Siemsen, Roth, and Balasubramanian, 2008), when the work environment provides the necessary support and avenue for expression (Boxall and Purcell, 2003).

Considering that the A-M-O theory is often used in strategic HRM research (Paauwe, 2009), and because HRM practices can influence employees' ability, motivation and opportunity to contribute to firm performance (Gerhart, 2005), I chose to investigate the influence of HR single practices in each strategic HRM bundle on organizational outcomes following Jiang et al.'s (2012) model. The aim is to respond to Guest's (1997) plea for a theoretical model for HRM. I chose Jiang et al.'s (2012) model because it responds to this fundamental issue.

However, I observed some missing links in Jiang et al.'s (2012) model which constitute gaps in the knowledge. These missing links include possible relationships between employee motivation and human capital, employee turnover and operational outcomes, ability-enhancing HR practices and turnover, motivation-enhancing HR practices and operational outcomes, and opportunity-enhancing HR practices and financial outcomes. It is accepted Jiang et al. (2012) must have first confirmed the effects of HR single practices on outcomes before developing their composite scale; however, they did not address the missing links which now need to be investigated. The research questions are, "What relationships between antecedents and outcomes exist in the Jiang et al. (2012) missing links?" And, "What additional mediating variables can be found?"

1.4 Objectives of research

The aims of this dissertation therefore are (1) to determine the effect-sizes in the Jiang et al. (2012) missing links; (2) to contribute to the emerging empirical literature on the firm-level influence of HR single practices on organizational outcomes; and (3) to determine a possible additional mediating variable for a further robust model test of fitness. I strongly believe that an expanded literature search from the date of HRM evolvement (Beer et al., 2015) to the present date will yield an improvement in both the number of practices, outcomes and links between all variables to form a model that will be testable for HRM.

1.5 The scope/ research design

This study provides a quantitative, first generation meta-analytic review of primary studies on HRM practices and organizational outcomes from 1985 to 2015. The design includes a comprehensive literature search, identification, selection, review and coding of the relevant primary studies as basic sources of data. Finally the data is meta-analysed and the results interpreted. A valid deduction is then made to support the research theory and hypotheses. First generation meta-analysis is used in reviewing the literature, applying descriptive statistics and estimating population correlation (e.g., Glass, 1976; Rosenthal, 1978).

1.6 The theoretical framework of the study

The diversity of what constitutes HRM practices and the multi-dimensional levels of organizational outcomes have made it necessary to consider the application of a multiple theory approach as a framework for this study (e.g., Jiang et al., 2012). Many scholars have theorised on such frameworks as the A-M-O theory, the behavioural perspective of the firm, the human capital theory, the resource-based view of the firm, the knowledge-based view of the firm, the social exchange theory and the contingency theory.

1.7 An overview of the study

The aim of this study is to determine the effect sizes in the Jiang et al. (2012) missing links through a rigorous literature search and first generation meta-analysis, which could further facilitate the development of an all acceptable HRM practices-organizational outcomes model. Going through 151 empirical articles which represented 415 independent samples involving 48,567 organizations worldwide that utilised HRM practices and organizational outcomes, the study extended Jiang et al.'s (2012) literature search with 36 new articles. The literature review yielded additional constructs from more than one article. The coding of data was carefully done and very strictly supervised with 98% inter-coding agreement between myself and my two supervisors. All first generation meta-analysis procedures were diligently followed. Finally, the excel spreadsheet yielded 5,752 lines of bivariate relationships between HRM practices and organizational outcomes.

Filtering and sorting resulted in groups of bivariate relationships. A group was selected for the meta-analysis if the group was made up of at least two different articles on the same

independent and dependent variables in accordance with the suggestion of Rosenthal (1985): “Meta-analytic procedures can be applied to as few as two studies, however, with very few studies in meta-analysis, results are unstable” (p. 185).

Altogether, 149 groups were selected and meta-analysed one by one. The results were classified using the Jiang et al. (2012) A-M-O theory. An additional construct, HR-strategic orientation, was discovered, thus forming an additional column in Jiang et al.’s columns for mediators.

A research model considered as an all-inclusive was drawn from seven relevant theoretical frameworks: the A-M-O theory (Appelbaum et al., 2000; Bailey, Berg, and Sandy, 2001); the behavioural perspective of the firm (Jackson, Schuler, and Rivero, 1989); the human capital theory (Becker, 1964; Lepak and Snell 1999; Ployhart and Moliterno, 2011); the resource-based view of the firm (Barney, 1991; Mahoney and Pandian, 1992); the knowledge-based view of the firm (Grant, 1996; Kogut and Zander, 1992); the social exchange theory (Blau, 1964); and the contingency theory (Beer et al., 1984). Thirty hypothesised relationships between HRM single practices and various organizational outcomes were also stated. This responded to the recent call by Beer et al. (2015) for a return to a contextual HRM practices-organizational outcomes model which can give practical meaning to the field.

Analysis of the various degrees of association between HRM practices and organizational outcomes revealed some missing links in the Jiang et al model. Results also showed that the three dimensions of HRM practices in the A-M-O framework have both a direct association and an indirect association with various organizational outcomes.

1.8 Structure of the dissertation

In the description of the structure of this dissertation, I firstly explain how I applied the A-M-O theory to the implementation of HRM practices. Following a review of previous studies, I then identify research gaps and propose research questions. Next, I state the objectives and scope of the research. Based on the review of relationships between all variables, 30 hypotheses are developed and a comprehensive research model is tested using second generation meta-analysis.

After presenting the research methods, the results are presented in tables with text explanations showing how the hypotheses are proved. The results are then interpreted and discussed, before the research limitations, implications, future research areas and conclusions of the dissertation are presented.

Chapter Two: Literature Review

2.1 Chapter introduction

In this chapter, I will discuss a seven-point theoretical framework for this study, the views and opinions of previous scholars on similar studies, HRM, HRM practices, strategic HRM and organizational outcomes. The possible linkages between HRM single practices in the A-M-O framework (ability-enhancing HR, motivation-enhancing HR and opportunity-enhancing-HR practices) and organizational outcomes also be discussed. In each of the discussion segments, hypothesised statements on these relationships will be stated in order to be tested and proved. Finally a research model will be drawn based on the theories, research questions and hypotheses from the reviewed literature.

2.2 Relevant multi-theoretical framework

This study adopted a seven-point, multi-theoretical framework to cater for the heterogeneous nature of HRM practices and the multi-dimensional levels of organizational outcomes. As the A-M-O theory is fundamental in all relationships, other theories are expected to lend good lenses for better understanding of the coherence and congruence in the vertical and horizontal alignments of variables (Boxall and Purcell, 2003).

2.2.1 The A-M-O theory proposed by Appelbaum et al. (2000) and Bailey et al. (2001) offers a specific focus on strategic HRM intervention (e.g., Boxall and Purcell, 2003). The theory states that employee performance at the organizational level is a function of employees' ability, motivation and opportunity to participate. This is expressed as $P = f(A-M-O)$ (Boxall and Purcell, 2011). The model argues that organizational interests are best served by an

HRM system that attends to employees' interests, namely their skill requirements, motivation and the quality of their jobs. This theory is relevant in determining which HRM practices develop, motivate and empower employees and what links they have with organizational outcomes. The result can act as a guide to efficient management policy development and implementation in organizations.

2.2.2 The behavioural perspective of the firm (Jackson, Schuler, and Rivero, 1989) focuses on the use of HRM practices by organizations to encourage productive behaviours from employees, which subsequently leads to the achievement of the desirable operational and financial objectives of the firm (Becker and Huselid, 1998). According to Jiang et al. (2012), firms that desire efficient employees and firms that require cooperative employees are bound to operate different kinds of HRM practices. "The effectiveness of HRM practice is realised when employees act in ways that are needed for implementing strategies and achieving various business objectives" (Jiang et al., 2012, p. 1266). This theory is relevant in determining employee behaviour moderating HR practices, such as inducements, and what links such practices have with organizational outcomes. By this, employees with high organizational commitment are identified.

2.2.3 The human capital theory (Becker, 1964; Lepak and Snell 1999; Ployhart and Moliterno, 2011) considers the employees' competencies within the organization. The theory holds the view that human capital, which is made up of employee skills, knowledge and abilities, is the main driving force of organizational performance, especially when the return on investment in human capital exceeds the cost of labour. The consideration is purely economic and directed towards the protection of shareholders' interests. The human capital theory is relevant to this study in that it helps to determine how organizations apply

cost-effectiveness in employee training and development and what impact such practices have on organizational outcomes. An organization with very high human capital is expected to influence all departments and subsequently have links with all variables in the HRM model.

2.2.4 The resource-based view of the firm (Barney, 1991; Mahoney and Pandian, 1992)

proposes that firms obtain a competitive advantage over competitors from resources that are not commonly available, but are very valuable and can neither be imitated nor substituted. The training and development of generic or firm-specific skills and the possession of valuable tacit knowledge by some core employees in a firm are examples of such firm-based resources that offer such competitive advantage. This theory is needed to determine what HR practices guide and secure rare human skills, abilities and know-how in an organization – such as the competitive compensation scheme, job security and job analysis – and what impact such practices have on organizational outcomes. An organization with an attractive remuneration system is likely to have the best brains with the least rate of voluntary turnover as well as having the ability to maintain a competitive lead in the industry.

2.2.5 The knowledge-based view of the firm (Grant, 1996, Kogut and Zander, 1992) holds

that knowledge is a critical resource which enables effective deployment and transformation of other resources such as money, physical plant and equipment. It is a unique firm resource. The practice of developing employee firm-specific or generic skills via training, empowerment, involvement or participation is tested in this study to determine if it has any impact on organizational outcomes.

2.2.6 The social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960)

support the view that when employees perceive beneficial organizational activities, they tend to feel obligated to reciprocate, thereby becoming motivated to exert more efforts at work. The theory argues that HRM practices contribute to the positive exchange relationship between employees and the employer and employees' responses display favourable attitudes and behaviours (Gould-Williams and Davies, 2005; Kuvaas, 2008). Such behaviours and attitudes can be manifested in forms of commitment, customer-oriented behaviour, extra-role performance, loyalty and dedicated responsibility. The social exchange theory is relevant to this study in that it can help to determine how employee motivation relates to other dimensions of the HRM model such as human capital, turnover, and operational and financial performance. HRM practices that enhance motivation are also expected to link up. I argue that if employees' high motivation impacts positively on outcomes, a decrease in predetermined HR practices can have a reverse effect.

2.2.7 The contingency theory (Beer et al., 1984) of the Harvard framework offers a lens on the possible link between the resource-based view and the A-M-O theory. It emphasises the need to examine the impact of contextual factors from the environment. Here, priorities in HRM are based on a consideration of stakeholders' interests and situational factors. It goes beyond the shareholders values and HRM outcomes are seen as having long-term impacts on organizational effectiveness as well as on social and individual well-being (Boxall and Purcell, 2011). The contingency theory is relevant to the study as it considers HRM practices that are unique to the organizational climate, and their links to organizational outcomes. Such HR practices that are firm specific due to situations of uncertainty, emergency, risks or culture-effect can be related with organizational outcomes. In such situations, the strategic

policy initiatives of the firm becomes a handy tool. Do policies determine HR practices or do HR practice determine policies? My belief is that the strategic direction is the starting point.

2.3 The concept of Human Resource Management

Human Resource Management (HRM) as a concept is applied in so many ways. Guest (1987) identified three approaches: as a new name for personnel management with no changes in practices; as a new concept for re-organising personnel roles; or as a totally new approach to management which lies in the integration of human resources into strategic management emphasising full and positive utilisation of these resources (Guest, 1987).

Guest's study defined HRM as "a set of formal policies designed to maximise organizational integration, employee commitment, flexibility and quality of work; within the model, collective industrial relations have at best only a minor role" (p. 504). In the same way, Noe et al. (2010) defined HRM as philosophy, policy, system and practices that can influence employees' behaviour, attitude and performance.

These definitions show the nature of HRM and imply that HRM can be seen as a process that focuses on getting the best from employees by emphasising policies, system and practices.

While several studies view HRM as an organizational orientation towards managing work and employees (e.g., Boxall and Purcell, 2011), some make assessment of the effectiveness of HRM functions (e.g., Huselid, Jackson and Schuler, 1997; Richard and Johnson, 2001; Teo, 2002; Wright, McMahan, Snell, and Gerhart, 2001). Subsequently, the objective of a strategic HRM programme is "to identify and recruit strong performers, provide them with the abilities and confidence to work effectively, monitor their progress towards the required

performance target, and reward them well for meeting or exceeding them” (Batt, 2002, p. 587).

Harnessing the human resources of an organization has been reported to improve organizational performance by contributing to employee and customer satisfaction, innovation, productivity and development of good reputation among firms’ community (e.g., Delaney and Huselid, 1996; Noe et al., 2010). Armstrong (2001) provided an all-inclusive summary of the various views of HRM, stating that they are “a strategic and coherent approach to the management of an organization’s most valued assets: the people working there who individually and collectively contribute to the achievement of its objectives” (pp. 3-4). HRM is concerned with various choices organizations make from available policies and structures of managing people and work (Boxall and Purcell, 2003); however, since no widely accepted theoretical rationale exists for selecting practices, there is yet no consensus on which employee management activities should be a comprehensive checklist for HRM. Researchers in the field of HRM are still searching for “a theory about HRM”, “a theory about performance”, and “a theory about how they are linked” (Guest, 1997, p. 263).

The early models of HRM were developed in the early 1980s (Beer et al., 2015) and they differentiated between HRM and personnel management (PM). While PM examined the administrative roles and processes of the personnel department using a short term focus and cost minimization as key criteria for evaluation (Guest, 1987), HRM represented a different way of thinking about employee management (Beer et al., 2015). HRM was built on the role of employees as a major operating cost for organizations while using human and social capital to generate value from other resources in order to create organizational

success (Beer et al., 2015), thus giving organizations a long-term strategic orientation. Beer et al. (2015) argued that cost-effective HRM is a key to organizational success and survival and called for an expanded model of the discipline that goes beyond protection of shareholders' values to include stakeholders' interests, situational factors, HRM policy choices, HRM-outcomes and long-term consequences. HRM has become successful over the past 30 years because it has developed a narrow focus on economic performance, thereby losing sight of the wider group of stakeholders like management, employee groups, government, community and trade unions as included earlier in the Harvard framework of 1984 (Beer et al., 2015). Beer et al.'s (2015) call was meant to re-engage the Beer et al. (1984) model which, in the view of Beer et al. (2015) would allow HRM to remain more practically relevant and effectively connected to other fields like organizational development, corporate governance and industrial relations.

As earlier stated, attempts to create more consensus on HRM have not been convincing (Guest, 2011), and while the universalist approach emphasises human capital theory, the resource-based view is different from the contextual HRM approach. The 1980s saw the emergence of HRM from traditional personnel management (Beer et al., 2015), while in the 1990s, strategic HRM evolved to address the issues of strategic tensions and problems in firms (Boxall and Purcell, 2011). Firms as "economic entities located in a social context" needed a cost-effective approach to HRM in the industries to compete as well as to achieve legitimacy in the society (Boxall and Purcell, 2011, p. 24). However, Pettigrew (1990) argued that there is need for a shift from the prescriptive to the descriptive analysis of structures and strategies that create the processes of an organization, pointing out that developing the necessary framework for understanding these structures and strategies is an essential underpinning of HRM.

2.4 Human Resource Management practices

There is no agreement on what constitutes Human Resource Management practices, let alone a prescribed set of them (Boxall, 2007). Research continues to propose countless varied list of practices (e.g., Beer et al., 2015; Pfeffer, 1998; Guest, 1997; Storey, 1995; Pfeffer, 1994; Beer et al., 1984). However, some practices form the core of the various practices proposed which include recruitment and selection, training and development, performance management and reward systems (Boselie et al., 2005). Other practices like job design and employee involvement are becoming sporadic and gradually gaining ground in the HRM literature (Boselie et al., 2005).

It is important to differentiate between organizational policies and practices. While policies refer to an organization's stated intentions regarding the various "employee management activities" (Boselie et al., 2005, p. 72), practices refer to the "actual, functioning, observable activities" (Wright and Boswell, 2002, p.263). Guest (1997) suggested seven practices: selection, training, appraisal, job design, involvement, status and security. In a literature review, Delery and Doty (1996) identified seven practices that are consistently considered as HRM practices and defined HRM practices as those management practices that are theoretically or empirically related to organizational performance. These practices are internal career opportunities, formal training systems, result-oriented appraisals, employment security, participation, job description and profit sharing (Delery and Doty, 1996).

The majority of the articles applied a practice approach (e.g., Guest and Hogue, 1994; Huang, 1997) to generate an index of HRM practices in a system or bundle of practices. Drawing from the Ability-Motivation-Opportunity (A-M-O) model, Jiang et al. (2012)

classified HRM practices into three categories: skill-enhancing, motivation-enhancing and opportunity-enhancing HRM practices. Some researchers had earlier suggested that employee performance is a function of these three essential components (e.g., Appelbaum et al., 2000; Bailey, 1993; Boxall and Purcell, 2008; Delery and Shaw, 2001; Gerhart, 2007; Kazt, Kochan, and Weber, 1985; Lepak et al., 2006). Some empirical studies have now adopted and validated the conceptual framework (e.g., Bailey, Berg, and Sandy, 2001; Batt, 2002; Gardner, Wright and Moynihan, 2011; Huselid, 1995; Liao et al., 2009; MacDuffie, 1995; Subramony, 2009). Subsequently, Lepak et al. (2006) suggested the conceptualization of HRM practices into these three primary dimensions.

Jiang et al. (2012) identified 14 HRM practices in the three dimensions and stated that ability-enhancing HR-practices ensure the engagement of suitably skilled employees via such practices as comprehensive recruitment, rigorous selection and extensive training. Motivation-enhancing HR-practices ensure that employees are properly motivated via such practices as developmental performance appraisal, competitive compensation, incentives and rewards, benefits and promotions, career development and job security. Opportunity-enhancing HR-practices are designed to empower employees to use their skills and motivation to achieve organizational objectives via such practices as flexible job design, work teams, employee involvement, formal grievance and complaint procedures and information sharing (Jiang et al., 2012). Table 1 below makes this more explicit.

Table 1: HRM Practices Using the A-M-O Model

Ability-enhancing HR-Practices	Motivation-enhancing HR-practices	Opportunity-enhancing HR-practices
Comprehensive recruitment. -Rigorous selection. -Extensive training.	Performance appraisal. Competitive compensation. Incentives and reward. Benefits and promotions. Career development. Job security.	Flexible job design. Work teams. Employee involvement. Formal grievance and complaint procedure. Information sharing.

Source: Adapted from Jiang et al. (2012).

Recruitment and selection are two inter-related HRM-functions. While recruitment is the process of generating a pool of capable applicants for employment in an organization, selection is the process by which specific instruments are employed to choose from the pool of applicants the most suitable for the job considering the management goals and legal requirements (Bratton and Gold, 2003). Both processes, commonly referred to as staffing practices (Teo, LeClerc, and Galang 2011; Teo, Reed, and Ly, 2014), are the point of entry into an organization and reflect the requirements and the philosophy of the firm as shown in the calibre of talent chosen to drive their goals and interests. Staffing employs various techniques such as interviews, assessments, curriculum vitae, referrals, etc.

Training and development is the formal and systematic modification of employee behaviours through learning which occurs as a result of education, instruction, development and planned experience (Armstrong, 2001). Appropriate training is required for various purposes such as solving pertinent problems, boosting performance and for continuous development of the organization's human resources (Armstrong, 2001). A study by Koch and

McGrath (1996) showed that firms that engage in systematic training of their workforce are more likely to enjoy the rewards of a more productive workforce.

Firms that require a high level of employee education and experience can use extensive recruitment and selective staffing as a means of improving their human capital (Snell and Dean, 1992), and recruitment can be enhanced through the use of multiple sources to build a larger application pool (Koch and McGrath, 1996). Another strategy to improve a firm's workforce quality is to provide training programmes (Snell and Dean, 1992) either by on-the-job training, in-service training, tuition and seminar workshops, or full-time or part-time scholarships for professional training.

The most contentious HRM practice in an organization's motivation-enhancing domain is the compensation practices or the reward system. This is a process of rewarding people according to their value in the organization. It involves financial and non-financial strategies, philosophy, plans and processes to develop and maintain reward systems (Brown, 1989). Compensation or a reward system plays a motivational role in management. Various pay strategies are applied which include performance-related pay, production-based pay, skill-based pay and knowledge-based pay (Brown, 1989). Since candidates with special skills, knowledge and abilities usually command a premium in the labour market, an above-market salary and other inducements such as bonuses can attract higher levels of workforce (Snell and Dean, 1992). Performance appraisal can be used to identify employees with necessary special skills and the firm can institute a development plan for workers. HRM practices that are associated with improved employee commitment include a variety of compensation programmes that emphasise intrinsic and extrinsic rewards (Milkovich, 1987). For example,

stock ownership can align employee motivation with goals of the organization, increase commitment and encourage employee to contribute efforts (Milkovich, 1987).

From the opportunity-enhancing domain of HRM practices, employee involvement is seen as the concept of treating employees as important assets of the organization (Tabui and Nura, 2013) and this is basic to successful HRM practices. Three major routes to greater employee involvement include legislated standards on employee participation (e.g., workers' councils) and trade unions for collective bargaining and management initiatives (Beer et al., 1984).

2.5 The concept of strategic Human Resource Management

The strategic approach of HRM is demonstrated by a coherent set of HR practices, also known as bundle formulated, to achieve organizational outcomes (Barney and Wright, 1998). They are formulated to ensure alignment both vertically between organizational strategies and HR management strategies and horizontally to ensure consistency within HR practices (Miles and Snow, 1984; Snell and Dean 1992; Schuler, 1992; Boxall, 1996; Teo, LeClerc, and Galang, 2011). For example, the formulation of a competitive compensation scheme like stock ownership in the firm based on employees' performance appraisal will likely provoke improved competitive performance amongst employees as well as organizational commitment. Boxall (1996) argued the need for an HRM strategy to fit a firm's competitive business strategy. An earlier study by Wright et al. (1998) showed that organizations that have a higher level of HR-department involvement in the firm's strategy formulation and implementation tend to have a stronger impact on the implementation of the firm's product innovation strategy. Thus, an important component in explaining the impact of HRM practices on organizational outcomes is the firm's strategic orientation

(Schuler, 1992; Wager, 1998; Guthrie et al., 2002; Teo et al., 2011; Chow, Teo, and Chew 2013). This can be conceptualised into two realms: business strategies such as least-cost strategy, differentiation strategy and organizational capabilities (Teo et al., 2011) and conventional HR management strategies such as total quality management (TQM). Earlier research argued that HRM practices must match with particular HRM strategies in order to reflect the roles and behaviours required to implement the firm's business strategies (e.g., Miles and Snow, 1984; Schuler, 1992). The contingent relationship between a firm's business strategy and HRM practices in Australian firms was brought to light by Bowen, Galang and Pillai (2002), while Guthrie, Spell and Nyamori (2002) showed that there is a moderate association between a differentiation strategic orientation and the use of bundles of high involvement HRM practices in New Zealand. All these studies point to the fact that there is a relationship between the choice of a particular strategic business orientation and the adoption of any HRM practices or system (Teo et al., 2011).

Guest (1997) argued that it is more sensible to use the term "outcome" instead of "performance" per se, as outcomes reflect the broad range of dependent variables used in studies (p. 266). Jiang et al. (2012) summarised organizational outcomes into three categories: financial outcomes, operational outcomes and turnover with two HRM outcomes – human capital and employee motivation. However, Dyer and Reeves (1995) had earlier provided these distinctions. Financial outcomes include profits, sales, market share, Tobin's Q, return on assets, return on equity, return on investment, and return on sales, market return, sales growth and overall financial performance. Operational outcomes include productivity, quality, efficiencies, service, innovation, and over all operational performance. Voluntary turnover as an organizational outcome refers to the percentage of

employees who leave the organization based on personal decisions. Table 2 makes this more explicit. **Table 2: Organizational Outcomes**

Turnover	Operational Performance	Financial Performance
-Employee Retention -Turnover	-Employee performance -Customer Orientation -Service Performance - Firm Performance -Productivity -Customer Satisfaction -Perceived Orgnal.Performance -Product and Service Quality.	-Financial Performance -Marketing Performance -Sales Growth -ROA -ROI -ROE -Profitability -Tobin's Q

Source: Adapted from Jiang et al. (2012)

2.6 Ability-enhancing HRM practices and organizational outcomes

Following the A-M-O theory of Appelbaum et al. (2000) and Bailey et al. (2001) which focuses on providing for employees' developmental, motivational and empowerment needs, Jiang et al. (2012) stated that the ability-enhancing dimension of HRM practices is designed to ensure the engagement of suitably skilled employees via such practices as comprehensive recruitment, rigorous selection and extensive training. In this way, strong emphasis is placed on employee development.

An organization can "make" and/or "buy" human capital by developing the knowledge and skills of current employees and/or by attracting individuals with high knowledge and skill levels from the external labour market (Youndt and Snell, 2004). The "buying" of human capital implies recruitment and selection while the "making" of human capital implies

training of the existing labour force. This HR-acquisition practice is facilitated by selective staffing which includes extensive and intensive search strategies aimed at expanding the application pool by using a wide variety of recruitment sources such as employee referrals, search firms, universities and employment agencies (Youndt and Snell, 2004). In this study, staffing is inclusive of all recruitment and selection practices (Youndt and Snell, 2004).

The human capital pool of an organization can be enhanced through developmental practices based on training and education (Youndt and Snell, 2004). This is in line with the human capital theory aimed at transforming the workforce of an organization from hands-on labour to a knowledge-based workforce for the benefit of the firm (Snell and Dean, 1992).

Studies have shown that positive relationships exist between the staffing and training practices of an organization and its financial outcomes; for example, with marketing performance (e.g., Delaney and Huselid, 1996; Harel and Tzafrir, 1999; Yan Li, 2003; Singh, 2004); with sales growth (e.g., Vlachos, 2008; Zhu, Ghew, and Spangler, 2005; Gelade and Ivery, 2003); with financial performance (e.g., Ramdani et al., 2014; Akhter, Ding, and Ge, 2008; Faems et al., 2005; Paul and Anatharaman, 2003; Perry-Smith and Blum, 2000). The improved performance in sales growth, marketing and finance due to effective staffing and training practices are likely to reflect on the overall financial outcomes. This is in line with the theory of A-M-O for employee development, the theory of human capital and the cost effectiveness of investment in human capital enhancement via training, and the knowledge-based and resource-based theories of the firm for a competitive advantage. Therefore, I hypothesise that:

H1: The ability-enhancing HR-practices of the firm which comprise staffing and training will be significantly and positively related to the financial outcomes of the firm.

Similarly, studies have shown positive association between staffing and training by the firm and its operational outcomes; for example, with firm performance (e.g., Vlachos, 2008; Miah Bird, 2007; Tzafrir, 2005; Lui, Lau. and Ngo, 2004; Litz and Stewart, 2000; Fey, Bjorkman, and Pavlovskaya, 2000). Training is also shown to have a positive impact on employee performance (e.g., Ramdani et al., 2014; Boxall, Ang, and Bartram 2011; Guest, Gonway, and Dewe, 2004), customer satisfaction (e.g., Wood, Holman, and Stride, 2006; Liao and Chuang, 2004; Kalleberg and Moody, 1994), productivity (e.g., Ghebregiorgis and Karsten, 2007; Guerrero and Didier, 2004) and service performance (e.g., Akhter et al., 2008; Liao and Chuang, 2004; Rogg et al., 2001; Kalleberg and Moody, 1994). Here, we see the effect of improved employee skills, knowledge and abilities due to training. All these studies are in line with the human capital theory for cost effective investment in the workforce via training. Therefore I hypothesise that:

H2: The ability-enhancing HR-practices of an organization which comprise staffing and training will be significantly and positively related to the operational outcomes of the firm.

When employees voluntarily quit their jobs, it may not necessarily be due to how they were recruited or how they were trained. Rather, studies show that a well-trained employee has a very high probability of been retained by the organization and the more the satisfaction of employees due to relevant generic or job-specific training, the less the thought of quitting. The association of training and retention (inverse of turnover) is supported by such studies

as those of Ngo, Turban, Lau and Lui (1998) and Kalleberg and Moody (1994). This is in the line with the employee development focus of the A-M-O theory as well as the resource-based and knowledge-based theories of competitive advantage. I therefore hypothesise that:

H3: The ability-enhancing HR-practice of an organization which comprises training and development will be significantly and positively related to the employee retention rate of the firm.

2.7 Motivation-enhancing HRM practices and organizational outcomes

The greatest dilemma facing firms (Coff, 1997) is how to retain their employees and motivate them to put in the best of their skills, knowledge and abilities in the business of the firm. The motivation-enhancing HRM practices in the A-M-O framework, according to Jiang et al. (2012), include performance appraisal, compensation, incentives and rewards, internal promotion, career development and job security. The strategic perspective HRM research stream started out in the belief that how an organization manages its people is linked to its performance (Gardner, Wright, and Moynihan, 2011). The assumption is that since organizations cannot exert ownership control over human capital like other assets (Coff 1997), the way it can use the HRM system to gain competitive advantage is to reduce voluntary turnover, which is a critical organization performance outcome (Delery and Shaw, 2001).

Studies have shown that these motivation-enhancing HR practices can influence organizational outcomes such as operational performance, financial performance and

turnover directly without a mediator (e.g., Becker and Huselid, 1998; Dyer and Reeves, 1995; Huselid 1995; Arthur, 1994; Gerhart and Milkovich, 1990; Terptra and Rozell, 1993).

In their study of employees in the USA banking sector, Delery and Doty (1996) found some support for a positive relationship between job security and firm performance. The relationship was attributed to a higher level of employee commitment and motivation in banks with secure jobs. It can be suggested that job security is likely to align the interests of both employees, owners and shareholders, as everybody is concerned about the long-term success of the firm.

Internal promotion or career possibilities from within the firm tend to promote a higher degree of organizational commitment among employees (Guest, 1997) which can be directly reflected in organizational outcomes. This is possible because an emphasis on internal promotion is likely to provide a sense of fairness and justice among employees. Promotion from within the internal labour market of the firm is likely to be associated with low employee turnover. While Guest (1997) pointed out that internal promotion within a firm based on merit rather than seniority may enhance employee motivation and employee retention, Huselid (1995) stated that compensation and promotion based on performance can encourage employee performance and retention.

Studies in the existing literature show that variables in the operational outcome domain of the A-M-O framework have direct positive associations with all the motivation-enhancing HRM practices. For examples, firm performance is associated with performance appraisal (e.g., Den Hartog and Kerburg, 2004; Gong, Law, Ghang, and Xin, 2009; Yang and Lin, 2009; Singh, 2004), with compensation (e.g., Lui, Lan and Ngo; Tzafrir, 2005; Vlachos, 2008), with incentives and rewards (e.g., Katou and Budhwar, 2006; Den Hartog and Verburg, 2004),

with the internal labour market (e.g., Tzafrir, 2005; Fey et al., 2000; Delery and Huselid, 1996), with career development (e.g., Lui Lan and Ngo, 2004; Fey et al., 2000) and with job security (e.g., Takeuchi et al., 2007; Fey et al., 2000).

The association of performance appraisal, job security and the internal labour market with service performance was highlighted by Akhter et al. (2008) and Rogg et al. (2001), while the association of incentives and rewards and the internal labour market with customer satisfaction was supported by Batt and Colvin (2011) and Liao and Chuang, (2004). The association of compensation with productivity was supported by Ghebregiorgis and Kersten (2007), Guerrero and Didier (2004) and Noble (2000), while the association of performance appraisal with perceived organizational performance was supported by Rodwell and Teo, (2008) and Stup (2006).

In all these associations between motivation-enhancing HRM practices and operational outcomes, we see evidence of both the motivational focus of the A-M-O theory and the social exchange theory. There is an appreciation of management's beneficial activities by employees who are intrinsically and extrinsically motivated to pay back with improved performances. I therefore hypothesise that:

H4: The motivation-enhancing HRM practices of an organization which comprise

performance appraisal, compensation, incentives and rewards, internal labour market, career development and job security will be significantly and positively associated with the operational outcomes.

Similarly, studies have supported positive associations between motivation-enhancing HRM practices and the firm's financial outcomes; for example, Khatri (2000) and Snell and

Youndt (1995) showed performance appraisal relates positively with sales growth. Ramdani et al. (2014), Faems et al. (2005), Guerrero and Didier (2004), Paul and Anatharaman (2003) and Chandler and McEvoy (2000) supported a positive relationship between compensation practices and the financial performance of a firm. Also, the association of compensation and marketing performance was supported by Tzafrir (2005) and Kalleburg and Moody (1994). The effects of incentives and rewards and the internal labour market on marketing performance were supported by Tzafrir (2005), Yan Li (2003), Harel and Tzafrir (1999), Delaney and Huselid (1996) and Kalleburg and Moody (1994). Again, Faems et al. (2005) and Paul and Anatharaman (2003) supported a positive association between career development and the financial performance of a firm. In all these associations, we see evidence of the motivation focus of the A-M-O theory and the social exchange theory as the employees respond to the norm of reciprocity (Gouldner, 1960). I therefore hypothesise that:

H5: The motivation-enhancing HRM practices of an organization which comprise performance appraisal, compensation, incentives and rewards, internal labour market, career development and job security will be significantly and positively associated with the financial outcomes.

The rate of employees' turnover in a firm can be mitigated by effective motivation-enhancing HRM practices (Den-Hartog * Verburg, 2004; Huselid, 1995). Several studies have asserted that the relationship is direct and unmediated (e.g., Gardner et al. 2011; Becker and Huselid, 1998; Dyer and Reeves, 1995; Huselid, 1995). Significant negative associations between performance appraisals and the rate of employee turnover have been found in

previous studies such as those of Selden, Schimmoeller and Thompson (2013), Batt and Colvin (2011), Bartram et al., (2007) and Guest, Gonway and Dewe (2004). While Ghebreorgis and Karsten (2007) and Faems et al. (2005) found a significant negative association between compensation practice and turnover, Ngo et al. (1998) and Kalleberg and Moody (1994) found a positive association between compensation practice and the employee retention rate in the firm. This implies that the more effective the performance appraisals and compensation practices of the firm, the more the desire to stay on the job and the less the thought of quitting by employees. Here again we find the intrinsic and extrinsic motivation focus of the A-M-O theory and the social exchange theory interplaying.

I therefore hypothesise that:

H6: The motivation-enhancing HRM practices of an organization which comprise performance appraisal, compensation, incentives and rewards, internal labour market, career development and job security will be expected to have significant negative association with the employee turnover rate.

2.8 Opportunity-enhancing HRM practices and organizational outcomes

Employees may have the ability or competence and are well motivated to perform HRM practices effectively, but “the organization must provide them with appropriate opportunities to use their skills” (Lepak et al., 2006, p. 233). Opportunities are represented by environmental or contextual mechanisms that enable actions (Siemsen et al., 2008) when

the work environment provides the necessary support and avenues for expression (Boxall and Purcell, 2003). Earlier studies operationalised opportunity in terms of the immediate work environment using leadership processes, job design, person or system fit and situational constraints (Waldman, 1994) and also in terms of employee engagement in problem solving or wider involvement (Purcell et al., 2003). However, Jiang et al. (2012) operationalised the opportunity-enhancing HRM practices into job design, work teams, employee involvement, grievance procedure and information sharing.

Opportunity should be understood as situational and reflective of organizational policies, procedures, time availability, task preparation and necessary services and help from others (Blumberg and Pringle, 1982). This means that employees need good support from management. Also needed is enough time to get involved in HRM practice implementation, which should have very clear policies and procedures with minimal role ambiguity.

Following the A-M-O framework, opportunity-enhancing HRM practices have been found to be positively associated with the three organizational outcomes defined in the existing literature. Studies by Akhter et al. (2008) and Feams et al. (2005) found positive association between employee participation and financial performance. Similarly, Paul and Anatharaman (2003) and Guerrero and Didier (2004) found a positive association between work teams and financial performance. An effective grievance procedure and employee involvement have also been found to be positively related with marketing performance (e.g., Delaney and Huselid, 1996; Harel and Tzafrir, 1999; Yan Li, 2003). The grievance procedure ensures that there is minimal role ambiguity. In all these associations, we see an interplay of A-M-O theory and the contingency theory. While the A-M-O theory focuses on empowerment of the employees, the contingent theory provides the contextual or

situational factors which present the opportunities for employees to use their skills and motivation for the achievement of organizational objectives. I therefore hypothesise that:

H7: The opportunity-enhancing HRM practices of an organization which comprise job design, work teams, employee involvement, grievance procedure and information sharing will be significantly and positively associated with the financial outcomes.

The operational outcomes of the firm have also been found to relate positively with opportunity-enhancing HRM practices. For example, job design has a positive relationship with service performance (e.g., Akhter et al., 2008; Rogg et al., 2001); employee involvement relates positively with customer satisfaction (e.g., Gelade and Ivery, 2003; Liao and Chuang, 2004; Wood et al., 2006); employee empowerment relates positively with employee performance (e.g., Boxall et al., 2011; Ramdani et al., 2014); and employee participation, grievance procedure and information sharing associate positively with firm performance (e.g., Lui, Lau, and Ngo, 2004; Den-Hartog and Verburg, 2004; Vlachos, 2008; Perry-Smith, and Blum, 2000). Again, we see the A-M-O theory and contingency theory interplay which enables employees to contribute. I therefore hypothesise that:

H8: The opportunity-enhancing HRM practices of an organization which comprise job design, work teams, employee involvement, grievance procedure and information sharing will be significantly and positively associated with the operational outcomes.

The rate of employee turnover in an organization has been found to be significantly associated with some opportunity-enhancing HRM practices. For example, employee empowerment and turnover have been found to be negatively related (Huselid, 1995; Gardner et al., 2011), while Den-Hartog and Verburg (2004) and Guest et al. (2004) found a

negative significant association between grievance procedure and turnover and between information sharing and turnover. The setting up of an effective grievance procedure is likely to ensure fairness in the firm and the information sharing mechanism is likely to ensure that everybody is carried along thereby creating a conducive organizational climate where the thought of quitting is low. I therefore hypothesise that:

H9: The opportunity-enhancing HRM practices of an organization which comprise job design, work teams, employee involvement, grievance procedure and information sharing will be significantly and negatively associated with the rate of turnover.

2.9 Inter-relationship between organizational outcomes

Organizational outcomes as categorised within the A-M-O theory of Jiang et al. (2012) include the turnover rate, operational outcomes and financial outcomes. Dyer and Reeves (1995) had earlier provided the distinctions. Financial outcomes include profits, sales, market share, Tobin's Q, return on assets, return on equity, return on investment, return on sales, market return, sales growth and overall financial performance. Operational outcomes include productivity, quality, efficiencies, service, innovation, and overall operational performance. Voluntary turnover as an organizational outcome refers to the percentage of employees who leave the organization based on personal decisions. The inverse of turnover is the rate of employee retention which actually stems down the turnover rate.

Existing studies have indicated that there are reasonable relationships between the three variables. For example, the effect of turnover on productivity was supported by Sun, Aryee and Law (2008), Ghegregiorgis and Karsten (2007), Guest et al. (2003), Herrell-Cook (1999)

and Huselid (1995). In the same fashion, turnover impacts firm performance (e.g., Miah and Bird, 2007; Ericksen, 2006). In all these associations, we see the theory of the resource-based view, the knowledge-based view and the A-M-O theory interplaying. While the A-M-O theory ensures that employees' development, motivation and empowerment needs are provided to motivate productivity and firm performance, the resource-based and the knowledge-based theories ensure that employees' competencies and capabilities are secured for industrial competitive advantage. When the opposite is the case, there is a reversed action. As the rate of employee turnover increases, productivity and firm performance decrease and vice-versa. I therefore hypothesise that:

H10: The rate of employees' turnover in an organization will be significantly and negatively associated with the operational outcomes of the organization.

Similarly the impact of turnover on the financial performance of an organization was supported by Ericson (2006), Faems et al. (2005), Guest et al. (2004), Den-Hartog and Verburg (2004), Batt (2002) and Huselid (1995). On the other hand, the effect of employee retention rate on the financial performance of the firm was highlighted by Paul and Anatharaman (2003), Gelade and Ivery (2003), Ngo et al. (1998) and Kalleberg and Moody (1994). Following the same argument stated above, I hypothesise that:

H11: The rate of employee turnover in an organization will be significantly and negatively associated with the financial outcomes of the organization.

The relationship between operational performance and the financial performance of an organization is very well supported in the literature. The simple logic is that when employee

development, motivation and empowerment needs are provided for, they impact on operational outcomes such as increased productivity, sales growth, marketing performance, customer satisfaction, innovations, etc. which in turn reflects on financial outcomes like profitability, returns on sales, equity, assets, investment and market shares in the industry. The association between firm productivity and financial performance is supported by Guerrero and Didier (2004), Petterson, West and Wall (2004) and Guest et al. (2003). The A-M-O theory is fundamental in this relationship as well as other theories such as the resource-based view and knowledge-based view. I therefore hypothesise that:

H12: The operational outcomes of an organization will be significantly and positively associated with the financial outcomes of the organization.

2.10 Relationships between A-M-O enhancing HRM and human capital

HRM outcomes are conceptually divided into human capital, motivation and opportunity to contribute (Backer and Huselid, 1993; Delery and Shaw, 2001; Guest, 1997). However, Jiang et al. (2012) identified human capital and employee motivation as mediating factors as the most examined in HRM literature, citing examples such as Gardner et al. (2011), Gong et al. (2009), Liao et al., (2009) Sun, Aryee and Law (2007), Takeuchi et al. (2007) and Youndt and Snell (2004). Human capital is seen as consisting of employees' knowledge, skills and abilities (Coff, 2002). Ability is defined as the HRM-related competencies necessary to successfully implement HRM practices on the work floor (Bos-Nehles et al., 2013). The employees' ability to do the work means that they possess the necessary skills and knowledge. Table 3 below lists the most commonly implied human capital variables in the literature.

Table 3: Human Capital Variables

Human Capital
-Human capital
-Employee skills
-Work experience
-Education level
-Competencies
Employee abilities
Tacit knowledge

The relationships between ability enhancing HR practices such as training and staffing and human capital have been well supported in the literature. For example, while Chuang and Liao (2010), Beltram-Martin et al. (2008), Audea, Teo and Grawford (2005) and many more found a positive association between staffing and human capital, Batt and Colvin (2011), Gardner et al. (2011), De-Winne and Sels (2010) and many more also found a positive association between training and human capital. Here, we see the developmental perspective of the A-M-O theory, the resource-based view and the knowledge-based theory all at work. The quality of human capital in the firm depends on the type of selection and training practices that are likely to develop the core competence needed for a competitive advantage. I therefore hypothesise that:

H13: The ability-enhancing HRM practices of a firm which include staffing and training will be significantly and positively associated with the human capital of the organization.

Similarly, motivation enhancing HR practices are found to be positively related with the human capital of the firm. For example, performance appraisal and human capital were

studied by Wright et al. (1999), Paul and Anatharaman (2003), Bertram-Martin et al. (2008) and Chuang and Liao (2010). Compensation has been found to be positively related to human capital by many scholars, including Gerhart and Milkovich (1990), Minbaeva et al., (2003), Katou et al. (2006), and Baltram-Martin et al. (2008). The theory of the HRM behavioural perspective of the firm as well as the A-M-O theory can be seen interplaying.

“The effectiveness of HRM practice is realised when employees act in ways that are needed for implementing strategies and achieving various business objectives” (Jiang et al., 2012, p. 1266). I therefore hypothesise that:

H14: The motivation-enhancing HRM practices of a firm will be significantly and positively associated with the human capital of the organization.

The relationships between opportunity-enhancing HRM practices and the human capital of a firm have been well supported. The impact of employee involvement on human capital was shown by Wright et al. (1999), Youndt and Snell (2004), Beltram-Martin et al. (2008) and Chuang and Liao (2010). In the same way, Cabello-Medina, Lopez-Cabrales and Valle-Cabrera, (2011) and Gardner et al. (2011) demonstrated that employee empowerment has a positive association with human capital. Again we see the development perspective of the A-M-O theory and the knowledge based and resource-based views all at work. Employee involvement and empowerment are all contextual opportunities for employees to utilise their acquired knowledge, skills and abilities for achievement of organizational objectives. These competencies can be seen as rare, valuable, not easy to imitate and not easy to substitute, thereby conferring a competitive advantage on the organization. I therefore hypothesise that:

H15: the opportunity- enhancing HRM practices of a firm will be significantly and positively associated with the human capital of the organization.

2.11

The relationship between A-M-O-enhancing HRM and employee motivation

Employee motivation refers to the direction, intensity, and duration of employees' efforts (Campbell, McCloy, Oppler, and Sager, 1993), as manifested in positive work attitudes such as collective job satisfaction, commitment and perceived organizational support, as well as in positive work behaviour such as organizational citizenship behaviour (Jiang et al., 2012). Motivation is "the desire and willingness to perform HRM tasks" (Bos-Nehles et al. 2013, p. 865). The motivation to do the job implies that employees will do it because they want to, and are adequately rewarded for their behaviour. Table 4 below shows a list of the most commonly implied employee motivation variables in the literature.

Table 4: Employee Motivation Variables

Employee Motivation	Employee Motivation
- Affective Commitment	-Employee motivation
-Organizational Commitment	-Helping behaviour
-Organizational Citizenship behaviour	-Work climate
-Customer-Oriented Behaviour	-Trust and cooperation
-Employee Attitudes	-Job satisfaction
-Employee Morale	-Perceived organizational support
-Continuance Commitment	
-Organizational Climate	

The association between ability-enhancing HRM practices and employee motivation is well supported in the literature. For example, Boxall et al. (2011) and Stup (2006) found a positive association between training and affective commitment, while Paul and Anatharaman (2003) and Rogg et al. (2001) found a positive association between training and employee customer-oriented behaviour. The A-M-O theory and the behavioural perspective theory are seen working together to develop and determine firm-specific desirable behaviour from employees. I therefore hypothesise that:

H16: The ability-enhancing HRM practices of a firm which include staffing and training will be significantly and positively associated with employee motivation in the organization.

Similarly, motivation-enhancing HRM practices and opportunity-enhancing HRM practices have been found to be positively associated with employee motivation (e.g., Collins, Smith and Stevens, 2011; Gardner et al., 2011; Gong et al., 2010; Guest et al., 2004). Here, the social exchange theory and the motivational perspective of the A-M-O theory are jointly at work. There appears to be an appreciation of HRM's beneficial activities and the favourable work climate by the employees who are motivated to reciprocate in observable good behaviours. I therefore hypothesise that:

H17: The motivation-enhancing HRM practices of a firm will be significantly and positively associated with employee motivation in the organization.

H18: The opportunity-enhancing HRM practices of a firm will be significantly and positively associated with employee motivation in the organization.

2.12 Strategic-HR orientation and organizational outcomes

A positive HRM-performance relationship is also known as a strategic HRM relationship (Chow, Teo, and Chew 2013). A strategic approach to HRM is defined as “the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals” (Wright and McMahan, 1992, p. 298). Although, strategic HRM emphasises HR systems rather than individual HR practices as a driver of organizational performance, the system approach views HR practices as an internally coherent set, consistent with the firm’s corporate strategy; therefore, carefully selected strategies serve as the mechanisms through which HR influence firm performance (Chow et al., 2013). Emphasising strategic orientation as a resource deployment mechanism, Chow et al. (2013) posited that “strategic orientation is the vehicle that transforms the value of human capital into superior performance” (p. 54). The strategic orientation of a firm can be seen from two perspectives: business strategies and HR management strategies. Table 5 makes this more explicit.

Table 5: Most Commonly Implied Strategic Orientation Variables in the Literature

Business strategies	HR Management strategies.
-Organizational capability -Cost leadership strategy -Differentiation strategy -Innovation strategy -Business strategy, etc.	-Strategic integration/ involvement, -Total Quality Management -Just in time, performance-based promotion -Management by objective, group based pay -Performance-based pay, skill-based pay -Competitive compensation, etc.

Conventional wisdom holds that strategic orientation provides a firm with a better understanding of its business environment and direction which subsequently leads to enhanced performance. This assertion is supported by Noble, Sinha, and Kumar, 2002). Empirical evidence from Lawler et al. (2011) shows that the impact of HR practices on organizational outcomes may be further enhanced when these practices are matched with the competitive business strategies of the organization. The association of a firm's strategic orientation with the organizational outcomes is supported by many empirical studies. For example, positive association has been found between strategic-HR orientation and firm performance (e.g., Teo et al., 2014; Chow et al. 2013; Audea et al. 2005; Lui, Lau, and Ngo, 2004), business strategy and firm performance (e.g., Liao, 2011; Furlan, Vinelli, and Dal Pont, 2011), TQM and financial performance (e.g., Chandler and McEvoy, 2000; Patterson et al., 2004). In these associations we can see the contingency theory, the resource-based view and the A-M-O theory jointly at work. The application of any strategy is contextual and is considered the best intervention of the moment to enhance positive outcomes. Therefore I hypothesises that:

H19: The strategic orientation of an organization will be significantly and positively associated with the operational outcomes of the organization.

H20: The strategic orientation of an organization will be significantly and positively associated with the financial outcomes of the organization.

2.13 Inter-relationships between the proximal and distal organizational outcomes

Outcomes that arise from immediate HRM practices are conceptually divided into human capital, motivation and opportunity (Backer and Huselid, 1993; Delery and Shaw, 2001; Guest, 1997). These are proximal outcomes but Jiang et al. (2012) were interested only in human capital and motivation as mediating factors most cited in the literature. I therefore posit that the opportunity to contribute comes from the strategic perspective of HRM and it is context specific. This assertion is supported by the view of Chow et al. (2013) who held that “strategic orientation is the vehicle that transforms the value of human capital into superior performance” (p. 54).

Distal organizational outcomes refer to the dependent variables which are the consequences. They include voluntary employee turnover at corporate level, the operational outcomes and the financial outcomes. An examination of the intra and inter-associations among the proximal outcomes (human capital, motivation), and the distal outcomes (turnover, operational outcomes and financial outcomes) shows some positive support from empirical studies. For example, human capital and employee motivation have been found to be positively associated by many scholars (e.g., Gardner et al., 2011; Veld, Paauwe, and Boselie, 2010; Chuang and Liao, 2010; Kim and Gong, 2009). This association can be interpreted from two dimensions: the more an employee’s skills knowledge and abilities are enhanced, the more the desire to contribute to organizational outcomes. On the other hand, the more motivated an employee becomes, the more the willingness to up-skill or re-skill to meet up with higher responsibilities. We can see both the developmental and motivational perspective of the A-M-O theory as well as the social exchange theory all in place.

I therefore hypothesise that:

H21: Human capital and the employee motivation of an organization will be significantly and positively associated.

The association of human capital and the operational outcomes of an organization is well supported in the literature. While Chuang and Liao (2010) found a positive association between human capital and marketing performance, Paul and Anantharaman (2003) found a positive association between human capital and productivity. There are many more supportive studies in this regards. In all these associations we see the human capital theory and the developmental perspective of the A-M-O theory prominent. The cost effectiveness of investment in human capital enhancement is justified in the improved operational outcomes. I therefore hypothesise that:

H22: Human capital and the operational outcomes of an organization will be significantly and positively associated.

The associations of employee motivation and the operational outcomes have been well supported in the literature. (e.g., Iverson and Zatzick, 2011; Sun, Aryee, and Law, 2007; Katou and Budhwar, 2006). The social exchange theory is most prominent in this association, in addition to the motivational perspective of the A-M-O theory. There is an observed willingness to contribute as a kind of paying back to an organization by the employees for all the beneficial activities they have enjoyed from the firm. I therefore hypothesise that:

H23: Employee motivation and the operational outcomes of an organization will be significantly and positively associated.

The impact of human capital on the financial performance of the organization has been demonstrated by many scholars (e.g., Kim and Gong, 2009; Katou and Budhwar, 2006; Paul and Anantharaman, 2003; Gerhart and Milkovich, 1990). Also positive association has been found between human capital and sales growth (e.g., Batt, 2002; Collins, Smith, and Stevens 2001; Youndt, 1990). Here, we see the knowledge based theory, developmental perspective of the A-M-O theory and the human capital theory jointly in action. The development of tacit knowledge within the workforce of an organization can gain a competitive advantage for the firm. I therefore hypothesise that:

H24: Human capital and the financial performance of an organization will be significantly and positively related.

The association between human capital and turnover is interesting to note. While Batt and Colvin (2011), Batt (2002) and Gardner et al. (2011) found a negative association between human capital and employee turnover, Katou and Budhwar (2006) and Paul and Anantharaman (2003) found a positive association between human capital and employee retention. This means that the more a firm is engaged in enhancing the skills, knowledge and abilities of its employees via training and education, the less the desire to quit employment. I therefore hypothesise that:

H25: Human capital and the rate of employee turnover of an organization will be significantly and negatively related.

Employee motivation and financial performance were found to be positively related by Wright et al., (2005) and Chan, Shaffer and Snape (2004). Also, the relationship between affective commitment and sales growth was supported by Collins and Smith (2006), Wright

et al. (2005) and Collins et al. (2001). The social exchange theory is seen in this association. I therefore hypothesise that:

H26: Employee motivation and the financial performance of a firm will be significantly and positively related.

Also, the association between employee motivation and employee turnover was supported by Schreus et al., (2013), Den-Hartog and Verburg (2004) and Huselid (1995). The more motivation, the less the intention to quit employment. Social exchange theory can be observed. Therefore, I hypothesise that:

H27: Employee motivation and the employee turnover of a firm will be significantly and negatively related.

The horizontal alignment between HRM practices (Boxall et al., 2011) in the three domains of the A-M-O framework is strategic and has been well supported in the existing literature. If employee ability, motivation, and opportunity are collectively needed to effect organizational performance, none can operate without the other. I therefore hypothesise that:

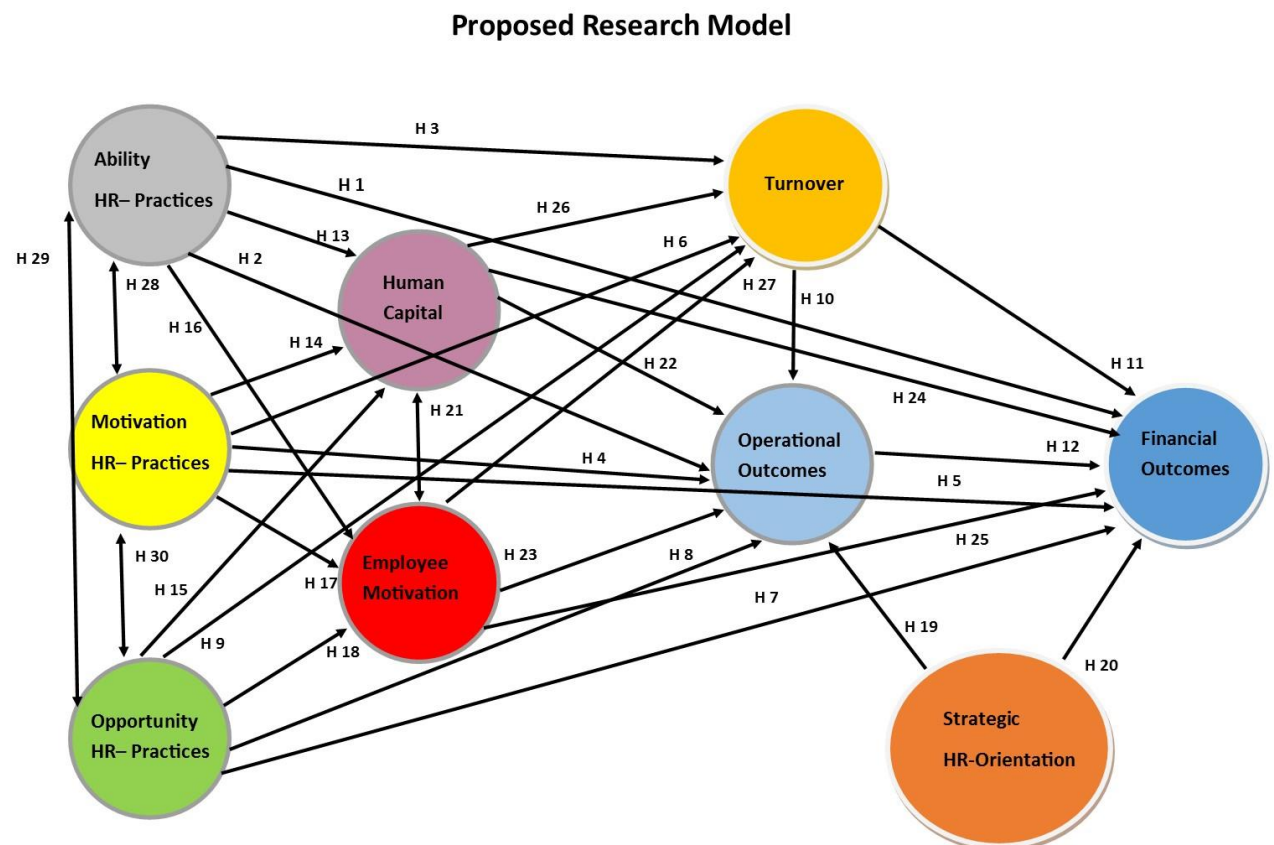
H28: Ability-enhancing HRM practices will be significantly and positively associated with motivation-enhancing HRM practices.

H29: Ability-enhancing HRM practices will be significantly and positively associated with opportunity-enhancing HRM practices.

H30: Motivation-enhancing HRM practices will be significantly and positively associated with opportunity-enhancing HRM practices.

2.14 Proposed research model

Based on the research questions, the research theories and hypotheses, the following research model is proposed to be tested:



2.15 Summary of hypotheses

Table 6: Summary of Hypotheses

Hypotheses	Expectations
H1	The ability-enhancing HR-practices of the firm which comprise staffing and training will be significantly and positively related to the financial outcomes of the firm.
H2	The ability-enhancing HR-practices of an organization which comprise staffing and training will be significantly and positively related to the operational outcomes of the firm.
H3	The ability-enhancing HR-practice of an organization which comprise training and development will be significantly and positively related to the employee retention rate of the firm.
H4	The motivation-enhancing HRM practices of an organization which comprise performance appraisal, compensation, incentives and rewards, internal labour market, career development and job security will be significantly and positively associated with the operational outcomes.
H5	The motivation-enhancing HRM practices of an organization which comprise performance appraisal, compensation, incentives and rewards, internal labour market, career development and job security will be significantly and positively associated with the financial outcomes.
H6	The motivation-enhancing HRM practices of an organization which comprise performance appraisal, compensation, incentives and

	rewards, internal labour market, career development and job security will be significantly and negatively associated with the turnover rate.
H7	The opportunity-enhancing HRM practices of an organization which comprise job design, work teams, employee involvement, grievance procedure and information sharing will be significantly and positively associated with the financial outcomes.
H8	The opportunity-enhancing HRM practices of an organization which comprise job design, work teams, employee involvement, grievance procedure and information sharing will be significantly and positively associated with the operational outcomes.
H9	The opportunity-enhancing HRM practices of an organization which comprise job design, work teams, employee involvement, grievance procedure and information sharing will be significantly and negatively associated with the rate of turnover.
H10	The rate of employee turnover in an organization will be significantly and negatively associated with the operational outcomes of the organization.
H11	The rate of employee turnover in an organization will be significantly and negatively associated with the financial outcomes of the organization.
H12	The operational outcomes of an organization will be significantly and positively associated with the financial outcomes of the organization.

H13	The ability-enhancing HRM practices of a firm which include staffing and training will be significantly and positively associated with the human capital of the organization.
H14	The motivation-enhancing HRM practices of a firm will be significantly and positively associated with the human capital of the organization.
H15	The opportunity-enhancing HRM practices of a firm will be significantly and positively associated with the human capital of the organization.
H16	The ability-enhancing HRM practices of a firm which include staffing and training will be significantly and positively associated with the employee motivation of the organization.
H17	The motivation-enhancing HRM practices of a firm will be significantly and positively associated with the employee motivation of the organization.
H18	The opportunity-enhancing HRM practices of a firm will be significantly and positively associated with the employee motivation of the organization.
H19	The strategic orientation of an organization will be significantly and positively associated with the operational outcomes of the organization.
H20	The strategic orientation of an organization will be significantly and positively associated with the financial outcomes of the organization.

H21	Human capital and the employee motivation of an organization will be significantly and positively associated.
H22	Human capital and the operational outcomes of an organization will be significantly and positively associated.
H23	Employee motivation and the operational outcomes of an organization will be significantly and positively associated.
H24	Human capital and the financial performance of an organization will be significantly and positively related
H25	Human capital and the rate of employee turnover of an organization will be significantly and negatively related.
H26	Employee motivation and the financial performance of a firm will be significantly and positively related.
H27	Employee motivation and the employee turnover of a firm will be significantly and negatively related.
H28	Ability-enhancing HRM practices will be significantly and positively associated with motivation-enhancing HRM practices.
H29	Ability-enhancing HRM practices will be significantly and positively associated with opportunity-enhancing HRM practices.

H30	Motivation-enhancing HRM practices will be significantly and positively associated with opportunity-enhancing HRM practices.
-----	--

2.16 Chapter conclusion

In this chapter, I discussed the need to investigate the effects of single HR practices on organizational outcomes based on the Ability-Motivation-Opportunity framework (Jiang et al., 2012). The research questions are: “What relationships exist between the antecedents and the outcomes in the Jiang et al. (2012) missing links?” And, “What additional mediating variables can be found?”

I also reviewed studies in the existing literature on the concepts of HRM, HRM practices, strategic HRM, organizational outcomes, as well as the relationships between ability-enhancing HR practices, motivation-enhancing HR practices, opportunity-enhancing HR-practices and HRM outcomes, and organizational outcomes.

Thirty hypotheses were developed to be tested while a research model was proposed.

Chapter Three: Methods

In this chapter, the dissertation addresses the ontological and epistemological research paradigm. It discusses and justifies the quantitative review techniques applied and finally reports a long list of research procedures adopted. These include the search strategies, data collection and inclusion and exclusion criteria, coding, filtering and sorting, considering the fixed or random effects model, confidence interval and finally the meta-analysis of the data.

3.1: Introduction

The approach of knowing about the world we live in emphasises the importance of being objective, systematic, performing detailed observation and testing hypotheses through experimentation and verification (Grant and Giddings, 2002). As a positivist, I have special regard for positive thinking and logical processes. I believe that human beings are born rational and are endowed with the capacity for objective reasoning so as to be able to impact his/her environment positively. I also believe that what constitutes truth or fact is its consistency or unchanging nature and knowledge or what someone thinks he/she knows is evidenced, provable and testable.

This meta-analytic review is aimed at determining the effect sizes of all missing links in Jiang et al.'s (2012) Ability-Motivation-Opportunity theoretical model. Other theories upon which the study is based include the theory of the behavioural perspective of the firm (Jackson, Schuler, and Rivero, 1989); the human capital theory (Becker, 1964; Lepak and Snell, 1999), the resource based view of the firm (Barney, 1991; Mahoney and Pandian, 1992), the social exchange theory (Blau, 1964) and the contingency theory (Beer et al., 2015).

The study is designed to use an extensive and comprehensive collection of primary studies (1985 to July 2015) on HR-practices and organizational outcomes in a quantitative first generation meta-analysis, and to be able to make some objective deductions.

3.2 What is meta-analysis?

Meta-analysis was developed by Karl Pearson (1904), as reported by Hardy and Magnello (2002,) for a study of inoculation against smallpox and survival. It is a systematic, quantitative review technique for large primary studies with the aim of integrating them to help in the higher generalizability of findings (Glass, 1976). It is a theory-driven analysis in which the primary research reports are investigated through a statistical standardised procedure of the study findings so that the resulting numerical values can be interpreted in a consistent way across all measures and variables involved (Lipsey and Wilson, 2000). It depends on the use of effect size as a metric to measure the difference between antecedent and outcome in a relationship. The importance of meta-analysis has been confirmed by various studies. For example, in resolving contradictions in research findings (Bengert, Drowns, and Rudner, 1991) and in helping capturing the essence of an expanding body of literature and overcome biasness in narrative reviews (Bernard and Naidu, 1990; Glass, McGaw, and Smith, 1981).

3.3 Justifying the use of meta-analysis in this study

It is important to note that no single study can ever give conclusive evidence about a phenomenon of societal interest. There is need therefore for a quantitative research synthesis which offers a greater coverage of a population to be studied and which also helps in overcoming chance fluctuation within the samples thereby allowing for more generalizable findings (Bernard and Naidu, 1990). According to Lipsey and Wilson (2000), the meta-analytic approach has got the following advantages: (a) organized and systematic handling of information from different sources; (b) sophisticated and takes into consideration the magnitude and direction of each relevant statistical relationship; (c) capable of addressing different study features that are not dealt with in other forms of review; (d) able to offer more statistical power due to the pooling of the effect sizes from different research studies; and (e), systematically and explicitly allowing the reader to judge the value of the findings.

In a seminar workshop on meta-analysis, Joseph (2015) observed that this quantitative review technique is valuable for the following reasons: it enables us to see the bigger picture and develop intimacy with data; it focuses on hypothesis testing and effect sizes; it impacts future research by identifying opportunities; it uncovers non-zero-effect sizes that are hidden by type II errors; it identifies moderators that are potential sources of variations across studies; and finally, the researcher is able to scrutinise study and sample characteristics, measure and operationalise constructs and frame directions for future research. The first generation meta-analysis technique is considered suitable because it is meant for the primary stage, aimed at reviewing literature, applying descriptive statistics and estimating population correlations (Glass, 1976; Rosenthal, 1978).

3.4 Handling criticisms of meta-analysis

Meta-analysis, like every scientific approach, has been criticised by scholars (e.g., Dalton and Dalton, 2008; Aguinis et al., 2011). The following are some of their criticisms and how they are handled in meta-analytic procedures. (1) Adding apples with oranges: Meta-analysis uses the same theoretical and operational constructs to generalise across differences in primary research. However, over generalisation can occur as in narratives. (2) Meta-analysis ignores qualitative differences between studies; instead, it codes and analyses the qualitative differences as sources of variations in primary studies. (3) It uses a garbage-in garbage-out procedure: This is the reason for clearly defined inclusion/exclusion criteria and effect size type in the same sample. It also restricts studies to those in top peer-reviewed journals to ensure quality of data which can be coded as sources of variations. (4) Publication bias: This may be reduced by seeking out and including both the published and unpublished studies via an exhaustive literature search. (5) Over emphasis on individual effects and not really the big picture: To overcome this, meta-analysis can combine with narratives in an extreme case. (6) Not an objective approach: This can be mitigated by the use of an explicit coding scheme and the use of multiple coders. This study is limited to a first generation meta-analysis which is purposed to reviewing literature, applying descriptive statistics and estimating population correlation (e.g., Glass, 1976; Rosenthal, 1978).

3.5 Research procedure

3.5.1 Developing and implementing the search strategies

The research question seeks to find possible new variables that can be included in future research to develop a more comprehensive HRM-practices-organizational outcomes model.

With this in mind, I needed an adequate search strategy that would help identify relevant studies. It had to be extensive and comprehensive. The search phase has an impact on

whether the included sample of relevant studies is biased or not (Egger et al., 2003). I

decided that the search strategies should include the term “meta-analysis” and its synonyms

including “quantitative reviews” and “systematic reviews”. Included also were an array of

search terms related to human resource practices at the organizational level. This varied

according to the database searched, but included such terms as indicated in table 7 below:

Table 7: Search Terms

HRM Practices	Organizational Outcomes
“Human resource work/practice/system”	“Performance” “Outcomes” “Attitude”
“High Involvement work/practice/system”	“”Satisfaction” “Commitment”
“High Performance work/practice/system”	“Motivation” “Human capital” “Turnover”
“High Commitment work/practice/system”	“Productivity” “Quality” “Service” “Safety”
	“Growth” “Profitability” “Strategic role”
	“Strategic orientation”
	“Strategic involvement”
	“HRM department contribution”
	“Organizational capital”
	“HRM-effectiveness” “HRM-consistency”

I considered the application of unique words, distinctive names, abbreviations and acronyms associated with the topic “HRM practices and organizational outcomes”. I also considered searching for societies, organizations or groups that might have information on the topic such as journals, discussion groups, databases, document title and year of publication. I also thought of the use of such search strategies as Truncation (e.g., Prod* which can search for product, productivity, production etc.), Boolean operators “AND” (e.g., HRM AND employee participation), and use of the exact phrase in quotation marks (e.g., “Organizational citizenship behaviour”).

3.5.2 Data collection

To identify studies with these strategic keywords and phrases, I first searched the AUT online library one-search discovery (The Summon). Next, I consulted with the AUT library’s research support coordinator for advice on advanced search techniques – using online databases and tools, tracking and citation as well as attending workshops for teams and research groups. I searched the PsycINFO, Web of Science and ProQuest Digital Dissertation databases for studies published from 1985 to date. I also searched with other tools such as Google Scholar for scholarly literatures, Networked Digital Library of Theses and Dissertations – an international organization – as well as WorldCat. Each tool was different in strategic approach. I had to filter to refine results, indicating guides like “Academic Journals” “Peer reviewed” “Human resource management” “Publication date” etc. Going deeper, I had to search for hard copies of journals, conference papers and listservs of the Academy of Management in their Human Resources and Organizational Behaviour divisions. Finally, I used the same keywords and phrases to search conference papers from the Academy of Management, the Society of Industrial and Organizational Psychology and referred to the reference lists of previous reviews on the topic (Jiang et al., 2012). Data

collection for this research was typically an iterative process – Syntax, Search, Scan, Select and back to Syntax. Selection bias was addressed by ensuring that both published and unpublished papers that met the criteria set out were selected.

3.5.3 Inclusion and exclusion criteria

Following Jiang et al.'s (2012) procedures, I applied the same four inclusion criteria to finally pick out the relevant articles for the meta-analysis. (1) Studies that examined HR-practices and organizational outcomes at the organizational level were included. Organizations could be an establishment, business unit or firm but not at the individual level. (2) Studies that emphasised HR-practices/systems in organizations and reported relationships between HR-practices and organizational outcomes were also included. (3) Studies in meta-analysis were included if they reported any correlation between individual HR practices and various organizational outcomes. (4) Studies that presented the correlation of HR systems or bundles rather than those of individual HR practices with organizational outcomes were excluded. Also excluded were studies without statistical information (e.g. sample sizes, correlation coefficients) which are necessary to calculate effect sizes. Finally, the inclusion and exclusion criteria yielded a total of 151 empirical articles representing 415 independent samples which included a total of 48,567 organizations. The yield was an addition of 36 new articles to those sourced by Jiang et al. (2012). All articles used and their variables are recorded in the appendix.

3.5.4 Coding the studies

I adopted a coding scheme as suggested by Hunter and Schmidt (1994) and Lipsey (1994).

On an excel spreadsheet, the coding column included the serial number, which is a running number; the study number (one paper may contain multiple studies that can be coded independently); and the citation, which refers to at least the lead author, year of publication, journal etc. Next were columns for all required information such as sample size (N), the name of the independent variables (IDV) and the name of the dependent variable (DV). (Some studies may have more than one IDV or DV).

Also coded were the observed effect sizes. This refers to the strength of the relationship between variables (Field, 2013). The magnitudes of the observed effect are measured in a standardised objective metrics for the purpose of comparing across studies. There are two major families of effect sizes: the (r) or product moment correlations and the (d) or differences in mean effect sizes (Rosenthal and DiMatteo, 2001). I typically searched for and consistently reported the Pearson's product moment correlations (r) for all primary studies in this meta-analytic review. Where beta effect size (β) was reported for path analysis, it was converted to (r) using the conventional formulae ($r = \beta + 0.05 \lambda$ where $\lambda = 0$, if (r) is negative, or $\lambda = 1$, if (r) is non-negative, (Rosenthal and DiMatteo, 2001). I continued with Pearson's (r) effect size because most of the variables in HR-practices and organizational outcomes are continuous variables. Moreover, (r) in its point-biserial form, such as t-test, F-statistics, Chi-square, or Z-score, represents the relationship between two levels of the independent variables and scores of the dependent variables which allows for the analysis of trends across more than two groups. Rosenthal and DiMatteo (2001, p. 71) stated that, "The conversion from other types of effects sizes to (r) does not lose any information, but the opposite from continuous Pearson (r) to dichotomous (d) loses information." In

addition, (r) effect size is more simply interpreted in terms of practical importance than (d) or (g) effect sizes. Point biserial forms of (r) were converted to continuous (r) using Peterson and Brown's (2005) formulae.

Also reported were the alpha reliability coefficients of scales used for the independent and dependent variables which are meant to correct for attenuation and create the column for r (cme) with the formulae $r/\sqrt{r_{xx}} * \sqrt{r_{yy}}$ (Rosenthal and DiMatteo, 2001). Alpha reliability coefficient refers to the degree of internal consistency of the various items in the scale used in assessing the views and opinions of respondents regarding the variables or constructs under investigation. As a rule of the thumb, alpha reliability values 0.7 and above are accepted as significant (Nunnally, 1978). Also, a one item scale such as job satisfaction (Benn, Teo, and Martin, 2015) with an item such as, "To what extent are you satisfied with your job?", as well as variables of archival scale such as return on assets were assigned a 0.8 conservative reliability estimate (Jiang et al., 2012).

When encountering papers with no reported alpha scale on their variables I would send an email to the authors requesting their cooperation and supply of the missing data (see appendix A). For some, I had to re-read the report on the source of the original scale used in the measurement and search for the original paper for the needed data. For example, the alpha scale for HR-department contribution was not reported by Teo et al. (2011); instead, I had to pick this from Wright et al. (2001), which was the source of the scale used by Teo et al (2011).

Jiang et al. (2012) collected data from 1985 to May 2011 and used 116 empirical articles for their meta-analysis on HR-practices. This study also concentrated on HR-practices and collected data from 1985 to July 2015. Interestingly, all the 116 empirical articles of Jiang et

al. were diligently searched for, retrieved and reviewed with the exception of one conference paper (Colvin, Batt, and Keefe, 2005). I communicated with one of the authors in Cornell University USA through the AUT inter-library loan team. The response was that the working paper was no longer available and that it had been converted to a journal article (Batt and Colvin, 2011), which was already in the Jiang et al. collection.

To ensure objectivity in the coding, my supervisors were involved as multiple coders. Fifteen articles were randomly selected by the supervisors who coded independently. Finally we had 98% inter-coding agreement, while minor discrepancies on construct definitions and proper placement for some variables were resolved through discussions at supervision meetings and by referencing original previous works on the scale used for measurement of the variable concerned. Finally, the coding on the excel spreadsheet yielded 5,752 bivariate lines of independent variable (IDV) and dependent variable (DV) relationships. Excluding 3,096 lines of HR-bundles, HRM systems, high-performance work systems, high-involvement work systems and high-commitment work systems, the single HR practices accounted for 2,656 bivariate lines of relationships with various organizational outcomes.

3.5.5 Filtering and sorting

Filtering involved correction of spelling errors, punctuation and spacing. It was rigorous but a vital measure to avoid repetition of variables and the garbage-in garbage-out syndrome. Variables of the same construct definition and of the same measurement scale but different nomenclature were considered for one common name.

Next was sorting out the filtered data in alphabetical order and according to values in both the IDV and the DV. This yielded pairs of similar IDV-DV relationships from different articles. Then the data was ready to be meta-analysed with the comprehensive meta-analysis (CMA)

software version 2.0. The different pairs of similar bivariate relations were highlighted in colours. The total was 149 groups ready for the CMA run. Each group contained a minimum of two studies from different authors in line with the views of Rosenthal (1995): “Meta-analytic procedures can be applied to as few as two studies, however, with very few studies in meta-analysis, results are relatively unstable” (p. 185).

3.5.6 Conceptualizing the meta-analysis

Field (2005b) pointed out that two ways to go about the meta-analysis of data are either the fixed effects model or the random effects model. The fixed effects model assumes that primary studies in the meta-analysis are sampled from a population in which the average effect is fixed. This means that the same effect sizes should be homogenous because they came from the same population (Field 2005b). The random effect model, on the other hand, assumes that the average effect size in the population varies randomly from study to study. This therefore means that effect sizes should be heterogeneous because they come from a bigger population with varying average effect size (Field 2005b). Field further stated that the difference between the two from a statistical point of view lies in the amount of error in each. While the fixed effect model has one error term introduced due to sampling studies from the population of studies, the random effects model has two error terms, one from sampling the studies from the population, another from sampling the studies from a “super population” (Field 2005b, p. 48). Field also pointed out that the two methods are widely used in meta-analysis: 1 The Hunter and Schmidt (2004) method which emphasises the random effects model, and (2) The Hedges and OLkin (1985) and Hedges and Vevea (1998) method that emphasises both models.

Human resource management as a social science has heterogeneous sources of contributions. Studies vary in their mix of samples and study characteristics resulting in different effect sizes in different studies. Research has shown that variable effect sizes or heterogeneity are the norm in psychological data and there are hardly any grounds to assume there are fixed cases or homogeneity (e.g., National Research Council Report, 1992; Hunter and Schmidt, 2000; Field, 2005a). Also, some studies have confirmed that a random effects model provides a more accurate estimate than a fixed effects model when relationships are heterogeneous (Cheung and Chan 2005; Erez, Bloom, and Wells, 1996; Overton, 1998).

In the fixed effects size model which has one true (population) effect size, differences across study effect sizes are regarded as due to sampling error within (Field, 2005b). This means that if each study has an infinite sample size, study effect size will be equal to population effect size. Therefore, study weights are assigned aimed at reducing the within-study variance or error only.

In the random effects model, the true effect size of studies is assumed to be sampled from a distribution of different true effect sizes. This means that differences across study effect sizes are due to both the within, and the between study errors which are due to sampling and measurement (Field, 2005b). The assignment of study weights therefore is aimed at reducing both the within and the between study error or variance.

In estimating the effect size, Joseph (2015) noted that fixed effect weights give greater influence to studies with larger sample sizes as sampling error is lower in such studies. Random effect weights, according to Joseph (2015), would balance the within and the between study errors and assume that all studies provide information about the

phenomenon of interest. Information from small sample studies may have higher sampling error; however, such studies provide information to determine the distribution of the effect sizes. Consequently, effect sizes that are significant under fixed effects may be non-significant in the random effects, and if the sample size is highly related to the effect size, then the mean effect size will differ between the two models (Joseph, 2015).

3.5.7 Confidence interval

Confidence Interval (CI) provides an estimate of variability around the estimated average correlation. A 95% CI excluding zero indicates that one can be 95 percent confident that the confidence interval includes the average mean true score (Jiang et al., 2012). Schmidt et al. (2006) stated that fixed effects confidence intervals can be on average 55% smaller than random effects confidence intervals, which means that the influence of between study variance can be considerable. The random effects model considers the within and the between study variance and so, the variance, standard errors and the confidence interval will be larger than the fixed effects model. In sum, the confidence interval of random effects can be equal to the confidence interval of the fixed effects when and only when the between study variance is zero; this means that the total number of studies (k) is very, very large (Joseph, 2015). Finally, the 149 groups of bivariate relationships were meta-analysed one by one. Each group was copied from the excel spreadsheet to the CMA software, the analysis was run, and the outputs were recorded in the results tables.

3.6 Chapter Conclusion

In this chapter, I stated my ontological and epistemological stand-point. I introduced and justified the quantitative research technique used in the study and highlighted the existing criticisms on meta-analysis and how such criticisms are handled in the research. Next, I discussed the procedure applied in the research which includes the search strategies, data collection, the inclusion and exclusion criteria, coding of data, and filtering and sorting. I especially discussed effect sizes, the fixed and random effects models in meta-analysis and the reason for adopting the random effects model in this study. Finally, 149 groups of bivariate relationships were meta-analysed one by one with the results shown in the tables.

Chapter Four: Results

4.1 Chapter introduction

In this section, I report the results of the comprehensive meta-analysis (CMA) on the effects of HRM practices on organizational outcomes in tables with some explanation in each table for better understanding.

4.2: General result

Table 8 shows the total results for all 149 groups of bivariate relationships that were meta-analysed one by one. Each group contains a minimum of two bivariate relations from different articles and significant results are based on the random effect-size model. The results shows 85 statistically significant associations and 64 non-significant ones.

k= Total No of studies, N= Total sample size, ρ (Correlation) = Population effect size correlation, p-value <0.05 @ 95% Confidence Interval.

Table 8: General Results

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
1	Training	Affective Commitment	2	304	0.355	0.040	0.606	0.028	Yes
2	Training	Rewards	3	783	0.493	0.313	0.638	0.000	Yes
3	Training	Perfm Appraisal	7	2136	0.648	0.313	0.839	0.001	Yes
4	Training	Internal Labour Market	4	2360	0.615	0.415	0.758	0.000	Yes
5	Training	Compensation	5	880	0.659	0.423	0.811	0.000	Yes
6	Training	Employee Retention	2	1281	0.213	0.160	0.264	0.000	Yes
7	Training	Empowerment	3	307	0.362	0.061	0.603	0.019	Yes
8	Training	Job Analysis	3	898	0.589	0.507	0.661	0.000	Yes
9	Training	Job Security	2	566	0.308	0.167	0.437	0.000	Yes
10	Training	Participation in Decisions	4	817	0.628	0.523	0.715	0.000	Yes
11	Training	Employee Performance	3	1505	0.214	0.021	0.391	0.030	Yes
12	Training	Customer Orientation	2	721	0.404	0.229	0.554	0.000	Yes
13	Training	Marketing Performance	4	1682	0.447	0.258	0.604	0.000	Yes
14	Training	Service Performance	4	2,022	0.360	0.101	0.573	0.007	Yes
15	Training	Firm Performance	5	2,464	0.507	0.309	0.662	0.000	Yes
16	Training	Financial Performance	9	2,505	0.215	0.120	0.306	0.000	Yes
17	Training	Turnover	5	1152	-0.146	-0.444	0.181	0.384	No
18	Training	Sales Growth	4	2015	0.151	-0.084	0.370	0.208	No
19	Training	Productivity	2	262	-0.019	-0.141	0.103	0.759	No
20	Training	ROA	2	1097	-0.261	-0.690	0.305	0.369	No
21	Training	ROE	2	1097	-0.062	-0.405	0.296	0.739	No
22	Training	Communication Strategy	2	1072	0.534	-0.139	0.869	0.112	No

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
23	Training	Customer Satisfaction	3	1351	0.125	-0.056	0.297	0.175	No
24	Training	Grievance Procedure	3	1076	0.142	-0.073	0.345	0.195	No
25	Training	Organizational Commitment	3	642	0.292	-0.094	0.602	0.136	No
26	Training	Perceived Orgnal Performance	2	271	0.348	-0.090	0.674	0.117	No
27	Staffing	Training	6	1193	0.477	0.291	0.629	0.000	Yes
28	Staffing	Orgnal Commitment	2	550	0.209	-0.017	0.414	0.070	No
29	Staffing	Participation in Decisions	3	380	0.405	-0.020	0.706	0.061	No
30	Staffing	Compensation	3	695	0.738	0.439	0.890	0.000	Yes
31	Staffing	Grievance Procedure	4	1158	0.106	0.021	0.189	0.014	Yes
32	Staffing	Performce Appraisal	5	1260	0.719	0.123	0.934	0.023	Yes
33	Staffing	Career Development	5	330	0.621	0.328	0.805	0.000	Yes
34	Staffing	Turnover	4	1148	-0.049	-0.107	0.009	0.098	No
35	Staffing	Sales Growth	3	1752	0.201	-0.036	0.417	0.096	No
36	Staffing	Rewards	2	673	0.123	-0.089	0.324	0.256	No
37	Internal Labour Market	Firm Performance	3	1528	0.732	0.661	0.790	0.000	Yes
38	Internal Labour Market	Mkt Performance	3	1155	0.334	0.238	0.423	0.000	Yes
39	Internal Labour Market	Service Performance	2	1414	0.239	0.017	0.438	0.035	Yes
40	Compensation	Sales Growth	3	1815	0.231	0.050	0.397	0.013	Yes
41	Compensation	Firm Performance	3	1797	0.719	0.232	0.918	0.008	Yes
42	Compensation	Financial Performance	6	1313	0.285	0.133	0.425	0.000	Yes
43	Compensation	Mkteting Performance	2	1053	0.367	0.211	0.505	0.000	Yes
44	Compensation	Employee Retention	2	1281	0.270	0.131	0.399	0.000	Yes
45	P/Appraisal -	Firm Performance	2	359	0.112	-0.002	0.223	0.053	No

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
46	P/Appraisal -	Financial Performance	4	1381	0.203	0.140	0.265	0.000	Yes
47	P/Appraisal -	Customer Orientation	2	721	0.451	0.365	0.529	0.000	Yes
48	Incentives-	Firm Performance	2	666	0.356	0.014	0.624	0.042	Yes
49	Performance Appraisal	Job Analysis	2	433	0.448	0.178	0.655	0.002	Yes
50	Performance Appraisal	--Compensation	4	1111	0.788	0.237	0.956	0.011	Yes
51	Participation in decision	P/Appraisal	3	694	0.487	0.368	0.590	0.000	Yes
52	Participation in decision	Compensation	2	562	0.521	0.308	0.685	0.000	Yes
53	Job Security	Orgnal Commitment	2	3438	0.458	0.231	0.638	0.000	Yes
54	Empowerment	Affective Commitment	2	209	0.505	0.219	0.711	0.001	Yes
55	Employee Participation	Career Development	2	320	0.639	0.245	0.852	0.003	Yes
56	Management Style	Affective Commitment	2	579	0.500	0.002	0.799	0.049	Yes
57	P/Appraisal	Service Perform	2	816	0.171	-0.205	0.504	0.374	No
58	P/Appraisal	Sales Growth	2	302	-0.054	-0.294	0.193	0.672	No
59	P/Appraisal	P/ Organizational Performance	2	271	0.167	-0.186	0.482	0.353	No
60	P/Appraisal	Turnover	5	1821	0.013	-0.212	0.237	0.911	No
61	P/Appraisal	Affective Commitment	2	651	0.233	-0.111	0.527	0.183	No
62	P/Appraisal	Cont. Commitment	2	648	0.137	-0.119	0.375	0.294	No
63	Benefits	Cont. Commitment	2	622	0.000	-0.078	0.079	0.991	No
64	Rewards	Firm Performance	2	253	-0.026	-0.174	0.123	0.734	No
65	Compensation	Turnover	2	498	-0.025	-0.113	0.064	0.584	No
66	Compensation	Productivity	3	888	0.082	-0.041	0.202	0.191	No
67	Incentives	Comm. Strategy	2	1072	0.336	-0.110	0.670	0.137	No
68	Incentives	OP/ Performance	2	1072	0.205	-0.092	0.468	0.175	No
69	Incentives	Mkting Performance	2	449	0.342	-0.063	0.651	0.096	No
70	Incentives	Customer Satisfaction	2	596	-0.026	-0.111	0.059	0.548	No

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
71	Internal Labour Mkt.	Employee Relations	2	2257	0.011	-0.150	0.172	0.895	No
72	Internal Labour Mkt.	Customer Satisfaction	3	1433	-0.009	-0.102	0.084	0.846	No
73	Empowerment	Employee Performance	2	197	0.447	0.201	0.640	0.001	Yes
74	Grievance Procedure	Mkting Performance	3	1311	0.165	0.112	0.217	0.000	Yes
75	Grievance Procedure	Turnover	2	448	0.223	0.122	0.319	0.000	Yes
76	Information Sharing	Turnover	2	22704	-0.295	-0.426	-0.152	0.000	Yes
77	Career Devpt.	Firm Performance	2	349	0.235	0.133	0.332	0.000	Yes
78	Career Devpt.	Financial Performance	2	786	0.097	0.027	0.166	0.007	Yes
79	Employee Participation	Firm Performance	2	423	0.133	-0.011	0.271	0.071	No
80	Employee Participation	Affective Commitment	2	22850	0.243	-0.349	0.696	0.427	No
81	Employee Involvement	Customer Satisfaction	3	539	0.180	-0.202	0.514	0.357	No
82	Empowerment	Turnover	2	909	-0.296	-0.590	0.067	0.108	No
83	Job Description	Service Performance	2	816	0.241	-0.120	0.546	0.189	No
84	Dynamism	Sales Growth	2	310	0.067	-0.045	0.178	0.242	No
85	Job Security	Firm Performance	2	177	0.179	-0.255	0.554	0.422	No
86	Information Sharing	Firm Performance	2	1620	0.154	-0.184	0.459	0.373	No
87	Career Devpt.	ROE	2	1160	0.025	-0.071	0.121	0.605	No
88	Career Devpt.	Organizational Commitment	2	462	0.386	-0.341	0.824	0.295	. No
89	Grievance Procedure	Organizational Performance	5	2131	0.022	-0.071	0.114	0.650	No
90	Grievance Procedure	Financial Performance	2	893	0.037	-0.045	0.118	0.375	No
91	Devolvement	Financial Performance	2	645	0.416	-0.284	0.827	0.237	No
92	Team work	Financial Performance	2	550	0.031	-0.196	0.256	0.789	No

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
93	Participation in Decisions	Financial Performance	2	881	0.159	-0.106	0.403	0.238	No
94	Employee Skills	Orgnal Performance	2	308	0.435	0.339	0.522	0.000	Yes
95	Human Capital	Firm Performance	2	442	0.402	0.285	0.506	0.000	Yes
96	Employee Motivation	Turnover	2	991	-0.074	--0.132	-0.012	0.020	Yes
97	Orgnal Commit	Perceived Performance	2	421	0.637	0.391	0.798	0.000	Yes
98	Employee Motivation	Affective Commitment	2	530	0.576	0.421	0.698	0.000	Yes
99	Affective Commit	Cust-Oriented Behaviour	2	327	0.521	0.347	0.661	0.000	Yes
100	Affective Commit	Sales Growth	2	214	0.415	0.297	0.521	0.000	Yes
101	Strategic HR-Orientation	Firm Performance	2	413	0.233	0.128	0.333	0.000	Yes
102	Business Strategy	Firm Performance	2	377	0.418	0.224	0.581	0.000	Yes
103	TQM -	Financial Performance	2	146	0.196	0.033	0.349	0.019	Yes
104	Innovation strategy	Productivity	2	224	0.436	-0.007	0.736	0.053	No
105	Skilled Employee	Financial Performance	2	166	0.038	-0.492	0.547	0.898	No
106	Comm. Strategy	Operational Performance	2	1072	0.326	-0.040	0.615	0.079	No
107	Uncertainty	Innovation Strategy	2	221	0.059	-0.075	0.190	0.389	No
108	Least Cost Strategy	Innovation Strategy	2	221	0.176	-0.687	0.833	0.732	No
109	Innovation Strategy	Firm Performance	2	303	0.084	-0.030	0.195	0.148	No
110	Product Innovation Strategy	Financial Performance	2	306	0.081	-0.032	0.192	0.158	No
111	Organizational Capability	Financial Performance	2	352	0.330	-0.218	0.720	0.233	No
112	Uncertainty	Least Cost Strategy	2	221	-0.091	-0.222	0.042	0.179	No

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
113	Manufacturing	Firm Performance	2	593	0.010	-0.071	0.090	0.813	No
114	Sales Growth	ROA	2	918	0.096	-0.106	0.291	0.350	No
115	Turnover	Productivity	2	447	-0.117	-0.208	-0.024	0.014	Yes
116	Turnover	Firm Performance	2	693	-0.174	-0.291	0.053	0.005	Yes
117	Marketing Perform.	Firm Performance	3	609	0.657	0.496	0.774	0.000	Yes
118	Job satisfaction	Affective Commitment	2	22873	0.741	0.583	0.845	0.000	Yes
119	Productivity	Financial Performance	3	626	0.670	-0.091	0.937	0.078	No
120	Sales Growth	Financial Performance	2	336	0.671	-0.101	0.939	0.081	No
121	Human Capital	Affective Commitment	2	638	0.267	-0.615	0.852	0.589	No
122	Human Capital	Attitudes	2	230	0.863	0.489	0.969	0.001	Yes
123	Human Capital	Employee Motivation	4	368	0.352	-0.037	0.648	0.075	No
124	Human Capital	Financial Performance	6	71628	0.327	0.004	0.588	0.047	Yes
125	Human Capital	Firm Performance	3	587	0.609	0.239	0.825	0.003	Yes
126	Career Development	Human Capital	2	455	0.279	-0.130	0.607	0.179	No
127	Communication	Human Capital	2	745	-0.041	-0.555	0.496	0.891	No
128	Compensation	Human Capital	12	72459	0.374	0.269	0.471	0.000	Yes
129	Customer Satisfaction	Human Capital	2	323	0.228	0.058	0.385	0.009	Yes
130	Employee Involvement	Human Capital	4	730	0.415	0.216	0.580	0.000	Yes
131	Empowerment	Human Capital	2	147	0.271	-0.156	0.612	0.211	No
132	Internal Labour Mkt	Human Capital	2	247	0.277	-0.025	0.533	0.072	No
133	Motivation	Human Capital	2	278	0.481	0.082	0.748	0.020	Yes
134	Performance Appraisal	Human Capital	7	1322	0.504	0.360	0.624	0.000	Yes
135	Staffing	Human Capital	9	1617	0.422	0.147	0.637	0.004	Yes
136	Training	Human Capital	13	2239	0.392	0.233	0.531	0.000	Yes
137	Human Capital	Innovation	2	379	0.214	-0.061	0.458	0.126	No
138	Human Capital	ROI	2	442	0.155	0.062	0.245	0.001	Yes
139	Human Capital	Sales Growth	4	71063	0.146	0.066	0.225	0.000	Yes
140	Human Capital	Service Performance	2	348	0.404	0.304	0.496	0.000	Yes
141	Human Capital	Turnover	3	333	-0.444	-0.820	0.200	0.169	No

S/N	Antecedents	Outcomes	k	N	$\rho(\text{Corr})$	95% CI	95% CI	Effect size (P)	Significance
						Lower limit	Upper limit		
142	Human Capital	Turnover	3	283	0.364	-0.494	-0.218	0.000	Yes
143	Motivation HR practices	Human Capital	17	2312	0.379	0.233	0.508	0.000	Yes
144	Motivation HR practices	Employee Motivation	18	4541	0.419	0.321	0.507	0.000	Yes
145	Opportunity HR Practices	Employee Motivation	10	2738	0.362	0.265	0.452	0.000	Yes
146	Employee Motivation	Operational Performance	10	1552	0.324	0.212	0.428	0.000	Yes
147	Turnover	Financial Performance	6	2057	-0.128	-0.171	-0.086	0.000	Yes
148	Retention	Financial Performance	4	928	0.369	0.293	0.440	0.000	Yes
149	Human Capital	Employee Motivation	12	2145	0.578	0.066	0.849	0.029	Yes

4.3: Ability-enhancing HR practices and organizational outcomes

Table 9 shows 13 statistically significant associations between ability enhancing HRM practices (Training and Staffing) and various organizational outcomes.

Table 9: Ability-enhancing HR Practices and Organizational Outcomes

					p(Correlation)	95% CI	95% CI	Effect size (P)
	Antecedents	Outcomes	k	N	p(Correlation)	Lower limit	Upper limit	
1	Training	Employee Performance	3	1505	0.214	0.021	0.391	0.030
2	Training	Customer Orientation	2	721	0.404	0.229	0.554	0.000
3	Training	Employee Retention	2	1281	0.213	0.160	0.264	0.000
4	Training	Affective Commitment	2	304	0.355	0.04	0.606	0.028
5	Training	Marketing Performance	4	1682	0.447	0.258	0.604	0.000
6	Training	Service Performance	4	2,022	0.360	0.101	0.573	0.007
7	Training	Firm Performance	5	2,464	0.507	0.309	0.662	0.000
8	Training	Financial Performance	9	2,505	0.215	0.120	0.306	0.000
9	Training	Human Capital	13	2239	0.392	0.233	0.531	0.000
10	Staffing	Human Capital	9	1617	0.422	0.147	0.637	0.004
11	Staffing	Marketing Performance	5	1469	0.280	0.183	0.372	0.000
12	Staffing	Firm Performance	3	2190	0.302	0.013	0.545	0.041
13	Staffing	Financial Performance	3	1313	0.116	0.015	0.216	0.025

k= Total No of studies, N= Total sample size, p (Correlation) = Population effect size correlation.

P-value <0.05 @ 95% Confidence Interval.

4.4: Motivation-enhancing HR practices and organizational outcomes

Table 10 shows 19 statistically significant associations between motivation-enhancing HRM practices (Internal Labour Market, Compensation, P/Appraisal, Career Development, Job Security and Incentives) and various organizational outcomes.

Table 10: Motivation-enhancing HR-practices and Organizational Outcomes

	Antecedents	Outcomes	K	N	ρ (Correlation)	95% CI	95% CI	Effect size (P)
					ρ (Correlation)	Lower limit	Upper limit	
1	Internal Labour Market	Firm Performance	3	1528	0.732	0.661	0.790	0.000
2	Internal Labour Market	Marketing Performance	3	1155	0.334	0.238	0.423	0.000
3	Internal Labour Market	Service Performance	2	1414	0.239	0.017	0.438	0.035
4	Compensation	Sales Growth	3	1815	0.231	0.050	0.397	0.013
5	Compensation	Firm Performance	3	1797	0.719	0.232	0.918	0.008
6	Compensation	Financial Performance	6	1313	0.285	0.133	0.425	0.000
7	Compensation	Marketing Performance	2	1053	0.367	0.211	0.505	0.000
8	Compensation	Human Capital	12	72459	0.374	0.269	0.471	0.000
9	Compensation	Employee Retention	2	1281	0.270	0.131	0.399	0.000
10	P/Appraisal	Human Capital	7	1322	0.504	0.360	0.624	0.000
11	P/Appraisal	Financial Performance	4	1381	0.203	0.140	0.265	0.000
12	Motivation	Human Capital	2	278	0.481	0.082	0.748	0.020
13	Motivation HR practices	Human Capital	17	2312	0.379	0.233	0.508	0.000
14	Motivation HR Practices	Employee Motivation	18	4541	0.419	0.321	0.507	0.000
15	P/Appraisal	Customer Orientation	2	721	0.451	0.365	0.529	0.000
16	Career Development	Firm Performance	2	349	0.235	0.133	0.332	0.000
17	Career Development	Financial Performance	2	786	0.097	0.027	0.166	0.007
18	Job Security	Organizational Commitment	2	3438	0.458	0.031	0.638	0.000
19	Incentives	Firm Performance	2	666	0.356	0.014	0.624	0.042

k= Total No of studies, N= Total sample size, ρ (Correlation) = Population effect size correlation.

p-value <0.05 @ 95% Confidence Interval.

4.5: Opportunity-enhancing HR practices and organizational outcomes

Table 11 shows 6 statistically significant associations between opportunity-enhancing HRM practices (Empowerment, Grievance Procedure, Employee Involvement, Information Sharing) and various organizational outcomes.

Table 11: Opportunity-enhancing HR-practices and Organizational Outcomes

	Antecedents	Outcomes	K	N	ρ (Correlation)	95% CI	95% CI	Effect size (P)
					ρ (Correlation)	Lower limit	Upper limit	
1	Empowerment	Employee Performance	2	197	0.447	0.201	0.640	0.001
2	Grievance Procedure	Marketing Performance	3	1311	0.165	0.112	0.217	0.000
3	Employee Involvement	Human Capital	4	730	0.415	0.216	0.580	0.000
4	Grievance Procedure	Turnover	2	448	-0.223	0.122	0.319	0.000
5	Information Sharing	Turnover	2	22704	-0.295	-0.426	-0.152	0.000
6	Opportunity HR Practices	Employee Motivation	10	2738	0.362	0.265	0.452	0.000

k= Total No of studies, N= Total sample size, ρ (Correlation) = Population effect size correlation.

P-value <0.05. @ 95% Confidence Interval.

4.6: Possible mediator variables and organizational outcomes

Table 12 shows 21 statistically significant associations between possible mediators and various organizational outcomes.

Table 12: Possible Mediator Variables and Organizational Outcomes

	Variables	Organizational Outcomes			ρ (Correlation)	95% C.I.	95% C.I.	Effect size (P)
	Mediators		K	N	ρ (Correlation)	Lower limit	Upper limit	
1	Employee Skills	Organizational Performance	2	308	0.435	0.339	0.522	0.000
2	Human Capital	Firm Performance	2	442	0.402	0.285	0.506	0.000
3	Employee Motivation	Turnover	2	991	-0.074	-0.136	-0.012	0.020
4	Human Capital	Operational Performance	3	587	0.609	0.239	0.825	0.003
5	Human Capital	Turnover	3	283	0.364	-0.494	-0.218	0.000
6	Human Capital	Employee Motivation	12	2145	0.578	0.066	0.849	0.029
8	Human Capital	Financial Performance	6	71628	0.327	0.004	0.588	0.047
9	Human Capital	Customer Satisfaction	2	323	0.228	0.058	0.385	0.009
10	Human Capital	Service Performance	2	348	0.404	0.304	0.496	0.000
11	Human Capital	Sales Growth	4	71063	0.146	0.066	0.225	0.000
12	Human Capital	ROI	2	442	0.155	0.062	0.245	0.001
13	Human Capital	Attitudes	2	230	0.863	0.489	0.969	0.001
14	Organizational Commitment	P- Orgnal. Perform.	2	421	0.637	0.391	0.798	0.000
15	Employee Motivation	Affective Commitment	2	530	0.576	0.421	0.698	0.000
16	Employee Motivation	Operational performance	10	1552	0.324	0.212	0.428	0.000
17	Affect. Commit.	Cust- Orient b/vior	2	327	0.521	0.347	0.661	0.000
18	Affect. Commit.	Sales Growth	2	214	0.415	0.297	0.521	0.000
19	Strategic HR-Orientation	Firm Performance	2	413	0.233	0.128	0.333	0.000

	Variables	Organizational Outcomes			ρ (Correlation)	95% C.I.	95% C.I.	Effect size (P)
	Mediators		K	N	ρ (Correlation)	Lower limit	Upper limit	
20	Business Strategy	Firm Performance	2	377	0.418	0.224	0.581	0.000
21	TQM	Financial Performance	2	146	0.196	0.033	0.349	0.019

k= Total No of studies, N= Total sample size, ρ (Correlation) = Population effect size correlation.

P-value <0.05 @ 95% Confidence Interval.

4.7: Significant relationships among organizational outcomes

Table 13 shows 6 statistically significant associations within organizational outcomes.

Table 13: Significant Relationships among Organizational Outcomes

						95% CI	95% CI	Effect size (P)
S/N			K	N	ρ (Correlation)	Lower limit	Upper limit	
1	Turnover	Productivity	2	447	-0.117	-0.208	-0.024	0.014
2	Turnover	Firm Performance	2	693	-0.174	-0.291	-0.053	0.005
3	Marketing Performance	Firm Performance	3	609	0.657	0.496	0.774	0.000
4	Turnover	Financial Performance	6	2057	-0.128	-0.171	-0.086	0.000
5	Retention	Financial Performance	4	948	0.369	0.293	0.440	0.000
6	Job Satisfaction	Affective Commit.	2	22873	0.741	0.583	0.845	0.000

k= Total No of studies, N= Total sample size, ρ (Correlation) = Population effect size correlation.

P-value <0.05@ 95% Confidence Interval.

4.8: HRM practices' significant covariant relationships

Table 14 shows 20 statistically significant covariant associations within HRM practices

(ability-enhancing and motivation-enhancing, ability-enhancing and opportunity-enhancing, motivation-enhancing and opportunity-enhancing HRM practices).

Table 14: HRM Practices' Significant Covariant Relationships

	Antecedents	Proximal Outcomes			ρ (Correlation)	95% C.I.	95% C.I.	Effect size (P)
S/N			K	N	ρ (Correlation)	Lower Limit	Upper Limit	
1	Training	Rewards	3	783	0.493	0.313	0.638	0.000
2	Training	Performance Appraisal	7	2136	0.648	0.313	0.839	0.001
3	Training	Internal Labour Market	4	2360	0.615	0.415	0.758	0.000
4	Training	Compensation	5	880	0.659	0.423	0.811	0.000
5	Training	Empowerment	3	307	0.362	0.061	0.603	0.019
6	Training	Job Analysis	3	898	0.589	0.507	0.661	0.000
7	Training	Job Security	2	566	0.308	0.167	0.437	0.000
8	Training	Participation in decision	4	817	0.628	0.523	0.715	0.000
9	Staffing	Training	6	1193	0.477	0.291	0.629	0.000
10	Staffing	Compensation	3	695	0.738	0.439	0.890	0.000
11	Staffing	Grievance procedure	4	1158	0.106	0.021	0.189	0.014
12	Staffing	Performance Appraisal	5	1260	0.719	0.123	0.934	0.023
13	Staffing	Career Development	5	330	0.621	0.328	0.805	0.000
14	Performance Appraisal	Job Analysis	2	433	0.448	0.178	0.655	0.002
15	Performance Appraisal	Compensation	4	1111	0.788	0.237	0.956	0.011
16	Participation in Decisions	P/Appraisal	3	694	0.487	0.368	0.590	0.000
17	Participation in Decisions	Compensation	2	562	0.521	0.308	0.685	0.000
18	Empowerment	Affective Commitment.	2	209	0.505	0.219	0.711	0.001
19	Employee Participation	Career Development	2	320	0.639	0.245	0.852	0.003
20	Management Style	Affective Commitment	2	579	0.500	0.002	0.799	0.049

k= Total No of studies, N= Total sample size, ρ (Correlation) = Population effect size correlation. P-value <0.05 @ 95% Confidence Interval.

4.9: Chapter Conclusion

In this chapter, I reported the total results from the comprehensive meta-analysis and the effects of HRM practices on organizational outcomes following the A-M-O framework. In total, 149 bivariate groups of independent and dependent variables were meta-analysed one by one as shown in table 8. I also reported significant relationships between ability-motivation-opportunity-enhancing HRM practices and various organizational outcomes as shown in tables 9, 10 and 11. Also reported were the relationships between possible mediators and organizational outcomes in table 12; inter-relationships between organizational outcomes as shown in table 13; and the intra-relationships within the HRM practices as shown in table 14.

Chapter Five: Interpretation and Discussion of Findings

5.1 Chapter introduction

In this chapter, attempts are made to analyse the significant relationships from the results in line with the stated hypotheses. Detailed explanations are made for easy understanding of the results. In line with the objective of this dissertation, to determine the effect sizes in the missing links of Jiang et al.'s (2012) model, attempts are made to prove this using the proposed research model. Finally, there is a discussion on the theoretical and practical implications and contributions of the study to knowledge and management practice, as well as the limitations of the study and areas for future research.

5.2: Analysis of findings in support of the hypotheses

Results are interpreted in line with the stated hypotheses 1-30. All hypotheses are supported with significant effect sizes at p-value less than 0.05 and at 95% confidence interval. Supportive new findings are indicated with *

Table 15: Analysis of Significant Findings Supporting the Hypotheses

Hypotheses	Supportive relationships	Effect size and p-value
H1: Ability-HR Practices and Financial Outcomes	Training and Financial Perform. Staffing and Mktng Perform. Staffing and Financial Perform.	$r=0.215$, $p < 0.05$; 95% CI $r=0.280$, $p < 0.05$; 95% CI $r=0.116$, $p < 0.05$; 95% CI
H2: Ability-HR Practices and Operational Outcomes	Training and Employee Perform. Training and Service Perform. Training and Firm Perform. Staffing and Firm perform.	$r=0.214$, $p < 0.05$; 95% CI $r=0.360$, $p < 0.05$; 95% CI $r=0.507$, $p < 0.05$; 95% CI $r=0.302$, $p < 0.05$; 95% CI
H3: Ability-HR Practices and Employee Retention Rate*	Training and Employee Retention (Inverse of turnover)	$r=0.213$, $p < 0.05$; 95% CI

H4: Motivation-HR Practices and Operational Outcomes*	Int. Labour Mkt and Firm Perform. Int. Labour Mkt and Service P. Compensation and Firm P.	$r=0.732, p<0.05; 95\% \text{ CI}$ $r=0.239, p<0.05; 95\% \text{ CI}$ $r=0.719, p<0.05; 95\% \text{ CI}$
H5: Motivation-HR Practices and Financial Outcomes	Int. Labour Mkt and Mkt Perform. Compensation and Sales Compensation and Financial P. Compensation and Mkt Perform Career Devpt. and Financial P.	$r=0.334, p<0.05; 95\% \text{ CI}$ $r=0.231, p<0.05; 95\% \text{ CI}$ $r=0.285, p<0.05; 95\% \text{ CI}$ $r=0.367, p<0.05; 95\% \text{ CI}$ $r=0.097, p<0.05; 95\% \text{ CI}$
H6: Motivation-HR Practices and Employee Retention Rate	Compensation and Retention	$r=0.270, p<0.05; 95\% \text{ CI}$
H7: Opportunity-HR Pract. and Financial Outcomes*	Grievance Procedure and Marketing Performance	$r=0.165, p<0.05; 95\% \text{ CI}$
H8: Opportunity-HR Pract. and Operational Outcomes	Empowerment and Employee Performance	$r=0.447, p<0.05; 95\% \text{ CI}$
H9: Opportunity-HR Pract. and Employee Turnover Rate	Grievance Procedure and Turnover Information Sharing and Turnover	$r=-0.223, p<0.05; 95\% \text{ CI}$ $r=-0.295, p<0.05; 95\% \text{ CI}$
H10: Employee Turnover and Operational Outcomes*	Turnover and Productivity Turnover and Firm Performance	$r=-0.117, p<0.05; 95\% \text{ CI}$ $r=-0.174, p<0.05; 95\% \text{ CI}$
H11: Employee Turnover and Financial Outcomes	Turnover and Financial Perform. Retention and Financial Perform	$r=-0.128, p<0.05; 95\% \text{ CI}$ $r=0.369, p<0.05; 95\% \text{ CI}$
H12: Operational Outcomes and Financial Outcomes	Firm Perform. and Marketing Performance	$r=0.657, p<0.05; 95\% \text{ CI}$
H13: Ability-HR Practices and Human Capital	Training and Human Capital Staffing and Human Capital	$r=0.392, p<0.05; 95\% \text{ CI}$ $r=0.422, p<0.05; 95\% \text{ CI}$
H14: Motivation-HR Practices and Human Capital	Mot. HR and Human Capital Compensation and Human Capt. P. Appraisal and Human Capt.	$r=0.379, p<0.05; 95\% \text{ CI}$ $r=0.374, p<0.05; 95\% \text{ CI}$ $r=0.504, p<0.05; 95\% \text{ CI}$

H15: Opportunity-HR Practices and Human Capital	Employee Involvement and Human Capital	$r = 0.415, p < 0.05; 95\% \text{ CI}$
H16: Ability-HR Practices and Employee Motivation	Training and Customer Orientation Training and Affective Commit.	$r = 0.404, p < 0.05; 95\% \text{ CI}$ $r = 0.355, p < 0.05; 95\% \text{ CI}$
H17: Motivation-HR Practices and Employee Motivation	Motivation- HR and Empl Mot. P. Appraisal and Customer Orient.	$r = 0.419, p < 0.05; 95\% \text{ CI}$ $r = 0.451, p < 0.05; 95\% \text{ CI}$
H18: Opportunity-HR Practices and Employees' Motivation	Empowerment and Affective Com. Oppt. HR and Empl. Motivation	$r = 0.505, p < 0.05; 95\% \text{ CI}$ $r = 0.362, p < 0.05; 95\% \text{ CI}$
H19: Strategic Orientation and Operational Outcomes*	Strategic Orient and Firm P. Business Strategy and Firm P.	$r = 0.233, p < 0.05; 95\% \text{ CI}$ $r = 0.418, p < 0.05; 95\% \text{ CI}$
H20: Strategic Orientation and Financial Outcomes*	TQM and Financial Performance	$r = 0.196, p < 0.05; 95\% \text{ CI}$
H21: Human Capital and Employee Motivation*	Human Capital and Attitudes Human Capital and Empl. Mot.	$r = 0.863, p < 0.05; 95\% \text{ CI}$ $r = 0.578, p < 0.05; 95\% \text{ CI}$
H22: Human Capital and Operational Outcomes	Job Skills and Orgnal. Perform. Human Cap. and Operational P. Human Cap. and Service P. Human Cap. and Customer Sat.	$r = 0.435, p < 0.05; 95\% \text{ CI}$ $r = 0.609, p < 0.05; 95\% \text{ CI}$ $r = 0.404, p < 0.05; 95\% \text{ CI}$ $r = 0.228, p < 0.05; 95\% \text{ CI}$
H23: Employee Motivation and Operational Outcomes	Empl. Mot and Op. Performance	$r = 0.324, p < 0.05; 95\% \text{ CI}$
H24: Human Capital and Financial Outcomes	Human Capital and Financial P. Human Capital and ROI	$r = 0.327, p < 0.05; 95\% \text{ CI}$ $r = 0.155, p < 0.05; 95\% \text{ CI}$
H25: Human Capital and Employee Turnover	Human Capital and Turnover	$r = -0.365, p < 0.05; 95\% \text{ CI}$
H26: Employee Motivation and Financial Outcomes	Affective Commit and Sales Growth	$r = 0.415, p < 0.05; 95\% \text{ CI}$
H27: Employee Motivation and Turnover	Employee Mot and Turnover	$r = -0.074, p < 0.05; 95\% \text{ CI}$
H28: Ability- HR Practices and Motivation-HR Practices	Training and Rewards Training and P. Appraisal Training and Int. Labour Mkt.	$r = 0.493, p < 0.05; 95\% \text{ CI}$ $r = 0.648, p < 0.05; 95\% \text{ CI}$ $r = 0.615, p < 0.05; 95\% \text{ CI}$

	Training and Compensation Staffing and Compensation Staffing and P. Appraisal Staffing and Career Developmt	r=0.659, p< 0.05; 95% CI r=0.738, p< 0.05; 95% CI r= 0.719, p< 0.05; 95% CI r= 0.621, p< 0.05; 95% CI
H29: Ability- HR Practices and Opportunity-HR Practices	Training and Empowerment Training and Job Analysis Training and Job Security Training and Empl. Participation Staffing and Grievance P	r= 0.362, p< 0.05; 95% CI r= 0.589, p< 0.05; 95% CI r= 0.308, p< 0.05; 95% CI r= 0.628, p< 0.05; 95% CI r= 0.106, p< 0.05; 95% CI
H30: Motivation- HR Practices and Opportunity- HR Practices	P. Appraisal and Job Analysis Career Development and Employee Participation Affective Commit and Empowerment Affective Commit and Management Style	r= 0.448, P< 0.05; 95% CI r= 0.639, P< 0.05; 95% CI r= 0.505, p< 0.05; 95% CI r= 0.500, p<0.05; 95% CI

5.3: Interpretation of findings

H1: The association of staffing and training with financial performance and marketing performance appears to be positive and significant. Here, we see the likely impact of effective recruitment and selection practice which ensures that appropriately skilled applicants are brought into the right job. Again, the effect of firm-specific or generic training for improvement of the skills, knowledge and abilities of the current workforce is reflected in financial and marketing performances. The developmental focus of the A-M-O theory and resource-based view of the firm are evident.

H2: The association of training and staffing with operational performance is supported by positive and significant effect sizes. This implies that effects of properly trained employees will likely reflect positively in improved performance ability, service performance and firm performance, while properly skilled new recruits can also impact on firm performance. This shows that employees' abilities can contribute to organizational performance as earlier observed by Gerhart (2005).

H3: The association of training and employees' rate of retention appears to be positive and significant. This implies that effective training can mitigate the rate of employee turnover in the firm as the firm sees the skilled employees as assets which should not be lost to another firm. Continued employee retention backed with proper motivation is likely to reduce employees' desire or intention to quit the job.

H4: Motivation-HR practices such as internal promotion and compensation appear to be positively and significantly associated with firm performance and service performance. This implies that employees appreciate and value the organization's beneficial activities and feel

obligated to reciprocate with increased performance. The theory of social exchange is evident in this association.

H5: In the relationship between motivation-HR practices and financial outcomes, there appears to be positive and significant associations between compensation and sales growth, compensation and marketing performance and compensation and financial performance. There are also positive and significant associations between internal promotion and marketing performance and career development and financial performance. Here, we can see both the intrinsic and the extrinsic motivations in employees demonstrated in various financial outcomes. The motivation focus of the A-M-O theory and the social exchange theory are seen in these associations.

H6: The association between compensation and retention rate in the organization appears to be positive and significant. This implies that the more remuneration employees get, the more satisfied with their job they are likely to be, and the less the desire or intention to quit. This again shows that the rate of employees' turnover in the firm can be mitigated by the motivational effects of compensation.

H7: In the opportunity-HR practices domain, there appears to be a positive and significant association between grievance procedure and marketing performance. The opportunity to contribute is provided by the work environment. A proper compliant and grievance resolution procedure in the firm will likely ensure some degree of fairness, trust and justice and less friction. Under such a work environment, employees can be emotionally relaxed enough to put in their best which is reflected in improved marketing performance. The association can be seen as contextual and strategic, suitable for specific goals to be achieved. The contingency theory is evident.

H8: Employee empowerment appears to be positively and significantly associated with employee performance. The employees are provided with physical and psychological empowerment to enable them to use their abilities and motivation to contribute to organizational outcomes. The provision of this opportunity is necessary to harness employees' potential and it is strategic. Again, this is in line with contingency theory.

H9: The opportunity to share information and the opportunity to make formal complaints and utilise a grievance procedure appear to be negatively and significantly associated with the rate of employees' turnover. This implies that the more effective these practices are, the more well informed the employees and the higher the degree of trust and feeling of fairness and justice in the workplace, and consequently, the less the desire or intention to quit. The opposite can also be argued as equally true.

H10: The aggregate of employee turnover at the organizational level appears to have a negative significant association with firm performance and productivity. This implies that the more employees quit their jobs, the lower the firm's performance and productivity.

H11: The employee rate of turnover appears to have a significant negative association with financial performance, while the rate of retention has a positive significant association with financial performance. This implies that when turnover is high, both productivity and firm performance are low, which cumulatively can reflect in low financial performance. However, the retention of core-competent workers will likely boost productivity and subsequent financial performance.

H12: The association between marketing performance and firm performance appears to be highly positive and significant.

H13: The association between ability-HR practices (staffing and training) and the firm's human capital appears to be highly positive and significant. The recruitment of properly skilled applicants and the training of the existing workforce is aimed at enhancing their skill, knowledge and abilities to contribute to the achievement of organizational goals (Bos-Nehles et al., 2013). This implies that staffing and training are antecedents of the human capital of a firm. The development focus of the A-M-O theory is evident.

H14: Motivation-HR practices (compensation and performance appraisal) appear to be positively and significantly associated with the human capital of the firm. Here, we see performance appraisal and compensation as intrinsic and extrinsic motivation respectively which can encourage employees not only to contribute but also to desire the acquisition of the necessary skills, knowledge and ability to do that. The motivation focus of the A-M-O theory is evident.

H15: Employee involvement as an opportunity-HR practice appears to be associated with human capital very positively and significantly. The opportunity to contribute is provided by the work environment to encourage employees to use their abilities and motivation to achieve organizational objectives (Bos-Nehles et al., 2013). During employees' involvement, there is a display of different skills, knowledge and abilities which reflect the strength of the firm's human capital; therefore, core-competencies can be a competitive advantage. Here, the opportunity-focus of the A-M-O theory and the resource-based theory are evident.

H16: In the association between ability-HR practices and employee motivation, training appears to be positively and significantly associated with employees' customer-oriented behaviour and affective commitment. This implies that firm-specific training can be a type of behaviour moderating therapy for employees. "The effectiveness of HRM practice is realised

when employees act in ways that are needed for implementing strategies and achieving various business objectives” (Jiang et al., 2012, p. 1266). Here, the theory of the behaviour perspective of HRM, the development-focus of the A-M-O theory and the resource based theory are evident.

H17: The association between motivation-enhancing HR practices and employee motivation is demonstrated in the positive and significant association between performance appraisal and customer-oriented behaviour. The social exchange theory is evident in this association as the employees appear to be appreciative of the firm’s beneficial activities and feel obligated to reciprocate.

H18: The association between opportunity-enhancing HR practices and employee motivation is seen to have a positive and significant association with employee empowerment and affective commitment. Here, we see the opportunity given to employees in the form of empowerment as a source of intrinsic motivation that inspires commitment to the achievement of organizational goals.

H19: The business strategic orientation of an organization appears to be positively and significantly associated with firm performance. This implies that the strategic choice an organization makes has determinant effects, since carefully selected strategies serve as the mechanisms through which HR practices influence firm performance (Chow et al., 2013).

H20: The management strategic orientation (TQM) appears to be positively and significantly related to the financial outcome (sales growth). The management strategy of total quality management has zero-tolerance to faults and this can result in a superior product that attracts increased market share for the firm. Increase in sales is reflected in revenue increase.

H21: The association between the human capital of a firm and employee motivation appears to be very highly positive and significant. The relationship here can be seen from two dimensions: The enhancement of employees' skills, knowledge and abilities is reflected in very high positive attitudes and the desire to put in their best at work. It can also be argued that when employees are well motivated to work, there can be the desire to re-skill or up-skill to attain higher competencies needed for higher responsibilities.

H22: The employee human capital of an organization appears to be positively and significantly associated with organizational performance, operational performance, service performance and customer satisfaction. Here, we observe that the acquisition of improved skills, knowledge and abilities by employees finds expressions in operational outcomes. This is in line with the human capital theory which emphasises the need for cost-effective investment in human capital via training. The return on such investment must be expected to out-weigh the cost of the training to gain approval.

H23: Employee motivation appears to be associated with operational outcomes positively and significantly. Here, we observe that motivated employees who see the organization's business as a personal concern are likely to find expressions in committed responsibility, dedication, loyalty, extra-role behaviour, etc., which are reflected in improved operational outcomes. The theory of social exchange and the behavioural perspective of HRM are evident.

H24: The association between human capital and financial outcomes appears to be positive and significant. Here, we see the effects of core-competencies at work. Financial improvement usually comes from such rare competencies as tacit knowledge, high-technological skills and special talents that are not easy to copy. The resource-based view,

the knowledge-based view, the human capital theory and the development focus of the A-M-O theory are evident.

H25: The association between human capital and the rate of employee voluntary turnover appears to be negative and significant. This implies that the more enhanced the skills, knowledge and abilities of employees, the less the willingness or desire to quit the job and vice-versa. This further suggests the need for developing firm-specific competencies that are not transferable. The human capital theory and resource-based view of the firm are evident.

H26: The association between employee motivation and financial outcomes is seen in the positive and significant association between affective commitment and sales growth. This implies that a committed employee can go the extra-mile to improve sales. The motivation focus of the A-M-O theory and social exchange theory is evident.

H27: The association between employee motivation and the rate of employee turnover in the firm appears to be negative and significant. This implies that employee motivation which is expressed in forms such as affective commitment, job satisfaction, organizational citizenship behaviour, customer oriented behaviour, etc. will mitigate any desire or intention to quit the job. Conversely, the less the employee motivation, the higher the expected rate of employee turnover. There is a need, therefore, for improvement of the antecedents of employee motivation which are motivation-enhancing HRM practices.

H28: The association between ability-HR practices and motivation-HR practices appears to be highly positive and significant. Training associates with rewards, performance appraisal, internal promotion and compensation, while staffing associates with compensation, performance appraisal and career development. Here, we can see some degree of

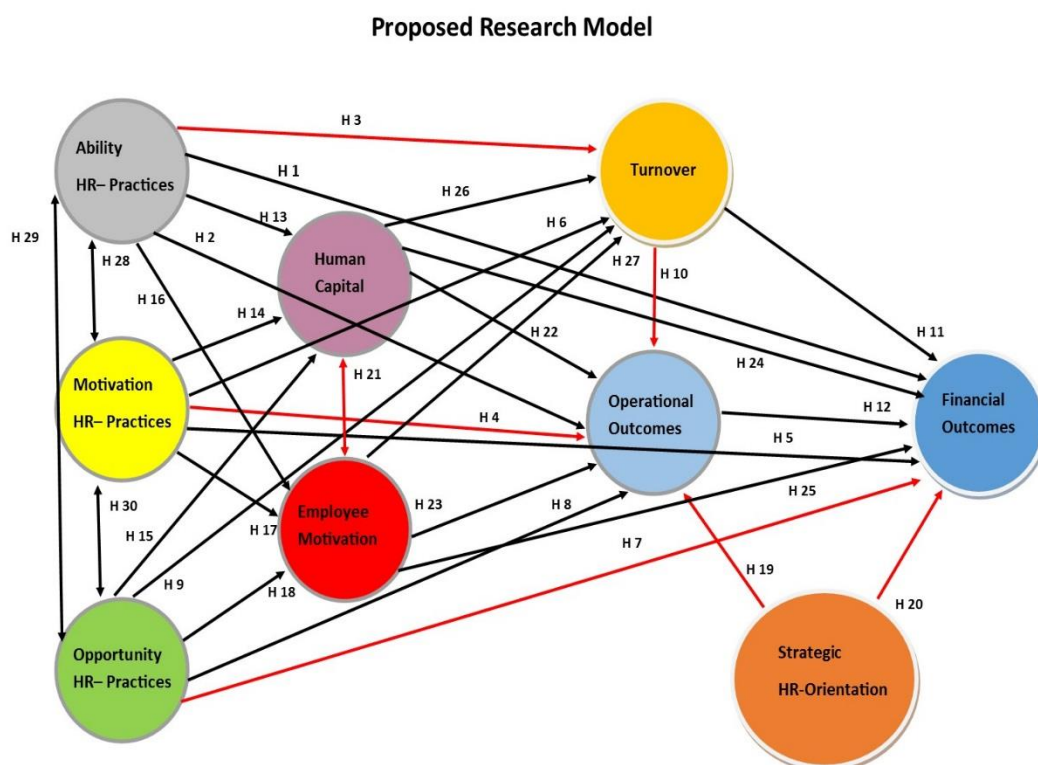
consistency between the developmental and the motivational focus of the A-M-O framework.

H29: The association between ability-HR practices and the opportunity-HR practices appears to be positive and significant. Training associates with employee empowerment, job analysis, job security and employee participation, while staffing associates with grievance procedure. In these associations, we can again see some degree of congruence between the developmental and opportunity perspective of the A-M-O framework.

H30: The association between motivation-HR practices and opportunity-HR practices appears to be positive and significant. While performance appraisal associates with job analysis, career development associates with employee participation, and affective commitment relates with employee empowerment and management style. In these associations, we see consistency between the motivational and opportunity perspectives of the A-M-O framework. The grouping of HRM practices into the ability-motivation-opportunity framework is strategic to ensure that there is not only a vertical alignment between HRM strategies and organizational business strategies but also a horizontal alignment or consistency among HRM practices (Boxall et al., 2011) to be able to achieve set organizational objectives.

5.4 Missing links in Jiang et al.'s (2012) model

The Jiang et al. (2012) model for HRM practices and organizational outcomes used the A-M-O theory and applied second and third order meta-analysis techniques for theory and model testing, thus, reporting composite scales on their path analysis. Jiang et al.'s study was empirically conclusive but the constructs and the links were not comprehensive enough. This study used first generation meta-analysis procedures on HRM practices and organizational outcomes as a fundamental means of determining any missing constructs and links which can enable further research for an all acceptable model. My research model is shown below with the missing links in red.



Although there has not yet been a mediator/moderator analysis, it is observed that the strategic orientation of a firm could be one of the mediating variables in the HRM practices-organizational outcomes relationship which was missing in the Jiang et al. (2012) model. This observation is supported by prior researches in the field of strategic HRM such as those of Teo et al. (2014, 2011), Chow et al. (2013), Audea et al. (2005), Lui, Lau and Ngo (2004) and Wright et al. (2001, 1998). I hereby posit that the strategic HR orientation of a firm will likely influence the HR department's roles and decisions which can determine what HR practices are contextually relevant for a business.

Results of this first generation meta-analytic review clearly show a confirmation of all path-relationships in the Jiang et al. (2012) model as well as indicating the presence of new relationships which were omitted by Jiang et al. Table 15 shows how all hypotheses in the study were supported with new findings marked with asterisks, while table 16 specifies the new findings.

Table 16: New Findings

S/N	New Finding	Effect size and p-value
1	Training and Employee Retention (Inverse of Turnover)	$r = 0.213, p < 0.05, @ 95\% \text{ C I}$
2	Internal Labour Market and Firm Performance	$r = 0.732, p < 0.05, @ 95\% \text{ C I}$
	Internal Labour Market and Service Performance	$r = 0.239, p < 0.05, @ 95\% \text{ C I}$
	Compensation and Firm Performance	$r = 0.719, p < 0.05, @ 95\% \text{ C I}$

3	Grievance Procedures and Marketing Performance	$r = 0.165, p < 0.05; 95\% \text{ CI}$
4	Human Capital and Employee Motivation Human Capital and Attitudes	$r = 0.578, p < 0.05, @ 95\% \text{ CI}$ $r = 0.863, p < 0.05, @ 95\% \text{ CI}$
5	Turnover and Operational Performance Turnover and Firm Performance	$r = -0.117, p < 0.05, @ 95\% \text{ CI}$ $r = -0.174, p < 0.05, @ 95\% \text{ CI}$
6	Strategic Orientation and Firm Performance Business Strategy and Firm Performance	$r = 0.233, p < 0.05, @ 95\% \text{ CI}$ $r = 0.418, p < 0.05, @ 95\% \text{ CI}$
7	TQM and Financial Performance	$r = 0.196, p < 0.05, @ 95\% \text{ CI}$

This study found one new construct (strategic orientation) and seven missing links to complement the Jiang et al. (2012) A-M-O model. Theoretically, these findings balance the Jiang et al. model and propose a more comprehensive model for further testing.

The links are:

1. The association between ability-HR practices and employee turnover.
- 2 A, B and C. The association between motivation-HR practices and operational outcomes.
3. The association between opportunity-HR practices and financial outcomes.
- 4 A and B. The association between human capital and employee motivation.

- 5 The association between employee turnover and operational outcomes.
6. The association between strategic orientation and operational outcomes.
7. The association between strategic orientation and financial outcomes.

5.5 Implications and contributions of the study

5.5.1 Theoretical implications and contributions

The theoretical implication of this study for the purpose of research is that each of the three domains of HRM practices – ability enhancing, motivation enhancing, and opportunity enhancing HR practices – has a direct and indirect association with organizational outcomes. The study disproves the general opinion of previous research that HR practices and systems do not have direct effects on firm business performance, but rather go through a mediator (Delery, 1998; Wright et al. 1994). However, some associations between ability-HR practices or motivation-HR practices and financial performance “can’t be explained by a mediating process” (Jiang et al., 2012, p. 1277). This view is consistent with previous studies that HRM can enhance the social capital of an organization through internal interactions within the firm (Gittell, Seidner, and Wimbush, 2010; Evans and Davies, 2005; Collins and Clark, 2003). Therefore, it is suggested that HRM practices should remain conceptualised into these three primary dimensions for research and learning purposes. This suggestion is supported by a number of empirical studies which have now adopted and validated the conceptual framework (e.g., Bailey , Berg, and Sandy, 2001; Batt, 2002; Gardner et al., 2011; Huselid,1995; Liao et al., 2009; MacDuffie, 1995; Subramony, 2009; Lepak et al., 2006; Jiang et al., 2012; Bos-Nehles et al., 2013). The A-M-O theory explains this finding further from the effects of training (ability-enhancing HR), compensation (motivation-enhancing HR) and

grievance procedure (opportunity-enhancing HR) practices on the employee rate of turnover. Since ability, motivation and opportunity can collectively contribute to organizational outcomes, research must ensure the three domains are always represented as none can work without the other.

The adoption of a multi-theoretical framework in research of HRM practices-organizational outcomes model has been proved in this study. Considering the heterogeneous nature of the antecedents and outcomes involved, the study shows that while A-M-O theory is fundamental, other theories like the resource-based view, the knowledge-based view, the human capital theory, the social exchange theory, the behavioural perspective of HRM and the strategic contingency theory lend very good lenses to the integration and coherence of the association of variables. This I call the seven-point theoretical framework.

The study also highlights the inclusion of strategic orientation as a mediating variable in any HRM practices-organizational outcomes research in addition to human capital and employee motivation. Carefully selected strategies serve as the mechanisms through which HR influence firm performance (Chow et al., 2013). Emphasising strategic orientation as a resource deployment mechanism, Chow et al. (2013) posit that “strategic orientation is the vehicle that transforms the value of human capital into superior performance” (p. 54).

Theoretically, the findings of this study balance the Jiang et al. (2012) model and propose a more comprehensive model for further testing.

In accordance with the strategic HRM literature, I believe that HR practices do not operate independently of one another but work together in a complementary or synergistic manner within the HR system to achieve a common goal (Wright et al., 2001). I therefore consider that the configuration of HR practices in the system as a bundle will likely produce greater

effects on organizational outcomes than individual practices working independently. For example, employee performance is likely to be high when a firm employs a configuration of HR practices that emphasise concern for others, participative decision making and team-based pay in aggregate rather than in just one single practice.

The resource based-view (RBV) (Barney, 1991; Wernerfelt, 1984) focuses on value, rareness, non-substitutability and the inimitability of organizational resources including employees who play strong roles in developing and maintaining a firm's competitive edge over rivals (Delery and Shaw, 2001). Drawing on the theoretical insight from the RBV of the firm, the study attempts to improve our conceptual understanding of how HR practices may be seen as having strategic value for firms and influence that value. For example, some meta-analytic evidence shows significant and practically relevant positive associations between human capital accumulation and dimensions of firm performance (Crook et al., 2011). This shows that when human capital accumulations are high, a firm is likely to profit from firm-specific skills, knowledge and abilities to sustain competitive advantage. In the aggregate, accumulated skills, knowledge and abilities found in a low voluntary turnover situation should be associated with strong workforce performance partly because the competitors cannot easily and quickly replicate the stock of capital (Mackenzie, 2011; Shaw, Park, and Kim, 2013). However, as human capital accumulations are depleted through voluntary turnover, the path dependencies and social complexities associated with the long-term workforce are erased; competitors can then more easily imitate the remaining resources and eliminate any competitive advantages (Shaw et al., 2013). The RBV suggests that as the depletion of human capital increases, that is, as voluntary turnover rate moves from low to moderate level, the organization will lose its inimitable source of advantage and performance will decline. However, as human capital depletion increases with voluntary

turnover rates moving from moderate to high, the relationship should be attenuated (Shaw et al., 2013). This finding further demonstrates that HR practices such as pay, benefits and procedural justice (motivation-enhancing HR-practices) induce employee retention and increase human capital accumulation and workforce interconnections. This lends support to the observed positive, significant association between human capital and employee motivation. The RBV of the firm suggests that HR practices influence a firm's performance through the development of resources that are deeply woven into a firm's history and culture.

The HR system consist of policies and bundles of HR practices aimed at influencing employee work-climate perception in order to elicit the desired behaviour (Jiang et al. 2011). The A-M-O model suggests that employees' ability, motivation and opportunity to perform are three elements of employee performance which the HR system can be associated with.

Examining employees' attitudes and behaviours and their effects on firm performance will also require the use of social exchange theory which focuses on the motivational components of employee-organization relationships and provides insights regarding the implications of the fit between the provided inducement and the expected employee contributions. The logic is that HR practices are deployed as needed to make sure that employees in certain contexts display the appropriate role behaviour to help the organization achieve its objectives. Here, employees' favourable work attitude and behaviours required by strategic objectives are expected as a result of employers' investment in HR systems (Jiang, Takeuchi, and Lepak, 2013).

5.5.2 Practical implications and contributions of the study

The practical implications of these findings for management practice are very interesting. In terms of ability-enhancing HR practices, it is shown that providing the appropriate type of training can enhance the working ability of an employee and subsequently lead to employee retention in the firm by decreasing the desire or intention of employees to quit their job. Again, the findings further indicate that providing employees with adequate compensation and opportunity for promotions to higher ranks and positions within the firm can motivate job satisfaction, which in turn reflects in improved service capabilities and firm performance. This is supported by the views of Milkovich (1997). Employee voluntary turnover has been noted as a dilemma facing firms (Coff, 1997). From the opportunity-enhancing perspective of HRM practices, the study shows that creating and institutionalising formal grievance procedures as well as information sharing mechanisms within the firm can reduce the rate of employees' voluntary turnover. It can therefore be inferred that the higher the rate of information sharing and just grievance procedures, the more informed and happier the employee and the less the tendency or desire to quit the job. This is supported by Ribeiro and Semedo (2014) who found from empirical evidence that: (a) satisfaction with HR practices predicts four dimensions of organizational justice: distributive, procedural, interpersonal and informational; (b) distributive justice and interpersonal justice predict turnover intentions; (c) satisfaction with HR practices predicts turnover intentions both directly and through the mediating role of distributive and interpersonal justice. This empirical evidence suggests that individuals who are satisfied with the HR practices in their organizations tend to have a better perception of organizational justice, which in turn implies a more likely retention of talents in the organization (Ribeiro and Semedo, 2014). Here, we see evidence of the social exchange theory: an organization values employees'

contributions and employees respond by remaining with the organization. I therefore posit that existing turnover rate in an organization is an important indicator of the quality of HR practices implemented by the organization.

This study found a highly significant association between the employees' skills, knowledge and abilities (human capital) and their willingness or desire to contribute (human capital and employee motivation $r = 0.578$. Human capital and attitudes $r = 0.863$, $p < 0.05$ @ 95% CI). It can be argued that while improvement in employee human capital can lead to motivation, evidenced in commitments, the more committed or motivated an employee becomes, the more the desire to improve the skills, knowledge and abilities needed for higher responsibilities. According to this study, the need to improve the skills, knowledge and abilities via regular training of employees with higher organizational commitment becomes imperative.

Again the employees' motivation to contribute is evidenced in the operational performance of the firm ($r = 0.324$, $p < 0.05$, @95% CI). This high effect size between employee motivation and operational performance also suggests that the less the willingness to contribute, the less the operational performance. However, the opposite goes for the relationship between turnover and firm performance. The higher the employee turnover, the less the productivity or firm performance and vice versa. Since organizations cannot exert ownership control of human capital like other assets (Coff, 1997), the way it can use the HRM system to gain competitive advantage is to reduce voluntary turnover as a critical organization performance outcome (Delery and Shaw, 2001). Management professionals can therefore see the need to continually improve upon motivation-enhancing HR practices, a view well supported by Gavino, Wayne and Erdogan (2012). This study shows that participation in

decision making directly influences employees' extra-role behaviours, and that training and development (antecedents of human capital) directly impact employees' customer-oriented behaviours. It also shows that the performance management process, promotional opportunities (internal labour market) and participation in decision making affect how employees behave towards the customer and the extra-role behaviour they exhibit. These four HR practices show employees how much they are valued, and in turn, this feeling of worth impacts their commitment to delivering high-quality services to customers and their desire to take up extra responsibilities. Social exchange theory (Blau, 1964) provides the theoretical framework for the link between these HR practices and employees outcomes, but central to this, is the norm of reciprocity (Gouldner, 1960).

Strategic orientation was found to have significant associations with firm performance and financial performance. In the views of Chow et al. (2013), "strategic orientation is the vehicle that transforms the value of human capital into superior performance" (p. 54).

Therefore, carefully selected strategies serve as the mechanisms through which HR influence firm performance (Chow et al., 2013). This study found the HR-business strategic orientation is significantly associated with firm performance ($r = 0.418$, $r = 0.233$, $p < 0.05$, @95% CI). Also, HR-management strategic orientation (TQM) is significantly associated with the financial performance of the firm ($r = 0.196$, $p < 0.05$, @95% CI).

All these implications are summarised for effective redirection of management practitioners and HRM researchers. It is noted that the results, interpretations and implications of this study are all in line with the research theories and model adopted. It is therefore suggested that the model of this study be further investigated for fit into the data.

5.6 Limitations of the study

The study is limited by the level of meta-analytic procedures applied. I used the first generation meta-analysis which is meant solely for reviewing literatures, applying descriptive statistics and estimating population correlations (Glass, 1976; Rosenthal, 1978).

It is suitable for the initial research to determine effects of single HRM practices on organizational outcomes; however, further studies to determine the composite scales for each domain of the HRM practices bundles and other organizational outcomes bundles and their effect sizes will require the second and third generation meta-analysis approach.

Second generation meta-analysis is used for examining variations across studies, applying inferential statistics, identifying moderators (e.g., Hunter and Schmidt, 1990) and estimating the influence of moderators with meta-regression (e.g., Park and Shaw, 2013); while the third generation meta-analysis is used for testing theories. This is the conclusive stage of the study which requires the application of inferential statistics and meta-analytic structural equation modelling (e.g., Viswesvaran and Ones, 1995), but out of the scope of this study.

Another limitation of this study is time. This is a one-semester, 60-point dissertation with unlimited areas of coverage. The volume of work expected in the study needed more time for a conclusive application of all statistical techniques. The model so far is a fundamental way forward towards a development of a comprehensive theory for both HRM and performance and how they are linked. This means that the model is subject to further investigations for tests of fitness.

5.7: Areas of further research

The results, interpretation and implications of this study show that further work is needed for a composite analysis of the strategic bundles of relationships. The study provides avenues to numerous areas of further research in the field of HRM, specifically HRM practices-organizational outcomes relationship. Researchers have consistently identified links such as HR practices, mediators and performance, but very few have gone on to investigate such links as HR department and strategic orientation, HR-practices, and HR-outcomes and performance (see Teo et al., 2014, 2011; Boselie et al., 2005). This may be due to non-recognition of the influence of strategic orientation in HR-departments. The following research questions may guide future research in this direction.

A) What causal relationships exist between the strategic orientation of the firm, HR-practices, HR-outcomes and firm performance? B) How does the A-M-O theory justify the inclusion of a firm's strategic HR-orientation as a mediating variable in the HR-practices-organizational outcomes model? C) How do the A-M-O theory, the resource based-view and the contingency theory agree on conceptualising a model for the relationship between HR-practices and organizational outcomes?

5.8: Chapter conclusion

In this chapter, I analysed all significant results from the data in support of all the 30 hypotheses and made detailed explanations on the findings. Missing links in Jiang et al.'s (2012) model were identified in an expanded proposed research model and discussed. Next, I discussed the implications and contributions of this study to research and management practice. Finally, I discussed the limitations of the study and proposed areas for future research.

Chapter Six: Conclusion

My motivation to engage in this 60-point dissertation was the statement by Beer et al. (2015) that the field of HRM as an academic discipline is 30 years old and yet has no consensus on an acceptable fundamental theory (Guest, 1997). Although I regard Jiang et al.'s (2012) model as an attempt towards achieving the objective of a fundamental theory, I subsequently identified a number of missing links within the model in terms of the relationships between antecedents and outcomes. My study was aimed at determining the effect sizes in the missing links and discovering any other mediating variables, thereby extending the Jiang et al. (2012) model using first generation meta-analysis techniques. It also aimed at contributing to firm-level emerging empirical literature on the influence of HRM practices on organizational outcomes. The study adopted a seven-point, multi-theoretical framework to cater for the heterogeneous nature of HRM practices and the multi-divisional levels of organizational outcomes. The multi theoretical framework included the A-M-O theory (Appelbaum et al., 2000; Bailey et al., 2001), the human capital theory (Becker, 1964; Lepak and Snell, 1999; Ployhart and Moliterno, 2011), the behavioural perspective of the firm (Jackson, Schuler, and Rivero, 1989), the resource-based view (Barney, 1991; Mahoney and Pandian, 1992), the knowledge-based view (Grant, 1996, Kogut, and Zander, 1992), the social exchange theory (Blau, 1964) and the strategic contingency theory (Beer et al., 1984). Specifically, the study was interested in identifying the effects of single HRM practices in each strategic bundle of the A-M-O framework.

The literature search was exhaustive and comprehensive, covering the period 1985 to 2015. The coding was very strictly supervised via regular supervision meetings. Finally, as stated in chapter three, the data was meta-analysed. As discussed, the results, interpretation and

implications of the findings were in line with the theories of the study and all hypotheses of the study were empirically supported showing significant effects. This study confirmed all results of Jiang et al.'s (2012) A-M-O model and found one new construct (strategic orientation) and seven missing links to complement the model. The missing links are as follows: The association between ability-HR practices and employee turnover; the association between motivation-HR practices and operational outcomes; the association between opportunity-HR practices and financial outcomes; the association between human capital and employee motivation; the association between employee turnover and operational outcomes; the association between strategic orientation and operational outcomes; the association between strategic orientation and financial outcomes. The results of the study can be seen as achieving a way forward towards a fundamental development of an all acceptable theoretical model for the HRM practices-organizational outcomes relationship. A research model was proposed and recommended for further tests of model fit.

The study has been able to offer both theoretical contributions for the purposes of research and practical contributions for the management of human resources in organizations, as can be seen from the discussion on findings and the implications of these findings. For example, the study found that each of the three domains of HRM practices – ability enhancing, motivation enhancing and opportunity enhancing – has a direct and indirect association with organizational outcomes. Since employees' ability, motivation and opportunity can collectively contribute to organizational outcomes, research must ensure the three domains are always represented as none can work without the other.

For management practice, the study also found that providing appropriate types of training can enhance the working ability of employees and subsequently lead to employee retention in the firm. Again, the findings further indicate that providing employees with adequate compensation and opportunity for promotions to higher ranks and positions within the firm can motivate job satisfaction that is reflected in improved service capabilities and firm performance. From the opportunity enhancing perspective of HRM practices, the study shows that creating and institutionalising formal grievance procedures as well as information sharing mechanisms within the firm can reduce the rate of employee voluntary turnover. This result shows that the higher the rate of information sharing and just grievance procedures, the more informed the employee and the less the tendency or desire to quit the job.

During the 12-months spent working on this dissertation, I saw myself in Ferris et al.'s (1998) self-description, "simultaneously excited and troubled, frustrated yet optimistic, and encouraged but cautious" (p. 236). Thirty years on, the decisive proof of a theory of HRM may still appear elusive, but, its impacts on organizational outcomes remain very visible.

References

Please Note: Articles with asterisks were used for meta-analysis.

*Abutayeh, B. and AL-Qataweh, M. 2012. The effect of human resource management practices on job involvement in selected private companies in Jordan. *Canadian Social Science*, 8:2, 50-57.

Aguinis, H., Pierce, C.A., Bosco, F.A., Dalton, D. R. and Dalton, C.M.2011. Debunking myths and urban legends about meta-analysis. *Organizational Research Methods*, 14: 2, 306-331.

*Ahmad, S., and Schroeder, R. G. 2003. The impact of human resource management practices on operational performance: Recognizing country and industry differences. *Journal of Operations Management*, 21: 19-43

*Akhtar, S., Ding, D. Z., and Ge, G. L. 2008. Strategic HRM practices and their impact on company performance in Chinese enterprises. *Human Resource Management*, 47: 15-32.

Aldamoe, F.M., Yazam, M. and Hamid, K. 2013. Human resource management practices on organizational performance in Libya firms. *Public Administration Research*, 2: 1, 29.

*Andreeva, T. and Kianto, A. 2012. Does knowledge management matter? Linking knowledge management practices to competitiveness and economic performance. *Journal of Knowledge Management*, 16:4 617-636.

Appelbaum, E., Bailey, T., Berg, P., and Kalleberg, A. L. 2000. *Manufacturing advantage:*

Why high-performance work systems pay off. Ithaca, NY: Cornell University Press.

*Appleyard, M. M., and Brown, G. 2001. Employment practices and

semi-conductor manufacturing performance. *Industrial Relations*, 40: 436-471.

Armstrong, G., Flood, P. C., Guthrie, J. P., Liu, W., Mac-Gurtain, S., and Mkamwa,

T. 2010. Beyond high performance work systems: The impact of including

Diversity and equality management on firm performance.

Human Resource Management, 49: 977-998.

* Arthur, J. B. 1994. Effects of human resource systems on manufacturing

performance and turnover. *Academy of Management Journal*, 37: 670-687.

*Audea, T., Teo, S. T. T., and Grawford, J. 2005. HRM professionals and their perceptions

of HRM and firm performance in the Philippines. *International Journal of*

Human Resource Management, 16: 532-552.

Bailey, T., Berg, P., and Sandy, G. 2001. The effect of high performance work practices on

employee earnings in the steel, apparel, Edmo medical electronics and imaging

industries. *Industrial and Labour Relations Review*, 54: 525-543.

Barney, J. 1991. Firm resources and sustained competitive advantage.

Journal of Management, 17: 99-120.

Becker, G. S. 1964. *Human capital: A theoretical and empirical analysis*

. Chicago: University of Chicago Press.

*Barksdale, W. K. 1994. *Human resource management, organizational climate,*

work attitudes and organizational performance. Unpublished doctoral

dissertation, Georgia State University

- . *Bartrajn, T., Stanton, P., Leggat, S., Casimir, G. and Fraser, B. 2007.
Lost in translate on: Exploring the link between HRM and performance in
healthcare. *Human Resource Management Journal*, 17: 21-41
- *Batt, R. 2002. Managing customer services: Human resource practices, quit rates, and
sales growth. *Academy of Management Journal*, 45: 587-597.
- *Batt, R., and Colvin, A. J. S. 2011. An employment system approach to turnover:
HR practices, quits, dismissals, and **performance**. *Academy of Management
Journal*, 54: 695-717.
- Beer, M., Spector, B., Lawrence, P., Mills, D. Q. and Walton, R. (1984).
Human resource management: A general manager's perspective. New York, NY:
Free Press.
- Beer, M, Boselie, P. and Brewster, C. 2015. Back to the future: Implications of the field
of HRM to the multi-stakeholder perspective proposed 30years ago.
Human Resource Management, 54:3, 427-438.
- Becker, B., and Gerhart, B. 1996. Human resources and organizational performance:
Progress and prospects. *Academy of Management Journal*, 39: 779-801.
- Becker, B. E., and Huselid, M. A. 1998. High performance work systems and
firm performance: A synthesis of research and managerial implications.
Research in Personnel and Human Resources, 16: 53–101.
- Benn, S. Teo, S.T.T. and Martin, A. 2015. Employee participation and engagement in
working for the environment. *Personnel Review*, 44:4, 492-510.
- *Beltrán-Martín, I., Roca-Puig, V., Escrig-Tena, A., and Bou-Llugar, J. 2008.
Human resource flexibility as a mediating variable between high performance
work systems and performance. *Journal of Management*, 34: 1009-1044.

- *Berman, E., Sabhanoal, M., Wang, C., West, J., Jing, Y., Jan, C., Liu, W., Brillantes, A., Chen, C. and Gomes, R. 2013. The impact of societal culture on the use of performance strategies in East Asia: Evidence from a comparative survey. *Public Management Review*, 15:8, 1065-1089.
- *Bhanugopan, R., ALadwan, K. and Fish, A. 2013. A structural equation model for measuring human resource management practices in the Jordanian organizations. *International Journal of Organizational Analysis*, 21:4,565-587.
- Blau, M.P. (1964). *Exchange and Power in Social Life*, New York: **Wiley**.
- *Bos-Nehles, A., Van Riemsdijk, M and Looise, J. 2013. Employee perceptions of line management performance: Applying the AMO theory to explain the effectiveness of line managers' HRM implementation. *Human Resource Management*, 52:6, 861-877.
- Boselie, P., Dietz, G. and Boon, C. 2005. Commonalities and contradictions in research on human resource management and performance. In: *Human Resource Management Journal*, 15(3), 67-94.
- Boxall, P.F. 1996, 'The Strategic HRM Debate and the Resource-Based View of the Firm,' *Human Resource Management Journal*, 6, 59–75.
- Boxall, P. and Purcell, J. 2003. *Strategy and human resource management*. London: Palgrave Macmillan.
- Boxall, P. and Mackey 2009. Research and theory on high-performance work systems: progressing the high-involvement stream. *Human Resource Management Journal*, 19: 1, 3-23.

*Boxall, P., Ang, S. and Bartram T. 2011. Analysing the 'black box' of HRM: Uncovering HR goals mediators and outcomes in a standardised service environment.

Journal of Management Studies, 48: 7.

Boxall, P. 2012. High-performance work systems: What, why, how and for whom?

Asia Pacific Journal of Human Resources, 50: 2, 169.

Bowen, D.E., Galang, M.C., and Pillai, R. 2002, 'The Role of Human Resource

Management: An Exploratory Study of Cross-Country Variance,' *Human Resource Management*, 41, 103–122

. *Brown,, M. P., Sturman, M. C, and Sinunering, M. J. 2003.Compensation policy and organizational performance: The efficiency, operational, and financial implications of pay levels and pay structure. *Academy of Management Journal*, 46: 752-762.

Bryman, A. and Bell, E. 2011. *Business research methods*, third edition. Oxford, New York: Oxford University Press.

*Cabellec-Medina, C, Lopez-Cabrales, A., and Valle-Cabrera, R. 2011. Leveraging the innovative performance of human capital through HRM and social capital in Spanish firms. *International Journal of Human Resource Management*, 22: 807-828.

Campbell, J. P., McCloy, R. A., Oppler, S. H., and Sager, C. E. 1993. A theory of performance. In N. Schmitt and W. C. Borman (Eds.), *Personnel selection in organizations*: 35-70.

Campbell, J. P. 1990. Modelling the performance prediction problem in industrial and organizational psychology. In M. D. Dunnette and L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 1, pp. 687–732). Palo Alto, CA: *Consulting Psychologists Press*.

- *Caillier, J. 2012. Satisfaction with work-life benefits and organizational commitment /Job involvement: Is there a connection? *Review of Public Personnel Administration*, 33:4, 340-364.
- *Chan, L. L. M., Shaffer, M. A., and Snape, E. 2004. High search of sustained competitive advantage: The impact of organizational culture, competitive strategy and human resource management practices on firm performance. *International Journal of Human Resource Management*, 15: 17-35
- Chandler, G. N., and McEvoy, G. M. 2000. Human resource management, TQM, and firm performance in small and medium-size enterprises. *Entrepreneurship: Theory and Practice*, 25: 43-57.
- *Chen, C, and Huang, J. 2009. Strategic human resource practices and innovation Performance: the mediating role of knowledge management capacity. *Journal of Business Research*, 62: 104-114.
- Chow, I.H., Teo, S.T.T. and Chew, I.K.H.2013. HRM system and firm performance: The mediating role of strategic orientation. *Asia Pacific Journal of Management*, 30: 53-72.
- Chuang, M. W. L., and Chan, W. 2005. Meta-analytic structural equation modelling: A two-stage approach. *Psychological Methods*, 10: 40-64.
- *Chiang, C. and Hsieh, T. 2012. The impacts of perceived organizational support and psychological empowerment on job performance: The mediating effect of organizational citizenship behaviour. *International Journal of Hospitality Management*, 31, 180-190.

- *Chiang, H., Hau, T. and Chuang, J. 2011. The relationship between high-commitment HRM and knowledge sharing behaviour and its mediators. *International Journal of Manpower*, 32:5/6, 604-622.
- Chiang, H., Shih, H.A and Chu-Chun, H. 2014. High-commitment work system, transactive memory system and new product performance. *Journal of Business Research*, 67: 4, 631-640.
- Cooper, H. and Hedges, L.V. 1994. Potentials and Limitations of Research Synthesis . *Handbook of Research Synthesis*, Cooper, H and Hedges, L.V. (Eds), New York: Russell Sage Foundation, 521-530.
- Cooper, H. and Rosenthal, R. (1980). Statistical Versus Traditional Procedures for Summarizing Research Findings. *Psychological Bulletin*, 87(3), 442-449
- *Cho, Y.J and Park, H. 2011. Exploring the relationships among trust, employee satisfaction and organizational commitment. *Public Management Review*, 13:4, 551-573.
- *Cho, Y.J and Lewis, G. 2012. Turnover intention and turnover behaviour: Implications for retaining federal employees. *Review of Public Personnel Administration*, 32:1, 4- 23.
- *Cho, Y.J. and Lee, J.W. 2012. Performance management and trust in supervisors. *Review of Public Personnel Administration*, 32:3, 236-259.
- *Chuang, C, and Liao, H. 2010. Strategic human resource management in service context: Taking care of business by taking care of employees and customers. *Personal Psychology*, 63: 153-196.
- Coff, R. W. 1997. Human assets and management dilemmas: Coping with hazards on the road to resource based theory. *Academy of Management Review*, 22: 374-402.

- Coff, R. W. 2002. Human capital, shared expertise, and the likelihood of impasse in corporate acquisitions. *Journal of Management*, 28: 107-128
- Cohen, W.M. and Lavinthal, D.A. 1990. Absorptive capacity: A new perspective in learning and innovation. *Administrative Science Quarterly*, 17: 178-184
- *Collins, C. J., and Smith, K. G. 2006. Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal*, 49: 544-560.
- Collins, C. J., and Clark, K. D. 2003. Strategic human resource practices, top management team social networks, and firm performance: The role of human resource practices in creating organizational competitive advantage. *Academy of Management Journal*, 46: 740-751.
- *Collins, C. J., Smith, K. G., and Stevens, C. K. 2001. *Human resource practices, knowledge- creation capability and performance in high technology firms*
CAHRS working paper. Centre for Advanced Human Resource Studies, Cornell University
- Dalton, D.R. and Dalton, C. M. 2008. Meta-analysis: Some very good steps towards a bit longer journey. *Organizational Research Methods*, 11: 1, 127-147.
- *Datta, D. K., Guthrie, J. P., and Wright, P. M. 2005. Human resource management and labour productivity: Does industry matter? *Academy of Management Journal*, 48: 135-145.
- *De Winne, S., and Sels, L. 2010. Interrelationships between human capital, HRM and innovation in Belgian start-ups aiming at an innovation strategy. *International Journal of Human Resource Management*, 21: 1863-1883

- *Delaney, J. T., and Huselid, M. A. 1996. The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39: 949-969
- *Delery, J. E., and Doty, D. H. 1996. Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39: 802-835
- *Delery, J. E., Gupta, N., Shaw, J. D., Douglas Jenkins, G., and Ganster, M. L. 2000 . Unionization, compensation, and voice effects on quits and retention, *industrial Relations*, 39: 625-645.
- Delery, J. E., and Shaw, J. D. 2001. The strategic management of people in work Organizations: Review, synthesis, and extension. In G. R. Ferris (Ed.), *Research in personnel and human resource management*, vol. 20: 167-197. Stamford, CT: JAL
- *Den Hartog, D. N., and Verbürg, R. M. 2004. High performance work systems, organizational culture and firm effectiveness. *Human Resource Management Journal*, 14: 55-78.
- Dyer, L., and Reeves, T. 1995. Human resource strategies and firm performance: What do we know and where do we need to go? *International Journal of Human Resource Management*, 6: 656-670.
- *Ericksen, J. 2006. *High-performance work systems, dynamic workforce alignment, and firm performance*. Unpublished doctoral dissertation, Cornell University.
- Evans, W. R., and Davis, W. D. 2005. High-performance work systems and organizational performance: The mediating role of internal social structure. *Journal of Management*, 31: 758-775.

- *Faems, D., Sels, L., De Winne, S., and Maes, J. 2005. The effect of individual HR domains on financial performance: Evidence from Belgian small businesses. *International Journal of Human Resource Management*, 16: 676-700.
- Field, A. P. 2001. Meta-Analysis of Correlation Coefficients: A Monte Carlo Comparison of Fixed- and Random-Effects Methods. *Psychological Methods*, 6, 161-180.
- Field, A.P. 2003. The Problems in Using Fixed-Effects Models of Meta-Analysis on Real-World Data. *Understanding Statistics*, 2, 105-124.
- Field, A.P. 2005b. Meta-analysis. In J, miles and P Gilbert (eds). A handbook of research methods in clinical and health psychology, pp.295-308. Oxford: Oxford University Press.
- Field, A.P. 2012. Discovering statistics using IBM SPSS statistics, 4th edition. Washington D.C: Sage Publication Ltd.
- *Fey, G. F., and Bjorkman, I. 2001. The effect of human resource management practices on MNC subsidiary performance in Russia. *Journal of International Business Studies*, 32: 59-75.
- *Fey, C. F., Bjorkman, I., and Pavlovskaya, A. 2000. The effect of human resource management practices on firm performance in Russia. *International Journal of Human Resource Management*, 11: 1-18.
- Ferris, G., Arthur, M., Berkson, H., Kaplan, D., Harrell–Cook, G., and Frink, D. 1998. Towards a social context theory of the human resource management-organization effectiveness relationship. *Human Resources Management Review*, 8, 235–264.
- *Furlan, A., Vinelli, A. and Dal Pont, G. 2011. Complimentary and lean manufacturing bundles: an empirical analysis. *International Journal of Operations and Production Management*, 31:8, 835-850.

- Gardner, T. M., Wright, P. M., and Moynihan, L. M. 2011. The impact of motivation, empowerment, and skill enhancing practices on aggregate voluntary turnover: The mediating effect of collective affective commitment. *Personal Psychology*, 64: 315-350.
- Gavin, M.C., Wayne, S.T. and Erdogan, B. 2012. Discretionary and transactional human resource practices and employee outcomes: The role of perceived organizational support. *Human Resource Management*, 51:5, 665-686.
- *Gelade, G. A., and Ivery, M. 2003. The impact of human resource management and work climate on organizational performance. *Personnel Psychology*, 56: 383-404.
- *Gerhart, B., and Milkovich, G. T. 1990. Organizational differences in managerial compensation and financial performance. *Academy of Management Journal*, 33: 663-691.
- *Ghebregiorgis, F., and Karsten, L. 2007. Human resource management and performance in a developing country: The case of Eritrea. *International Journal of Human Resource Management*, 18: 321-332.
- *Giauque, D., Anderfuhren-Biget, S. and Varone, F. 2013. HRM practices, intrinsic motivators and organizational performance in the public sector . *Public Personnel Management*, 42:2,123-150.
- *Gibson, G. B., Porath, C. L., Benson, G. S., and Lawler, E. K, III. 2007. What results when firms implement practices: The differential relationship between specific practices, firm financial performance, customer service, and quality. *Journal of Applied Psychology*, 92: 1467-1480.

- *Gill, C. and Meyer, D. 2013. Union presence, employee relations and high performance work practices. *Personnel Review*, 42:5, 508-528.
- Gittell, J. H., Seidner, R., and Wimbush, J. 2010. A relational model of how high - performance work systems work. *Organization Science*, 21: 490-506.
- Glass, G. V. 1976. Primary, Secondary, and Meta-Analysis of Research. *Educational Researcher*, 5:10, 3-8.
- Glass, G. V. 1977. Integrating findings: The meta-analysis of research. *Review of Research in Education*, 5, 29.
- Grant, B.M. and Giddings, L.S. 2002. Making sense of methodologies: A paradigm framework for the novice researcher. *Contemporary Nurse*, 13: 10-28.
- Gould-Williams, J., and Davies, F. 2005. Using Social Exchange Theory to predict the effects of HRM practices on employee outcomes: An analysis of public sector workers. *Public Management Review* 7:1, 1–24.
- *Gong, Y., Ghang, S., and Gheung, S. Y. 2010. High performance work system and collective OGB: A collective social exchange perspective. *Human Resource Management Journal*, 20: 119-137.
- *Gong, Y., Law, K. S., Ghang, S., and Xin, K. R. 2009. Human resources management and firm performance: The differential role of managerial affective and continuance commitment. *Journal of Applied Psychology*, 94: 263-275.
- Grant, R.M. 1996. Toward a Knowledge-based Theory of the Firm. *Strategic Management Journal*, 17: 109–122.
- Guthrie, J. P., Spell, C. S., and Nyamori, R. O. 2002. Correlates and consequences of high involvement work practices: The role of competitive strategy. *International Journal of Human Resource Management*, 13:183–197.

- *Guerrero, S., and Barraud-Didier, V. 2004. High-involvement practices and performance of French firms. *International Journal of Human Resource Management*, 15: 1408-1423.
- Guest, D. E. 1987. Human resource management and industrial relations. *Journal of Management Studies*, 24, 503–521.
- *Guest, D. E. 1997. Human resource management and performance: A review and research agenda. *International Journal of Human Resource Management*, 8: 263-276.
- *Guest, D. E., Michie, J., Gonway, N., and Sheehan, M. 2003. Human resource management and corporate performance in the UK. *British Journal of Industrial Relations*, 41: 291-314.
- *Guest, D., Gonway, N., and Dewe, P. 2004. Using sequential tree analysis to search for "bundles" of HR practices. *Human Resource Management Journal*, 14: 79-9
- Guest, D. E. 2007. Don't shoot the messenger: A wake-up call for academics. *Academy of Management Journal*, 50(5), 1020–1026.
- *Guest, D. E. 2011. Human resource management and performance: Still searching for some answers. *Human Resource Management Journal*, 21, 3–13.
- *Guest, D.E. and Hogue, K. 1994. 'The good, the bad and the ugly: employment relations in new non-union workplaces'. *Human Resource Management Journal*, 5:1, 1-14.
- *Guthrie, J. P. 2000. Alternative pay practices and employee turnover: An organization economics perspective. *Group and Organization Management*, 25: 419-439.
- *Guthrie, J. P. 2001. High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44: 180-190.
- Hardy, A. and Magnello, E. 2002. Statistical methods in epidemiology.
- . *History of Epidemiology*, 47: 80-89.

- *Harel, G. H. and Tzafrir, S. S. 1999. The effect of human resource management practices on the perceptions of organizational and market performance of the firm. *Human Resource Management*, 38: 185-199.
- *Harrell-Gook, G. 1999. *Human resource systems, flexibility, and firm performance in turbulent environments*. Unpublished doctoral dissertation. University of Illinois at Urbana-Champaign.
- *Hatch, N. W., and Dyer, J. H. 2004. Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25: 1155-1178.
- Hedges, L. V. and Vevea, J. L. (1998). Fixed- and Random-Effects Models in Meta-Analysis. *Psychological Methods*, 3, 486-504.
- Hedges, L. V. and Olkin, I. 1985. Statistical methods for meta-analysis. Orlando, FL: Academic Press
- *Heffernan, M., Hamey, B., Gafferkey, K., and Dundon, T. 2009. *Exploring the relationship between HRM, creativity climate and organizational performance: Evidence from Ireland*. Paper presented at the annual meeting of the Academy of Management, Chicago.
- *Hong, Y. 2009. *One size does not fit all: The relations between service capabilities and human resource management*. Unpublished doctoral dissertation, Rutgers, the State University of New Jersey.
- Hunter, J.E and Schmidt, F.L. 1982. Ability tests: Economic benefits versus the issues of fairness. *Industrial relations*, 21: 293-308.
- Hunter, J.E and Schmidt, F.L. 1994. Correcting for Sources of Artificial Variation across Studies, **Handbook of Research Synthesis**, Cooper, H and Hedges, L.V. (Eds), New York: Russell Sage Foundation, pp. 323-338

- Hunter, J.E and Schmidt, F.L. 2000. Fixed effects vs random effects meta-analysis Models: Implications for commulative knowledge in psychology. *International Journal of selection and assessment*, 8, 275-292.
- Hunter, J. E., and Schmidt, F. L. 2004. *Methods of meta-analysis: Correcting error and bias in research findings* (2nd Ed.). Newbury Park, GA: Sage.
- *Humborstad, S. 2012. Institutional effects of empowerment: A comparison between the Anglo-Saxon and Scandinavian contexts. *International Journal of Human Resource Management*, 23:11, 2221-2237.
- *Huselid, M. A. 1995. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38: 635-672.
- Huselid, M. A., Jackson, S. E .and Schuler, R. S. 1997. Technical and strategic human resources management effectiveness as determinants of firm performance. *Academy of Management Journal*, 40:171-188.
- *Iverson, R. D., and Zatzick, G. D. 2011. The effects of downsizing on labour productivity: The value of showing consideration for employees' morale and welfare in high-performance work systems. *Human Resource Management*, 50: 29-44.
- Jackson, S. E., Schuler, R. S., and Rivero, J. 1989. Organizational characteristics as predictors of personnel practices. *Personnel Psychology*, 42: 727-786.
- Joseph, D. (2015). Seminar workshop on meta-analysis, organised by the New Zealand work research council, management department of Auckland University of Technology (AUT), March 17-21.

- Jiang, K. Lepak, D., Hu, J and Bear, J. C. 2012. How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55: 6, 1264-1294.
- Jiang, K., Takeuchi, R. and Lepak, D. 2013. Where do we go from here? New perspective on the blackbox in strategic human resource management research. *Journal of Management Studies*, 50: 8.
- *Karatepe, O.M. 2013. High-performance work practices and hotel employee performance: The mediation of work engagement. *International Journal of Hospitality Management*, 32: 132-140.
- *Kalleberg, A. L., and Moody, J. W. 1994. Human resource management and organizational performance. *American Behavioural Scientist*, 37: 948-962.
- *Katou, A. A., and Budhwar, P. S. 2006. Human resource management systems and organizational performance: A test of a mediating model in the Greek manufacturing context. *International Journal of Human Resource Management*, 17: 1223-1253.
- *Katz, H. G., Kochan, T. A., and Weber, M. A. 1985. Assessing the effects of industrial relations systems and efforts to improve the quality of working life on Organizational effectiveness. *Academy of Management Journal*, 28: 509-526.
- *KazLauskaite, R., Buciuniene, I. and Turauskas, 2011. Organizational and psychological empowerment in the HRM-performance linkage. *Employee Relations*, 34:2, 138-158.
- *Kepes, S., Delery, J., and Gupta, N. 2009. Contingencies in the effects of pay range on organizational effectiveness. *Personnel Psychology*, 62: 497-531.
- *Khatri, N. 2000. Managing human resource for competitive advantage: A study of companies in Singapore. *International Journal of Human Resource Management*, 11: 336-365.

- *Kim, H., and Gong, Y. 2009. The roles of tacit knowledge and OGB in the relationship between group-based pay and firm performance. *Human Resource Management Journal*, 19: 120-139.
- Kim, S. and Wright, P. M 2011. Putting strategic human resource management in context: A contextualised model of high-commitment work systems and its implications in China. *Management and Organizational Review*, 7: 1, 153-174.
- *Kintana, M. L., Alonso, A. U., and Olaverri, G. G. 2006. High-performance work systems and firms' operational performance: The moderating role of technology. *International Journal of Human Resource Management*, 17: 70-85.
- *Kirkman, B. L., and Rosen, B. 1999. Beyond self-management: Antecedents and consequences of *team*, empowerment. *Academy of Management Journal*, 42:58-74.
- *Knies, E. and Leisink, P. 2014. Linking people management and extra-role behaviour: results of a longitudinal study. *Human Resource Management Journal*, 24: 1, 57-76.
- *Ko, J. and Hur, S. 2014. The impacts of employee benefits, procedural justice and managerial trustworthiness on work attitudes: Integrated understanding based on social exchange theory. *Public Administration Review*, 74:2, 176-187.
- Kogut, B. and Zander, U, 1992. Knowledge of the firm, combination, capabilities, and the replication of technology. *Organization Science*, 3: 383-397.
- *Lee, J., and Miller, D. 1999. People matter: Commitment to employees, strategy and performance in Korean firms. *Strategic Management Journal*, 20: 579-593.

- *Lee, M. B., and Ghee, Y. 1996. Business strategy, participative human resource management and organizational performance: The case of South Korea. *Asia Pacific Journal of Human Resources*, 34: 77-94.
- Lepak, D.P. and Snell, S.A. 2002. 'Examining the human resource architecture: the relationship among human capital, employment, and human resource configurations' *Journal of Management*, 28: 4,517-543
- Lepak, D. P., and Snell, S. A. 1999. The human resource architecture: Towards a theory of human capital allocation **and development**. *Academy of Management Review*, 24: 31-48.
- Lepak, D. P., Liao, H., Chung, Y., and Harden, E. E. 2006. A conceptual review of human resource management systems in strategic human resource management research. In J. J. Martocchio (Ed.), *Research in personnel and human resource management*, vol. 25: 217-271. Greenwich, CT: JAI.
- Lipsey, M. W., and Wilson, D. B. 2001. *Practical metaanalysis*. Thousand Oaks, CA: Sage.
- Lipsey, M. 1994. Identifying Potentially Interesting Variables and Analysis Opportunities. *Handbook of Research Synthesis*, Cooper, H and Hedges, L.V. (Eds), New York: Russell Sage Foundation, 111-123.
- *Li, J. 2003. Strategic human resource management and MNEs' performance in China. *International Journal of Human Resource Management*, 14: 157-173.
- *Li, X, Sanders, K. and Frenkel, S,. 2012. How leader-member exchange, work engagement and HRM consistency explain Chinese luxury hotel employees' performance. *International Journal of Hospitality Management*, 31: 1059-1066.

- *Li, Y. 2003. *The relationships between human resource management practices and perceptions of organizational performance based on 1996-1997 national organizations survey (NOS) data*. Unpublished doctoral dissertation, the Pennsylvania State University.
- *Liao, H., and Chuang, A. 2004. A multilevel investigation of factors influencing employee service performance and customer outcomes. *Academy of Management Journal*, 47: 41-58
- *Liao, H., Toya, K., Lepak, D. P., and Hong, Y. 2009. Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of Applied Psychology*, 94: 371-391.
- *Liao, Y. 2005. Business strategy and performance: The role of human resource management control. *Personnel Review*, 34: 294-384.
- *Liao, Y. 2011. The effect of human resource management control systems on the relationship between knowledge management strategy and firm performance. *International Journal of Manpower*, 32: 5/6, 494-511.
- *Lowville, J., and Bayad, M. 1998. Human resource management and performances: Proposition and test of a **causal model**. *Human Systems Management*, 17:183-192.
- Lawler, J., Chen, S. J., Wu, P., Bae, J., and Bai, B. 2011. High performance work system in foreign subsidiaries of American multinationals: An institutional model. *Journal of International Business Studies*, 42: 202–220.
- Lipsey, M. W., and Wilson, D. B. 2001. *Practical meta-analysis*. Thousand Oaks, CA: Sage.
- *Litz, R. A., and Stewart, A. C. 2000. Trade name franchise membership as a human resource management strategy: Does buying group training deliver "true" value for small retailers? *Entrepreneurship: Theory and Practice*, 25: 125-135.

- *Lopez-Cabrales, A., Perez-Luno, A., and Cabrera, R. V. 2009. Knowledge as a mediator between HRM practices and innovative activity. *Human Resource Management*, 48: 485-503.
- *Lui, S. S., Lau, C, and Ngo, H. 2004. Global convergence, human resources best practices, and firm performance: **A paradox.** *Management International Review*, 42: 67-86.
- *MacDuffie, J. P. 1995. Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto **industry.** *Industrial and Labour Relations Review*, 48: 197-221.
- Mandelson, B.M., Turner N, and Barling, J. (2011). Perception of the presence and effectiveness of high-involvement work system and their relationships to employees' attitudes *Personnel Review*, 40: 1, 45-69.
- *Mavondo, F. T., Chimhanzi, J., and Stewart, J. 2005. Learning orientation and market orientation: Relationship with innovation, human resource practices and performance . *European Journal of Marketing*, **39**: 1235-1263.
- *McClean, E., and Collins, C. J. 2011. High-commitment HR practices, employee effort, and firm performance: Investigating the effects of HR practices across employee groups within professional services firms. *Human Resource Management*, **50**: 341-363.
- *Miah, M. K., and Bird, A. 2007. The impact of culture on HRM styles and firm performance: Evidence from Japanese parents, Japanese subsidiaries/joint ventures and south Asian local companies. *International Journal of Human Resource Management*, 18: 908-923.
- Miles, R.E., and Snow, C.C. 1984. Designing Strategic Human Resources Systems. *Organizational Dynamics*, 12, 36–52.

- Milkovich, G.T. 1987. Compensation system in high technical companies. In D.B Baikin and L.R.. Gomez-Mejia (Eds.). *New Perspective on Compensation*. Englewood Cliffs, N.J: Prentice-Hall.
- *Minbaeva, D., Pedersen, T., Bjorkman, I. Fey, C. F., and Park, H. J. 2003. MNC knowledge transfer, subsidiary absorptive capacity, and HRM. *Journal of International Business Studies*, 34: 586-599.
- Mincer, J.1993. *Studies in the human capital*. New York: Columbia University Press.
- *Mitchell, R. Obeidat, S. and Bray, M. 2013. The effect strategic human resource management on organizational performance: The mediating role of high-performance human resource practices. *Human Resource Management*, 52:6, 899-921.
- *Moideenkutty, U., AL-Lamki, A. and Murthy, Y.S. 2011. HRM practices and organizational performance in Oman. *Personnel Review*, 40:2, 239-251.
- *Mansour, N. Gara, E. and Gaha, C. 2014. Getting inside the black-box: HR practices and firm performance within Tunisian financial services industry. *Personnel Review*, 43:4, 490-514.
- National Research Council (1992). *Combining information*: Statistical issues and opportunity for research. Washington D.C.National Academic Press.
- National Research Council (2002). *Scientific research in education*. Committee on Scientific Principles for Education Research. In R. J. Shavelson, and L. Towne (Eds.), Centre for Education. Division of Behavioural and Social Sciences and Education. Washington, DC: National Academy Press.

- *Neal, A., West, M. A., and Patterson, M. G. 2005. Do organizational climate and competitive strategy moderate the relationship between human resource management and productivity? *Journal of Management*, 31: 492-512.
- *Newman, A., Thanacoody, R. and Hui, W. 2011. The impact of employee perceptions of training on organizational commitment and turnover intentions: A study of multinationals in the Chinese service sector. *International Journal of Human Resource Management*, 22:8, 1764-1787.
- *Ngo, H., Lau, C, and Foley, S. 2008. Strategic human resource management, firm performance, and employee relations climate in China. *Human Resource Management*, 47: 73-90.
- *Ngo, H., Turban, D., Lau, C, and Lui, S. 1998. Human resource practices and firm performance of multinational corporations: Influences of country origin *International Journal of Human Resource Management*, 9: 632-652.
- Noble, C. H., Sinha, R. K., and Kumar, A. 2002. Market orientation and alternative strategic orientations: A longitudinal assessment of performance implications. *Journal of Marketing*, 66(4): 25–39.
- *Noble, D. S. 2000. *Human resource management strategy: The dual pursuit of employee involvement and workforce adaptability*. Unpublished doctoral dissertation, Wayne State University
- Nonaka. I and Takeuchi, H.1995. *The knowledge creating company*. New York: Oxford University Press.
- . *Nowicki, M. D. 2001. *Exploring the effect of a climate for service on the SHRM-firm performance relationship*. Unpublished doctoral dissertation, Cornell University.

- Nunnally J. C. 1978. *Psychometric theory*. New York: McGraw-Hill.
- Overton, R. C. 1998. A comparison of fixed-effects and mixed (random-effects) models for meta-analysis test of moderator variable effects. *Psychological Methods*, 3: 354-379.
- *Park, H. Mitsuhashi, H., Fey, C. F., and Bjorkman, I. 2003. The effect of human resource management practices on Japanese MNC subsidiary performance: A partial mediating model. *International Journal of Human Resource Management*, 14: 1391-1406.
- Patterson, M. G., West, M. A., and Wall, T. D. 2004. Integrated manufacturing, empowerment, and company performance. *Journal of Organizational Behaviour*, 25: 641-665.
- *Paul, A. K., and Anantharaman, R. N. 2003. Impact of people management practices on organizational performance: Analysis of a causal model. *International Journal of Human Resource Management*, 14: 1246-1266.
- *Perry-Smith. E., and Blum, T. C. 2000. Work-family human resource bundles and perceived organizational performance. *Academy of Management Journal*, 43: 1107-1117.
- Penrose, E.T. 1959. *The theory of growth of the firm*. London: Basil Black wood
- Pfeffer, J. 1994 *Competitive advantage through people*. Boston, MA: Harvard University Press.
- Pfeffer, J. 1998. *The human equation: Building profits by putting people first*. Cambridge, MA: Harvard University Press.
- Ployhart, R. E., and Moliterno, T. P. 2011. Emergence of the human capital resource: A multilevel model. *Academy of Management Review*, 35: 127-150.
- Purcell, J., Kinnie, N., Hutchinson, S., Swart, J. and Rayton, 2003. *Understanding the people and performance link: Unlocking the black box*. London: CIPD

- *Ramdani, B., Mullahi, K., Guermat, C and Kechad, R. 2014. The efficacy of high-performance work practices in the Middle East: Evidence from Algerian firms. *International Journal of Human Resource Management*, 25:2, 252-275.
- *Rodwell, J. J., and Teo, S. T. T. 2008. The influence of strategic HRM and sector on perceived performance in health services organizations. *International Journal of Human Resource Management*, 19: 1825-1841.
- *Rogg, K. L., Schmidt, D. B., Shull, C, and Schmitt, N. 2001. Human resource practices, organizational climate, and customer satisfaction. *Journal of Management*, 27: 431-449
- Rosenthal, R. and DiMatteo, M.R. (2001). Meta-Analysis: Recent Developments in Quantitative Methods for Literature Reviews. *Annual Review of Psychology*, 52, 59-82.
- Rosenthal, R. 1994. Parametric measures of effect sizes. In H. Cooper and L.V. Hedges (Eds). Handbook of research synthesis, pp.231-244. New York: Sage.
- Rosenthal, R. 1991. Meta-analytic procedures for social research (2ed). Newbury Park, CA: Sage.
- Rosenthal, R. 1985. Writing meta-analytic reviews. Psychological Bulletin, 118: 2,183-192.
- Rosenthal R. 1984. *Meta-analytic Procedures for Social Research*. Sage: Beverly Hills, CA.
- Rosenthal R, 1978. Issues in summarizing the first 345 studies of interpersonal expectancy effects. *Behavioural and Brain Sciences*, 3,410415
- *Russell, J. S., Terborg, J. R., and Powers, M. L. 1985. Organizational performance and organizational level training and support. *Personnel Psychology*, 38: 849-863

- *Scheible, A. and Bastos, A. 2013. An examination of human resource practices' influence on organizational commitment and entrenchment. *Brazilian Administration Review*, 10:1, 57-76.
- *Schreurs, B., Guenter, H., Schumacher, D., Van Emmerik, I.J. and Notelaers, G. 2013. Pay-level satisfaction and employee outcomes: The moderating effect of employee involvement climate. *Human Resource Management*, 52:3, 399-421.
- *Selden, S., Schimmoeller, L. and Thompson, R. 2013. The influence of high-performance work systems on voluntary turnover of new hires in the USA state governments. *Personnel Review*, 42:3, 300-323.
- *Shaw, J. D., Delery, J. E., Jenkins, G. D., Jr., and Gupta, N. 1998. An organization-level analysis of voluntary and involuntary turnover. *Academy of Management Journal*, 41: 511-525.
- *Shaw, J. D., Dineen, B. R., Fang, R., and Vellella, R. E. 2009. Employee-organization exchange relationships, HRM practices, and quit rates of good and poor performers. *Academy of Management Journal*, 52: 1016-1033.
- *Shaw, J. D., Gupta, N., and Delery, J. E. 2005. Alternative conceptualizations of the relationship between voluntary turnover and organizational performance. *Academy of Management Journal*, 48: 50-68.
- Shaw, J. D., Park, T.Y. and Kim, E. 2013. A resource based perspective on human capital losses, HRM investments and organizational performance. *Strategic Management Journal*, 34: 572-589.

- *Shih, E. 2014. Unions and adoption of high-performance work systems in Korea: Moderating roles of firms' competitive strategies. *The International Journal of Human Resource Management*, 25:13, 1858-1880.
- *Shih, H., Ghiang, Y., and Hsu, C. 2006. Can high performance work systems really lead to better performance? *International Journal of Manpower*, 27: 741-763.
- Siemens, E., Roth, A. V., and Balasubramanian, S. 2008. How motivation, opportunity, and ability drive knowledge sharing: The constraining factor model. *Journal of Operations Management*, 26, 426–445.
- * Singh, K. 2004. Impact of HR practices on perceived firm performance in India . *Asia Pacific Journal of Human Resources*, 42: 301-317.
- *Skaggs, B. C. and Youndt, M. 2004. Strategic positioning, human capital, and performance in service organizations: A customer interaction approach. *Strategic Management Journal*, 25: 85-99.
- Schmidt, F. 2008. Meta-analysis: A constantly evolving research integration tool. *Organizational Research Methods*, 11: 1, 96-113.
- *Snell, S. A., and Youndt, M. A. 1995. Human resource management and firm performance: Testing a contingency model of executive controls. *Journal of Management*, 21: 711-737.
- Snell, S. A., and Dean, J. W., Jr. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, 35, 467–504.

- *Spognoli, P. and Caetano, A. 2012. Personality and organizational commitment: The mediating role of job satisfaction during socialization. *Career Development International*, 17: 3, 255-275.
- *Stavros, E. T. 2005. Flexible work bundles and organizational competitiveness: A cross-national study of the European work context. *Journal of Organizational Behaviour*, 26: 923-947.
- *Steingruber, W. G. 1996. *Strategic international human resource management: An analysis of the relationship between international strategic positioning and the degree of integrated strategic human resource management*. Unpublished doctoral dissertation. University of North Texas.
- Storey, J., (1995b). *Human resource management: Still marching on, or marching out?* In Story, J. (Ed.), Human Resource Management: A critical text, Routledge, London
- *Stup, R. E. 2006. *Human resource management, organizational commitment, and perceived organizational support in dairy farm businesses*. Unpublished doctoral dissertation, the Pennsylvania State University.
- *Subramony, M., Krause, N., Norton, J., and Burns, G. N. 2008. The relationship between human resource investments and organizational performance: A firm level examination of equilibrium theory. *Journal of Applied Psychology*, 93: 778-788.
- *Sim, L. Y., Aryee, S., and Law, K. S. 2007. High performance human resource practices, citizenship behaviour, and organizational performance: A relational perspective. *Academy of Management Journal*, 50:558-577

- Sun, L., Aryee, S., and Law, K. E. 2007. High performance human resource practices, citizenship behaviour, and organizational performance: A relational perspective. *Academy of Management Journal*, 50, 558–577
- Tabiu, A and Nura, A. 2013. Assessing the effects of human resource management practices on employees' job performance: A study of Usmanu Danfodiyo University Sokoto. *Journal of Business Studies Quarterly*, 5: 2.
- *Takeuchi, R., Lepak, D. P., Wang, H., and Takeuchi, K. 2007. An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *Journal of Applied Psychology*, 92: 1069-1083.
- Terpstra, D. E., and Rozzell, E. J. 1993. The relationship of staffing practices to organizational level measures of performance. *Personnel Psychology*, 46: 27-48.
- Teo, S.T.T. 2002. 'Effectiveness of a corporate HR department in an Australian public sector entity during commercialization and corporatization'. *International Journal of Human Resource Management*, 13:1, 89-105.
- *Teo, S.T.T., LeClerc, M. and Galang, M, C. 2011. Human capital enhancing HRM systems and frontline employees in Australian manufacturing SMEs. *The International Journal of Human Resource Management*, 22:12, 2522-2538.
- *Teo, S.T.T., Reed, K.K. and Ly, K. 2014. Human resource involvement in developing intellectual capital. *The Service Industries Journal*.
- Truss, C., Gratton, L., Hope-Hailey, V., McGovern, P. and Stiles, P. 1997. Soft and hard models of Human Resource Management: A reappraisal. *Journal of Management Studies*, 34,1: 53-73

- *Tzafrir, S. S. 2005a. A universalistic perspective for explaining the relationship between HRM practices and firm performance at different points in time. *Journal of Managerial Psychology*, 21: 109-130.
- *Tzafrir, S. S. 2005b. The relationship between trust, HRM practices and firm performance. *International Journal of Human Resource Management*, 16:1600-1622.
- *Veld, M., Paauwe, J., and Boselie, P. 2010. HRM and strategic climates in hospitals: Does the message come across at the ward level? *Human Resource Management Journal*, 20: 339-356.
- Viswesvaran, C, and Ones, D. S. 1995. Theory testing: Combining psychometric meta-analysis and structural equations modelling. *Personnel Psychology*, 48: 865-885.
- *Vlachos, I. 2008. The effect of human resource practices on organizational performance: Evidence from Greece. *International Journal of Human Resource Management*, 19: 74-97.
- *Way, S. A. 2002. High performance work systems and intermediate indicators of firm performance within the US small business sector. *Journal of Management*, 28: 765-785.
- *Wang, D., and Chen, S. 2013. Does intellectual capital matter? High-performance work system and bilateral innovative capabilities. *International Journal of Manpower*, 34:8, 861-879.
- *Welbourne, T. M., and Andrews, A. O. 1996. Predicting the performance of initial public offerings: Should human resource management be in the equation? *Academy of Management Journal*, 39: 891-919.
- Wilkinson, A. 1990. *Business Strategy and the management of Labour*.
University of Durham PhD.

- * White, J. E. 1998. *Implementation and effect of high performance work practices in nuclear power plants*. Unpublished doctoral dissertation, the Pennsylvania State University.
- *Whitener, E. M. 2001. Do "high commitment" human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modelling. *Journal of Management*, 27: 515-535.
- *Wood, S., Holman, D., and Stride, C. 2006. Human resource management and performance in UK call centres. *British Journal of Industrial Relations*, 44: 99-124.
- Wood, S. 1999. Human resource management and performance. *International Journal of Management Reviews*, 1:4,367-413.
- Wright, P. M., Dunford, B. B., and Snell, S. A. 2001,. Human resources and the resource based view of the firm. *Journal of Management*, 27, 701–721.
- Wright, P. M., and Boswell, W. R. 2002. Desegregating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management*, 28: 247-276.
- Wright, P. M., and Gardner, T. M. 2003. The human resource-firm performance relationship: Methodological and theoretical challenges. In D. Holman, T. D.Wall, G. W. Glegg, Sparrow, and A. Howard (Eds.). *The new workplace: A guide to the human impact of modem working practices*: 311-328. Chichester, U.K.: Wiley.
- * Wright, P. M., Gardner, T. M., Moynihan, L. M., and Allen, M. R. 2005. The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology*, 58: 409-446.

- *Wright, P. M., McGormack, B., Sherman, W. S., and McMahan, G. G. 1999. The role of human resource practices in petro-chemical refinery performance. *International Journal of Human Resource Management*, 10: 551-571.
- Wright, P. M., and McMahan, G. G. 1994. Human resource as a source of sustained competitive advantage: A resource-based view. *International Journal of Human Resource Management*, 5: 299-324.
- Wright, P. M., and McMahan, G. G. 1992. Theoretical perspectives for strategic human resource management. *Journal of Management*, 18: 295-320.
- Wright, P.M., McMahan, G.C., McCormick, B., and Sherman, W.S. 1998. Strategy, Core Competence and HR Involvement as Determinants of the HR Effectiveness and Refinery Performance,' *Human Resource Management*, 37, 17–29.
- *Yang, G., and Lin, G. Y. 2009. Does intellectual capital mediate the relationship between HRM and organizational performance? Perspective of a healthcare industry in Taiwan. *International Journal of Human Resource Management*, 20: 1965-1984.
- *Yeh, Y.P. 2014. Exploring the impacts of employee advocacy on job satisfaction and organizational commitment: A case of Taiwanese airlines. *Journal of Air Transport Management*, 36: 94-100
- *Youndt, M. A., and Snell, S. A. 2004. Human resource configurations, intellectual capital, and organizational performance. *Journal of Managerial Issues*, 16: 337-360.
- Youndt, M. A., Subramaniam, M., and Snell, S. A. 2004. Intellectual capital profiles: An examination of investments and returns. *Journal of Management Studies*, 41: 335-361

Youndt, M. A., Snell, S. A., Dean, J. W., and Lepak, D. W. 1996. Human resource management manufacturing strategy, and firm performance.

Academy of Management Journal 39: 836-865

*Youndt, M. 1997. ***Human resource management systems, intellectual capital, and organizational performance***. Unpublished doctoral dissertation, the Pennsylvania State University.

*Zacharatos, A., Barling, J., and Iverson, R. D. 2005. High performance work systems and occupational safety. ***Journal of Applied Psychology***, 90: 77-93.

*Zhu, W., Ghew, L K. H., and Spangler, W. D. 2005. GEO transformational leadership and organizational outcomes: The mediating role of human-capital-enhancing human resource management. ***Leadership Quarterly***, 16: 39-52.

*Zhu, C.J., Cooper, B.K., Thompson, S.B., Decieri, H. and Zhao, S. 2013. Strategic integration of HRM and firm performance in a changing environment in China: the impact of organizational effectiveness as a mediator. ***The International Journal of Human Resource Management***, 24:15, 2985-3001.

APPENDIX

Primary Studies Included in the Meta-analysis

Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Ahmad and Schroeder (2003)	Selective hiring, extensive training	Compensation contingent on performance, employment security	Team and decentralization, sharing information			Organizational commitment		Overall operational performance	
Akhtar, Ding and Ce (2008)	Training	Employment security, results oriented appraisal, internal career opportunities, profit sharing	Participation, job description					Product/service performance	Overall financial performance
Appleyard and Brown (2001)	Training		Team participation					labor productivity	
Annstrong, Flood, Cuthrie, Liu, MacCurtain, and Mkamwa (2010)							Voluntary turnover	Productivity, innovation	
Arthur (1994)							Voluntary turnover	Productivity	
Audea, Teo, and Crawford (2005)	Staffing, trainmg	Appraisal, Compensation.	Job function	-Management skills --Technical. skills	-Strategic integration	Industrial relations		Total performance	
Barksdale (1994)		Career enhancement practices	Work-family assistance practices			Organizational climate	Voluntary turnover		Return on invested assets, return on equity

Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Bartram, Stanton, Leggat Casimir, and Fraser (2007)	Recruitment, training	Performance management	HR planning. participation				Voluntary turnover		
Batt (2002)		HR incentive index	Work design Index	Job skill level			Quit rate		Percent change in sales
Batt, Colvin, and Keefe (2002)	Training	Variable pay. pay to cost of living	Problem solving groups, self-directed teams				Quit rate		
Batt and Colvin (2011)	Initial Training. selection Ratio. systemic selection procedures	Internal mobility opportunities, relative pay pensions	Problem solving groups, self-directed teams	Average education			Quit rate	Customer satisfaction	
Beltran-Martin, Roca-Puig, Escrig-Tena, and Bou-Llusar (2008)	Selective staffing, comprehensive training	Developmental performance appraisal, equitable rewards system		Skills				Customer service	
Brown, Sturman, and Simmering (2003)		Compensation							Returns on assets
Cahello-Medina, Lopez-Cabrales, & Valle-Cabrera (2011)	Selection	Incentives on compensation. career development	Empowerment	Human capital				Innovative performance	
Chan, Shaffer, and Snape (2004)	HR skill index	HR motivation index						Overall operational performance	Market performance

Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Chandler and McEvoy (2000)	Training hours	Outcome based pay			TQM				Firm earnings
Chen and Huang (2009)	Staffing, training	Performance Appraisal. compensation	Participation					Innovation	
Chuang and Liao (2010)	Staffing, training	Performance. compensation, caring	Involvement	Customer knowledge	Helping behaviour			Service performance	Market Performances
Collins and Smith (2006)					Climate for trust. cooperation				Sale growth, revenue
Collins, Smith, and Stevens (2001)	Acquisition Practices. development practices	Commitment building practices	Networking Practices	Years of education and experience	Employee motivation				
Colvin, Batt, and Keefe (2005)	Variable pay. internal Promotion. average pay	Problem solving Groups. Self-directed teams	Average education			Quit rate	Discipline rate		
Chow et al (2013)					Strategic orientation			Firm performance	
Datta, Cuthrie, and Wright (2005)								Productivity	Sales Growth
De Winne and Sels (2010)	Selection, training	Group-based appraisal and performance	Participation	Percentage of highly educated employees				Innovation	
Delaney and Huselid (1996)	Staffing Selectivity. training	Incentive Compensation. internal labor market	Grievance Procedure. Decentralized decision Making						Perceived market performance

Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Delery and Doty (1996)	Training	Appraisals, job Security. career opportunities, profit sharing	Participation					Innovation	Return on assets, return on equity
Delery, Gupta, Shaw, Jenkins, and Canster (2000)		Pay and benefits	Voice mechanisms				Quit rate		
Den Hartog and Verbürg (2004)	Employee skills and direction	Pay-for performance. profit sharing, profit Sharing. performance evaluation	Autonomy, information sharing meetings				Voluntary turnover	Overall operational performance	Economic outcome
Ericksen (2006)			Workforce alignment				Voluntary tumover		Sales growth
Faems, Sels, De Winne, and Maes (2005)	Selection, training	Career Management. Compensation. performance management	Participation				Voluntary tumover	Productivity	Value added
Fey and Bjorkman (2001)	Training and development	Pay and performance appraisal	Information sharing and complaint resolution						Overall financial performance
Fey, Bjorkman, and Pavlovskaya (2000)	Training	Performance based Compensation job. Security. career	Decentralization, complaint resolution						Overall financial performance

		Planning. salary level							
Study	Skill-enhancing HR-Practices	Motivation- enhancing HR- Practices	Opportunity- enhancing HR- Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Gardner, Wright, and Moynihan, (2011)	Skill HR practices	Motivation HR practices	Empowerment HR practices	Education level	Affective commitment	Voluntary turnover			
Gelade and Ivery (2003)	Staffing, professional development		Job design		General climate	Staff retention		Customer Satisfaction. clerical accuracy	Overall financial performance
Gerhart and Milkovich (1990)		Pay and incentive		Education, experience					Return on assets, sale
Chebregiorgis and Karsten (2007)	Recruitment, Selection. Training. development	Compensation					Voluntary turnover	Productivity	
Gibson, Porath, Benson, and Lawler (2007)			Team, information Sharing. boundary setting					Customer Service. quality	Overall financial performance
Gong, Chang, and Chueng (2010)	Selective Hiring. extensive training	Pay contingent on Performance. career Planning. performance appraisal	Participation in decision making		Collective affective Commitment. collective organizational citizenship behaviour				

Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Gong, Law, Chang, and Xin (2009)	Selective Hiring. extensive training	Employment Security. pay contingent on Performance. career Development. performance appraisal	Participation in decision making			Affective commitment			Overall financial performance
Guerrero and Barraud-Didier (2004)	Training	Performance-based compensation, stock, benefit	Teamwork, information sharing			Work Climate		Productivity and service quality	Profitability
Guest, Michie,, Conway, and Sheehan (2003)							Voluntary turnover	Labor productivity, quality of goods and service	Profitability, Tobin's Q, return on investment
Guthrie (2001) Harel and Tzafrir (1999)	Recruitment, selection, training	Incentive compensation, internal labor market	Participation, grievance procedure				Retention rate	Productivity Overall operational performance	Market performance
Harrell-Cook (1999)							Voluntary turnover	Productivity	Return on assets, return on equity, return on sales
Hatch and Dyer (2004)	Screening test, training		Team involvement				Voluntary turnover		

Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Heff^eman, Harney, CañeTkey, and Dundon (2009)						Organizational Climate.	Volunteer turnover	Innovation	Overall financial performance
Hong (2009)				Human capital				Room occupancy	Revenue, gross operating profit
Huselid (1995)	Employee skills practices	Employee motivation practices					Voluntary turnover	Productivity	Tobin's Q, return on assets, sales growth
Iverson and Zatzick (2011)						Employee morale		labour productivity	
Kalleberg and Moody (1994)	Training	Compensation	Decentralization			Employee relations	Employee retention	Product, service	Market
Katou and Budhwar (2006)	Recruitment, selection, training and development	Reward and relations			Skills	Attitudes	Voluntary turnover		Overall financial performance
Katz, Kochan, and Weher (1985)			Participation in suggestion programs			Employee attitudes		Labour efficiency, quality of product	
Kepes, Delery. and Gupta (2009)		Performance based Pay level						Accident frequency ratio, out of-service percentage, operating ratio	Return on equity

Study	Skill-enhancing HR-Practices	Motivation- enhancing HR- Practices	Opportunity- enhancing HR- Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Khatiri (2000)	Structured interviews, employment Tests. training	Benefits, performance- based compensation performance appraisal	Employee participation HR Planning					Non-financial performance	Profitability, sales growth
Kim and Gons (2009)		Group-based pay		Tacit knowledge	Organizational citizenship behaviour				Tobin's Q, return on assets
Kintana, Alonso, and Olaverri (2006)	Staffing, training	Pay level. Security. incentive	Job rotation. Team. communication					Overall operational performance	
Kirkman and Rosen (1999)					Job satisfaction, organizational commitment			Productivity, customer service	
Lee and Chee (1996)	Selection, training	Incentive pay. pay contingent upon performance	Information Flow. information change, involvement						Return on equity, return on assets, value added, sales growth rate
Lee and Miller (1999)	Training and education	Compensation, profit sharing							Return on assets
Lui, Lau & Ngo 2004	Selection	-Compensation -Career develop.	Employee development		Strategic HR Orientation			Firm performance	
J. Li (2003)	Staffing, training	Group Incentive. internal labor market	Job Enrichment. grievance procedure					Overall operational performance	Market performance

Y. Li (2003)		Average salary		Proportion of university graduates			Voluntary turnover		Return on assets, sale per employee
Study	Skill-enhancing HR-Practices	Motivation-enhancing HR-Practices	Opportunity-enhancing HR-Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Liao 2011					Strategic orientation			Firm performance	
Liao (2005)	Staffing, training and development	Performance Appraisal. rewards contingent upon performance							Overall financial performance
Liao and Chuang (2004)	Training	Performance incentives	Employee involvement			Service climate		Service Performance. service Quality. customer satisfaction and loyalty	
Liao, Toya, Lepak, and Hong (2009)				Human capital		Empowerment, extrinsic motivation, POS		Customer satisfaction	
Liouville and Bayad (1998)						Social performance		Overall operational performance	Economic performance
Litz and Stewart (2000)	Training							Productivity	
Lopez Cabrales, Perez-Luno, and Cabrera (2009)	Knowledge based practices		Collaborative practices					Innovation	
MacDuffie (1995)			Work systems Index					Labour productivity, quality	

Study	Skill-enhancing HR-Practices	Motivation- enhancing HR- Practices	Opportunity- enhancing HR- Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Mavondo, Chimhanzi, and Stewart (2005)								Innovation, operating efficiency	Marketing effectiveness, financial performance
McClellan and Collins (2011)						Employee effort		Overall operational performance	
Miah and Bird (2007)	Hiring, training and Development.					Organizational climate	Voluntary turnover		Growth rate
Minbaeva, Pedersen Bjorkman, Fey, and Park (2003)	Training	Performance appraisal, promotion, performance- based compensation	Communication	Employees' ability	Employees' motivation				
Neal, West, and Patterson (2005)						Organizational climate		Productivity	
Ngo, Lau, and Foley (2008)						Employee relations climate		Overall operational performance	Overall financial performance Sales, net profit
Ngo, Turban, Lau, and Lui (1998)	Structural training and development	Compensation				Employee satisfaction	Employee retention		Sales, net profit
Noble (2000)		Performance based pay, job security	Teams, consultation			Commitment		Productivity	
Nowicki		Pay and	Communication,			job satisfaction	Voluntary		Revenue

(2001)		benefit, performance evaluation	suggestions for improvement				turnover		
Study	Skill-enhancing HR-Practices	Motivation- enhancing HR- Practices	Opportunity- enhancing HR- Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Park, Mitsuhashi, Fey, and Bjorkman (2003)				Employee still		Attitudes, Motivation			
Patterson, West, and Wall (2004)	Skill enhancement		Job Enrichment		TQM JIT			Productivity	Profit
Paul and Anantharaman (2003)	Selection, training	Performance appraisal, compensation, career development, employee ownership	Job design, Teamwork	Competence	Organizational commitment	Employee retention		Productivity, Quality. speed delivery	Financial performance
Perry-Smith andülum (2000)	Staffing Selectivity. training effectiveness	Incentive Compensation. benefits	Grievance Procedures. decentralized decision making						Market performance, profit-sales growtb
Rodwell and Teo (2008)	Selective Staffing. comprehensive training	Performance appraisal				Organization's commitment to employees			Market performance
Rogg, Schmidt, Shull & Schmitt, 2001	Training, Hiring. testing	Performance review	Job Description			Employee commitment		Customer service	
Russell, Terborg, and Powers (1985)	Training							Productivity	
Shaw, Delery, Jenkins, and^	Training, selection	Average pay, Benefits.	Electric Monitoring				Quit rates		

(19S6) White (1998)		Organization based rewards							
Whitener (2001)	Staffing, training	Appraisal, rewards				Perceived organizational support, trust, organizational commitment			
Study	Skill-enhancing HR-Practices	Motivation- enhancing HR- Practices	Opportunity- enhancing HR- Practices	Human Capital	Strategic Orientation	Employee Motivation	Turnover	Operational Performance	Financial Performance
Wood, Holman, and Stride (2006)	Selection Tests. Training	Performance Appraisal. internal - career opportunity	Work design. Teams. flexible work				Employee quitting, unauthorized absence	Productivity, customer satisfaction	
Wright, Gardner, Mowday, and Allen (2005)						Commitment		Productivity, quality	Profitability
Wright, McGormack, Sherman, and McMahon (1999)	Selection, training	Compensation, appraisal	Participation	Employee skills		Employee motivation			Overall financial performance
Yang & Lin (2009)	Recruiting and Selection. training and development	Performance Appraisal. compensation		Human capital				Overall operational performance	
Youndt (1997)				Human capital					Returns, sales growth
Youndt and Snell (2004)	Acquisition HR Practices. development HR Practices.		Egalitarian HR Practices. documentation HR practices	Human Capital					Returns, sales growth Overall financial performance
Zacharatos, Barling, and Iverson (2005)	Selective Hiring. training	Employment Security. contingent compensation	Teams, information sharing, job quality						

Zhu, Chew, and Spangler (2005)	Selection, training	Compensation	Planning						Sales
--------------------------------------	------------------------	--------------	----------	--	--	--	--	--	-------

Study	Skill enhancing HR practicing	Motivation enhancing HR practice	Opportunity enhancing HR practice	Human capital	Strategic orientation	Employee motivation	Turnover	Operational outcomes	Financial outcomes
Teo, Le clerc & Galang (2011)	Staffing Training	Performance appraisal compensation			Original capability Different strategy Cost leadership			Employee performance Manufacturing performance	
Teo, Reed & Ly 2014				Intellectual capital	Strategic HR orientation			Firm performance	
Andreeva Kianto (2012)	HRM for KM (knowledge creation)	HRM for KM (Reward)	HRM for KM (knowledge sharing)					competitiveness	Financial performance
Abute yeh & Al – Qutewneh (2012)	Selection Training	Performance appraisal Compensation Career Management	Job analysis Job involvement						
Berman et al (2013)		Work ethic Follower ship Group belonging	Empowerment Openness		Performance strategies			Manager expectation	
Bos- Nehles et al (2013)	Competence	Desire	Capacity support	Education Experience				HRM Implementation Effectiveness Policy and procedures	
Boxall et al (2011)	Training	Supervisory style Management style Career development	Empowerment	Education		Affective commitment Compliance behaviour		Employee performance	

						Customer oriented behaviour			
Callier (2013)	Satisfaction with training	Work life benefits Satisfaction with pay	Role ambiguity Empowerment work load			Original commitment Job involvement			
Study	Skill enhancing HR practicing	Motivation enhancing HR practice	Opportunity enhancing HR practice	Human capital	Strategic orientation	Employee motivation	Turnover	Operational outcomes	Financial outcomes
Chiang et al (2011) HC HRM & knowledge sharing	High commitment HRM Selective training Comprehensive training	Department appraisal Compleitive compensation				Perceived organal support Orgnal trust Organal commitment		Knowledge sharing behaviour	
Cho & Lewis (2012)	Hiring Training	Rewards Performance appraisal	Grievance procedure			Intrinsic motivation	turnover intension		
Chiang & Hsieh (2012)			Psychological empowerment			Orgnal citizenship behaviour Perceived organizational support		Job performance	
Furlan et al (2011)	Training (HRM) For multiple function		Team work Communication		JIT TQM	Organizational structure Process improvement		Operational performance	
Giauque et al. (2013)		HP HRM practice Job security Performance pay	Fairness Job enrichment Participation Employee development			Public service motivation Original commitment		Perceived orgnal efficiency	

		Individual appraisal							
Gill & Meyer (2013)			Employee empowerment			Employee Relation Voice Security			
Study	Skill enhancing HR practicing	Motivation enhancing HR practice	Opportunity enhancing HR practice	Human capital	Strategic orientation	Employee motivation	Turnover	Operational outcomes	Financial outcomes
Kazlauskaite et al (2011)			Original empowerment (bundle of HR practice)			Psychological empowerment Affective commitment Job satisfaction			
Kenneth Harris et al (2009)			Empowerment LMX			Original citizenship behaviour Job satisfaction	Turnover intention	Job performance	
Knies & leisure (2014)	Training department	Compensation Benefits	Supportive HR practices	Ability		Commitment Autonomy Extra sole behaviour			
KO & Hur (2014)		Benefits	Procedural justice Goal clarity			Job satisfaction Performance oriented culture Managerial trust	Turnover intention	Diversity management	
Xiaobei, Li et al (2012)	Training	Internal promotion Performance oriented reward	LMX Participation			Work engagement HRM consistency		Job performance	
Liao (2011) Effects & HRM control system					Codification strategy			Firm performance	

					Personalization strategy			(objective & subjective measures	
Study	Skill enhancing HR practicing	Motivation enhancing HR practice	Opportunity enhancing HR practice	Human capital	Strategic orientation	Employee motivation	Turnover	Operational outcomes	Financial outcomes
Mitchel et al (2013)	Staffing Recruitment Selection Training & development	Performance management Compensation	Communication Participation Development		Strategic HR role				Financial performance ROE Sales growth Profitability
Moideen kutty et al (2011)	Selective staffing Extensive training	Performance management	Empowerment					Original performance Mkt to book value Subjective performance	
Newman et al (2011)	Training availability	Motivation to learn Perceived benefits of training	Perceived co-worker support Perceived supervisor support			Affective commitment Continuance commitment	Turnover intentions		
Nizour monsour et al (2014)	Selective hiring Extensive training	Performance management Merit based pay	Flexible work design	Human capital		Original commitment		Perceived original performance	
Osman (2013)	Training	Rewards	Empowerment			Work engagement Dedication Absorption Vigor		Job performance Extra role Customer service	
Ramdani et al (2014)	Training	Compensation Performance appraisal Promotions	Empowerment					Employee performance	Financial performance
Ramudu et al (2013)	Recruitment selection	Performance appraisal							

	Training development	Rewards & benefits							
Seheible & bastos (2013)	Training & development	Compensation & benefits	Job stability			Affective original commitment Original enrichment			
Study	Skill enhancing HR practicing	Motivation enhancing HR practice	Opportunity enhancing HR practice	Human capital	Strategic orientation	Employee motivation	Turnover	Operational outcomes	Financial outcomes
Schreus et al (2013)		Pay level satisfaction	Information Sharing participation in decision making			Affective commitment Job satisfaction	Turnover intention		
Seldan & Lee (2013)	Recruitment & selection Training & development	Performance appraisal Compensation	Information sharing				Turnover		
Shin (2014)	Selective selection Intensive training	Performance appraisal & feedback Pay for performance	Employee involvement		Differentiation strategy	Union Density			Profit Sales
Spagnoli & caetano (2012)			Openness to experience Satisfaction with HRM practices	Personality Extroversion Consciousness Neuroticism		Original commitment Affective Normative Job satisfaction			
Renaud et al.(2015)	Training & devpt	Compensation			Innovation		Retention		
Ratti & Lee (2015)				Education level		Affective commitment	Turnover		
Mansour et al.(2014)				Human capital		Organizational commitment			
Gomez-Cedeno et al.(2014)	Training & devept	Compensation						Organizational performance	
Wang & Chen (2013)	Staffing Training	Rewards	Teamwork	Human capital Social capital	Incremental				

			Employee participation	Original capital	Innovative capabilities				
Ying-pin yeh (2014)			Employee advocacy Empowerment Support			Job satisfaction Commitment		Original innovation	