RELATIONSHIP BETWEEN WORK PERFORMANCE SYSTEM AND INSTITUTIONAL PERFORMANCE IN THE CONTEXT OF STRATEGIC HUMAN RESOURCE MANAGEMENT IN MINISTRY OF EDUCATION OMAN

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THESIS SUBMITTED IN FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

INSTITUTE OF GRADUATE STUDIES
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KUALA LUMPUR

2016

ABSTRACT

Many studies have suggested that strategic management in human resource practices has an enormous effect on institutional performance. The work performance system in strategic human resource management is believed to be multidimensional and it is empirically shown to be crucial to employee's performance. Hence, this study investigated the relationship between work performance system which includes staffing, training, involvement, compensation, performance appraisal, and caring in institutions performance of higher learning in the Sultanate of Oman. The study also examined the effects of mediator variables such as concern for customers, concern for employees, helping behavior, customer knowledge and service performance on institutional performance. A total of 531 general managers, assistant general managers and other high ranking administrators were randomly selected from the Ministry of Education of Oman. The instrument of this study contained 88 items and was constructed to assess work performance system, mediator variables and institutional performance respectively. Hypothesized relationships between work performance system, institutional performance and their mediators were then tested by using Structural Equation Modeling. Results of the analysis revealed that work performance system is significantly and positively related to the institutional performance. Moreover, the results also showed that mediator variables such as concern for employees, concern for customers, helping behavior, and service performance play a significant role in mediating between work performance system and institutional performance. This study found that concern for customers and concern for employees affect employees' helping behavior and service performance respectively which consequently promote institutional performance. It was also found that customers' knowledge indirectly affect institutional performance through its impact on service performance. Therefore, the

mediation model of this present study can be used to holistically comprehend how strategic human resource management could be implemented in enhancing human resource management in Oman. Finally, the findings of this study suggested that the four mediated variables are effectively mediating between work performance system and institutional performance in human resource management.

ABSTRAK

Banyak kajian telah mencadangkan bahawa pengurusan strategik dalam amalan sumber manusia mempunyai kesan yang ketara ke atas prestasi organisasi. Sistem kerja berprestasi tinggi dalam pengurusan strategik dipercayai adalah multidimensi dan ia secara empirik menunjukkan bahawa ia adalah penting kepada prestasi pekerja. Oleh itu, kajian tinjauan ini menyiasat hubungan antara sistem kerja berprestasi tinggi, termasuk pengambilan kakitangan, latihan, penglibatan, pampasan, penilaian prestasi, keprihatinan and prestasi institusi di institusi pengajian tinggi di Kesultanan Oman. Kajian ini juga mengkaji kesan pemboleh ubah pengantara seperti mengambil berat terhadap pelanggan, prihatin terhadap pekerja, sikap ingin membantu, pengetahuan pelanggan, dan prestasi perkhidmatan ke atas prestasi institusi. Sejumlah 531 pengurus besar, penolong pengurus besar dan pentadbir tinggi yang lain telah dipilih secara rawak daripada Kementerian Pelajaran Oman. Instrumen kajian ini mengandungi 89 item yang direka bentuk khas untuk menilai sistem kerja berprestasi tinggi, pemboleh ubah pengantara dan prestasi institusi. Hubungan yang di hipotesis kan antara sistem kerja berprestasi tinggi, prestasi institusi dan pengantara mereka kemudian diuji dengan menggunakan pemodelan persamaan berstruktur (SEM). Keputusan analisis menunjukkan bahawa hubungan antara sistem kerja berprestasi tinggi dan prestasi institusi adalah signifikan dan positif. Selain itu, keputusan juga menunjukkan bahawa pemboleh ubah pengantara, prihatin terhadap pekerja, ambil berat terhadap pelanggan, sikap ingin menolong dan prestasi perkhidmatan memainkan peranan penting dalam menjadi pengantara antara sistem kerja berprestasi tinggi dan prestasi institusi. Kajian ini mendapati bahawa ambil berat terhadap pelanggan dan keprihatinan terhadap pekerja mempengaruhi sikap ingin membantu pekerja dan prestasi khidmat yang seterusnya meningkatkan prestasi institusi. Juga didapati bahawa pengetahuan pelanggan secara

tidak langsung memberi kesan kepada prestasi institusi melalui kesannya terhadap prestasi perkhidmatan. Oleh itu, model pengantaraan kajian ini boleh digunakan secara holistik untuk meningkatkan kefahaman cara mana pengurusan sumber manusia strategik boleh dilaksanakan ke arah meningkatkan pengurusan sumber manusia di Oman. Akhir sekali, hasil kajian ini menunjukkan bahawa lima pemboleh ubah pengantara adalah berkesan sebagai pengantara antara sistem kerja berprestasi tinggi dan prestasi institusi dalam pengurusan sumber manusia.

ACKNOWLEDGEMENT

First of all, I would prefer to thank Allah (SWT), who has blessed me always and endowed me with the determination to obtain goals in my life. Besides this, I would also like to express my gratitude to my honorable and humble supervisors, namely, Professor Dr. Chua Yan Piaw from the Institute of Educational Leadership and Professor Dato' Dr. Abdul Rahman Idris from Faculty of Education, for their unwavering support, direction, and guidance. Their rigorous review and timely wise comments helped me to complete this dissertation. They have been my hope and a guide for me throughout the dissertation process. I am so grateful for their dedication, patience and generosity in time and efforts.

I express my loving gratitude and thanks to my beloved family. I also want to thank my beloved parents for their understanding and support of my educational dream and aspiration. Although my late father did not live to see the completion of this thesis his support and encouragement live on in my memory.

Finally, I am grateful to my colleagues at the Ministry of Education in the Sultanate of Oman for their gracious cooperation in responding to my survey questionnaire. Meanwhile, I am also thankful to the higher authority of the Ministry of Education for permission to conduct this research.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Strategic management represents a relatively new transformation in the field of human resources management. It concerns the significant role that human resources management plays in institutional performance. Educational organizations are increasingly aware that successful human resource policies and practices might increase quality performance of both students and their teachers and would increase productivity (Batt, 2002; Becker & Huselid, 1998; Brown, 2004, 2005; Saraswat, 2015).

Strategic management has been defined in several ways based on different theories and constructive underpinnings. However, it means generally that strategic management as art and science is a process of formulating, implementing and evaluating cross-functional decisions that would enable an organization to achieve its objectives (Brown, 2005; Hénard, Diamond, & Roseveare, 2012). It involves the systematic identification of organizational objectives, arrangement of achievable plans and strategies to attain the targeted objectives and using available resources to achieve the objectives. Hence, strategic management simply means analysis, decisions and actions undertaken by organizations to create a conducive environment and maintain competitive advantage and cope with rapid changes in the surrounding environment (Brown, 2005). Researchers (Breene, Nunes, & Shill, 2007; Brews & Purohit, 2007; David, David, & David, 2009) asserted that the strategic management process is meant as an objective, logical, systematic approach for making major decisions in an organization. It attempts to organize qualitative and quantitative information in a way that allows effective decision making under conditions of uncertainty.

Although strategic management was more ubiquitous in the private sector since the concept was first developed, the interest in using strategic management in the public sector to enhance managerial performance has dramatically increased over the last decade (Smith, 1994). Since the 1980s, a series of transformations and reforms have taken shape in the public sector, resulting from increased awareness on the importance of quality in the public sector. Strategic human resource management has been defined as the planned pattern of human resource (i.e., workforce) and human resource management (i.e., functional) deployments and activities intended to enable the organization to meet organizational goals and objectives (Mansour et al., 2013; McMahan, Virick, & Wright, 1999; Wright & McMahan, 1992).

It is believed that there would not be any development or quality performance without adopting strategic management. According to Osborne and Gaebler (1992), strategic management appeared to be part of a package of management innovations designed to reinvent or modernize the public sector. Strategic management was found to be an effective management tool for transforming a bureaucratic public sector into a more responsive and innovative administration (O'Toole & Meier, 2014; Sean, 2005).

Cole (2004) emphasized that the human resource function brings in the strategic value of people in organizations by making a contribution to value added and contribution to competitive advantage. The organization relies on human resource as its employees. Effective human resource strategy systematically organizes all individual human resource measures to directly influence employee attitude and behavior such that the business can achieve its competitive strategy (Huang & Ford, 2012). Theorists and empirical researchers have argued whether strategic human resource should always be positively related to firm performance. According to the universalistic theorists, there is a universal set of human resource best practices that can enhance a firm's performance and facilitate the employees' psychological factors to rigorously involve in the job

which consequently facilitate institutional performance (Lau & Ngo, 2004). On the other hand, contingency scholars hold different points of view and argue that the assumptions underlying the human resource management strategy-performance link are applicable only to high external fit conditions, termed the "best fit" school (Bamberger & Meshoulam, 2000; Boxall & Purcell, 2008).

Interestingly, Delery and Doty (1996) proposed the notion of the configurational perspective which focuses on how unique patterns or configurations of multiple independent variables are related to the dependent variable, by aiming to identify ideal type categories of not only the organizations but also the human resource strategy. In most organizations today, employees' skills and commitment are the sources of competitive advantage. It is, therefore, important that organizations truly leverage on the workforce as a competitive weapon to develop competitive advantage. Although most of the studies speak of strategic human resource practices leading to performance, such a one-way line of causation is unjustified (Edwards & Rees, 2006). The usual key critique of strategic human resource and institutional performance is that sound theoretical development that explains how such human resource practices operate is absent (Becker, Huselid, & Urich, 2001). In an effort to address such theoretical developments in this area, researchers have proposed further studies to consider intermediate linkages between strategic human resource management and institutional performance (Chuang & Liao, 2010). Accordingly, a better understanding of the role of strategic human resource management in creating and sustaining institutional performance and competitive advantage should be achieved through further theoretical development and empirical evidence.

Moreover, according to Collins and Druten (2003), researchers have produced compelling evidence for the causal link between how people are managed and institutional performance. They argued that the effectiveness of human resource

practices, particularly employee selection procedures, performance appraisals, rewards and benefits management, and employee training and development (the matching model of human resource management) often have a direct bearing on organizational productivity and performance. Contributing to this assertion, Mansour, Yarahmadzehi, and Abtin (2013) presented that the result of effectively managing human resources is an enhanced ability to attract and retain qualified employees who are motivated to perform. To them, the benefits of having the right employees motivated include greater profitability, low employee turnover, high product quality, lower production costs, and more rapid acceptance and implementation of corporate strategy. These invariably lead to higher productivity.

Hence, this study attempts to investigate the effects of the work performance system on higher institutional performance in the Sultanate of Oman. More precisely, the study investigates the impacts of staffing, training, involvement in decision making, performance appraisal, compensation and caring on institutional performance. However, since studies indicated the probability that the relationships between these variables might not be ascertained directly, mediator variables of the relationship such as concern for employees' climate, concern for customers' climate, service performance, customer knowledge and helping behavior would be thoroughly examined to determine their contributions and mediating effects for the relationship between work performance system and institutional performance.

1.1.1 Work Performance System

It is well researched and documented that there is a positive link between a firm's human resource practices dimensions under work performance system practices, and various organizational outcomes, such as institutional performance, productivity, financial performance, innovation and employee turnover (Carlson, Upton, & Seaman,

2006; Guthrie, 2001; Huselid, 1995; Lee & Miller, 1995; McDuffie, 1995; Messer smith & Guthrie, 2010; Sallis, 2014; Way, 2002). According to Chuang and Liao (2010), a basic premise for the performance human resource management under strategic human resource management is that a system of internally coherent human resource practices aligned with an organizational strategy, rather than individual human resource practices used in isolation, will facilitate institutional performance. It was firmly hypothesized that some strategic human resource practices, if implemented in the organization, would enhance employee morale, facilitate their skills and eventually would lead to enhanced institutional performance, productivity, job satisfaction, better decision making and lower employee turnover (Becker et al., 1998; Sallis, 2014; Wright & Boswell, 2002). The nature and the number of these practices differ from one study to another depending on the researchers' ideology and their paradigm; however, some practices have consistently been reported as having significant impacts on organizational efficiency and effectiveness; these include but are not limited to staffing, training, involvement, performance, compensation and caring (Hénard, Diamond, & Roseveare, 2012; Huselid, 1995; Pfeffer, 1998). According to strategic human resource management theory, these practices increase employees' knowledge, skills and abilities which consequently lead to organizational high performance and productivity.

Empirical studies (Al Bulushi & Rao, 2014; Armstrong, 2009; Baird & Meshoulam, 1988; Boxall, 1996; Huselid, 1995; Karami, Analoui, & Cusworth, 2004; Salanova, Agut, & Peiro, 2005; Wright, Gardner, Moynihan, & Allen, 2005) suggested that employee behavior largely depends on how employees interpret features and characteristics of the work environment and organization climate. On the other hand, the work environment and organization climate have a strong linkage with institutional performance, employees' commitment, motivation and productivity. According to Huselid (1995) strategic human resource management practice will improve knowledge,

skills and abilities of an organization's current and potential employees, increase their motivation, reduce staff turnover and enhance retention of quality employees while encouraging non-performers to leave the organization.

Previous study suggested that the relationships between work performance system in strategic human resource management might not directly affect institutional performance, but rather have indirect effect through mediator variables such as concern for employees, concern for customers, service performance and helping behavior (Carlson et al., 2006; Chuang & Liao, 2010; Gandhi, 2015; Huselid, 1995; Messer smith & Guthrie, 2010; Pfeiffer, 1998). According to Gandhi (2015) individual employees "may cognitively appraise their work environment in terms of what is significant or meaningful not only to their well-being but also to the well-being of other relevant organizational constituencies". Consistently, Chuang and Liao (2010) and Schneider and Bowen (1992) argued that a positive climate for customer well-being and positive climate for employee well-being are very distinctive because organizations might have policies and practices positive to the employees' sense of being treated well but have little relationship with service customers' experience unless the organization also has policies and practices that encourage and promote service excellence. Thus, the statement indicated that concern for employees and concern for customers are different entities; if one is adopted it does not necessarily automatically lead to the other unless appropriate measures are taken to enhance both concerns.

According to Alexandrova, Babakus, and Yavas (2007), the two-dimensional conceptualization of the psychological climate for a retail service provides a succinct picture of frontline employees' idiosyncratic interpretations of their work environment in terms of what is important to their own well-being as well as to customer well-being. These two dimensions are consistent with the broader service climate research, where each climate dimension refers to a particular situational referent. Burke, Borucki, and

Hurley (1992) proposed that individual employees may cognitively appraise their work environment in terms of what is significant or meaningful not only for their well-being but also the well-being of other relevant organizational constituencies, for example, customers. As previously highlighted, Burke et al. (1992) distinguished two types of climate and labeled them as concern for customers and concern for employees respectively. Schneider and Bowen (1992) confirmed the existence of these two dimensions, and affirmed that an organization may have policies and practices that are positive in the sense of that employees feel well-treated, but that this would have little relationship to the service customers experience unless the organization also has policies and practices that promote service excellence.

Based on this view, it was understood that work performance system practices play a significant role in shaping employee climate perceptions about their work environment and how the employees interpret the organization's strategic focus. The concern for customers' climate means the employees' shared perception of the policies, practices and procedures regarding service quality provided to the customers form the focal unit (Borucki & Burke, 1999; Guenther & Schmidt, 2015; Schneider, White & Paul, 1998). The human resource practices implemented in an organization may signal to its employees the extent to which the unit values, expects and rewards providing good service, thus influencing employees' climate perceptions about the unit's concern for customers' interest (Chuang & Liao, 2010). Interestingly, the importance of management service was also found to be positively related to employees' shared perceptions of service climate (Borucki & Burke, 1999). Furthermore, Schneider et al. (1998) proposed that employee perceptions of how much the organization cares about customers or service quality rest on their perceptions about organization human resource practices. The study found the causal linkage between human resource practices and employee shared perception about concern for customers. Consistently,

Salanova et al. (2005) in their study found that offering employees resources of training and autonomy made them feel more engaged in providing adequate and quality service to the customers, which subsequently led to more positive employee shared perceptions of service climate in the unit. Likewise, Chuang and Liao (2010) also argued that when human resource management implements work performance system, it is more likely that employees perceived unit values, expect and reward the quality of service provided to the customers.The work performance system such as selection, training, employee involvement in decision making, compensation, performance appraisal and caring motivated them to contribute exceptional effort in serving customers by linking performance appraisal and rewards to service quality.

On the other hand, the concern for employees' climate means the shared perceptions among employees regarding their feeling about how the organization values their contributions and cares about their well-being (Borucki & Burke, 1999). It was firmly believed that work performance system which consists of human resource practices such as staffing via internal promotion, developing employee competencies via extensive training, involving employees in decision making, providing employees with fair performance appraisals, rewarding employees for superior performance and providing flexible work schedules and locations as well as other practices will improve employee work-life balance and health. These human resource practices send a signal to the employees that the organization recognizes their contribution and cares for their well-being. In their empirical research, Takeuchi, Chen, and Lepak (2009) found that work performance system practices positively associated with the employee's shared perceptions regarding the establishment's concern for employees.

Interestingly, Takeuchi et al. (2009) found that concern for employees' climate mediated the relationship of work performance system and individual job satisfaction and affective commitment. More precisely, the study shows that concern for employees'

climate positively related to both job satisfaction (β = .50) and affective commitment (β = .75) which subsequently led to institutional performance and productivity and enhanced helping behavior characters of the employees toward customers. Consistently, Chuang and Liao (2010) found that significantly concern for employees (β = .49), concern for customers (β = .38) are related to organization market performance through service performance (β = .21) and helping behavior (β = .29) respectively. This finding confirmed the theory of work performance system which stated that dimensions of work performance system relate to institutional performance mediated by concern for customers and employees, service performance and helping behavior. It was found that the concern for customers' climate mediated the relationship between work performance system and concern for employees mediated the relationship between work performance system and employees helping behavior and their readiness to render assistance to coworkers.

1.1.2 Institutional Performance

It has been proven empirically that institutional performance is multidimensional (e.g., Guenther & Schmidt, 2015; Meyer & Gupta, 1994). Thus, research designs that incorporate a single or narrow perspective of institutional performance are unlikely to accurately explicate or evaluate the primary linkages of strategic human resource management research. According to Vinit (2015) and Dyer (1995), there are four defensible dimensions of institutional performance, which are: (i) human resource outcomes (e.g., employee/workforce behaviors); (ii) organizational outcomes (e.g., productivity, quality and service); (iii) financial accounting outcomes (e.g., return on investment and profitability); and (iv) for publicly held organizations, capital market outcomes (e.g., stock value and shareholder return). Based on the behavioral perspective (Vinit, 2015), it has been intellectually argued that strategic human resource

management can have a direct impact on human resource outcomes, the actual behaviors exhibited by the organization's human resources and/or the actual outcomes produced by the organization's workforce (e.g., Becker & Huselid, 1998; Jackson & Schuler, 1995; Muda, 2015; Wright & Snell, 1998). Consistent with the behavioral perspective, empirical research indicates that human resource outcomes mediate the relationship between strategic human resource management and the other dimensions of organizational effectiveness (e.g., Batt, 2002; Guthrie, 2011; Saraswat, 2015). Thus, it is critical that, along with other dimensions of organizational effectiveness, human resource outcomes are included in strategic human resource management research designs. However, Al-Sarmi and Al-Hemyari (2014) found in their review of organizational effectiveness measures in 29 strategic human resource management-based studies that only 3 studies measured human resource outcomes. These scholars concluded that strategic human resource management researchers typically adopt a single or narrow perspective of organizational effectiveness, which is unlikely to result in a construct valid measure of organizational effectiveness.

The concept of a strategic approach to human resource management has a direct impact on how researchers should measure organizational effectiveness. Strategic human resource management is a goal-directed process (Wright & McMahan, 1992). So, to accurately measure the effectiveness of such a goal-directed process, researchers must evaluate the degree to which the process meets the goals and objectives that it was implemented to achieve (see Becker, Huselid, Pickus, & Spratt, 1997; Kaplan & Norton, 2001; Steers, 1975). Moreover, because of the dynamic and multidimensional as well as multilevel nature of the strategic process, scholars have suggested that a construct giving valid measure of organizational effectiveness also must be multidimensional, account for varying levels of analysis, include a time dimension, and recognize the goals and objectives of the organization as a whole as well as the

influence of the organization's multiple (internal and external) stakeholders (see Freeman & McVea, 2001; Kaplan & Norton, 2001; Rogers & Wright, 1998; Steers, 1975; Truss & Gratton, 1994).

Furthermore, despite many issues of organizational effectiveness having been extensively studied and addressed such as the multiple stakeholder perspective and horizontal versus vertical linkages, these issues have been explored individually rather than in an integrative framework. By including and integrating theoretical perspectives that explain both how and why organizational effectiveness takes place, accuracy measure and validity of organizational effectiveness can be viewed holistically.

1.2 Theoretical Underpinnings of Strategic Management in Human Resource Management

Strategic human resource management theory has often been used as the basic framework for investigating human resource strategy and institutional performance. Many theories focused on strategic human resource management; each theory examines the organization from a different perspective. Among these theories are the universalistic theory, contingency theory and configurationally theory.

However, the researcher used universalistic theory for this study because it is a theory that treats human resource management from a work performance system perspective. Universalistic theorists over the years have found empirical evidence that certain human resource practices can directly affect performance. The theory advocated what is labeled as "best practices". These concepts mean that organizations adapting HR practices are always performing better than others. Many researchers (Becker et al., 2001; Delery & Doty, 1996; O'Toole & Meier, 2014; Pfeffer, 1994) like many micro-level human resource researchers, posit that some human resource practices are always better than others and that all organizations should adopt these best practices. For

instance, Pfeffer (1994) argued that greater use of 16 management practices, such as participation and empowerment, incentive pay, employment security, promotion from within, and training and skill development, results in higher productivity and profit across organizations. Similarly, Osterman (1994) posited that a number of innovative work practices, such as teams, job rotation, quality circles, and total quality management, result in productivity gains for all American organizations. In general, the practices identified by Pfeffer (1994) and Osterman (1994) have been labeled "high performance work practices" or simply "best practices."

The notion of best practice was initially adapted to early US models of human resource management which emerged from the assumption that adaptation of certain attitudes and behaviors in an organization would result in advancing the organization and its performance. These best human resource practices manifested as improved employee attitudes and behaviors, lower levels of absenteeism and turnover, higher skill levels and consequently higher productivity, enhanced quality and efficiency and eventually increased productivity (Marchington & Wilkinson, 2008). The universalistic theory maintains that organizations would succeed and improve dramatically if they can identify and implement best practices regardless of the product market situation, industry or organization location (Pfeffer, 2001).

According to Becker et al. (2001), organizational higher work performance systems are more idiosyncratic and must be tailored carefully to each firm's industrial situation and specific context in order to provide maximum performance. These work performance systems will only have a strategic effect if they are compatible and integrated with each other and if the total human resource management system supports the organization in achieving its targets and goals.

This theory has been considered as the simplest compared to other theories in strategic human resource management. It is argued that the relationship between a given

independent variable and dependent variable is universal across the population of the organization. Furthermore, developing universalistic predictions requires two distinctive steps; the first step is identification of important human resource practice and second is presentation of an argument that relates the individual practices to institutional performance.

Strategic human resource practices are defined as any practices that have been suggested theoretically or empirically as being related to overall organizational well-being and performance. Thus, it is impossible to consider all practices in an organization as strategic because not all practices are proven to improve overall institutional performance. However, some practices have been proven in studies to be strategic in nature; these practices are internal career opportunity, formal training systems, appraisal measures, profit sharing, employment opportunity, voice mechanisms and job definitions (Delery & Doty, 1996).

On the other hand, Pfeffer (1994), Mao, Song, and Han (2013), Rasool and Nouman (2013) and Hénard, Diamond, and Roseveare (2012) listed 16 most effective practices in managing people in the organization. It is worth mentioning hence that this list encompasses almost all the practices suggested by Delery and Doty (1996). The institutional performance practices that have been considered as indicators of institutional performance have been summarized from many theoretical and empirical studies (Rao, 2014; Sonnenfeld & Peiperl, 1988). For example, Pfeffer (1994) argued that employing best practices such as participation and empowerment, incentive pay, employing security, promotion from within, training and skill development in the organization leads to greater productivity and subsequently profit across organizations. Interestingly, Mao et al. (2013) emphatically asserted that a number of innovative work practices such as teams, job rotation, quality circles and total quality management result in higher productivity for American organizations. It is worth mentioning that upon the

critique waged against universalistic theory, the best practice theory is very essential in identifying good practice because strategies that are working well in an organization could not be completely rejected by another despite the idiosyncratic nature and peculiarity of individual organizations. Studies suggested that implementing these practices simultaneously and holistically instead of separately would enhance institutional performance and employee commitment. For example, Terpstra (1996) posited five best staffing practices and found that using these practices was moderately and positively associated with institutional performance. Furthermore, Huselid (1995) also found a link between organization-level outcomes and groups of high performance work practices. Instead of focusing on a single practice (e.g., staffing), Huselid (1995), Seong (2011) and Selden, Schimmoeller, and Thompson (2013) evaluated the simultaneous use of multiple sophisticated human resource practices and concluded that the human resource sophistication of an organization was significantly related to turnover, organizational productivity, and financial performance. Thus, although universalistic theory is valuable for benchmarking (i.e., to identify the innovation and development that are practiced to good effect elsewhere by leading organizations), the organization itself must determine the relevant factors that should be considered as strategic factors.

1.3 Statement of the Problem

As discussion of strategic management continues to evolve, evaluation studies have likewise multiplied and have attracted researchers, theorists and practitioners especially in the academic sector to continue their quest to explore the promise of this educational practice. Despite the popularity and growth of strategic management and its enormous effects on organizations in general and human resources in particular, many things need to be highlighted on how strategic management affects human resources in institutions.

Theoretically, the strategic human resource management practices have been traditionally associated with manufacturing factories, companies, and service firms. Most educational institutions run on a routine, often without objective and achievable plan of development (Bamberger & Meshoulam, 2000). Any development efforts are usually piecemeal approaches (Bamberger & Meshoulam, 2000). What is important is absorbing the basic spirit of the movement – the concept of strategic management in education and techniques and strategies of its management on a continuing basis. Unfortunately, many people in the Omani Ministry of Education are unaware of principles of strategic management and how to make it workable in order to achieve organizational goals and objectives (Ministry of Education, 2010). It is firmly believed that without strictly implementing organization strategic management, and dynamically choosing its elements if would be difficult for any organization to achieve it ultimate objective and maintain its existence for long.

Ineffective strategic management in educational institutions would seriously affect the institution in various ways such as faculty shortage, poor quality of faculty, short-term management focus of the education providers, poor governance, lower degree of accountability, indifference of the corporate and above all competencies of higher institution students (Armstrong, 2009; Armstrong & Baron, 2004; Bamberger & Meshoulam, 2000; Becker & Huselid, 1998; Chuang & Liao, 2010). Furthermore, despite enormous resources and urgent need for human resource professionals who can build and deliver critical human resource and its effect on improving human resources performance, little has been achieved. Therefore, much work is needed to define the new strategic management to enhance human resource professionals and improve higher education institutional performance. Although the high work performance system in strategic management initially evolved in business, factories, and the manufacturing environment, it might, however, be effectively used in higher education institutions not

only to improve employee efficiency but also to enhance student outcomes and performance.

Investigators have provided fascinating proof for the causal association between how people are managed and institutional performance. It was argued that the efficiency of human resource management practices, especially employee selection procedures, performance appraisal, rewards and benefit management and employee training and development always have a direct effect on institutional productivity and performance (Collins & Druten, 2003).

The relationship between work performance system and institutional performance is well established in the literature (Huselid, 1995; Wright et al., 2005; Youndt, Snell, Dean & Lepak, 1996). According to Huselid (1995), the work performance system can enhance the knowledge, skills, and competence of employees via selective recruitment, job design, and extensive training. Furthermore, employees are motivated and empowered by the decentralization of managerial decision-making, employee participation mechanisms, and the provision of proper rewards (Tsai, Tsai, & Chang, 2010), and thus work more effectively. It was also believed that work performance system may foster a commitment-based organizational culture that reduces talent loss (Huselid, 1995).

However, the social information processing theory argues that individuals use information gathered from their direct social contexts to interpret organizational practices, values and norms (Kozlowski & Bell, 2003; Schneider et al., 1998). Given that members of the same unit are exposed to similar human resource practices, they may possess shared information and form common perceptions regarding how much the unit cares about the customers and employees. Likewise, organizational socialization literature suggests that through interactions, employees may engage in collective sense making and develop relatively stable mental models, which may serve as the foundation

for developing shared climate perceptions (Kozlowski & Bell, 2003). Consequently, over time, employee oneness will increase in a unit, with individuals embracing similar climate perceptions. Prior studies have provided empirical support for shared perceptions formation among employees of the same unit for specific climates such as service climate, innovation climate, and safety climate (Hofmann & Stetzer, 1996), and justice climate (e.g., Liao & Rupp, 2005). Therefore, it can be agreed that organization unit is an appropriate level to examine how unit members assess the extent to which the unit shows concerns for its employees and customers.

Considering the social information processing theory, this emphasizes that the relationship and interaction between employees may enhance collective psychological thinking which consequently result in collective behavior (Bowen & Ostroff, 2004). Researchers such as Zacharatos et al. (2005) have argued that human resource practices play a key role in shaping employee climate perceptions about the work environment. Chuang and Liao (2010) and Bowen and Ostroff (2004) argued that human resource practices serve a symbolic, or signaling, function by sending messages that help employees make sense of the psychological meaning of their work situation. They view human resource practices as communication from the management to the employees that directly shapes how employees interpret the strategic focus of the organization.

Based on the processing theory (Borucki & Burke, 1999; Schneider et al., 1998), human resource management researchers hypothesized that the relationship between work performance system and institutional performance might not be direct but indirect through concern with both employees and customers. The concern for customers' climate refers to employees' shared perception of the policies, practices, and procedures regarding service quality provided to the customers in the focal unit. Using a large retail sample, Borucki and Burke (1999) found that the importance management placed on service was positively related to employee shared perceptions of service climate.

Schneider et al. (1998) were among the first to directly test the causal linkages between human resource practices and employee shared perceptions about the climate for service or concern for customers. They asserted that employees' perceptions of how much the organization cares about customers or service quality rest on their perceptions about a set of organizational "foundation issues" such as human resource practices. Their empirical analysis using data from a sample of bank branches revealed that these foundation issues indeed shaped branch-level climate for serving customers. The mediator variables such as concerns for employees' climate, concerns for customers' climate, service performance, customers' knowledge and helping behavior are not auxiliary variables but fundamental elements of institutional performance. They also play a pivotal role in mediating effects between work performance system and institutional performance.

Furthermore, Borucki and Burke (1999) emphasize that the concern for employees' climate means the shared perceptions among employees as to their feeling on how the organization values their contributions and cares about their welfare. This concern for employees would enhance their sense of belongingness, association, and commitment. Takeuchi et al. (2009) in their empirical research found that work performance system is associated with the employees' shared perceptions regarding the establishment's concern for employees. They found that concern for employees' climate mediated the relationship of work performance system and individual job satisfaction and affective commitment. More precisely, the study shows that concern for employees' climate positively and significantly related to both job satisfaction (r = .50) and individual job satisfaction and affective commitment (r = .75) which subsequently lead to institutional performance and productivity and enhanced helping behavior characters of the employees toward customers.

These features imply that customers' experiences directly affect customer satisfaction, purchase decision, and loyalty, and that front-line employees have a tremendous burden of responsibility because customer interactions with them form the central part of the customer experience. Moreover, bringing together the central aspect of this study is that work performance system serves to enhance the institutional performance in the service context by facilitating two types of strategically targeted organizational climate: concern for customers and concern for employees (Burke et al., 1992), which, in turn, encourage employees to engage in cooperative behavior with customers for better service performance and also to display helping behavior among coworkers, while such collective cooperative behaviors can further contribute to the organization's market performance.

On the other hand, the concern for employees' climate refers to the shared perceptions among employees about the extent to which they feel the unit values their contributions and cares about their well-being (Borucki & Burke, 1999). Human resource practices inherently influence employees' perceptions of a unit's level of support (Whitener, 2001) because employees obtain favorable tangible and socio-emotional resources or receive unfavorable treatment from the unit through human resource practices. The work performance system which consists of human resource practices as mentioned before signals to the employees how the organization invests in their development, recognizes their contribution, and cares for their well-being. These human resource practices send a message to the employees that concern for employees is a strategic focus of the unit (Schneider & Bowen, 1992), and an accumulation over time of favorable treatments will make employees perceive they are receiving a high level of support from the unit. Although the psychological perception of organizational support is originally constructed at the individual level, a unit-level psychological

climate will emerge when employees in the focal unit show perceptual agreement about whether the unit cares for them (James & James, 1989).

It was observed that unit climate is a direct antecedent of employee performance, which is crucial for the institutional performance. Borman and Motowidlo (1993) and Organ (1997) argued for extending the employee performance criterion domain beyond core job responsibilities to include both in-role task performance and extra-role contextual performance or organizational citizenship behavior. Both performance domains contribute uniquely to overall performance (Conway, 1999). In service settings, service performance, or helping customers and addressing customer needs (Liao & Chuang, 2004), is the primary responsibility of front-line employees and thus represents in-role task performance.

Indeed, prior research has found that a unit-level climate for service is positively associated with both unit-level (Borucki & Burke, 1999) and individual-level (Liao & Chuang, 2004) employee service performance. At the same time, concern for customers also elicits helping behavior between coworkers because the positive climate signals to employees that good customer service requires behaviors that go beyond typical in-role expectations (Schneider & Bowen, 1992), as long as these behaviors support customer services. Coworker support and cooperation are essential in delivering excellent service to the whole group.

Additionally, concern for employees' climate also motivates employees to serve customers well and to help each other. Employees who receive inducements from the unit tend to have positive perceptions about the unit (Payne & Webber, 2006). In line with the norm of reciprocity, employees then feel obligated to respond positively and to repay their unit by performing well and even above expectations. It has been suggested that employees who are treated as valuable resources by their employing organizations tend to treat customers as valuable (Heskett, Sasser, Jones, Loveman, & Schlesinger,

1994). Indeed, Vandenberg he et al. (2007) found that unit-level support perceptions of the customer-contact employees could encourage individual employees to help customers.

Further, Borucki and Burke (1999) showed that employee shared perception of a retail store's concern for employees were positively associated with employees' collective service performance. Likewise, using a unit-level analysis, Schmitt and Allscheid (1995) found that employees' shared appraisals of their work situations were positively related to their intentions to provide quality service. Despite the importance of this model in the organization sectors, institutions of higher learning seldom employ strategic human resource management practices to elevate their performance and increase the quality of their customers (students). Given that service features are different from manufacturing sector characteristics, understanding the nature of services is essential to understand how work performance system operates in a service context such as higher education institutions (Batt, 2002). As Bowen and Schneider (1988) noted, compared to manufactured goods, services are less tangible; are produced, delivered, purchased and consumed simultaneously; and customers often participate in producing their own services.

Consistent with the empirical evidence and academic arguments that have been discussed before, the current study was planned to investigate the relationship between work performance system and institutional performance in the Sultanate of Oman. Similarly, the study examined the indirect effects of the relationship between these two constructs through the concern for employees' climate and customers, helping behavior, customer knowledge, and service performance.

Besides that, the main purpose of this study is to develop and validate the institutional performance model and investigate direct and indirect effects of work performance system practices in strategic human resource management and institutional

performance. Precisely, this study attempts to investigate the relationships between work performance system including staffing, training, involvement, compensation, performance appraisal, and caring on one hand and higher institutional performance on the other.

The study would also consider the possibility of mediation mechanisms between the work performance system and institutional performance. In other words, the study examines the employees' shared climate perceptions of the organization concern for employees and customers on service performance and helping behaviors which consequently may enhance institutional performance.

1.4 Research Objectives

The current interest in strategic management comes as a realization that the government will save money and achieve the targeted goals by putting more effort into developing an effective and dynamic strategic management. Thus, this study attempts to investigate the direct and indirect effects of work performance system on institutional performance through testing the proposed model. It also attempts to examine whether concern for employees and concern for customers, service performance, helping behavior and customer knowledge mediate the relationship between work performance system in strategic management and institutional performance. More precisely, this study aims at achieving the following objectives:

1. To identify the factors of work performance system in strategic human resource management.
2. To investigate the factors of human resource practices that affect institutional performance.
3. To examine the effects of work performance system in strategic human resource management on institutional performance.

4. To determine the mediating effects of (a) concern for employees, (b) concern for customers, (c) service performance, (d) helping behavior and (e) customer knowledge on the relationship between work performance system in strategic human resource management and institution performance.
5. To examine whether the hypothesized model of the relationship between work performance system and institutional performance (Figure 1.1 on page 30) is a valid model for the population of the higher educational institutions in the Sultanate of Oman.

1.5 Research Questions

The primary purpose of this study is to address elements of impact of work performance system in strategic human resource management on institutional performance and develop a model for human resource practices that affect the institutional performance. The main research focus is: what are the relative and combined effects of strategic management factors on human resource practices and subsequently on institutional performance. Specifically, the research attempts to address the following research questions:

1. What are the factors of work performance system in strategic human resource management?
2. What are the factors of institutional performance in human resource practices?
3. Is there any significant effect of work performance system in strategic human resource management on institutional performance?
4. Are (a) concern for employees, (b) concern for customers, (c) service performance, (d) customer knowledge, and (e) helping behavior mediating

the relationship between work performance system in strategic human resource management and institutional performance?

5. Is the hypothesized model of the relationships between work performance system and institutional performance of higher institutional applicable to the population of higher education institutions in the Sultanate of Oman?

1.6 Research Scope and Limitation of the Research

This study is focused on human resource management in the Sultanate of Oman. The data are limited to the education leadership in the Ministry of Education across Oman which includes General Managers, assistant General Managers, and Heads of Section in the Directorate of Human Resources Development in the Ministry of Education in the Sultanate of Oman. Also, from Department of Human resources in other directorates of education in different regions such as Muscat Governorate, Governorate Dhofar, Governorate Musandam, Governorate Al-Buraimi, Governorate Dakhiliyyah Region, Governorate Dhahira Region, Governorate Batinah North Region, Governorate Batinah South Region, Governorate Sharqiah North Region, Governorate Sharqiah South Region, and Wusta Region. The data were collected from randomly selected personnel of the Ministry irrespective of gender to give equal opportunity for participation by all groups of the organization. Another limitation of this study is the methodological aspect. For instance, the present study focuses on quantitative methodology instead of qualitative. Although this study used structural equation modeling for data analyses, it is still a survey which has its shortcomings and limitations.

1.7 Significance of the Study

This study has both theoretical and practical significance for human resource development. First, this research investigates work performance system, strategic

human resource management, and institutional performance. Insight into the potential influence of work performance system in human resource practices on institutional performance is crucial for practice, research, and theory building. In spite of recent advancement of research studies in strategic human resource management, no available studies have explored this significant element in Oman.

Moreover, this study has an integrative approach. The current research considers various relationships, especially the role of mediating variables, such as concern for employees, concern for customers, service performance, helping behavior, which potentially mediate between work performance system and institutional performance. Previous research has mostly investigated the direct linkage between work performance systemas a strategic human resource practice and institutional performance, climate concern for employees, climate concern for customers, service performance and helping behavior. Chuang and Liao (2010) recommend examining the relationship between work performance system and institutional performance by highlighting the contributions of these mediator variables.

Insight the current research can provide includes greater understanding in strategic management in human resource practices by identifying the practices by which work performance system may influence institutional performance. Additionally, the study would also replicate the results of quantitative analysis that have been conducted and test the model adopted from Chuang and Liao (2010) as previously highlighted.

Furthermore, the results of this study are therefore of value especially if we take into consideration unavailability of study focused on strategic management in Oman. As indicated earlier, the Omani Ministry of Education has spent a huge amount of money to design eight strategic plans and institute strategic management as an organizational process; however, little is known about the effect of this program. In other words, although the Omani Government is trying to promote the standard of service delivery

across the public administration, the services, however, are still below international standards. Thus, highlighting and investigating the effects of strategic management of human resource practices on institutional performance would remedy many problems in the administration of the institutions which would positively enhance quality outcomes. Furthermore, by investigating this problem, academic leaders, administrators and policymakers will gain insights into the crises in human resource practices, and know how to enhance the standard of the institutions. The study also is a contribution to the body of knowledge by pooling together findings from previous works on human resource practices, identifying their problems and providing recommendations. It also helps further augment the management and delivery practices in institutions, which is tantamount to helping these institutions to better prepare themselves for the era of globalization and competitiveness.

This study is therefore designed to act as an avenue for further research, in addition to providing corporations with a better way of dealing with human resources. Hence, this study provides significance and evidence for:

- Dealing with the role of strategic management in public higher education institutions in Oman.
- Providing information to specialists and those interested in strategic management and human resources in Oman to enhance their strategic management and human resource practices.
- Responding to many conferences which recommended various ideas to improve education; quality and strategic management was one of the recommendations.
- Improving strategic management in educational institutions and ensuring excellence so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential skills.

- Finding new approaches that can help people to know the concept of strategic management in education.
- Reducing the gap between theory and practice of strategic management in education.
- Opening the door to the policymakers to have right ideas about quality in the future.
- Opening the way for researchers to conduct studies on strategic management in educational systems in the near future.
- Strengthen efforts by the educational authorities in applying quality in education.

1.8 Theoretical and Conceptual Framework

Many strategic human resource theories in human resource management have established relationships between work performance system and institutional performance. According to the universalistic theory (Pfeiffer, 2001) there are some distinctive values and practices in strategic human resource management such as training systems, performance appraisal, involvement in decision making, caring and recruitment that have significant effect of the employees' motivation, belongingness and commitment which subsequently lead to institutional performance and profitability.

The notion of best practice was initially adapted in early United States models of human resource management which emerged from assumptions that adaptation of certain attitude and behavior in an organization would enhance its performance and would result in advancement of organization and its performance. These best human resource practices manifested in improved employee attitudes and behaviors, lower levels of absenteeism and turnover, higher levels of skills and consequently higher productivity, enhanced quality and efficiency and eventually increased productivity

(Marchington & Wilkinson, 2008). The universalistic theory maintains that organizations would succeed and improve dramatically if they can identify and implement best practice regardless of the product market situation, industry or location of the organization (Pfeffer, 2001).

Another influential theory in strategic human resource practices management is contingency theory. In contingency theory, the relationship between the use of specific employment practices and institutional performance is posited to be contingent on an organizational strategy. Based on this theory, success of an organization largely depends on its employees' behaviors. In other words, successful business strategy implementation largely depends on characters of its employees. An organization's strategy necessitates behavioral prerequisites for success and the use of human resource practices can be rewarding or demotivating to employees. Hence, it is deemed essential for the organization to adapt human resource practices that are in line or align with organizational strategy. The alignment between human resource practices and organizational strategy would assist the organization in achieving its target goals and develop superior performance (Jackson, Schuler, & Rivero, 1989).

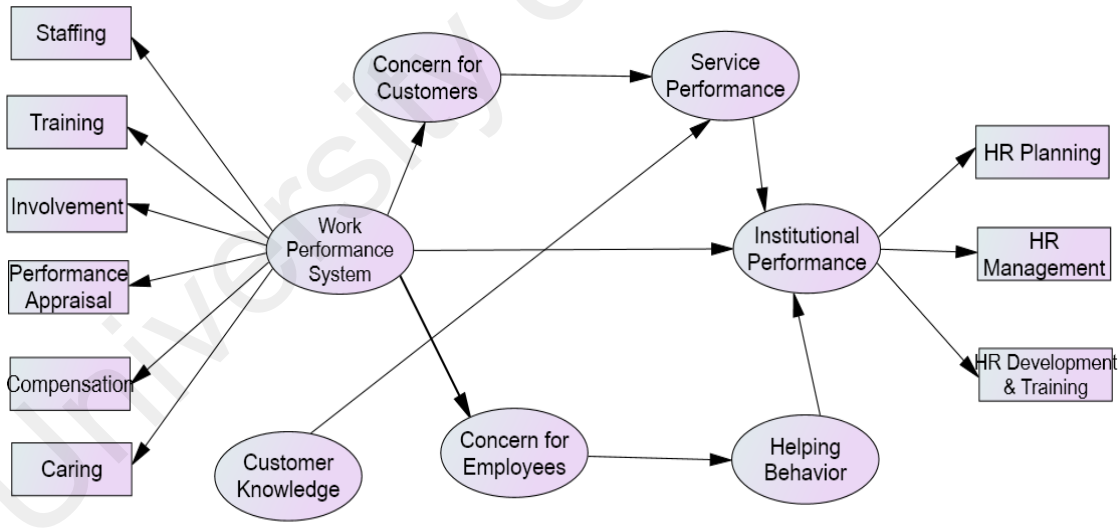
In contradiction to the linear relation betweena dependent variable and independent variables argued by the universalistic theory (Pfeiffer, 2001), the contingent model suggested a model based on interactivity. The relationship between dependent and independent variables based on this concept is no longer static but rather dynamic and changing depend on other related variables, identified by contingency variables. The contingency variables moderate the relationship between human resource management and performance. Thus, the concept negates the existence of best practice that could lead to superior performance under any circumstance as stipulated by universalistic theory (Martin-Alcazar, Remero-Fernandez, & Sanchez-Gardey, 2005).

Furthermore, configurationally theory (Miles & Snow, 1978), is based on the assumption that a strategy's success is a result of combination of both external and internal fits. An organization with bundles of coherent human resource practices should have high performance, provided it also achieves high level of fit with its competitive strategy. The focus in this theory is on the importance of bundling of strategic human resources practices and competitive strategies where their interaction would positively enhance employees' competence and consequently be reflected in their performance. The significant idea is that the bundles of strategic human resources management factors are internally correlated and consistent which eventually affect performance due to multiple practices.

Since performance is the result of ability and motivation, employers should use different methods to recruit the most suitable candidate (selection and training) and provide incentives to facilitate and enhance employee motivation and commitment (different forms of financial and non-financial rewards). According to Storey (2007) individual human resource management practices cannot be implemented in isolation but rather, these bundles of practices are complementary and interacting in a positive way to form a best-practice in the organization, consistently. McDuffie (2005) stressed that a bundle creates the multiple, reinforcing conditions that support employee motivation, provided employees have the necessary knowledge, ability and skills to perform the task effectively. Based on the theories which stated the relationship among the main variables of the study, the conceptual framework is proposed in Figure 1.1.

The following discussion provides brief descriptions of the constructs examined in the conceptual framework and the significance of the impact of each of these constructs on human resource practices as portrayed by previous literature. Although this model was used in the business domain and was adapted from Chuang and Liao (2010), it is also suitable for investigating the situation in other fields such as

educational settings. The conceptual model proposed that work performance system consisting of staffing, training, involvement, performance, compensation, and caring relates to concern for customers and concern for employees. It states that work performance system has direct effect on institutional performance. Moreover, concern for customer affects service performance, and concern for employees enhances helping behavior while both service performance and helping behavior directly affect institutional performance. Interestingly, customer knowledge indirectly affects institutional performance through service performance while there is no direct impact from customer service toward institutional performance. On the other hand, the endogenous variable, which is institutional performance includes three sub-dimensions, namely, HR planning, HR management and HR development and training.



Note: HR = Human Resource

Figure 1.1: The conceptual framework (hypothesized model)of the study.

1.9 Definition of Terms

The terms of variables used in the current study are defined as following operationally.

Work Performance System

The work performance system can be defined as a specific combination of human resource practices, work structures, and processes that maximizes employee knowledge, skill, commitment, and flexibility (Sung & Ashton, 2005). Work performance system is also known as "high-performance work practices" (Sung & Ashton, 2005). Thompson and Heron (2005) referred to them as "high-performance work organizations" that "invest in the skills and abilities of employees, design work in ways that enable employee collaboration in problem solving, and provide incentives to motivate workers to use their discretionary effort."

According to Chuang and Liao (2010), work performance system has six dimensions, namely Staffing, Training, Involvement, Performance Appraisal, Compensation, and Caring.

a) Staffing is a process of selection and training of individual for specific job functions and charging them with the associated responsibilities (Armstrong, 2009).

b) Training is a systematic process through which an organization's human resource gain knowledge and develop skills by instruction and practical activities resulting in improved corporate performance (Wagner, 1994).Training is also an organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill (Wagner, 1994).

c) Involvement is a regular participation of employees on deciding how their work is done, making suggestions for improvement, goal setting, planning and monitoring of their performance (Lawler, 1986). Employee involvement is also defined as moving information, knowledge, rewards, and power to lower levels of the organization (Lawler, 1986).

d) Performance Appraisal is a process whereby a manager or consultant examines and evaluates an employee's work behavior by comparing it with preset standards, documents the results of the comparison and uses the results to provide feedback to the employee to show where improvements are needed and why (Kuvaas, 2007). Performance appraisal is also defined as the method of identifying, observing, measuring, and developing human performance in organizations (Carroll & Schneir, 1982). Also, Henderson (2003) expressed that performance appraisal is "a measure of the output of a job holder that contributes to productivity".

e) Compensation is the total amount of the monetary and non-monetary pay provided to an employee by an employer in return for work performed as required (Wagner, 1994, p. 312). Compensation is the remuneration employees receive in return for their contribution to the organization. It is an organized practice that involves balancing the work-employee relation by providing monetary and non-monetary benefits to employees (Wagner, 1994, p. 312). Compensation is an integral part of human resource management which helps in motivating employees and improving organizational effectiveness (Wagner, 1994, p. 312).

f) Caring is the enactment of a genuine concern for the well-being of 'the other' (Noddings, 2003).

Human Resource Management

Human resource management (HRM) is a strategic, integrated and coherent approach to the employment, development and well-being of the people working in organizations (Armstrong, 2009). Human resource management involves all management decisions and actions that affect the nature of the relationship between the organization and its employees – its human resources (Beer et al.,1984). HRM comprises a set of policies designed to maximize organizational integration, employee commitment, flexibility and quality of work (Guest, 1987).

Institutional performance

Institutional performance refers to the degree to which higher education institutions achieved their predetermined goals to produce graduates who are capable to globally compete (Biggs, 1990).

a) Human Resource Planning is an integration of all human resource activities with overall strategic plans (Rothwell & Sredl, 2000).

b) Human Resource Management refers to a strategic approach to managing human resources that involves all management decisions and actions affecting the relationship between the organization and employees (Beer et al., 1984).

c) Human Resource Trainingand Development is defined as a process of systematically developing work-related knowledge and expertise in people for the purpose of improving performance (Swanson, 2001)

Concern for employees

Concern for employees' climate is the shared perceptions among employees regarding their feeling about how the organization values their contributions and cares about their

welfare (Borucki & Burke, 1999).Concern for employees' climate also refers to employees' shared perceptions about the extent towhich they feel the unit values their contributions and cares about their well-being (Borucki & Burke, 1999).

Concern for customers

Concern for customers'climate refers to employees' shared perception of the policies, practices and procedures regarding service quality provided to the customers in the focal unit (Schneider et al., 1998).

Helping behavior:

Helping behavior has been defined as a behavior that employees elicit to provide good service to their customers. It is a type of employee-customer interaction established to promote the image of the organization and assist it in achieving its target. It is believed that helping behavior would enhance the organization performance (Chuang & Liao, 2010).

Service performance:

Service performance is the level of quality service an organization through its employees renders to serve its customers. Service performance does not indicate the amount of service but rather the quality of service that will meet customer needs while allowing companies to remain competitive. It is believed that service performance would not only brighten the image of the organization but also strengthen employee loyalty within it, consequently promoting its performance (Chuang & Liao, 2010).

1.10 Summary

Many studies have suggested that strategic management in human resource practices has an enormous effect on institutional performance. The work performance system in strategic human resource management was believed to be multidimensional and crucial to employee performance.

In light of this, this study investigated how the relationship between work performance system (including staffing, training, involvement, compensation, performance appraisal and caring practices) influenced employee performance in institutions of higher education in the Sultanate of Oman. The study also examined the effects of mediator variables, namely concern for customers, concern for employees, helping behavior, and customer knowledge and service performance and the relationship between work performance system and institutional performance.

The next chapter is a literature review of the relevant works related to work performance system in strategic human resource management and institutional performance.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on review of the literature in relation to the effect of work performance system in strategic human resource management on institutional performance. It reports research findings of previous studies regarding the constructs that the researcher attempts to investigate. These research findings would be the cornerstone for this new research to identify the gaps and shortcomings of previous studies in order to bridge the gaps. The literature review serves as a base for the researcher to design the present study especially in establishing the conceptual framework, research method, sampling procedure, and data analysis.

The chapter is divided into two parts. The first part is mainly focused on the result of previous studies on strategic human resource management such as staffing, training, involvement, performance appraisal, compensation, and caring. The chapter thoroughly reviews the findings of previous studies regarding these components. Furthermore, the chapter also reports on the studies that have been conducted on human resource practices in relation to employee performance, although the researcher would be focusing on the effects of work performance system on institutional performance.

However, the review of literature —because strategic management and human resource studies are mainly in business—will be general in nature. More precisely, the literature review would not only focus on the effect of work performance system on institutional performance only, but rather would comprehensively cover all types of organizations. Furthermore, the theories guiding the constructs under the investigation would also be highlighted because theories are the backbone for any academic study and research exercise. According to researchers (Creswell, 2005; Skinner &

Kindermann, 2009; Teater, 2010) theories play a significant role in directing, coordinating and guiding research activities. They are the platforms where researchers justify their concepts and establish their constructs. Theories also help the researcher to know the kinds of relationships between constructs, their magnitudes and directions, Hence, theories are considered to be one of the major elements of any research exercise.

Furthermore, the second part of the literature review would mainly focus on methodologies of the previous studies and their appropriateness. The researcher would thoroughly investigate the methodological aspects of these previous studies to examine the extent to which they abide with statistical rules and regulations. The sampling procedures, the sample characteristics and research settings are thoroughly examined and the extent to which researchers abide by the statistical procedures and regulations such as psychometric properties, sampling selection and assumptions of the methods are investigated.

2.2 General Overview

The link between human resource practices in strategic management and institutional performance has been well-documented and researched (Brown, 2004, 2005). The basic concept of the linkage is that the coherent human resource practices associated with an organizational strategy, rather than individual human resource practices might facilitate institutional performance and boost its effectiveness (Arthur, 1994; Batt, 2002; Becker & Huselid, 1998; Brown, 2004; Chuang & Liao, 2010; Jackson & Schuler, 1995). It can also help in enhancing and increasing commitment to strategic management in the organization and consequently empower employee competencies. Studies suggested that when an organization develops an effective human resource strategy and implements it accordingly, that would help in facilitating its performance and enhance employees' contribution to the organization. Many empirical studies have shown that work

performance system or systems of human resource practices that include but are not limited to comprehensive recruitment and selection procedures, involvement and training, compensation, and effective communication undoubtedly enhance employee motivation, maximizing their effort and ability which consequently promote institutional performance (Brown, 2004; Chuang & Liao, 2010; Guest, 1987; Guthrie, 2001; Jackson et al., 1989; Thompson& Heron, 2005; Wright& McMahan, 1992; Wright& Snell, 1998).

Strategic management development is believed to enhance strategic commitment and facilitate, complement and encourage development of organizational and individual competence in strategic management (Brown, 2005). Brown (2005) further emphasized that the objectives and design of strategic management development programs need to match the organization's level of commitment to strategic management and degree of maturity of its strategic management processes and competencies in enhancing the organizational strategic capability. It is believed that organizational success largely depends on members' abilities and their commitment to realizing their objectives. The organizations may have sufficient capital and might even acquire high productive technology; however, without committed human powers, the capital and infrastructure might fail to uplift the standard of the organization to achieve its targeted goals and face its enormous challenges. According to Che-Rose and Naresh (2006), capital and technology can be generated, but the human resources required to propel an organization through the coming challenges must be appropriately encouraged and motivated.

Brown (2005) defined strategic management as management development interventions intended to enhance the strategic capacity and corporate performance of the organization. The Oxford English Dictionary (Hornby, 2000) defined strategic management as including part of a long-term plan to achieve something, or relating to

the gaining of long-term military advantage. According to Armstrong (2009), strategic human resource management emphasizes the need for formulating human resource plans and strategies within the context of overall organizational strategies and objectives and to be responsive to the changing nature of the organization's external environment.

It is an approach requiring interpretation and adaptation by practitioners to ensure the most suitable fit between human resource business strategies and plans. Thus, the overall themes of strategic human resource management are the integration of all human resource management functions, adherence to broad organization goals and responsiveness to the external environment (Armstrong, 2009).

Furthermore, Armstrong and Baron (2004) unequivocally asserted that people and their collective skills, abilities and experiences, coupled with their ability to deploy these in the interest of their organization, are now recognized as making a significant contribution to organizational success and as constituting a major source of competitive advantage. The strategic human resource management practices such as resourcing, training and development, employee relations and reward management are concerned with how people are employed and managed in organizations so as to achieve competitive advantage through the strategic deployment of a highly committed and capable workforce. Cole (2004) emphasized that the HR function brings in the strategic value of people in the organization by enhancing the value added and contributing to competitive advantage. The organization relies on human resource as its employees. An effective human resource management strategy systematically organizes all individual human resource management measures to directly influence employee attitude and behavior to enable business to successfully implement its competitive strategy (Huang & Ford, 2012). Given that the goals and requirements of each competitive strategy type differ, the management of firm human resource should be aligned with the overall

corporate strategy. The firm can thus obtain a competitive advantage and hence achieve superior performance (Kelliher & Perret, 2001).

Many arguments have emerged among theorists and empirical researchers on whether strategic human resource management should always be positively related to institutional performance. According to universalistic theorists, there is a universal set of human resource management best practices that enhance firm performance and facilitate employee psychological factors to rigorously involve in the job which consequently facilitate institutional performance (Lau & Ngo, 2004). On the other hand, contingency scholars hold different views and argue that the assumptions underlying the human resource management strategy-performance link are applicable only under high external fit conditions, termed the "best fit" school (Bamberger & Meshoulam, 2000; Boxall & Purcell, 2008).

Interestingly, Delery and Doty (1996) proposed the notion of the configurational perspective which focuses on how unique patterns or configurations of multiple independent variables are related to the dependent variable, by aiming to identify ideal type categories of not only the organizations but also the human resource strategy. In most firms today, employees' skills and commitment create a competitive advantage for the organization. It is therefore important that organizations truly leverage on the workforce as a competitive weapon to develop competitive advantage. Although most of the studies suggested that strategic human resource management practices enhance performance, such a one-way line of causation is unjustified (Edwards & Rees, 2006). The usual key critique of strategic human resource management and institutional performance is that sound theoretical development that explains how such human resource practices operate is absent (Becker et al., 2001). In an effort to address such theoretical developments in this area, researchers have proposed further studies to consider intermediate linkages between strategic human resource management and

institutional performance (Chuang & Liao, 2010). Accordingly, a better understanding of the strategic human resource management role in creating and sustaining institutional performance and competitive advantage should be achieved through further theoretical development and empirical evidence.

Becker and Huselid (1998) provided one of the most detailed models of the relationship between human resource practices and firm performance offered to date. In essence, this model suggests that business strategies drive the design of the human resource system. The human resource system directly impacts employee skills and motivation and the structure and design of work. These factors influence employee behavior, which translates into improved operating performance. This drives profits and growth, resulting in higher market value. Moreover, according to Collins and Druten (2003), researchers have produced compelling evidence for the causal link between how people are managed and institutional performance. They argue that effectiveness of human resource practices, particularly employee selection procedures, performance appraisals, rewards and benefits management, and employee training and development (the matching model of human resource management) often have a direct bearing on organizational productivity and performance. Contributing to this assertion, Schuler and Macmillan (1984) suggest that the result of effectively managing human resources is an enhanced ability to attract and retain qualified employees who are motivated to perform. To them, the benefits of having the right employees motivated include greater profitability, low employee turnover, high product quality, lower production costs, and more rapid corporate strategy acceptance and implementation. These invariably lead to higher productivity.

Recruitment and selection involve getting the best applicant for a job. Huselid (1995) noted that recruitment procedures that provide a large pool of qualified applicants, paired with a reliable and valid selection regime, will have a substantial

influence on the quality and type of skills new employees possess. Mullins (1999) also pointed out that the important thing is for some suitable plan to be used; and that the plan is appropriate to the essential or desired characteristics of the candidate. It is also necessary to comply with all legal requirements relating to employment and equal opportunities, to follow recommended codes of practice and to ensure justice and fair treatment for all applicants. Bohlander, Snell, and Sherman (2001) indicated that it is important for managers to understand the selection objectives, policies and practices used. In that way, they can be highly involved in the process from the very beginning.

Those responsible for selection decisions should have adequate information for making their choice. Robbins (1991) further observed that an organization's human resource policies and practices represent important forces for shaping employee behavior and attitudes. The selection practices will determine who is hired. If properly designed, it will identify competent candidates and accurately match them to the job. Using the proper selection device will increase the probability that the right person will be chosen to fill a slot.

2.3 Background of Development of Oman Education

Before describing the development of education in Oman, some background on the country will be given. Oman is a Middle Eastern developing country of 2.5 million. With a total land area of 309,500 square kilometers, Oman is the third largest country in the Arabian Peninsula. However, Oman is a demographically young country with 51% of the population being children under age 18. Although Oman started exporting oil in 1967, very little was done to develop the country before 1970. It was lacking in basic infrastructure and amenities such as health care, education, roads and housing; it had no national telephone system and no broadcasting service. Under the leadership of His Majesty Sultan Qaboos, the progress made by the country over the last three decades

was nothing short of remarkable. For example, an impressive road, communication network, and first class health care services have been developed. The World Health Organization in its report of June 2000 ranked Oman eighth in the world for providing overall health care efficiency. The kind of development can be seen in every part of the Sultanate of Oman and it is claimed that 1970 is generally regarded as the dawn of the modern Omani Renaissance.

The latest official statistics show that oil and gas account for 73% of government revenues (Ministry of Information, 2008). Recognizing the finite nature of these resources, the government has made it a top priority to reduce over-reliance on these natural resources (oil and gas) through diversification and development of alternatives. Hence, the government has taken measures to develop agriculture and fishery sectors, encourage tourism and promote the creation of light industrial parks.

The geographical features of the Sultanate of Oman have a major influence on its politics, strategic options, and development. The country lies at the crossroad of three countries and four seas, in the extreme south-eastern corner of the Arabian Peninsula, extending from latitude 16.40 to 26.20 degrees north and from longitude 51.50 to 59.40 degrees east. Its spectacular (approx. 3,165km) coastline extends from the south-eastern extremity of the Arabian Sea and the entrance to the Indian Ocean, up to Musandam in the north, where it overlooks the strategic Strait of Hormuz and the entrance to the Persian Gulf.

Oman shares borders with the Republic of Yemen to the south-west, the Kingdom of Saudi Arabia to the west and the United Arab Emirates on the north. It has sovereignty over a number of small islands in the Sea of Oman and the Strait of Hormuz, including Salamah and Her Daughters, as well as Masirah and the Hallaniyat Island in the Arab Sea.

The Sultanate lies on the Topic of Cancer and generally it is one of the world's hot and arid regions. However, the extreme south of the country has a tropical climate, making it a popular holiday destination for visitors to the region during the parched summer months. Oman dominates the oldest and most important sea trade route in the world between the Gulf and the Indian Ocean.

As was earlier indicated, the Sultanate of Oman is one of the oldest states in the Arab world. To the east, the Gulf of Oman and the Strait of Hormuz separates the Sultanate from Iran. As a gateway to the Indian Ocean, East Africa, and the Arabian Gulf, Oman occupies a vitally important strategic location (Ministry of Education, 2006).

Omani education began since Oman embraced Islam. During that period, the Quran, *"Hadith"* and Islamic doctrine played a role in transmission of the Islamic religion. This manner of education was for children presented by "*Kuttab*" or "Quran *Madrasah*". Teachers (either male or female) teach students how to recite the Holy Quran and basic writing skills (Al-Hamdani, 2003). The modern education system in Oman started in 1970 as systematical education. It is the second largest education system in the Gulf countries. In Oman, education is free and compulsory for children between the ages of 6 and 18 years. It is also free in Government universities and institutes. The education system and education infrastructure was absent before 1970. At that time, most Omanis had no opportunity for schooling; only those who studied in other countries had this chance. In the whole country, there were only three schools.

Two of them were in capital city: the Sayyidiya School in Muscat and Mutrah, established in 1940 and 1959 respectively. Sayyidiya School was after the previous mentioned schools was opened in Salalah in 1955 in the south of the country. These three schools had a total of 909 students and 30 teachers (Al-Hamdani, 2003).

When His Majesty Sultan Qaboos acceded to the throne in 1970, there were only three schools in the whole of the Sultanate of Oman. Education, especially for young people, was one of the major concerns of his Majesty. In early 1970 he emphasized the importance of education and promised his nation to provide education for the whole Omani population--even under the tree shadow. He said (Ministry of Information, 1995):

> *Education was my great concern, and I saw that necessary to direct efforts to spread education. We have given the Ministry of Education the opportunity and supplied it with our capability to break the chains of ignorance. Schools have been opened regardless; the important thing is that there should be education, even under the shadow of trees.*

In his speech, on the occasion of the Opening Annual Session of the Council of Oman, His Majesty stressed that education and training for everybody in Oman are noble goals to achieve. He said (Ministry of Information, 2008).

> *The development of the Oman individual, the formation of his character, his education and his training are the forefront of the noble goals that we constantly seek to achieve in order to provide everybody in this fine country of ours with decent, prosperous life.*

The educational priorities, therefore, were to expand educational provision to all parts of the country and to ensure that all sections of society had equal access to education. By the mid-1990s, this quantitative expansion of educational provision had largely been achieved and the Ministry of Education shifted attention to bringing about qualitative improvement in the education system (Ministry of Education, 2004).

The school system consists of nursery (for children 3-5 years), Basic education including (1) First Cycle (ages 6-10 years) (2) Second Cycle (ages 11- 16 Years), and Post-Basic Education (ages 17-18 years) schools. According to figures released in May

2008 by the Ministry of Education, there are 563,236 male and female students in 1,052 government schools staffed by some 41,989 male and female teachers.

There are also 174 private schools in the country (including two international schools), and many of these cater to the non-Omani children. These private schools have a total of 2,797 male and female teachers and some 484 administrative staff. As in many educational authorities around the world, the Ministry of Education (MOE) in Oman sees technology as a way to better prepare the workforce for a competitive economy. Therefore, a special unit in the MOE, called the Directorate General of Information Technology, was formed to coordinate the MOE effort to introduce technology into schools (Warschauer, 2004).

In addition to these schools, the Sultanate of Oman has several universities, both public and private. According to the Human Development Report 2012, no less than 85603 students enrolled in different universities across Oman. Thus, the Omani government in 1995 announced a long-term development plan named vision 2020, a blueprint expected to take Oman two decades into the new millennium. The ultimate goal of the vision is to enhance the Omani economy and facilitate individual incomes through enhancing educational standards and providing adequate training.

Despite the country doing well compared to many developing and developed countries, some voices in Oman have been calling for greater effectiveness of human resource management and a well-structured human resource development system, supported by professional committees and clear strategies to uplift and enhance the quality of performance (Al-Hamdani, 2003). The voices are calling for a work performance system in strategic human resource management to have systematic staffing, providing effective training, caring for employees, giving compensation according to staff contribution, allowing employees meaningful involvement in decision making and implementing adequate efficient performance appraisal. These practices are

collectively believed to motivate employees, uplift their morale, enhance their commitment and eventually lead to improved institutional performance.

The philosophy of education in Oman reflects many significant characteristics of the country; the most important characteristic is related to the ideological basis of Omani society and the law of the state. In other words, the educational system of Oman is based on Islamic teaching which subsequently gives rise to educational and philosophical attitudes that express the national needs and aspirations. These attitudes constitute the practical framework of the educational, social and economic practices in Omani life, schools and in the other educational institutions across the country.

The Sultanate of Oman also set for herself a number of fundamental goals in education. She knows that without proper setting of aims and objectives of education, it would be very difficult if not impossible to achieve the ultimate desire in education. These goals are to guide the development and implementation of the Ministry of Education plans. These goals include but are not limited to:

1. Helping Omani citizens to develop well-integrated personalities to enable them to interact positively in the present and in the future.
2. Supporting the comprehensive development of Omani society.
3. Emphasizing the need to cope with change and desirability of participating in change.
4. Encouraging Omani citizens to adopt a scientific approach for dealing with life and with modern science and technology.

However, despite enormous developments in terms of educational progress, amenities and infrastructure witnessed by Oman since 1970 till today and these developments still continuing in every aspect of life, the Ministry of Education is facing challenges in providing qualified teachers and sound infrastructure for every individual

in the nation. Thus, adopting strategic human resource development is very necessary if not essential for continuing the development and providing equal, moderate and high quality of education for every Omani citizen.

2.4 Strategic Human Resource Management

Pearce and Robinson (1988) defined strategic management as the set of decisions and actions resulting in formulating and implementing strategies designed to achieve organizational objectives. According to Kanter (1984) its purpose is to: "elicit the presentations for the future" and become "an action vehicle – integrating and institutionalizing mechanisms for change." The concept of strategic management is built on the concept of strategy. Thus, strategy is the approach selected to achieve predetermined goals that organizations would like to achieve in the future. According to Chandler (1962) strategy is "the determination of the long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out those goals." These definitions connote generally that strategic human resource management is bridging the concepts of business strategy and human resources (Boxall, 1996). According to Armstrong (2009), strategy has three fundamental characteristics. First, it is forward looking. It is about deciding where you want to go and how you mean to get there. It is concerned with both ends and means. In this sense a strategy is a declaration of intent: "This is what we want to do and this is how we intend to do it."

According to Armstrong (2009), the second characteristic of strategy is that the organizational capability of a firm (its capacity to function effectively) depends on its resource capability (the quality and quantity of its resources and their potential to deliver results).

The third characteristic of strategy is strategic fit – the need when developing human resource strategies to achieve congruence between them and the organization's business strategies within the context of its external and internal environment.

An organization is likely to achieve its objectives and accomplish its targeted goals when human resource practices and systems are adopted and implemented based on predetermined objectives and aims; in short, when a strategic concept of human resources is adopted (Baird & Meshaoulam, 1988). According to Boxall (1996) strategic human resource management is the interface between human resource management and strategic management. It is based on the notion of human resource management as a strategic, integrated and coherent approach and develops that in line with the concept of strategic management. The concept of management is based on a broad and long-term view of where an organization is orienting and managing activities in ways that ensure and maintain the strategic management.

Strategic management has been defined in many distinctive ways. According to Pearce and Robinson (1988) strategic management is the set of decisions and actions resulting in the formulation and implementation of strategies designed to achieve the organizational objectives. It is also defined as the determination of long-term goals and objectives of an enterprise and the adoption of courses of action and allocation of resources necessary for carrying out these goals (Chandler, 1962).It is obvious from the definitions that strategic management aims at eliciting the present actions for the future and becoming an action vehicle integrating and institutionalizing mechanisms for change.

Three major characteristics are evident from the aforementioned definitions. These characteristics are that strategic management is firstly forward looking. This simply means that strategic management formulates what the organization attempts to achieve in effective ways. It is concerned with both means and ends. A good strategy

enables the organization to adapt by mastering the present and forecasting the future (Abell, 1993). Hence strategy should be understood as a framework of critical ends and means (Boxall, 1996).

The second characteristic of strategic human resource management is that organizational ability to function effectively depends on resource capability (the quality and quantity of its resources and their potential to deliver results). As Barney (2001) argued, sustained competitive advantages stem from the acquisition and effective use of bundles of distinctive resources that competitors cannot imitate.

The third characteristic of strategy is strategic fit – the need when developing human resource strategies to achieve congruence between them and the organization's strategies within the context of its external and internal environment. In this characteristic, the fundamental focus is upon the organization and the world surrounding it. To maximize competitiveness, balance is needed between aspects of the characteristics (i.e., balance between organization's capabilities and resources) within the opportunities available in its milieu.

However, the strategic resource management holistically concentrates on total contribution of the organization; innovation creative behavior, overall effectiveness, and cross-functional interaction. It is believed that strategic resources in the form of intellectual or organizational capital are largely invisible; thus, they are not categorically mentioned in black and white in the organizational balance sheet. But rather they are found in a skilled, motivated and adaptable workforce and in human resource management systems that develop and sustain these qualities (Karami et al., 2004). According to Ulrich and Lake (1990) the human resource management system is the source of organizational capabilities that allow firms to learn and capitalize on new opportunities. Strategic human resource management is an asset to the organization and solid infrastructure that support the value creation process in the organization.

Interestingly, strategic human resource management is not a mere process or procedure; it is a system for producing good quality employees and enhancing their morale to focus on the business priorities which eventually increase profit, growth and subsequently market value (Karami et al., 2004).

Thus, strategic human resource management should not solely focus on business level outcomes but also human resource level of input and also should be a strategic core competency rather than a market follower. Miller (1989) emphasized that strategic human resource management combined decisions and actions that concern managing employees at all levels in the organization that would help in achieving and sustaining competitive advantages. Henry and Pettigrew (1996) stressed that strategic human resource management means matching activities and policies to some explicit business strategies. The strategic human resource management perspective considers employees as strategic resources and implies that people are critical investments in an organization's performance.

According to Armstrong and Baron (2004),people and their collective skills, abilities and experiences coupled with their ability to deploy their characteristics to enhance their respective organizations are now recognized as a major determinant of organization success and constitute a major source of competitive advantage. Strategic human resource management practices such as resourcing, training and development, employee relations, compensation and reward management are concerned with how people are employed and managed in organizations to achieve and compete locally and globally. According to Armstrong and Baron (2004), human resource is considered to be cornerstone of the organization because the company relies on its employees. Hence, adapting an effective human resource management strategy systematically organizes all individual human resource management measures to directly influence employees' attitudes and behaviors to enhance their commitment and consequently organizational

success and competitive strategy. In most organizations today, employees' skills and competence facilitate and establish competitive advantage for the organization; thus, it is essential for any organization to truly leverage on the workforce as a weapon to develop competitive advantage.

Much attention has been paid to human resource management over the past four decades. The attention was obviously intensified in the 1980s due to expansion in many organizations, booming economy in many countries and most importantly the enormous effects of human resource management on organizational competitive advantage. Despite the strong relations between strategic human resource management and human resource management, it is obvious that both terminologies are not identical. However, the most challenging aspect facing researchers in organization management is the difficulty in differentiating between both concepts due to lack of strong theoretical underpinnings. According to Karami et al. (2004), the difference between the traditional method of human resource management and strategic human resource management is the extent to which human resource management is integrated with the strategic decision making processes that tend to direct organizational effort to cope with the environment. More specifically, traditional human resource management solely concentrates on physical skills, training covering only specific tasks; functional and sub-functional specialization regarding individual efficiency and ability to perform specific tasks, while strategic human resource systematically pays attention to individual employees, what they can do, how effectively they can do it and imperative support or training that can be rendered to them in order to successfully complete the task.

In the traditional human resource management context, professionals are taught techniques with unique sub-functions such as selection or performance appraisal while it ignores or de-emphasizes the importance of other sub-functions. However, strategic human resource management strategically emphasizes all aspects of sub-functions to

facilitate employees' efforts toward fulfilling business strategy. Moreover, Wright and Boswell (2002) contended that the difference between traditional human resource management and strategic human resource management lies in the different role and focus of both approaches. For human resource management the approach involves the micro level, with the focus more on the individual while strategic human resource management is more macro-oriented toward overall organizational aims. Interestingly, human resource management is unitary and more active while strategic human resource management is a strategic and proactive approach for managing human resources. Strategic human resource management is also concerned more about the top level of the organization but human resource management focuses relatively on the lower and middle level. It is worth mentioning that human resource managers take active roles in strategic human resource management, while in traditional human resource the human resource manager plays a supportive role.

2.5 The Nature of Strategic Human Resource Management in Human Resource

Human resource management styles and their effects on company performance have been investigated extensively in several ways, including experimental laboratory, case methods, and a quantitative survey approach (Chuang & Liao, 2010; Delery & Doty, 1996; Huselid, 1995; Pfeffer, 2001; Salanova et al., 2005; Wright et al., 2005).

As previously mentioned, strategic human resource management has been defined as an approach that structures how the organization aims and objectives will be accomplished through people by means of human resource strategies and integrated human resource policies and practices (Armstrong, 2009). Strategic human resource management is considered to be a mindset underlined by specific concepts and understanding rather than a set of guidelines, techniques and regulations. These strategies help in providing the basis for strategic reviews in which analyses of the

organizational context and existing human resource practices lead to choices on strategic plans for developing overall or specific human resource strategies. Strategic human resource management involves the exercise of strategic choice (which is always there) and the establishment of strategic priorities (Armstrong, 2009).

However, strategic human resource management is not just merely creating strategic planning but also in addition to planning effective implementation of strategy and the strategic behavior of the human resource specialists working with their colleagues on a daily basis to ensure that the organization's goals are achieved and its values are upheld and put into practice.

The fundamental aim of strategic human resource management is to generate organizational capability by ensuring that the organization has the skilled, engaged, committed and well-motivated employees to achieve sustained competitive advantage (Armstrong, 2009). According to Armstrong (2009), broadly, this strategic human resource management has several main objectives; the first objective is to accomplish integration vertically with business strategies and horizontally with human resource strategies. The second objective is to guide the organization in a turbulent environment in order to meet the organizational demands and individual and collective employee needs. These needs and demands can only be met by developing and implementing coherent and practical human resources policies and programs. Strategic human resource management is largely about integration and adaptation. Its concern is to ensure that: 1) human resources management is fully integrated with the strategy and strategic needs of the firm; 2) human resource policies cohere both across policy areas and across hierarchies; and 3) human resource practices are adjusted, accepted and used by line managers and employees as part of their everyday work (Armstrong, 2009).

Historically, strategic human resource management is relatively considered to be a new crossover field which appeared in recent decades in management studies. In the

1970s, enterprises were familiar with the concept of human resource management. However, due to the dramatic changes in human life and technology, the traditional human resource management function, or technical human resource management activities, which consist of employment practices such as recruitment, selection, performance appraisal, training and development (and the administration of compensation and benefits, etc.), emphasized the people but ignored the connection with organizational strategy and also ignored the treatment of human resource in the perspective of strategy; gradually this perspective changed because it was believed that the traditional approach to human resource management was lacking in fitness and needed to align with organizational strategy. Although traditional human resource management paved the way for emergence of strategic human resource management, it fails to adapt the requirement needed for rapid development and enterprise innovation. Hence, the researchers and practitioners tried to study a general management theory to explain, forecast, and to train the employees and the human resource management and also to explain some questions ignored in the aspect of employee relationship.

Therefore, they innovated a new theory to combine the human resource management function with business strategy and to reflect a more flexible arrangement and utilization of human resources to achieve organizational goals, and assist organizations in gaining competitive advantage; this was called Strategic Human Resource Management.

Strategic human resource management's evolution has consistently followed developments within the field of strategic management. For example, Baird, Meshoulam, and Degive (1983) brought forward integrated strategic human resource management theory and proposed that people adopt this theory in their studies.

Organizations needed a process of strategic human resource management to help deal with the rate of "strategic surprises" that generated the need for flexibility and

innovation, developing culture to harness creativity and enterprise (Baird & Meshoulam, 1988; Kanter, 1983). In the developing process of strategic human resource management theories, the most influential one was generated by Beer et al. (1984) that suggested strategic human resource management is about developing and implementing human resources strategies that support delivery of four key goals: competence, commitment, congruence, and cost. This influential academic work identified six basic components (i.e., factors, stakeholder interests, human resource management policy choices, human resources outcomes, long-term consequences, and feedback loop).

Strategic human resource management emphasizes the congruence or "fit" between human resource practice and business strategy. Many scholars assert that employing effective human resource practices and designing a human resource system compatible with the firm strategy are imperative for successful business strategy implementation (Baird & Meshoulam, 1988; Miles & Snow, 1978; Wright & McMahan, 1992). An increasing number of empirical studies conducted in various countries have touched on the relationship between strategic human resource management and institutional performance or competitive advantage. Essentially, strategic human resource management emphasizes developing the firm's capacity to respond to the external environment through a better deployment of human resources. Since the firm strategy reflects its response to the competitive external changes, a human capital pool with a broad array of skills compatible with the corporate strategy is a catalyst for fulfilling the strategic goals through promoting behavioral utility among employees.

One of the major differences between conventional human resource management and strategic human resource management according to Karami et al. (2004) is the extent to which human resource management is integrated with the strategic decision making processes that tends to direct organizational efforts to cope with the

environment. Dramatic developments in the world arising from heightened competitiveness, globalization, technological advancement in the global marketplace forces the organization to transform its human resource practices. Thus, the new strategic roles have been outlined to cope with conditions in the competitive global market. As earlier highlighted, conventional human resource management overemphasized physical skills, training covering only specific tasks, functional and sub-functional specialization and concern for individual efficiency.

These conventional practices did not pay attention to the human aspect of human resources management and in many cases ignored the role of human psychology in development. The main objective of this training and concern is to provide employees with the necessary skills to perform their duties for institutional performance and productivity. On the other hand, the new paradigm of human resource management (or strategic human resource management) emerged in which emphasis is holistically paid on the total contribution of the firm; innovative and creative behavior; overall effectiveness and cross-functional integration (Karami et al., 2004). Strategic human resource practice is considered to be invisible. Therefore it cannot appear in the balance sheet of the organization, but its effects are enormous and can be felt and seen at every level. The effects are found in employees' skills, in their motivation and adaptable workforce and in the human resource management system used in the organization. According to Karami et al. (2004), "indeed, as intellectual capital has come to represent an increasing fraction of many firms' total assets, the strategic role of the human resource management system has also become more critical" (p. 53).

2.6 Strategic Human Resource Management in Educational Institutions

Strategic management of human resources in educational institutions has received only cursory attention. Yet, in an industry as labor-intensive as higher education, the

effective use of human resources becomes critical. Arguments presented in the aforementioned literature of declining industries and declining educational institutions suggest that organizations which link their human resource needs with strategic planning will be more successful than organizations which fail to do so.

Steady periods of growth in higher education have created a cadre of educational leaders who have learned to manage with an abundance of students, faculty, and funding. Since colleges and universities are by their nature difficult to manage under the best of conditions (Cyert, 1978), periods of decline present a particularly challenging task for administrators. These challenges and difficulties can provide a source of managerial opportunities in addition to the problems. Following the publication of "Academic Strategy"(Keller, 1983) ,many colleges and universities became interested in instituting a strategic approach to human resource management in their organizations.

Others reserved judgment while awaiting more conclusive evidence that the practice would be advantageous. The literature pertaining to how organizations practice strategic human resource management and how successful they are as a result is sketchy. During the 1980s, two influential studies have distinguished between productive and non-productive organizations' attempts at managing their human resource practices strategically (Misa & Stein, 1983; Smith Cook & Ferris, 1986). Both studies concluded that human resource management activities of the high performing firms in the studies reflect a strategic orientation.

Although the idea of advocating a change in management styles for colleges and universities was not new, the concept of "shaping an academic strategy" had a profound twist for many college presidents. According to Keller (1983), an institution with an academic strategy believes that it can help to shape its own destiny rather than be totally controlled by external forces. This strategic management concept is gaining momentum, especially in the business world. Operating in an increasingly complex environment, the

modern corporation has begun to address itself to the better management of its human resources. The emphasis on human capital as an underutilized resource is due to increased competition, scarcity of resources, technological advances, and a demand for increased productivity.

In the education world, however, strategic human resource management has received only cursory attention because the concept emerged initially from industrial sectors. Although colleges and universities are facing many of the same changes as corporations, a great number of academics still react negatively to the concept of management in education. As a result, higher education institutions tend to neglect management practices. According to Keller (1983), American higher education has entered a new era that requires new procedures and new attitudes: better planning, strategic decision-making, and more directed change. "The era of laissez-faire campus administration is over. The era of academic strategy has begun" (p. 26). Conceptual frameworks have begun to emerge in the study of strategic human resource management.

As a result of complexity of organization, human resources, technology advancement and complexity of society and human beings' interactions, the traditional human resource functional areas are facing challenges in higher education institutions. Motivating performance, providing skilled staff, enhancing institutional performance, addressing the potential loss of organizational knowledge presented by faculty and administrative retirements, focusing on the high cost of staff, and designing and implementing effective processes are issues human resource must actively address (Brault & Beckwith, 2003). In a recent report on the future of higher education in America CUPA-HR (2006) Think Tank members outlined 11 external threats to the future of higher education. These threats included shrinking revenues, increased expenses, competition between institutions, unfavorable public perceptions, rapidly

changing stakeholder demands, decreasing quality of students, lack of appeal of academic careers due to low salary and inflexible practices, changing nature of the workforce, immigration restrictions, increasing legal and federal mandates, and inability to attract and retain high quality faculty.

In order to address these issues, Tompkins (2002) suggested six strategies public sector human resource departments could adopt including cost containment, performance management, employee involvement, retention, investment, and cohesion. However, Tompkins also recommended that in addition to the traditional human resource perspectives driving the prioritization and selection of strategies to deal with issues, broader organizational objectives should be incorporated so that strategic human resource value is realized.

2.7 Theories Related to Strategic Human Resources Management

Strategic human resource management theory has often been used as the basic framework for investigating human resource strategy and institutional performance. Many theories focusing on strategic human resource management exist; each theory examines the organization from a different perspective. Among these theories are universalistic theory, contingency theory and configurationally theory.

2.7.1 Universalistic Theory

Universalistic theory advocated what it is labeled as “best practices”(Delery & Doty,1996). These concepts mean that organizations adapting human resource practices are always performing better than others. This theory identified some distinctive values and practices as strategic human resource practices; these practices are internal career opportunities, training systems, appraisals, profit-sharing plans, employment security,

voice mechanism, including formal grievance systems and participation in decision making and the degree to which jobs are tightly or narrowly defined.

The notion of best practice was initially adopted in early US models of human resource management which emerged from assumptions that adaptation of certain attitude and behavior in an organization would enhance its performance and would result in organizational advancement and enhanced performance. These best human resource practices manifested in improved employee attitudes and behaviors, lower levels of absenteeism and turnover, higher skill levels and consequently higher productivity, enhanced quality and efficiency and eventually increased productivity (Marchington & Wilkinson, 2008). The universalistic theory maintains that organizations would succeed and improve dramatically if they can identify and implement best practice regardless of the product market situation, industry or location (Pfeiffer, 2001).

Nevertheless, this theory came under substantial attack from scholars and researchers because the notion of a single set of best human resource management practices has been overestimated. Many environmental factors also contribute to the organizational success and what succeeds with one organization may not necessarily work well with another, because it might not fit its strategy, technology or working practices (Waiganjo, Mukulu, & Kahiri, 2012).

According to Becker et al. (2001), organizational higher work performance systems are highly idiosyncratic and must be tailored carefully to each firm's industrial situation and specific context for maximum performance. These work performance systems will only have a strategic effect if they are compatible generally and integrated with each other and if the total human resource management system supports the organization in achieving its targeted goals.

This theory is being considered as the simplest compared to other theories in strategic human resource management. It is argued that the relationship between a given independent variable and dependent variable is universal across the population of the organization. Furthermore, developing universalistic predictions require two distinctive steps; the first step is identifying the important human resource practice and second is presenting argument that relates the individual practice to institutional performance.

Strategic human resource practices have been defined as any practice that has been suggested theoretically or empirically related to overall organization well-being and performance. Thus, it is impossible to consider all practices in an organization as strategic because not all practices are proven to improve its overall performance. However, some practices have been proved across studies to be strategic in nature; these practices are internal career opportunities, formal training systems, appraisal measures, profit sharing, employment opportunity, voice mechanisms and job definitions (Delery & Doty, 1996).

On the other hand, Pfeffer (1994) listed 16 most effective practices in managing people in the organization. It is worth mentioning hence that this list encompasses almost all the practices suggested by Delery and Doty (1996). However, the institutional performance practices that have been considered as indicators of institutional performance have been summarized from many theoretical and empirical studies such as Osterman (1987), Sonnenfeld and Peiperl (1988), as well as Kerr and Slocum (1987). For example, Pfeffer (1994) argued that employing best practices such as participation and empowerment, incentive pay, employment security, promotion from within, training and skill development leads to greater productivity and subsequently profit across organizations.

Interestingly, Osterman (1994) asserted that a number of innovative work practices such as teams, job rotation, quality circles and total quality management result in higher productivity for American organizations.

It is worth mentioning that upon this critique waged against universalistic theory, the best practice theory is very essential in identifying good practice because strategies that are working well in an organization could not be completely rejected despite the idiosyncratic nature and peculiarity of individual organizations.
Thus, universalistic theory is valuable for benchmarking (i.e., to identify the innovation and development that are practiced to good effect elsewhere by leading organizations). However, the organization is going to determine the relevant factors that should be considered as strategic factors.

In their influential study, Youndt et al. (1996) compared the universalistic with contingency perspectives of strategic human resource management with a sample of 97 plants in a manufacturing setting. The findings of the study are in accordance with the contingency approach. They found that a human resource system focused on human capital enhancement in organizations pursuing a quality enhancement strategy related to multiple dimensions of operational performance. However, the researchers argued that universalistic and contingency perspectives are not necessarily mutually exclusive but rather they are working together to make the organizations more effective and dynamic.

In other words, universal "best practices" provide a solid foundation of strategic human resource activities, but to achieve a higher level of performance, contingent factors should be considered. Boxall and Purcell (2000) weighed in on the debate between best fit (i.e., the contingency perspective) and best practices (i.e., the universalistic perspective). They concluded that there is little evidence to support the universalistic perspective. However, they encouraged a broader view on contingency theory than had been examined previously. They argued that the resource-based view of

the firm had been useful in SHRM research, and encouraged researchers to investigate how HR activities could influence knowledge creation and organizational renewal.

2.7.2 Contingency Theory

Contingency theory is based on the assumption that there is no universal prescription of Human Resource policies and procedures but rather the best practice is based on the organization's context, culture, and its business strategy (Wright & Snell, 1998). It was developed by Fiedler (1964). This theory is the opposite of universalistic theory and also known as "best fit human resource management". Contingency theory argues that human resources strategy would be more effective only when it is appropriately placed in its suitable environment, and it is integrated with a specific organizational and environmental milieu. According to this theory, the human resource strategies should be significantly matched with the circumstances of the institution including the culture, operational processes, and external environment. Therefore, human resource strategies have to take into account the particular needs of both institution and employees because ignoring one of these needs would jeopardize the entire process of organization development.

Therefore, the contingency theory investigated the linkage between strategic management and human resource management by assessing the extent to which these vertical integrations between an organization's business strategy and its human resource management policies and practices are matched (Dyer, 2005; Mahoney & Decktop, 2006; Schuler & Jackson, 1987). Strategic human resource management is not the major element contributing to development of an organization but rather this strategic human resource management must be accompanied and integrated with other essential elements and the effects of human resource practices on institutional performance is conditioned by its strategic practices. For an organization to compete, it should strategically use the

employee talents and capabilities; then human resource practices would be more likely to impact on performance. If not, the connection between human resource and performance might be minimal. Wright, McMahan, and McWilliams (1994) unequivocally stated that vertical integration between business strategies or objectives of the business and individual behavior and eventually individual, team and institutional performance is at the forefront of the core model of strategic human resource management. This vertical integration of fit when leverage is gained through procedures, policies, and processes is extensively recognized to be an essential part of any strategic approach to people management (Dyer, 2005). The best fit based on this theory hence ensures an explicit link between internal people processes and polices and the external market in business strategy, and thereby ensures that competences are created which have a potential to be a key sources of competitive advantage (Wright et al., 2005).

In contingency theory, the relationship between using specific employment practices and institutional performance is posited to be contingent on an organizational strategy. Based on the behavior perspective of contingency theory, success of an organization largely depends on its employees' behaviors. In other words, successful business strategy implementation largely depends on characters of the organization's employees. An organization's strategy necessitates behavioral prerequisites for success and human resource practices can be rewarding or demotivating to employees. Hence, it is deemed essential for the organization to adapt human resource practices that are in line or align with organizational strategy. The alignment between human resource practices and organizational strategy would assist the organization in achieving its goals and developing superior performance (Jackson et al., 1989).

In contradiction with the linear relation between dependent variable and independent variables argued by universalistic theory, the contingent model suggested a

model based on interactivity. The relationship between dependent and independent variables based on this concept is no longer static but rather dynamic and changing depending on other related variables, identified by contingency variables. The contingency variables moderate the relationship between human resource management and performance. Thus, the concept negates the existence of best practice that could lead to superior performance under any circumstance as stipulated by universalistic theory (Martin-Alcazar, Remero-Fernandez, & Sanchez-Gardey, 2005).

Interestingly, Martin-Alcazar et al. (2005) categorized the contingency relationships in the previous studies into three genetic groups. The first group include strategic variables which consistently contribute to human resource practices and effect of human resource practice on organizational strategies. Hence, human resource management is considered as a reciprocal relation and not as unidirectional. The second group consists of organizational variables such as structure of the organization, technology and size and internal political relationship. The final and third group of contingency relationship is a broad set of environmental factors, external to the organization such as the competitiveness, technological, macro-economic and labor context.

On the other hand, the agency perspective of contingency theory reached the same conclusion but it emphasizes that if an employer understands employee needs, then the organization will enact policies and procedures that elicit these behaviors. Based on this perspective, any practices aligning employer and employee needs would enhance the sense of belongingness and consequently, the employees would strive to achieve greater performance. Human resource can be used in many ways to elicit from employees behaviors consistent with an organization's strategy. Psychologically speaking, behavior is a result of ability and motivation; thus, the organization should hire individuals who are capable and fulfill the requirement of ability and find

appropriate ways to motivate them in order to retain highly skilled employees for the organization's betterment (Delery & Doty, 1996; Eisenhardt, 1988; Fama, 1980).

However, the contingency theory is not free from criticisms. The major drawback against the theory is its simplicity. It is believed that contingency theory tends to over-simplify organizational reality. According to Purcell (2001), contingency theory simply relates one dominant variable in the organization to another internal variable; they tend to assume a linear, non-problematic relationship. This theory, Purcell unequivocally asserted, is limited by the impossibility of modeling all the contingent variables, the difficulty of showing their interrelation, and the way in which changes in one variable may affect other variables.

2.7.3 Configurational Theory

Configurational theory is very complex compared to universalistic and contingency theories. In fact, it can be said that configurational theory is the most complex theory in strategic human resource management. The complexity of this theory is attributed to it being based on the holistic principle of enquiry (Delery & Doty, 1996). It was founded by Miles and Snow (1978). Configurations represent non-linear synergistic effects and higher-order interactions that cannot be represented with traditional bivariate contingency theory. Secondly, the configurational theory encompasses the assumption of equifinality by postulating that multiple unique configurations of the relevant factors can result in maximal performance.

More specifically, the theory is based on the assumption that a strategy's success results from a combination between both external and internal fits. An organization with bundles of coherent human resource practices should have a high level of performance, provided it also achieves high level of fit with its competitive strategy. The focus in this theory is on the importance of bundling of strategic human resource management

practices and competitive strategies in which their interaction would positively enhance the employees' competence and consequently reflect in their performance. The significant idea is that the bundles of strategic human resources management factors are internally correlated and consistent which eventually affect the performance due to multiple practices.

Since performance is the result of ability and motivation, employers should use different methods to recruit the most suitable candidate (selection and training) and provide incentives to facilitate and enhance employee motivation and commitment (different forms of financial and non-financial rewards). According to Storey (2007) individual human resource management practices cannot be implemented in isolation but rather, these bundles of practices are complementary and interacting in a positive way to form a best-practice in the organization, consistently. McDuffie (2005) stressed that a bundle creates the multiple, reinforcing conditions that support employee motivation, provided employees have the necessary knowledge, ability and skills to perform the task effectively.

The main objective of bundling is to achieve the coherence available when a mutually reinforcing set of human resource practices have been developed which would partially contribute to attaining the institution's strategic objectives to match resources to organization needs, improving performance and quality and achieving competitive advantage. The concept of bundling is holistic because it is mainly concerned with the organization as a total entity and focused on the organizational requirement to achieve its targeted goals. The main difference between this theory and contingency theory is that configurational theory represents non-linear synergistic effects and higher-order interactions that can result in outstanding employee performance. Therefore, the strategic human resource management based on configurational theory requires an organization to develop a human resource system that would achieve horizontal and

vertical integration. This approach significantly contributes to the debate in strategic human resource management in emphasizing the need to achieve both horizontal and vertical fit through human resource practice which would help the organization to compete across industries. “The human resource management is defined as [a] multidimensional set of elements that can be combined in different ways to obtain an infinite of possible configurations” (Martin-Alcazar et al., 2005, p. 637).

These bundles of practices should not only be consistent with the environmental and organizational conditions but must also be internally coherent. Despite the configurational approach acknowledging the significance of contingency models, the contingency model is defined under the principle of equifinality, which entails the possibility of achieving the same business goals with different combination of policies that may be equally efficient for the organization and also be rejecting the universalistic objective of definitively finding best practices (Martin-Alcazar et al., 2005).

2.7.4 Universalistic Perspective’s View

Researchers and scholars from various fields of thought and different disciplines have presented various conceptual frameworks to explain the connection between a firm’s human resource management systems/practices and performance. However, the most salient conceptual framework among these are human capital theory, agency theory, and resource-based theory.

Among the theories used to develop universalistic propositions, the researcher highlights the agency and transaction costs framework. As previously presented, the universalistic arguments are based on the assumption that the influence on performance of certain policies, such as appraisal or benefit sharing, has been demonstrated because those practices contribute to overcoming the problems of opportunism and also to reducing internal management costs (Delery & Doty, 1996). Furthermore, the basic

proposition of human capital theory, which argues that organizations with valuable knowledge, skills and abilities will present better performance levels, has also fostered many universalistic conclusions. For example, Huselid (1995) stated that as part of the work performance system, the human capital activities can improve institutional performance through the skill of employees, incentives and the work structure of the organization. Differences in human resource management level can also reflect the different level of human capital investment (Lepak & Snell, 1999).The human capital theory can illustrate strategic human resource management in universalistic perspective as in the following route (Figure 2.1).

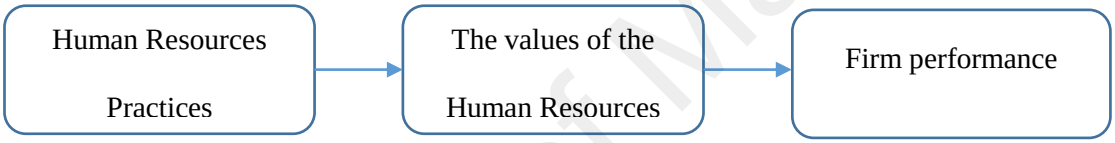


Figure 2.1: The human capital view supporting strategic human resource management.

Recently, the newest and the most important theoretical foundation of strategic human resource management was formed namely the resource based view. While some scholars distinguish the terms of resource, competence, capacity, capability and so forth, following Barney (2001), these resources and capabilities can be categorized into four groups, namely; financial, physical, human, and organizational. The resource-based approach stresses the need for a specific human resource management strategy, which seeks to achieve competitive advantage by increasing the workforce efficiency and competency. Based on the resource-based view, four distinctive conditions must be met in a firm's resources and capabilities. These conditions are: valuable, rare, inimitable and non-substitutable in order for the organization to acquire and sustain long term

competitive advantage which consequently leads to its competitive business strategies (Barney, 2001).

Furthermore, McDuffie (1995) contended that human resources can be a primary source of sustainable competitive advantage for a firm. In the Human Resource perspective, it was believed that human resource is rare and human resource management is inimitable. Thus, human resource represent the possibility of competitive advantage of the firm while human resource management translates this possibility to realization. Both human resource and human resource management form the competitive advantages of the firm, which has impact on the firm performance (Figure 2.2).

Figure 2.2: The resource based view capital supporting the strategic human resource management.

As mentioned in the conceptual framework part, the universalistic perspective contemplated that in human resource management, there exist some best human resource management practices, which have direct effect on institutional performance (Boxall, 1996; Combs, Liu, Hall, & Ketchen, 2006; Delery, & Doty, 1996; Huselid, 1995; Pfeffer, 1998; Wright et al., 2005). However, the universality of these effects or their reliability across different organizations and magnitudes of their effects were unknown. Many empirical studies have tested and verified the relationship between strategic human resource management and institutional performance. For example, Leonard (1990) examined the effects of executive compensation policy and

organizational structure on the performance of 439 large U.S. corporations between 1981 and 1985. He found that companies with long-term incentive plans enjoyed significantly greater increases in ROE (return on equity) than did companies without such plans, and by 1985 long-term incentive plans had been nearly universally adopted by large corporations.

Moreover, Milkovich (1991) also found that the merit pay plan is related with institutional performance and the enterprise with merit pay system can achieve higher performance. This implies that organizations with a performance-based compensation system can achieve higher long term financial performance than organizations without it. Consistent with these findings, Terpstra and Rozell (1993) collected survey data from the heads of the human resource management departments of 201 organizations regarding the extent of use of five staffing practices supported by the academic literature, and found a significant positive relationship between organizations' use of the five staffing practices and both annual profit and profit growth across all industries.

Furthermore, Huselid (1995) holistically evaluated the links between systems of high performance work practices and firm performance. Results based on a national sample of nearly one thousand firms indicated that these practices have an economically and statistically significant impact on both intermediate employee outcome (turnover and productivity) and short- and long-term measures of corporate financial performance.

Delaney and Huselid (1996) studied 590 profit and nonprofit organizations to research the impact of selection, training, compensation, grievance procedures, decision making and internal promotional practices and the interaction of these practices on two perceptual measures of institutional performance. Perceptions of market performance were related to all of the human resource practices except for the measure of decentralized decision making, but perceptions of institutional performance were related

only to incentive compensation. In another article, Delery and Doty (1996) found that organizations that had strategically adopted human resource best practices reported return on assets and return on equity figures nearly 50% higher than competing institutions that had not adopted such systems.

Moreover, Mak and Syed Akhtar (2003) collected data from 63 publicly listed Hong Kong companies through a questionnaire that contained objective measures of human resource management practices and subjective measures of strategic orientations. The human resource management practices included job description, internal career opportunity, job security, profit sharing, training, performance appraisal and voice mechanisms. Company performance was measured in terms of return on equity. Correlation analysis indicated that only job description and profit sharing correlated positively and significantly with the company performance across both managerial and non-managerial employees.

Although the terminology of best practices has been extensively used by many researchers in the human resource management paradigm, there is obvious disagreement among these researchers on the aspect of what human resource management practices make up the best practices. Pfeiffer (1998) identified seven practices of successful organizations, condensed from his earlier (1994) list of sixteen by combining several of these together, as well as drawing upon the results of other studies. They are: (1) Employment security, (2) Selective hiring, (3) Self-managed teams/team-working, (4) High compensation contingent on institutional performance, (5) Extensive training, (6) Reduction of status differences, and (7) Sharing information.

From the hiring and selecting aspect, Terpstra and Rozell (1993) investigated the relationship between the use of five staffing practices and organizational level measures of performance, namely: (1) the use of follow-up studies of recruiting sources to determine which sources yield greater proportions of high performing employees, (2)

the use of validation studies for the predictors used in selection, (3) the use of structured, standardized interviews for selection, (4) the use of cognitive aptitude and ability tests for selection, and (5) the use of biographical information blanks or weighted application blanks for selection. They found a significant positive relationship between organizations' use of the five staffing practices and both annual profit and profit growth across all industries.

In the aspect of extensive training, Russell, Terborg, and Powers (1985) studied the relationship between organizational level measures of training and performance, as opposed to more traditional individual level measures. They indicated that training and organizational support were significantly correlated with both measures of store performance, although the relationship between training and institutional performance was stronger. Appelbaum, Bailey, Berg, and Kalleberg (2000) asserted that formal and informal training are positively related to employee trust and intrinsic motivation. Also Boselie, Hesselink, Paauwe, and Van Der Wiele (2001) claimed that training and development are positively related to trust in decision-making and perceived employee security.

In the performance evaluation and compensation field, Abowd (1990) investigated whether the sensitivity of managerial compensation to corporate performance in one year is positively related to corporate performance in the next year. He found that accounting-based performance measures yield only weak evidence of such an association, but economic and market measures yield stronger evidence. Delery and Doty (1996) found that result-orientated performance evaluation and profit sharing plan have significant positive relationship with institutional performance. Fey, Bjorkman, and Pavlovskay (2000) indicated that high salaries will have a positive impact on human resource and these studies provided support for the importance of

including both managers and non-managers in the same study, but treating them separately.

2.7.5 Resource-based Theory

Resource-based theory is considered as one of the influential theories in strategic management. It also provided alternative points of view to explain organization success. According to this theory, an organization's success is due to joint resources and capabilities which it owns that are difficult for another organization to replicate. Its major assumptions is that the firm's resources can be the sources of competitive advantage. The theory conceives of organizational resources as unique bundles having the power to give an organization a competitive advantage over others in the same industry or sphere of operation. These resources include but are not limited to organizational attitudes, capabilities, and knowledge and processes that it uses to make and implement strategy. More specifically, Barney (1991) categorized resources into three categories, namely: physical, human, and organizational. However, Grant (1991) alternatively identified six categories of resources: financial, physical, human, technological, reputation and organizational. He nevertheless recognized that a number of these resources are intangible, and difficult to value but yet vital to the performance and success of the organization which has assembled and developed them.

Grant (1991) also discussed the significant distinctions between resources and capabilities. According to him, resources need to be brought together to firm capabilities. However, capabilities are more than just a collection of resources but rather also involve coordination between people and other types of resources in order to be able to perform an activity (Millmore, Lewis, Saunders, Thornhill, & Morrow, 2007). This approach views competencies, capabilities, skills, or strategic assets as a source of sustainable competitive advantage for the firm.

Based on the literature, most researchers have emphasized human resource as a factor in determining firm performance. For example, Bennett, Ketchen, and Schultz (1998) found that human resource and strategy integration was facilitated when top managers viewed employees as strategic resources. Furthermore, since the resource-based approach considered resources and capabilities as the principal source of competitive advantage, it may be seen as placing human resources in a central position to realize this. Combination of human resource with other key strategic assets such as product reputation is the source of competitive advantage. The resource-based theory proposes that internal organizational resources that are valuable, rare, inimitable and without a strategically equivalent substitute are sources of sustainable competitive advantage.

Achieving valuable outcomes with human resources offering enabling capabilities or competitive advantage or human resources who are part of an organization's core capability depends on how these resources are coordinated and treated as well as integrated with other organizational resources. This indicates that management of human resources in general terms is vital and provides a key link to resource-based theory (Millmore et al., 2007). Using resource-based theory, Karami et al. (2004) in their study found that a strong relationship exists between human resource capabilities and organization performance (r = .81). This result highlighted the significance of strategic human resource in developing organizations.

However, some academic scholars have criticized that theory. They pointed out that the resource-based view is not a completed theory but rather a tautology. Furthermore, they also missed insight into the process by which (i.e., the how and why) strategic human resource management enhances organizational effectiveness. Way and Johnson (2005) also concluded that although the resource-based view helps to identify what is needed for organizational effectiveness, the theory does not explain how to

achieve it. Thus, the resource-based view is seen as inadequate in providing explanatory power for the impact of strategic human resource management.

2.8 Work Performance System in Strategic Human Resources

The search for predictors of institutional performance began to focus on developing conceptual and empirical models of work performance system practices on the assumption that work performance system would predict institutional outcomes such as profitability, productivity, financial performance and innovation (Huselid, 1995; Wright & Boswell, 2002). As a system of work practices designed to operate holistically rather than individually (Huselid, 1995), work performance system directly impact institutional performance and innovation (Hayton, 2005; Zahra, Neubaum, & Huse, 2000). However, since work performance system is multidimensional in nature (Huselid, 1995; Martin-Tapia, Inmaculada, Aragon-Correa, & Guthrie, 2009), it should not be expected that all the sub-dimensions of work performance system would affect the institution at the same level and to the same extent.

As earlier indicated, work performance system is a multi-dimensional construct; it includes staffing, training, involvement, performance, compensation, caring and other factors (Huselid, 1995; Pfeffer, 1998). According to strategic human resource management theory, these practices increase employees' knowledge, skills and abilities and motivate them to work to their highest power which eventually lead to organizational high performance and productivity. More precisely, with employees' great job satisfaction, lower turnover, higher productivity and better decision making, the level of institutional performance would be enhanced and productivity would increase (Becker & Huselid, 1998; Wright & Boswell, 2002). As Karami et al. (2004) emphasized, the level of performance is considerable in the new role of strategic human resource management. This system level focus is consistent with the conceptual

rationale for the process of a strategic impact and referred to as a work performance system. This system produces employees who are business oriented who can manipulate their surrounding environment and atmosphere for the betterment of the organization. Interestingly, adaptation of strategic human resource management would lead to de-emphasizing market outcome but emphasize on human resource level of inputs. It also focuses on strategic competencies and capabilities rather than functional competencies. According to Miller (1989), "strategic human resource management encompasses those decisions and actions which concern the management of employees at all levels in the business and which are directed towards creating and sustaining competitive advantage" As stated earlier, strategic human resource management doctrine considered employees as investments critical to organizational performance.

A burgeoning number of research studies have established empirical linkages between work performance system and institutional performance (Combs et al., 2006; Huselid, 1995; Pfeiffer, 1998; Wright & Boswell, 2002). For example, Combs et al. (2006) in their meta-analysis study found that work performance system practices strongly predict institutional performance when measures depict work performance system practices rather individual practices (r = .28 and r =.14) for work performance system and individual practices respectively.

According to Chuang and Liao (2010), work performance system in strategic human resource management is represented by six main dimensions, namely Staffing, Training, Involvement, Performance Appraisal, Compensation, and Caring.

2.8.1 Staffing

Staffing, which is concerned with the recruitment, selection, placement, evaluation and promotion of individual employees lies at the heart of human resource management in an organization. Staffing is defined as filling, and keeping filled, positions in the

organization. Recruitment is the process of identifying and attempting to attract candidates capable of filling job vacancies appropriately. Therefore, recruitment is an integral part of staffing while selection is the second part of it. Staffing entails matching the abilities and inclinations of prospective candidates against the demands and rewards inherent in a given job (Wickramasinghe, 2007). Studies have emphasized the importance of appropriate staffing in developing the organization (Plumbley, 1985; Tanova, 2003; Terpstra, 1996; Williamson, 2000). More precisely, Plumbley (1985) indicated that the profitability, existence or even survival of an organization largely depends on the caliber of the workforce. He asserted that the costs of ineffectual commercial viability can often be attributed to decades of ineffective staffing practices.

Despite human beings being heavily reliant on technology in every aspect of life, the human factor still plays incomparable roles in organizational success. Though human resource could and should be continuously enhanced, the first step toward ensuring employees possess the qualities, skills and knowledge to serve the organization is to develop appropriate staffing practices (Ahmad & Schroeder, 2002). Thus, the staffing process of an organization is an attempt to identify suitable candidates who possess the required qualities and attributes to fit well with the hiring organization. Moreover, effective staffing practices minimize the level of labor turnover, and enhance employee morale which eventually boosts institutional performance (Bonn & Forbringer, 1992; Lee, Mitchell, Holton, McDaniel, & Hill, 999).

As previously highlighted, Armstrong advocated that people are the organization's key resource and success in organizations largely depends on how human resources are catered for and maintained (Armstrong, 2006). Guest, Michie, Conway, and Sheenan (2003) stated that the relationship between human resource management and institutional performance is based on two arguments. First is that effective human resource development triggers one of the most powerful bases of competitive advantage.

Second is that effective human resource development depends on applying distinctive combinations of practice.

Collins and Druten (2003) claimed that an overwhelming number of studies have shown the causal relationship between human resource management and institutional performance. They asserted that the effectiveness and efficacy of human resource practices especially employee selection procedures, performance appraisals, rewards and benefit management and employee training and personal development not only positively affect institutional performance and productivity but also enhance competitiveness.

Moreover, Schuler and MacMillan (1984) unequivocally emphasized that effective human resource would facilitate and enhance the ability to attract and retain qualified employees who are motivated to perform and have potential to help the organization in achieving its goals. According to them, if the organization managed to motivate the employees to work, this would eventually lead to low employee turnover, high product quality, lower production cost and more rapid acceptance and implementation of corporate strategy, and subsequently generate higher productivity.

According to Armstrong (2006), high performance management practices include rigorous recruitment and selection procedures, extensive and relevant training and management development activities, incentive pay systems and performance management processes. Therefore, staffing is considered to be one of the most significant factors influencing the success of an institution (Tanova, 2003; Williamson, 2000).

Recruitment and selection have been defined as processes involving selecting the best applicant for a job. Armstrong (2006) defined recruitment as a process of finding and engaging the people the organization needs. Selection is that part of the recruitment process involved in deciding which applicant or candidate should be

appointed to the job. According to Koontz and Weihrich (1994), recruitment involves attracting candidates to fill the positions in an organization structure. Hence, recruitment is the process of attracting, screening potential candidates and qualified people for a job.

The recruitment procedures that provide a large pool of qualified applicants, paired with a reliable and valid selection would have a significant effect on the quality and type of skills new employees possess (Huselid, 1995). Studies found positive relationship between recruitment and selection on one hand and the institutional performance on the other hand.

Recruitment and selection not only seeks to attract, obtain and retain the human resources the organization needs to achieve its strategic goals, but may also have significant impact upon the workforce composition, the ultimate fit with the organization's needs and culture and upon long-range employment stability. Interestingly, Miah and Bird (2007) found that participative human resource style was positively correlated with performance for all managers (r = .63). Furthermore, the study found positive relationship (r = .15) between merit based recruiting and participative human resource management support.

According to Armstrong (2006), recruitment and selection have four stages, as follows: a) defining requirement which is preparing role profiles and person specification; deciding terms and conditions of employment; b) planning recruitment campaigns; c) attracting candidates – reviewing and evaluating alternative sources of applicants, inside and outside the company; advertising, e-recruiting, agencies and consultants; d) selecting candidates, shifting applicants, interviewing, testing, assessing candidates, offering employment, obtaining references, preparing contract of employment.

An organization's ability to accurately and strategically estimate, recruit and select its future needs is very challenging, because it can have major implications on its existence, profitability, development, performance and even its long-term survival.

However, the most immediate question is what type of workforce it will need in order to successfully and strategically implement strategic human resource management in the organization. Once the question is sincerely answered, the human resource department should be strategically recruiting, selecting, developing, motivating and retaining the capable and suitable employees to fill the gap.

Anthony, Perrewe, and Kacmar (1996) identified three groups of activities in a strategic staffing strategy such as acquisition of personnel, the orientation and socialization of new employees, and the movement of employees into the proper position within the organization.

I fill and Moreland (1999) identified some areas where recruitment and selection processes in the organization went awry and failed. Some of these areas are: a) no obvious link of recruitment and selection with human resource strategy and with broader organizational goals; b) unavailability of job analysis information; c) the use of invalid prediction methods; d) lack of monitoring of recruitment and selection processes; e) lack of remedial actions in organizations that do monitor staffing practices.

Millmore (2003) stated that strategic staffing (recruitment and selection) must display three interrelated fundamental characteristics. These characteristics are: strategic integration, a long-term focus, and a mechanism for translating strategic demands into an appropriate recruitment and selection specification. Strategic integration predicts recruitment and selection as a powerful organizational mechanism for aligning employee behavior with corporate strategy. According to Miller (1989), "the objective of strategic staffing is to identify and choose those people who will best run the organization and its business in the long run" (p. 68).

However, to achieve this ultimate goal, the organization should have a capacity to forecast those human resource requirements necessary to ensure successful implementation of an organization's strategic plan and develop a range of staffing

programs and activities to find authentic and appropriate people who can effectively implement the strategies. Studies anticipated that strategic staffing would lead to many positive outcomes for organizations. Firstly, it would lead to a front-loaded investment model. Adherence to this model according to Millmore (2003) "would regard the expenditure of effort and cost to ensure the effective recruitment and selection as preferable to incurring (end loaded) costs associated with managing poor performers recruited as a result of inadequate investment in the process" (p. 91). Secondly, greater financial expenditure would lead to exercise of evaluation of all processes including recruitment and selection and investigating attainment of strategic objectives.

Interestingly, Collins and Allen (2006) found in their study that effective implementation of human resource practices such as recruitment, selection, training, and compensation in small firms was statistically linked to 22.1% higher revenue growth, 23.3% higher profit and a 66.8% reduction in employee turnover. In support of these conclusions, Sels et al. (2006) empirically proved that effective implementation of various human resource management practices helps small firms improve their financial performance and individual employee productivity. Welbourne and Andrews (1996) also discovered that the value a company placed on developing its human resources and how the company structured its reward program were significant predictors of firm survival even after factors such as industry, company size, and profit were statistically controlled. Furthermore, when strategic human resource management is effectively implemented, it can create the insightful individual and business level effects because each independent practice (recruitment, selection, training and compensation) is designed to enhance institutional performance by developing skilled workers with vested interest in the company's success.

2.8.2 Training

The world is facing rapid change due to the fast development in human life and phenomenal technology advancement. These developments are forcing human beings to adapt with the rapid advances in their milieu through rigorous training. Although highly skilled workers are possessing higher qualifications and sound standard of education, training is inevitable due to dramatic changes happening every second. According to Jeffrey (1995) formal training programs carried out in 155 manufacturing firms resulted in these firms experiencing a 19 percent increase in productivity on average over the next three years than firms lacking formal training programs. The study suggested that using formal training programs was associated with significantly larger increase in productivity growth.

Interestingly, the formal training not only increased productivity and bridged the gap between company performance and industry productivity standards but also improved product quality and reduced the product scrapping rate. Training is considered to be one of the most significant factors in ensuring a sufficient supply of technically and socially competent staff to successfully carry out the task. Hence, training is an integral part of total quality strategic human resource management. According to MER - Educational indicators (2012) identifying the importance of training in the organization has been heavily influenced by intensification of competition and dramatic development of the organization where enhancing employee skills is considerably emphasized. They added that technological development and organizational change have gradually led some employers to realize that success relies on employee skills and abilities, and this means considerable and continuous investment in training and development.

It is worth mentioning that training in some organizations is an ad hoc (unplanned and unsystematic) undertaking, while others are working hard to identify their needs, design the content of training and implement it accordingly and then evaluate the result based

on their predetermined objectives (Dastmalchian, Blyton, & Adamson, 1989; Russell et al., 1985). There are different schools of thought regarding training in human resource management. According to Becker, Huselid, Pickus, and Spratt (1997), training is part and parcel of effective human resource management. Human capital theory considered training as a form of investment in the skills, knowledge and abilities of employees and this investment would lead to increased productivity and quality of institutional performance. According to this perspective, training provided by the organization is based on a cost-benefit analysis, with training being provided when the economic benefit outweighs the costs (Ng & Dastmalchian, 2011). Hence, training based on this theory is an investment in people which will add to institutional sustainable competitive advantage which subsequently lead to enhanced performance and employee well-being.

On the other hand, another theory emphasizes that organizations always adopt activities for symbolic reason (Pfeiffer, 1981). According to this perspective, training is provided not because it is valuable or improves labor productivity, but rather is a good gesture from the employers that the organization caters for them and values their relationship with them.

However, Ng and Dastmalchian (2011) argued that for training to be productive and effective firstly the trainees need to be motivated to learn; secondly, the learning outcome must be relevant to institutional needs; and thirdly, learning transfer must occur. Alvarez, Salas, and Garofano (2004) asserted that some factors affect the trainees, motivation, the relevancy of the learning outcomes and the transfer of learning.

The first set of factors is the training needs analysis, which includes how trainees learn, what needs to be learned, and how they should be trained. They added that without identifying these needs, trainees' motivation would be tarnished and the training usefulness would be affected. The second set of training needs is the personal characteristics of the trainees such as personality traits, demographic variables,

cognitive abilities and attitudinal constructs such as goal orientation, and self-efficacy. Finally, another set of very significant training needs are situational variables. These are the factors that measure the organization's support for transfer of learning. It is firmly believed that these sets of factors directly affect training effectiveness and indirectly through trainees' motivation.

Human capital theory categorized training into two categories; general training and specific training. General training is any training provided by an organization that can be useful for any other organizations. It is general in nature and can fit any situation and can be used for general purposes. Specific training is any training that can be used only for an organization; the content of the acquired skills is very specific and narrow that can only be used for a limited purpose. Before an organization considers a training program to be strategic, it must determine whether or not the training is truly strategic. If an organization intends to make training a core component of its competitive strategy, it needs to provide performance improvement and competitive advantage. A strategic training investment decision model is a tool that can be used to analyze the strategic potential of a training program (Ulferts, Wirtz, & Peterson, 2009).

Training is a pre-planned, systematic implemented activity aimed at enhancing the employee's level of skill, knowledge and competency necessary for effective work performance (Huselid, 1995). Training plays a pivotal role in improving performance, enhancing productivity and facilitating quality. Many studies have consistently established linkages between training and employee performance (Evans & Lindsay, 1999; Marwat, Arif, & Jan, 2009; Sultana, Irum, Ahmed, & Mehmood, 2012). This simply means that organizations dedicated to generating profits for stakeholders, providing quality service to customers and beneficiaries invest enormously in employee training which eventually contributes to performance, quality service of the organization and productivity increase (Evans & Lindsay, 1999). It is worth mentioning that previous

studies use different measures to assess institutional performance, both objective and subjective measures. These measures include but are not limited to the rate of innovation, intention to turnover or actual turnover, organization commitment, productivity and profitability (Huselid, 1995; McNamara, Parry, Lee & Pittcatsouphes, 2012). These studies suggested, with little exception, that training employees will lead to increased innovation and productivity. However, Shipton, Fay, West, Patterson, and Birdi (2005) and Shipton, West, Dawson, Birdi, and Patterson (2006) indicated that training does not necessarily and in all circumstances lead to emergence of new ideas and productivity; despite that, training is considered to be a significant factor in organization development, productivity and employee turnover, which consequently and positively affects the institutional performance.

Huselid (1995) also stressed the importance of training as complement of selection practice through which the organizational culture and employee behaviors can be aligned to produce positive results. Cooke (2000) asserted that training is an important tool for developing the knowledge and necessary skills to increase individual employee performance (efficiency and effectiveness). Teclemichael and Soeters (2006) have found in their empirical study that rigorous selection, efficient and effective training and adequate and targeted compensation and appraisal are some of the most significant human resource factors affecting employee outcomes and their performance. William (2003) argued that implementing human resource management practices desired by employees will make them feel indebted to the organization which could consequently and positively affect their efforts, motivation and commitment.

Furthermore, Marwat et al. (2009) found that training was significantly correlated with performance (r = .66). Tsui, Pearce, Porter, and Tripoli (1997) discovered that employees respond to investment in their development by performing

better on core tasks, demonstrating more work commitment and showing more citizen behavior to the organization.

Moreover, Bassi, Ludwig, McMurrer, and van Buren (2002) also found that investment in training is positively related to performance measures such as gross profit margin, return on asserts, and the ratio of price to book value. In 2000, Bartel studied the training effect on productivity using a sample of 495 manufacturing firms. She found that providing substantial training to the employees affects the firm productivity (sales per employee).

However, Black and Lynch (1996) conducted an empirical research in the United National Centre on the educational quality of the workforce through telephone survey of 2945 private firms with more than 20 employees. The findings showed that employee training has insignificant relationship with firm sales for either manufacturing or non-manufacturing firms. This study found that computer training has a positive and statistically significant correlation with sales for non-manufacturing firms but not for manufacturing establishments. It is believed that training leads to institutional performance and sustainable development because training often helps in educating employees in regard to business ethics, provide employees with necessary skills to perform their job and teaches them how to become responsible employees.

Consistent with this view, Ji, Huang, Liu, Zhu, and Cai (2012) in their study conducted on Chinese manufacturing firms found a significant and positive relationship between employee training and sustainable development performance ($\beta = .202$, $p = .05$). It is worth mentioning that the most used approach to study training in strategic human resource management is the universalistic approach. As previously highlighted, this approach asserts that some human resource practices are better than others because they have enormous effects on performance and therefore all organizations should adopt

these best practices (Delery & Doty, 1996). Hence, training is considered to be one of the most important best practices that organizations are using to elevate their standard.

However, it is not only the universalistic approach that considered training as an important and best practice; the resource-based view of the firm also provides support for the idea that training is playing a vital role in institutional performance. Based on this approach, the main sources of organization competitive advantage is its intangible resource (Aragon & Valle, 2013). The major factors of human resources are human knowledge, skills and attitudes. Despite all practices of personnel management being involved in developing these resources, training is considered as one of the most significant factors in getting qualified, flexible and well-prepared employees (Bae & Lawler, 2000; Barney & Wright, 1998).

Another salient approach to studying the effect of training on institutional performance is the knowledge perspective approach. According to this approach, organizational knowledge is considered a very important source of competitive advantage and human beings are considered to be the source of knowledge creation in the organization. Based on this premise, training is deeply important for the organization to develop the employee's learning capabilities (Alavi & Leidner, 2001; Bollinger & Smith, 2001; Frey, 2001).

Interestingly, the effect of training on productivity differs across cultural clusters. For example, training moderately affects productivity ($\beta = .07$) for the Anglo cultural cluster, while it is statistically insignificant for Germanic, Nordic or Eastern European cultures. This finding suggests that training is not equally affecting productivity across nations. Moreover, Aragon and Valle (2013) also found statistical difference in managers' effectiveness in firms that train their employees and firms that do not train them. More precisely, the study found managers' abilities, involvement and

innovativeness are higher in the firms that train their managers compared to the firms that do not train them.

2.8.3 Involvement

Employee involvement is viewed by many organizations as a way to increase organizational productivity and to gain competitive advantage. Employee involvement is one of the important topics of human resource management. It is one of the major factors of the work performance system which contributes to employee motivation and institutional performance. Job involvement has been defined as an individual's psychological engagement and commitment to his or her job (Kanungo, 1982a). It is the degree to "which one is cognitively preoccupied with, engaged in, and concerned with one's present job" (Paullay, Alliger, & Stone-Romero, 1994, p. 224). Job involvement involves the internalization of values about the goodness of work or the importance of work in the worth of the individual (Lodahl & Kejner, 1965). As such, individuals who display high involvement in their jobs consider their work to be a very important part of their lives and whether or not they feel good about themselves is closely related to how they perform on their jobs. In other words, for highly involved individuals performing well on the job is important for their self-esteem, self-concept, value and motivation (Lodahl & Kejner, 1965). Because of this, people who are high in job involvement genuinely care for and are concerned about their work (Kanungo, 1982b). Many empirical studies advocated that involvement has strategic advantages related to increased profitability, enhanced quality and innovation, and cost reduction (Lawler, Ledford, & Mohrman, 1989; Sashkin, 1984, 1986).

Research studies over the past half a century, which have explored the construct of job involvement, have approached it from two different perspectives (Sekaran, 1989; Sekaran & Mowday, 1981). Firstly, job involvement was viewed as an individual

difference variable; job involvement is believed to occur when the possession of certain needs, values or personal characteristics predispose individuals to become more or less involved in their jobs. For instance Rabinowitz and Hall (1977) in their review of literature on job involvement found that individual characteristics such as age, education, sex, tenure, need strength, level of control and values were linked to job involvement. The second perspective views job involvement as a response to specific work situation characteristics. In other words certain types of jobs or characteristics of the work situation influence the degree to which individuals become involved in their jobs. For example, research has demonstrated that job involvement has been related to job characteristics such as task autonomy, task significance, task identity, skill variety and feedback and supervisory behaviors such as leader consideration, participative decision making and amount of communication (Brown, 1996). Fostering job involvement is an important organizational objective because many researchers consider it to be a primary determinant of organizational effectiveness (Pfeffer, 1994) and individual motivation (Hackman & Lawler, 1971).

Generally it is believed that job involvement, by positively affecting employee motivation and effort, leads to higher levels of in-role job performance (Brown, 1996). Prior research has indicated some support for this claim. For instance Brown and Leigh (1996) in their study found that job involvement had both direct and indirect effects via effort on performance. More specifically they found a moderate but statistically significant relationship between job involvement and performance.

Lawler's (1986) classification clearly defines employee involvement as a process dependent on a variety of other organization systems. This suggests an organization can be redesigned to better utilize its human resources through the employee involvement processes (Sashkin, 1986), which is quite different from the more traditional joint decision-making definition.

As previously highlighted, the potential benefits of employee involvement have been widely documented (Hinckley, 1985; Kanter; 1982; Starr, 1986). Overall, employee involvement is believed to increase the capability to perform current jobs well, enhance the value of employees to the organization, and give employees more resources for planning and managing their careers (Hinckley, 1985). Kanter (1982) claims the benefits of employee involvement are:

not merely gains in immediate productivity and quality, or reductions in friction. These short-term benefits may occur, but they are usually difficult to attribute directly to any one event; too much goes on at any one time in a dynamic organization. The more important benefits are longer-term . . . (p. 200).

Hinckley (1985) suggests some of the long-term benefits include more effective utilization of knowledge and experience, enhanced participant skills, increased capability to do one's current job well, and greater access to resources for planning and managing careers.

In summary, a properly designed and implemented employee involvement process is likely to result in:

1) Increased productivity and quality;
2) More effectively utilized knowledge and experience;
3) Improved decision quality and implementation;
4) More effective communication, shared information;
5) More resources for planning and managing, more empowered employees;
6) Improved working relationships and work environment;
7) More challenging work, increased morale, greater sense of autonomy;
8) Enhanced employee skills and talents, and increased capability to perform the job well.

Although many practitioners and researchers claim substantial benefits from employee involvement, these advantages have not been widely replicated in the empirical literature (Locke & Schweiger, 1979). Inconsistencies in the outcomes of employee involvement have been attributed to a variety of factors. Cotton, Vollrath, Proggatt, Lengnick-Hall, and Jennings (1988) suggest different forms of employee involvement are associated with different outcomes. For example, formal, direct, long-term participation in work decisions was found to have significantly positive effects on productivity and performance measures. However, more informal participation, defined as casual superior-subordinate exchanges, was more closely associated with higher levels of satisfaction. Guzzo, Jette, and Katzell (1985) believed that the strength of involvement effect depends on the type of intervention, the criterion of performance, organization contextual factors and features of the research design. Dachler and Wilpert (1978) suggest that outcomes are a function of values, assumptions and goals, properties of participation, and contextual boundaries.

2.8.4 Performance Appraisal

The concept of performance appraisal can be defined as the measurement of work and its results by using the scale and index that can be used to measure the desired quantity and quality with precision and free of personal judgments and vague evaluation criteria. Performance is the way employees perform their duties and the evaluation is judging the performance of employees (Scott, 2009).

Hornqren, Faster, and Datar (2002) state that performance evaluation from the perspective of the organization and individual is significant. From the organization perspective, the goal is something that the organization wants and the result is what should be done; while from the individual view, effort is what that person does and

result is the consequence of the effort and what is expected to get in return for effort is called the reward.

According to Turk (2005) performance appraisal is a process of attempting to determine the employee's work results. Rather than just concentrating on the performance results and compensation aspect, it also looks at how to create good work conditions, find competent management teams and develop staff successfully, all of which enables the organization to guarantee a high level of motivation and work satisfaction amongst staff. The performance appraisal process can be described as the process of identifying, observing, measuring, and developing human performance in organizations (Carroll & Schneir, 1982). Henderson (1980) defined performance appraisal as "a measure of the output of a job holder that contributes to productivity" (p. 4). Allen (2003) unequivocally asserted that performance appraisal is one of the most valuable instruments in the manager's toolbox, as no other management process has as much influence over individuals' careers and work lives. Performance appraisal has a crucial role in reforming the education system and increasing academic staff productivity as well as raising the overall quality of higher education (Turk, 2005). Ali, Mahdi, and Malihe (2012) in their study conducted on transportation organization employees in Iran found that the performance evaluation process in the organization influenced employee intrinsic motivation (r = .414).

Although performance appraisal is a very important management technique, which is normally used for making personnel decisions regarding employees' positions such as promotion, transfer and pay, it also can be used for employees' development such as feedback and training. The appraisal activities are mainly based on the appraisal of employees' work results and their contribution to the organization (Turk, 2005). The performance appraisal is used to evaluate employees on their performance for the appropriate compensations and rewards. In addition, it is necessary to grant procedural

justice, accuracy and suitability of appraisal procedures and to continuously drive toward a result-driven climate through the shaping and changing of institutional performance appraisal and compensation culture (Boyd & Ken, 2004; Grote, 2000; Weiss, 2001).

One antecedent to distributive and procedural justice of performance appraisal is social justice between groups and employees (Turk, 2005). When an organization fails to compensate and reward employees based on their contributions, then the employees waste their time on getting the desired levels of compensation and not on improving their work. Lawson (2000) believes that individual performance and pay have to be in accord as only then is it possible to motivate people enough for them to improve their performance and work quality.

Pay-for-performance systems have empowered organizations to shift gradually from fixed salary to more flexible reward systems based on individual efforts and contributions (Turk, 2005). According to Turk (2005) in working out a performance-appraisal system, it is important to consider both organizational and personal goals. As mentioned before, performance appraisal is an integral part of the human resource practices in organizations. Researchers and practitioners concurred that the ratings and results of performance appraisal used must be accurate and fair to maintain reliability.

Kuvaas (2007) cited Banks and May (1999) stated that differences of opinion exist between researchers and practitioners of performance appraisal. The practitioners are much more concerned with the effects of appraisal on the superior-subordinate relations. The researchers, on the other hand, tried to emphasize more on refining the rating procedures and the processes to make them more accurate and beneficial for the organization and the individuals. The performance appraisal process effectiveness can only be possible if the ratings given are accurate, fair and justifiable.

Performance appraisal can be of two types (i.e., subjective in which the appraisers have to record details about the performance of subordinates and objective which emphasizes on employee performance evaluation in terms of quantity) (Brown, Hyatt, & Benson, 2010). In the subjective performance appraisal process there is more room for the appraiser to distort the ratings whereas the objective type of appraisal has less chances of distortion (Brown et al., 2010; Longenecker, Sims, & Gioia, 1987; Murphy & Cleveland, 1995).

It was firmly believed that a negative appraisal can have adverse consequences on an employee's sense of self-worth and importance within the work environment. Other job aspects (e.g., work motivation, performance, interpersonal relationships, communication and support of organizational goals) also can be negatively impacted. The key is to implement an effective appraisal system consistently, with employees having confidence in objective processes. Most often, employees must understand the process of identification, observation, measurement, and development and believe that the performance appraisal can aid in improving their work performance.

Ultimately, an organization benefits from improved employee work performance because high performance means enhanced productivity. Before implementing an effective appraisal process, an organization must recognize that its employees are its most valuable resource. Although the organization holds this philosophy, employees impacted by this process may not share the same perception or regard for their value to the organization. Thus, employees' resulting job satisfaction or dissatisfaction may be an affective reaction to the evaluative aspect of their job performance. "Effective performance management can, in fact, serve as the key lever of change that boosts individual and team accomplishment" (Moravec, 1996, p. 45).

The process of appraising performance is "a sequence of interrelated events designed, administered, and operated for the intentional purpose of observing,

measuring, and altering employee workplace behavior" (p. 4). Thus, a major indicator of the effective use of human resources through a viable performance appraisal system is the impact of that system on productivity improvement. Productivity relates directly to the performance of all employees in the organization. Thus, the performance appraisal "is a fundamental requirement for improving the productivity of an organization's human resources because it is through an appraisal that each individual's productivity is evaluated" (Latham & Wexley, 1994, p. 6).

A productive performance appraisal can accomplish much more. The performance appraisal "is a primary means by which an individual creates a psychological contract with the organization. The contract is the employee's personal calculation of what the organization expects and what the individual will give in return" (Jette & Wertheim, 1994, p. 278). Mohrman, Resnick-West, and Lawler (1989) identified intended results of an effective performance appraisal system: The person being appraised may develop an increased motivation to perform effectively. Research studies found that performance appraisal would accomplish the following benefits:

1. The appraiser's self-esteem may increase.
2. The person or persons conducting the appraisal may gain a new perspective regarding the appraise, and vice versa.
3. The job of the appraise may be clarified and better defined.
4. Valuable communication can occur among the participants.
5. Organizational goals can be clarified, and can be more readily accepted.
6. Such rewards as pay and promotion can be distributed on a fair and credible basis.
7. The organization can use valuable appraisal information to improve personnel planning, test validation and training program development (pp. 3-4).

McGregor (1960) asserted that a performance appraisal is intended to make individuals focus their efforts on organizational objectives. The research shows that in order to accomplish these ultimate goals, managers should take rigorous steps by clearly and precisely defining job responsibilities of employees, evaluate their work performance and compensate them according to performance. Three purposes of performance appraisal objectives are classified by McGregor (1960) in the following categories:

1. *Administrative:* providing an orderly way of determining promotions, transfers, demotions, salary increases, and termination.
2. *Informative:* supplying data to management on the performance of subordinates and to the individual on his or her strengths and weaknesses.
3. *Motivational:* creating a learning experience that motivates staff to develop themselves and improve their performance (pp. 82-88).

According to McGregor (1960), staff development was an essential outcome of the performance appraisal process. Jacobs (1986) supported this belief, when he proposed that a well-developed performance evaluation system could provide the staff with "constructive information on how an employee has been performing and how he or she can improve future performance. The entire process serves to increase the likelihood of positive outcomes, such as salary increases and promotion" (p. 83). Latham and Wexley (1994) also cited the importance of an organization's human resources: What people do can be appraised in terms of such traditional measures as attendance, accidents, turnover, and grievances. Also, what people do can be measured directly in terms of observations by managers, peers, subordinates, and customers as to the frequency with which employees do those things that are critical to job success. What

people do or do not should be a source of concern to all organizations (Latham & Wexley, 1994, p. 2).

Typically, a formal performance appraisal is conducted annually. Within the school setting, the principal or the assistant principal usually is the immediate line manager who serves as a consistent appraiser of employee performance within the educational organization.

The designation is a logical choice because the line manager maintains a close working relationship with the individual being appraised. Thus, the manager "is in a better position than anyone else in the organization to evaluate employees' performance, strengths and weaknesses, and training and development needs relating to the current job" (Anderson, 1993, p. 48).

Problems also may occur with the appraisal process because of the human factor, that is, the manager's "very human desire to be liked" (Smith & Brouwer, 1977, pp. 46-47). This desire can jeopardize the manager's perspective when identifying with a subordinate's performance inadequacies. Bias on the part of the appraiser can impact the performance appraisal process. Within this process, "liking" may form a schematic basis for processing information (Cardy & Dobbins, 1994). Cardy and Dobbins (1994) suggested that ". . . ratees who are liked may enjoy a positive bias in what the rater attends to and recalls, and in how the rater evaluates. Rates who are disliked may suffer from a negative bias in these areas" (p. 110).

Demographic factors (e.g., race, gender, and perceived attractiveness) also can influence the appraiser's evaluation. These variables can result in biased managerial performance appraisals. Understanding affective processes in performance evaluation and appraisal is not sufficiently advanced to predict the strength or direction of all of these effects. In addition, determining circumstances that can have a large or a small influence on evaluations may be difficult (Murphy & Cleveland, 1991). The appraiser's

reluctance to conduct an appropriate performance appraisal can impair the appraiser's honest reaction. Banks and May (1999) supported the existence of this bias in the performance appraisal process citing that raters do not fail to give accurate ratings because they are incapable of accuracy but rather because they are unwilling to rate accurately. This problem will not be solved by increasing their capability; the environment must be modified such that raters are motivated to provide accurate ratings.

The performance appraisal process can impact the individuals' sense of who they are and what they can become due to its focus on an individual's competence and effectiveness. The appraisal process often provides information that can threaten an individual's self-image. Employees can react to such situations with anger, aggression, or withdrawal. These reactions can be viewed as a class of negative rewards that both managers and subordinates may be motivated to avoid (Jette & Wertheim, 1994). Including a reviewer in the performance appraisal process may limit problems arising from having an evaluator as the single appraiser of an individual's performance. The role of the reviewer involves "scrutinizing and signing off on completed appraisal forms, as a check on the consistency and fairness of the appraiser, in the evaluative process" (Anderson, 1993, p. 48). The process could involve another individual who could provide performance evaluation feedback. The reviewer would be aware of the aims and objectives of the evaluates job and frequently has observed his or her job performance.

One factor which may inflate the accuracy and the information of the appraisal can be the biasness of the appraiser. Cleveland and Murphy (1992) are of the view that the appraiser may have different objectives in appraising the subordinates (i.e., to motivate them or to keep them attached with the workgroup). The high ratings given to the subordinates can further serve the purposes of the appraiser such as to let them have

better compensation, keep a good workgroup environment and have good relationship with the subordinates (Cleveland & Murphy, 1992).

The subordinates are intentionally given high ratings to serve these purposes of appraisers and, on the other hand, accurate ratings are avoided to prevent the unwanted situations such as decrease in motivation level, disliking among the subordinates and destroying a good relationship with them (Cleveland & Murphy, 1992). Bjerke, Cleveland, Morrison, and Wilson (1987) suggest that performance appraisals get affected by the appraisers who try to focus on their own goals while appraising but not the organizational goals when conducting the performance appraisal and this contradiction of goals renders the appraisal ineffective. Folger, Konovsky, and Cropanzano (1992) cited Patz (1975) that appraisers have to take care of their own interests so either intentionally or unintentionally the ratings are changed in the appraisal.

Longenecker et al. (1987) were among the first to elaborate the political issues in performance appraisal with a detailed set of arguments and they further suggested that all organizations have to deal with politics in one way or another; so also the performance appraisal process in organizations. Some people exist in the organization who emphasize on political actions to protect their interests and in this manner biasness is created by them while appraising their subordinates (Longenecker et al., 1987). Many interviews were conducted by Longenecker et al. (1987); the interviewees were executives of different companies and many were of the view that politics prevailed during the performance appraisal process. The monetary issues regarding employee compensation and career growth are tied to the performance appraisal process so they provide grounds for the politics during appraisals in the organizations (Longenecker et al., 1987). Arshad, Masood, and Amin (2013) in their study on telecom organizations of Pakistan, found a negative and weak correlation between perceived performance

appraisal politics on one hand and job satisfaction (r = -0.239) and loyalty to supervisor (r = -.295) on the other hand while perceived performance appraisal politics was positively but weakly related to turnover intention (r = .257).

In relation to institutions of higher learning, state-funded institutions have been facing enormous problems because of decreased funding which lead to introducing tuition fees to enable institutions to survive. Governments are pressuring institutions to find sources of income for continued existence and perform comfortably with minimum support provided. Despite that, public universities have been exposed to market pressures that require organizational innovations similar to the changes implemented in private universities.

Subsequently, it is reported that public universities in the United Kingdom and many other Western countries introduced more formalized staff appraisal systems in the 1980s to meet the new requirements demanded by considerable changes in economic conditions. Changes in the system were also necessary for improving staff performance quality and effectiveness. This led to performance related pay in the UK university system as a whole, covering everyone from support staff to senior professors (Richbell & Wu, 2006). Sinclair (2003) asserted that quality has become one of the significant issues and will continue to be one of the predominant points of debate in higher education not only because institutions of higher learning compete with other institutions globally and strive for the best but also because of rising interest in quality as determined by markets, consumers, and stakeholders. Hence, universities must establish procedures to monitor the competitiveness and success of their graduates. Performance-appraisal activities would allow the institutions' authorities to monitor the achievement of each employee to see whether employee performance is in accordance with the established objectives. Three key functions of higher educational institutions

are teaching, research and advising. The challenge to the universities is to produce employees who meet employer requirements.

The organizations are normally seeking competent and skilled employees who have received training is a specific area. The quality of performance in teaching would include measures such as postgraduate students and alumni feedback (Mergen, Grant, & Widrick, 2000). In order to improve the quality of graduates it is first of all necessary to determine their future position in the labor market and find out the requirements of potential employers. In addition, the higher education sector is by its very nature and management style a conservative one. This is mainly caused by traditions and academic freedom, and that is why a payment-by-results system is still a relatively new approach. However, state budget difficulties have determined the need for better management in the higher education sector, and the need to motivate academic staff more efficiently.

2.8.5 Compensation

Compensation is defined by Mondy as the "total of all rewards provided to employees in return for their services" (2007, pp. 268-269). Compensation is the total amount of financial and non-financial rewards and benefits provided by an employer to an employee in contract to the work performed as required and as part of an employment relationship (Henderson, 2003; Milkovich & Newman, 2008). Compensation comprises both fixed and variable components as well as employee benefits and services. An optimum combination of these elements is ideal to maximize influence on employee performance and ultimately, organizational competitiveness.

Pfeiffer (1994) argued that one of the most effective ways to influence employees' characters is to use incentive pay. Studies indicate that effective use of incentive compensation would motivate individual employees to perform than simply rely on fixed rewards. In their study, Paik, Parboteeah, and Shim (2007) found different

effects of fixed salaries and incentive pay on employees. According to them, low performing firms use higher fixed salaries and few incentives, while high performance firms use lower fixed salaries and greater percentage of overall compensation as incentive pay. Studies have found that higher compensation levels lead to higher job satisfaction (Nawab & Bhatt, 2011).

Compensation is divided into three categories, namely fixed pay, flexible pay and benefits. The first type is compensation where the amount and payment are guaranteed such as base pay, seniority and so on. The second type is flexible pay, including variable pay and deferred income. Variable pay is compensation in which the amount is variable and/or its distribution is uncertain such as gain sharing, bonuses, incentive, goal-based pay and overtime. Deferred incomes are sums that are blocked for a given period of years before becoming available (Igalens & Roussel, 1999). Benefits are rewards other than wages and salaries paid by the employer.

As previously highlighted, compensation is a reward given to employees based on time work or output produced or performance. This would include basic pay (salary), incentive or performance pay and other payment such as overtime. Compensation rewards occur in direct and indirect forms. Direct compensation refers to all earnings based on time worked or output produced. This would include basic pay (salary), incentive or performance pay and other payment such as overtime. Indirect compensation is payment in kind. It includes all benefits and services provided by the organization to its employees such as income protection, and security plan (pension, employment insurance, workers' compensation and disability insurance), paid time off (vacation, holidays, paid lunch and all other rest periods) and various employee services and perquisites. On the other hand, employee benefit is defined as any form of compensation provided by the organization other than wages or salaries paid for in whole or in part by the employer (Ju, Kong, Hussin, & Jusoff, 2008).

It was empirically suggested that if the workforce is satisfied with their job as well as the organizational environment such as colleagues, compensation and leadership, they will be more committed to their organizations, more devoted and contribute significantly to achieve the ultimate goals of the organization (Okpara, 2004). Igalens and Roussel (1999) found compensation especially fixed pay significantly increased employees' work motivation and job satisfaction. The study confirmed the major principles of expectancy theories according to the perception of relationships between efforts and performance on one hand and performance and compensation on the other. It can also predict employees' motivation and performance. Organizational productivity and efficiency is believed to be achieved through employee satisfaction and caring for employees' socio-emotional and physical needs. Moreover, Resurrection (2012) also found that compensation, performance management, and employee benefit were all positively and statistically correlated with organizational competitiveness. Compensation practices as an antecedent of organizational effectiveness must be well-supported by other human management practices such as performance management.

Compensation has been found to be consistently related to employee satisfaction and commitment and eventually to institutional performance. According to Pearce and Robinson (1982) compensation decision is a strategic decision having an enormous impact on organizational success. Expectancy theory suggests that applicant choice is influenced by the expected probability of receiving significant outcomes such as pay. Compensation practices are designed in the belief that different degrees of emphasis on individual, group and organization objective will affect employee behavior accordingly. Whatever the objective, expectancy theory argues that instrumentalities of accomplishing these objectives for pay are increased by making pay contingent on their attainment. Merit pay plan as well as individual, group and organizational incentives

offer ways of moving away from a strategy where pay varies as a function of the achievement of objectives (Lawler, 1981).

Employees who like their workplaces will be more motivated, committed and help their company to make more money. Sears conducted an 800-store survey that showed the impact of employee attitudes on the bottom line. When employee attitude improved by 5%, customer satisfaction improved by 1.3%, consequently increasing revenue by one-half a percentage point. Javed, Khan, Azam, and Iqbal (2010) also found that short term bonus is linked to subsequent performance, while making more employees eligible for long-term incentive is associated with higher subsequent institutional performance in the longer run. It is widely believed and empirically proven that when employees are satisfied, they feel a sense of fulfillment, achievement, and joy in their job which are considered to be positive factors to employee productivity and creativity as well as organizational profitability.

2.8.6 Caring

The human relations managerial perspective suggested that employee performance will improve as the employment relation improves. Social exchange theory postulates that employees may perform at a higher level because they perceive an obligation to reciprocate for social gift granted by the employers such as raises, promotions, positive feedback and compensations (Muse & Stamper, 2007). The enormous impact of caring has been documented extensively. In their empirical study, Muse and Stamper (2007) discovered that perceived organizational support has been found to be positively related to work attitudes such as job satisfaction, affective commitment, and behaviors such as attendance, in-role performance, extra-role performance, turnover intentions and institutional performance.

In opposition to economic theory arguing that employees are willing to exchange their work performance for pay, social exchange theory postulated that employees are willing to exchange their work performance for additional factors that are less tangible such as feeling valued and supported. According to this theory, positive perceptions about the employment relation will lead to beneficial work behaviors through the process of obligation. Schnieder and Bowen (1995) emphatically stated that caring for employee well-being in an organization is a necessary step to gaining employee commitment, motivation, and improved performance. They highlighted that an organization whose strategic goal is creation of climate for service to build and maintain customer satisfaction has to first create a climate for employee well-being. A climate for service or for treating customers well can only exist if service employees collectively perceive that they are treated well, that is, if a positive climate for employee well-being exists (Schneider & Bowen, 1992).

For example, Kopelman, Brief, and Guzzo (1990) argued that managerial support and concern for employee well-being affect performance through motivational processes (p. 306). That is, an organization's personnel are more likely to perform well for a caring management that protects employee well-being than for a non-caring management. As previously highlighted, Schneider and Bowen (1992, p. 6) posited that the good treatment of service personnel by management translated into good treatment of customers by service personnel (that is, high service performance). Underlying this effect might be that well-treated personnel are more likely to engage in contextual performance behaviors integral to high service performance.

Indeed, Brief and Motowidlo (1986) suggested a direct link between a climate for employee well-being and pro-social behaviors toward customers. In a positive organizational climate for employee well-being, an organization's personnel might engage in these behaviors because:

an organizational climate characterized by warmth, friendliness, supportiveness, and cooperation is probably one in which there are strong norms of reciprocity, high levels of group cohesiveness, formal and informal reinforcement contingencies which reward pro-social acts, and role models behaving pro-socially. (Brief & Motowidlo, p. 719)

Initial empirical evidence is supportive of the climate-for-employee-well-being/climate-for-service link. As mentioned before, Borucki and Burke (1999), in their study of 463 stores of a retail chain, found a positive, cross-sectional relationship between store-level climate for employee well-being and store-level sales performance. Additionally, Muse and Stamper (2007) found direct relation between perceived organizational support and all types of performance.

2.8.7 Summary

In summary, it can be concluded based on the previous studies that underlying factors of work performance system in strategic human resource management are staffing and selection, training, performance appraisal, compensation, involvement in decision making and caring. Applying these elements in isolation would be strategic but when they are adopted in the organization collectively it would enhance the performance of the organization and consequently they would be labeled as strategic human resource practices.

2.9 Effect of Strategic Human Resource Management on Institutional Performance

The literature review of many empirical studies has garnered evidence supporting that work performance system or systems of human resource practices that include comprehensive recruitment and selection procedures, incentive compensation and performance management systems and extensive employee involvement and training

enhance employee ability, motivation, commitment, opportunities to contribute and institutional performance (Batt, 2002; Boxall & Purcell, 2002; Huselid, 1995). According to Huselid (1995) strategic human resource management practice improves knowledge, skills and abilities of an organization's current and potential employees, increase their motivation, reduce attrition and enhance retention of quality employees while encouraging non-performers to leave the organization.

Additionally, Bailey (1993) postulated that human resources are often under-utilized because employers always underestimate the potential of employees and the organizational effort to elicit discretionary effort from employees are likely to provide returns in excess of any relevant costs. Additionally, he also argued that strategic human resource practices can affect such discretionary effort through their influence over employee skills and motivation, and also by providing avenues for employees to make decisions over their duties and how these are to be performed.

The potential of individual employees and their ability would be wasted by a lack of motivation. However, the motivation can never emerge without conducive environments paving ways for nurturing the motivation. Since only motivated employees can be committed and work harder and smarter to achieve the predetermined organizational goals, an organization can use many strategies to energize, direct and motivate employee behavior including the use of performance appraisals tightly with incentive compensation systems, and internal promotion systems that focus on employee merit and contribution to developing the organization.

Moreover, according to Bailey (1993) having highly skilled and motivated human resources is not enough for companies to benefit from employees; even highly skilled and motivated employees might not work up to their ultimate ability, if the work is structured or programmed such that employees, who presumably know their work better than anyone else, lack the chance to exercise their skills and abilities. In other words,

the type of job does not permit creativity and it is not a dynamic job able to enhance the individual potentiality of employees. Hence, strategic management resource practices can also affect institutional performance through provision of organizational structures that encourage participation among employees and allow them to personally improve their job performance. Delmotte et al. (2006) asserted that employees' productive capacity can be enhanced by investing in their knowledge, skills and abilities. Although there is no empirical evidence linking human resource management to institutional performance, studies indicated that human resource influence performance through mediator variables such as knowledge, motivation and abilities which consequently affect institutional performance.

It was found that human resource management intensity had a strong positive effect on productivity. Wright et al. (2005) found that human resource practices affect collective commitment, operational performance, expenses and profits. According to the researchers, human resource practices strongly and positively correlated with operational and financial performance. Moreover, the study found that relationship commitment and performance measures are invariant over time but they became non-significant when controlling for past and concurrent performance. Similarly, MacDuffie (1995) discovered that bundles of human resources practices were related to productivity and quality in his samples of worldwide auto assembly plants. Furthermore, the study found that human resource practices correlated highly with concurrent affective commitment (r = .57), quality (r = .48) and worker compensation (r = -.43).

2.10 Mediator Variables

Despite the fact that the work performance system plays a significant role in institutional performance such as planning, management and development and training,

increasing numbers of empirical studies achieved almost full consensus of the researchers and practitioners that high performance might not necessarily have direct linkage with institutional performance; instead many other factors coordinate and mediate the relationship (Chuang & Liao, 2010; Huselid, 1995; Wright et al., 2005). Thus, based on this premise and belief, the researcher has started to identify the factors that mediate the relationship between work performance system and institutional performance for better understanding of how human resource practices affect institutional performance.

The psychological climate or an employee's cognitive evaluations or appraisal of the environment was first introduced by James and James in 1989 to reflect the degree to which the environment is viewed to be supportive and encouraging or harming and gloomy by the employee (Chuang & Liao, 2010). According to James and James (1989) "valuation appears to be the key to such cognitive appraisals in as much as (a) values serve as standards for assessment welfare, where welfare is defined in terms of a sense of well-being….and (b) valuation provides appraisals of degree to which these standards are represented in environmental attributes" (1989, pp. 739-740). They viewed valuations or cognitive appraisal as emotional cognition because they are hypothesized to reflect the subjective meanings that in combination with perceived physiological arousal, help to label emotion and determine the direction and intensity of the experience and emotion.

Furthermore, Burke et al. (1992) extended the work of James and James (1989) by conceptualizing and formulating the terms perceived management concern for employees and perceived concern for customers. Based on their conceptualization, the concern-for-employees dimension refers to frontline employees' cognitive appraisals of management behaviors and actions such as teamwork, rewards and recognition, listening to employees, eliminating fear or intimidation, degree of "walking the talk"

because of caring for their own well-being. Such cognitive evaluations by employees are manifestations of the concern-for-employees dimension of psychological climate. Employees' cognitive assessments of management behaviors and actions such as improving customer support systems, offering high quality products and services, providing accurate information to consumers, and keeping promises with regard to customer well-being are also manifestations of the concern for customers' dimension of psychological climate. These dimensions vary across individual employees (Borucki & Burke 1999; Burke et al., 1992).

According to Alexandrova et al. (2007),"the two-dimensional conceptualization of the psychological climate for a retail service provides a succinct picture of frontline employees' idiosyncratic interpretations of their work environment in terms of what is important to their own well-being as well as to the well-being of customers" (p. 358). These two dimensions are consistent with the broader service climate research, where each climate dimension refers to a particular situational referent. Burke et al. (1992) proposed that individual employees "may cognitively appraise their work environment in terms of what is significant or meaningful not only for their own well-being but also the well-being of other relevant organizational constituencies e.g., customers" (p. 718). As highlighted before, Burke et al. (1992) distinguished two types of climate and labeled them as concern for customers and concern for employees respectively. Schneider and Bowen (1992) confirmed the existence of these two dimensions, and affirmed that an organization may have positive policies and practices in the sense that employees feel well-related, but that this "would have little relationship to the service customers experience unless the organization also has policies and practices that promote service excellence" (p. 8).

Schneider et al. (1998) defined climate for service as employee perceptions of the practices, procedures and behaviors that get rewarded, supported and expected with

regard to customer service and customer service quality. The researchers emphasized that a service climate focuses service employee effort and competency on delivering quality service which in turn yields positive experiences for customers as well as positive customer perceptions of service quality.

Establishing positive rapport and interactive relationships between employees and customers is thought to increase customer loyalty and institutional performance. Salanova et al. (2005) in their empirical study found that service climate correlated with employee performance (r = .32) which consequently affected customer loyalty (r =.76). This finding suggests that when service climate is positive, customers collectively appraise employee performance positively which subsequently generates customer loyalty. Consistently, Schwepker and Good (2012) discovered in their study that customer oriented selling as marketing contributed significantly to behavior sale performance (r =.67) and outcome sales performance (r = .53).

As expected based on the Burke et al. (1992) premises, the immediate consequences of psychological climate cognitions are affective (e.g., employee job satisfaction and affective organizational commitment). These affective factors are believed to be strongly influencing employee behaviors that ultimately affect customer satisfaction and loyalty. This premise is consistent with the "customer linkage" research pioneered by Schneider and his colleagues (e.g., Schneider & White, 2004) and the "service profit chain" model advocated by Heskett et al. (1994). Both frameworks emphasize that the nature of the task environment, as perceived by employees, has affective and behavioral consequences, which in turn affect organizational outcomes. For instance, researchers argue that management concern for employees and customers is a prerequisite for customer acquisition and retention (Sureshchandar, Rajendran, & Anantharaman, 2002) and that unless management is fully committed to both employees and customers, any customer retention efforts are doomed to failure from the start

(Reichheld & Teal, 1996; Schneider et al., 1998). Furthermore, when employees perceive a lack of management concern for themselves and customers, it would reduce job satisfaction and organizational commitment (Borucki & Burke, 1999). On the contrary, when employees perceive that management is genuinely concerned for their well-being as well as customer well-being, they experience higher levels of job satisfaction and exhibit stronger organizational commitment (Reichheld & Teal, 1996; Rhoades, Eisenberger, & Armeli, 2001; Schneider et al., 1998). Such affective responses exert significant influence on organizationally valued employee behaviors including better customer service, effective service recovery, and reduced turnover intentions (e.g., Babakus et al., 2004). Hence, frontline employees' job satisfaction and affective organizational commitment play a critical mediating role between psychological climate and employee and customer outcomes (Parker et al., 2003; Paulin, Ferguson, & Bergeron, 2006). It was empirically found that concern for employees and customers significantly increases employees' job satisfaction and effective organizational commitment, besides reducing their turnover intentions.

From the review of literature, it is found that there were mediators of the relations between work performance system and institutional performance; the mediators are:

2.10.1 Concern for Customer

Customer orientation at the firm level is a set of beliefs that put the customer's interests first, while not excluding those of all other stakeholders, in order to develop a long-term profitable enterprise (Hartline, Maxham, & McKee, 2000). The concern for customers' climate refers to employees' shared perception of the policies, practices and procedures regarding service quality provided to the customers in the focal unit (Borucki & Burke, 1999; Schneider et al., 1998). It consists of specific behaviors displayed by service personnel during service delivery – such behaviors that lead to satisfied customers. The

growing interest in customer perceptions of service quality rests on the premise that a customer who holds positive perceptions of an organization's service quality is likely to remain a customer of that organization. Further, such customer retention yields numerous benefits. For example, current customers are a potential base for cross selling and are also a valuable source of new ideas for business strategies (Congram, 1991; Juttner & Wehrh, 1994). Perhaps more important, however, it is less expensive for an organization to keep a current customer than to gain a new one.

A key research finding was that the ways boundary workers (employees with whom customers physically interact in the course of doing business with an organization) perceive their organizations' service climates are related to the service quality perceived by those organizations' customers (Schneider & Bowen, 1995). For example, in two studies of retail banks, those bank branches whose service policies and practices were described in positive terms by boundary employees were the same branches whose service quality was described in positive terms by customers (Schneider & Bowen, 1995).

In line with previous research (Borucki & Burke, 1999; Burke et al., 1992; Schneider & Bowen, 1995; Schneider et al., 1998), Salanova et al. (2005) in their study used structural equation modeling and found a potential reciprocal effect between service climate and customer loyalty. According to the result of their analysis, the greater the service climate, the higher the customer loyalty, partially mediated by performance and the higher the customer loyalty, the greater the service climate. They further emphasized that customer loyalty seems to act as a kind of positive feedback for the group of employees vis-a-vis performance with the customer, which appears to be positively associated with a better service climate. This result is consistent with the Ryan, Schmit, and Johnson (1996) findings where they noted the influence that

customers have on employees, showing that customers could be a source of direction and perceptions of service quality for contact employees.

Chuang and Liao (2010) argued that employees are more likely to perceive the organization values and rewards them in accordance to their contribution when the organization adopts a work performance system such as meaningful selection, training, compensation, performance appraisal, involvement, and caring. These practices would provide adequate prerequisite for delivering high quality services to serve customers which would make customers satisfied and consequently improve institutional performance. These practices would pave the way for conducive collective engagement, which in turn helps to foster an excellent service climate. This service climate consequently increases customer appraisal of employee performance and, hence, customer loyalty. Employees who interact with customers daily to provide the service represent a key element in this process.

It is important for management not to wait for a group of contact employees to feel unmotivated and less engaged and then to take corrective measures. Rather, one target issue should be to encourage employees to feel engaged in their work, thus creating an affective climate in the work unit that contributes to producing a service climate in the unit. According to Leiter and Maslach (2001), meeting this quality challenge requires people who are consistently engaged in their work. Effective management should take definitive action to avoid loss of creative energy. Building and sustaining an organizational environment that supports engagement at work makes an organization attractive to potential recruits (Salanova et al., 2005).

2.10.2 Concern for Employees

Concern for employees' climate refers to the shared perceptions among employees about how they feel that unit values their contributions and cares about their well-being

(Chang & Liao, 2010). According to Burke et al. (1992), concern for employees' climate consisted of six dimensions, namely: goal emphasis, management support, non-monetary rewards orientation, monetary reward orientation, work group cooperation, and means emphasis.

The concept of concern for employees is similar if not identical with the notion of organization care based on organizational support theory. McAllister and Bigley (2002) defined organizational support as "an organization-level and organization-centered phenomenon reflecting perceptions regarding the broad provision of care by the organization to all employees" (p. 895).

Employees in the same organization and under the same unit normally have the same views and perceptions of the concern for employees' climate because they are exposed to similar stimuli and experiences that inform them of how employees are treated by the organization. Bowen and Ostroff (2004) asserted that the "features of a human resource management system send signals to employees that allow them to understand the desired and appropriate responses and form a collective sense of what is expected" (p. 294). It is empirically suggested that employees who receive inducements from the unit tend to have positive perceptions about the unit. Furthermore, Borucki and Burke (1999) found that employees' shared perceptions of a retail store's concern for employees were positively associated with employees' collective service performance. Empirical research findings suggest that employees' behaviors also influence customer perceptions of service quality, level of customer loyalty and the amount of sales and profitability. It was found that reliable, responsive, courteous, friendly and helpful service performance enhanced customer satisfaction and loyalty (Borucki & Burke, 1999; Chuang & Liao, 2010; Salanova et al., 2005) which subsequently improves institutional performance and profitability. Furthermore, when employees perceived a lack of management concern for themselves and customers, this resulted in reduced job

satisfaction and organizational commitment. On the contrary, when employees perceive that management is concerned for their well-being as well as customer well-being, they experience higher levels of job satisfaction and exhibit stronger organizational commitment which consequently and positively affects institutional performance.

Social information processing theory and the organizational climate literature further support the claim that concern for employees mediated the effects between work performance system and institutional performance. According to social information processing theory (Salancik & Pfeffer, 1978), the social environment in which individuals operate affects their attitude toward the organization because the social environment "provides a direct construction of meaning through guides to socially acceptable beliefs, attitudes, and needs, and acceptable reasons for action." The organizational climate literature suggests that climate is a particularly powerful social mechanism through which human resource management practices impact individual attitudes because climate shapes how employees construe the meaning of organizational practices (Burke, Borucki, & Hurley, 1992). Based on the tentative argument, high work performance system will likely influence employee job satisfaction and affective commitment by creating a more positive concern for employees' climate in establishments. Specifically, in the globally shared climate created by work performance system employees likely view their establishment as caring about its employees' success and well-being (Borucki & Burke, 1999; McAllister & Bigley, 2002), and hence are more satisfied with their jobs and more committed to their organizations. Thus, concern for employees' climate provides the lens through which the work performance system promotes employee job satisfaction, affective commitment and organization development.

Many rigorous academic research studies have found that adaptation of work performance system such as carefully staffing the system, developing employee

competencies through extensive and constructive training, involving employees in decision making, providing reward for superior performance and providing flexible work schedules and location, and other practices would directly improve the institutional performance, increase employee motivation and strengthen their sense of commitment, and indirectly through helping behavior which they will render to the customers. Takeuchi et al. (2009) found that concern for employees' climate mediated the relationship of work performance system and individual job satisfaction and affective commitment. More precisely, the study shows that concern for employees' climate positively related to both job satisfaction (r = .50) and affective commitment (r = .75) which subsequently lead to institutional performance and productivity and enhanced helping behavior of the employees toward customers.

Consistently, Chuang and Liao (2010) found concern for employees (r = .49), concern for customers (r = .38) related to organization market performance through service performance (r = .21) and helping behavior (r = .29) respectively. This finding confirmed the theory of work performance system which stated that dimensions of work performance system relate with institutional performance mediated by concern for customers and employees, service performance and helping behavior. It was found that the climate concern for customers mediated the relationship between work performance system and employees mediated the relationship between work performance system and employees helping behavior and their readiness to render assistance to coworkers.

Moreover, Schulte, Ostroff, and Kinicki (2006) found that organizational-level climate can have unique cross-level influence on individual job satisfaction when also taking into account the influence of individual-level psychological climate. Thus, although we are unaware of research examining whether concern for employee climate mediates between work performance system and job attitudes, the theoretical rationale and empirical evidence suggest that concern for employee climate is more proximal to

individual job attitudes than work performance system and, further, that concern for employees' climate can mediate between work performance system and employees' job attitudes.

Moreover, studies also discovered the positive relation between unit-level citizenship behavior and institutional performance. Specifically, helping behavior among coworkers contributes significantly to improved performance through improving relationship and coordination among them which automatically facilitate coworkers' productivity and improve the unit's ability to adapt to environmental changes.

2.10.3 Customer Knowledge

Customer knowledge refers to understanding your customers, their needs, wants, and aims. According to Guaspari (1998) customer knowledge refers to understanding your customers. On the other hand, Paquette (2006) goes a step further and suggests that customer knowledge can be composed of customer knowledge, supply chain knowledge and joint venture specific knowledge and so forth. An important note in the definition of customer knowledge management is that it involves leveraging three types of customer knowledge: knowledge about the customer, for the customer and from the customer (Desouza & Awazu, 2005).

The extent to which an organization knows about its customers, their desires and needs is believed to affect their relationship with the organization which consequently improves its standard. Obviously companies know about their customers, but frequently this knowledge is in fragmented form and difficult to share or analyze and often it is incomplete or just in the head of one or two people. To be effective customer knowledge needs to be visible throughout the organization to ensure the customer's voice is heard. Customer knowledge management is considered as a continuous strategic process by which organizations enable their customers to move from being

passive buyers and information sources, to become empowered knowledge partners. Chuang and Liao (2010) found that customer knowledge affects employee service performance (β = .25) which consequently affect the institutional performance (β =.21). Hakkak, Mohammadi, and Musavi (2014) also found that customer knowldge strongly affect customer satisfaction (β =.81). These findings pointed out the significance of customer knowledge in the organization, so that their needs and preferences can be fulfilled.

2.10.4 Helping Behavior

Helping behavior has been defined as a behavior that employees elicit to provide good service to their customers. It is a type of employee-customer interaction established to promote the image of the organization and assist it in achieving its target. It is believed that helping behavior would enhance the institutional performance. Studies found that concern for customer affects service performance, and concern for employees facilitate helping behavior while the service performance and helping behavior affect teacher performance (Chuang & Liao, 2010).

Takeuchi et al. (2009) found that concern for employees' climate mediated the relationship of work performance system and individual job satisfaction and affective commitment. More precisely, the study shows that concern for employees' climate positively related to both job satisfaction and affective commitment which subsequently lead to institutional performance and productivity and enhanced helping behavior characters of the employees toward the customers. Chuang and Liao (2010) found helping behavior to be a powerful mediator variable between concern for employees and institutional performance. It is well understood that without employees' elicited characters that prompt to helping the customers, the organization might fail to achieve

its target goals. Helping behavior, thus, is not a mere variable or auxiliary factor, but rather a fundamental requirement for developing the organization.

However, the employees cannot elicit helping behavior without feeling that the organization is concerned with their well-being. Therefore, this implies that employee job satisfaction directly affect their behavior toward customers and the organization at large. Concern for employees thus, in turn, encourage employees to engage in cooperative behavior with customers for better service performance and also to display helping behavior among coworkers, while such collective cooperative behaviors can further contribute to the organization's market performance.

Indeed, prior research has found that a unit-level climate for service is positively associated with both unit-level (Borucki & Burke, 1999) and individual-level (Liao & Chuang, 2004) employee service performance. At the same time, concern for customers also elicits helping behavior between coworkers because the positive climate signals to employees that good customer service requires behaviors that go beyond typical in-role expectations (Schneider & White, 2004), as long as these behaviors support customer service. Coworker support and cooperation are essential in delivering excellent service to the whole group. For example, customers often randomly ask a waiter or waitress who just passes by for a napkin or a glass of water without waiting for their in-charge waiter/waitress. With a more positive concern for customers' climate a waiter/waitress is more likely to recognize the need and feel encouraged and willing to go above and beyond the call of duty, and thus is more likely to promptly attend to these customers' needs, which can highly contribute to the customers' overall service experience.

Moreover, Chuang and Liao (2010) found concern for employees (β =.49), concern for customers (β =.38) related to organization market performance through service performance (β =.21) and helping behavior (β =.29) respectively.

2.10.5 Service Performance

Service performance is the level of quality service that an organization through its employees renders to serve its customers. The service performance does not indicate the amount of service but rather the quality of service that will meet customer needs while remaining economically competitive. It is firmly believed that service performance would not only brighten the image of the organization but also strengthen customer loyalty with it which consequently promotes its performance.

Indeed, prior research has found that a unit-level climate for service is positively associated with both unit-level (Borucki & Burke, 1999) and individual-level (Liao & Chuang, 2004) employee service performance. At the same time, concern for customers also elicits helping behavior between coworkers because the positive climate signals to employees that good customer service requires behaviors that go beyond typical in-role expectations (Schneider & White, 2004), as long as these behaviors support customer services.

Further, Borucki and Burke (1999) showed that employee shared perception of a retail store's concern for employees was positively associated with employees' collective service performance. Likewise, using a unit-level analysis, Schmit and Allscheid (1995) found that employees' shared appraisals of their work situations were positively related to their intentions to provide quality service. Despite the importance of this model in the organization sectors, seldom do institutions of higher learning employ strategic human resource management practices to elevate their performance and increase the quality of their customers (students). Given that service features are different from characteristics of the manufacturing sector, understanding the nature of services is essential to understand how the work performance system operates in a service context such as higher learning institutions (Batt, 2002).

2.10.6 Summary

In summary, the previous studies suggested that the relationship between work performance system and institutional performance is not a direct relationship, but rather there are many mediator variables such as concern for employees, concern for customers, helping behavior, service performance and customer knowledge that coordinate the relationship between exogenous and endogenous variables (work performance system and institutional performance). Thus, these concerns for these variables are very important if not essential.

2.11 Methodological Analysis of Empirical Studies Work Performance System in Strategic Management and its Related Constructs

In recent years, researchers have been calling for a re-examination of the methodology employed in human sciences, especially in education, in a revolt against statistical decisions based on Fisher's *p*-value. Quantitative research has been widely criticized for failing to give real meaning to the data collected but rather focused on statistical significance tests as the deciding point for the truth or falsehood of the results (Schmidt, 1992). Although numerical studies have been extensively accepted as an important technique in human science, in general, and in organization and management, in particular, an infringement of its fundamental procedures and underlying guidelines is considered a great harm. According to Cohen (1990), many human scientists have "*offered a deterministic scheme, mechanical and objective, independent of content, and led to clear-cut yes-no decisions*" (p. 1307). The main objective of a study in any domain is to develop an appropriate theory and meaningful applications. An acceptable theory gives an accurate explanation of the process that actually happens in a specific phenomenon, how and why things are operating or happen the way they do (Hunter & Schmidt, 1990). In this section, the researcher will analyze the reviewed studies and

pinpoint the strengths and weaknesses of the previous studies in order to assess the reasons behind the inconsistency of the findings.

2.11.1 Description of the Subjects and Settings

Research on work performance system in strategic management and its related constructs has generated many models, perspectives, theories and conceptualizations such as universalistic theory, contingency theory, configurational theory and resources-based theory as previously highlighted. General evaluation reveals that work performance system has enormous positive and direct impact on institutional performance. On the other hand, the effects of work performance system on institutional performance are not only direct effects but rather include indirect effects mediated by concern for customers' climate and concern for employees' climate respectively. However, in the light of a short introduction about the statistical method and procedures, how previous studies on work performance system and their related constructs handled the statistical side of research will be analyzed.

However, it is very significant to note that measures of work performance system and institutional performance varied widely across the studies. Specifically, the dimensions of work performance system, institutional performance and how they were measured showed differences. This variation of measurement was based on the use of different theories which finally resulted in a variety of findings and outcomes. Although an overwhelming majority of recent studies have employed universalistic (best practices), contingency, configurational and resources-based theories, some studies that have measured work performance system were based on other available theories which consequently led to different research outcomes. Moreover, this type of combination could definitely affect the findings and might lead to dangerous generalization.

Therefore, it is more advisable to be cautious in interpreting relations among these intercorrelated but conceptually distinct variables.

A detailed analysis of the previous studies shows that the subjects and settings of the studies were satisfactorily described and analyzed. Generally, the studies adequately portrayed the features of the subjects such as gender, organization setting, number of employees and environment. Moreover, in experimental design, the treatments, pre-test and post-test were fully explained to give readers a full understanding of how the studies were conducted and why the conclusions were justified.

2.11.2 Meta-analysis Summary

At this juncture, the research would highlight that to keep abreast of trends and developments in work performance system in strategic human resource management and its association with institutional performance for analytical purposes, it is crucial to look at some empirical studies that have been conducted in the area.

Therefore, to conduct the reviews, this section is divided into two sub-sections. First, the research methodologies employed in the empirical studies are critically analyzed. That is the extent to which these studies adhered to acceptable methodologies is discussed. Secondly, the studies which touched specifically on the concept of work performance system in strategic human resource management (such as staffing, training, involvement, performance appraisal, compensation and caring) and its effect on institutional performance will be discussed. The summary of these studies is presented in Table 2.1. Thus, the descriptive meta-analysis encompassed sampling technique, instrument validity, estimate of reliability, statistical technique, data collection procedures and so on. The analysis was summarized in tabular form with eight categories under which items for review were listed. These categories included the following

1) the author or authors' names
2) year of publication
3) the focus or objectives of the studies
4) the setting (countries from which the subjects were drawn).
5) Sampling procedure (random, non-random, and no information on sample selection) and data collection procedure. The last category examines (a) the instrument, (b) validity of the instrument used to collect data and (c) reliability estimates of the instruments.

2.11.3 Objectives of the Selected Studies on Work Performance Systems

For the purpose of the present study, about 45 empirical studies that had been used to study work performance system in strategic human resource management and its related constructs such as staffing, training, involvement, caring, compensation, performance appraisal, concern for employees and customers, customer knowledge and service performance and helping behavior have been critically reviewed to highlight their fulfillment of the empirical study procedures. This meta-analysis revealed that even though all the studies reported related to various work performance systems and related constructs, their objectives could be categorized into the following general areas:

a) Importance of work performance system in the institutional performance
b) Effect of work performance system on employees and their morale
c) Direct and indirect effects of work performance system on institutional performance
d) Importance of mediator variables such as concern for employees and customers
e) Transformation of organization from traditional human resource management to employee-oriented strategic human resource management

f) Construction of scale to measure work performance system and its related constructs and psychometrically testing usefulness such as validity and reliability.

The researcher would like to inform readers that the abovementioned categories were based on personal judgment and discretion as indicated from these selected previous studies.

2.11.4 Sampling Procedures of the Reviewed Studies

It is a fundamental statistical method requirement that sample size should represent the population, whether in terms of number or randomization if the findings are to be relied on and generalized to similar situations. Violating this procedure of representativeness may endanger the research outcome. The review of the sampling procedures used by these studies suggests that the sampling can be grouped into seven distinctive categories, as follows: a) random sampling; b) non-random sampling; c) purposive sampling; d) non-random assigned; e) non-randomly sampled but randomly assigned; f) convenience sampling; g) studies with no information.

Based on the methodological analyses of the studies, only four selected studies (both experimental and survey studies) (8.9%) selected the sample randomly and assigned them into experimental and control groups randomly. Unfortunately, 31 reviewed studies (68.9%) did not mention the selection procedures, while eight studies (17.8%) did not randomly select the subject. Failing to provide adequate information or violation of randomization procedures would raise doubt about the statistical method and also call into question the outcomes drawn from that study.

2.11.5 Sample Size

It is known that a big sample size generally helps to uncover the differences between the means of population. In other words, a large sample size normally represents the mean of population so that the study would be able to give the magnitude and direction of effect of treatment compared to a small sample size. Also, the artifacts (e.g., standard errors, measurement errors) are larger when the sample size is small because the sample size may not be able to express the variations within the population. Hair, Anderson, Tatham, and Black (1998), however, cautioned researchers on blind use of a large sample size because a large sample size generally reduces the sampling error and increases the sensitivity (power) of the test such that trivial differences will be regarded as being of statistical significance.

It is advisable when sizes become large and statistical significance is indicated, that the power and effect size be examined to ensure that they are not only statistically significant but practically significant as well; a procedure that many researchers of high work performance system in strategic human resource management and its related constructs had not satisfied and did not properly follow. The somewhat contradictory findings on this issue could be due to the way statistical methods are handled. The majority of studies were found to be statistically significant. But that did not mean that all were of practical significance. More than 99% of the reviewed studies did not have a balance among the sample size, type 1 error (α), effect size and power. Most of the time, power, and effect size were not mentioned at all. Therefore, statistical significance might be a result of large sample sizes because at every large sample size almost any effect is significant (Hair et al., 1998).

Table 2.1: Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Author's Name	Year	Subject Level	Country	Design	Method	Sample Size	Sampling	Focus	Assumption	Reliability
Chuang & Liao	2010	Managers & Employees	Taiwan	Survey	Structural Equation Modeling	1193	Not Mentioned	Integration relationship between HRM practices and Organization climate	Not Mentioned	Not Established
Ali et al.,	2012	Employee of Transportation Organization	Iran	Survey	Factor Analysis & Multiple Regression	80	Not Mentioned	Influences of employees' performance evaluation process on their intrinsic motivation	Not Mentioned	Established
Huselid	1995	Employees	USA	Survey	Factor Analysis & Multiple Regression analysis	3452	Not mentioned	Influences of HRM practices on employees' turnover, productivity and corporate financial performance	Not Mentioned	Reliability Established
Sels etal.,	2006	Employees	Belgium	Survey	Structural Equation Modeling & Descriptive analysis	416	Convenience sampling	Examination the relationships between HRM and firm performance	Not Mentioned	Reliability Established
Wright et al.,	2005	Employees	USA	Survey	Multiple Linear Regression and Correlation	13, 500	Internet sampling	Investigation causal linkage between HRM practices and firm performance	Not Mentioned	Reliability Established
Delery & Doty	1996	Industry Employees	USA	Survey	Logistic Regression and Descriptive Analysis	1050	Not mentioned	Investigation the effects of SHRM on organization performance	Not Mentioned	Reliability Established
Wickrama-singhe, V.	2007	Company employees	Sri-Lanka	Survey	Descriptive Analysis, Chi-Square and Semi-structured interview	65	Not Mentioned	Investigation the effect of staffing on the performance of the organization	Not Mentioned	Not Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Lewis, P.	2003	State-owned companies	China	Qualitative	In-depth interview	20	Purposive sampling	Investigation the effects of HRM practices on the organization performance	Not Mentioned	No information
Hargis & Bradley	2011	Industry Employees	USA	Survey	Descriptive analysis	1503	Not Mentioned	Investigation effects of SHRM practices on the performance of small firm	Not Mentioned	Not Established
Carlson, Upton & Seaman	2006	Employees	USA	Survey	Logistic Regression	168	Not Mentioned	Studying the effects of Human resource management practices on organization performance	Not Mentioned	No information
Nawab & Bhatti	2011	Academic Institution	Pakistan	Survey	Multiple Linear Regression	270	Not Mentioned	Studying effects of employees' compensation on their job satisfaction and organization commitment	Not Mentioned	Reliability Established
Brown, P.	2005	Directors	UK	Qualitative	Semi-structured interview and document analysis	5	Purposive sampling	Validating the conceptual frameworks for strategic management development	Not applicable	No Information
Che-Rose & Kumar	2006	Manufacturing employees	Malaysia	Survey	Descriptive analysis and Multiple Regression	42	Convenience sampling	Investigating the relationship between strategic human resource practices and firm performance	Not mentioned	Reliability Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Miah & Bird	2007	Employees	Japan, Pakistan, India & Bangladesh	Survey	Multiple Linear Regression	450	Not mentioned	Investigating national and organizational cultural influences among managers in three types of companies	Not mentioned	Reliability Established
Marwat, Arif & Jan	2009	Executive of Telecom companies	Pakistan	Survey	Pearson Correlation and Descriptive analysis	56	Not Mentioned	Investigating relationship between HRM practices and employee performance	Not mentioned	No Information
Ng & Dastmal-chian	2011	Canadian organization	Canada	Qualitative and quantitative	Multiple Linear Regression and Structured Interview	92	Not Mentioned	Identification of perceived benefit of training on organization performance	Not mentioned	No Information
McNamara et al.,	2012	Organizational industrial sectors	19 countries	Survey	Logistic Regression	218	Not Mentioned	Examining effects of training on firm performance and sustainable development	Established	Reliability Established
Ji, Huang, Liu, Zhu & Cai	2012	Chinese Manufacturing firm	China	Quantitative and Qualitative	Multiple Linear Regression and Interview	218	Not mentioned	Investigating time span and concentration on training on the organization performance	Not mentioned	No Information
Aragon & Valle	2013	Spanish firm	Spain	Survey	ANOVA and Multiple Linear Regression	3456	Not Mentioned	Examining the effects of training managers on organization performance	Not mentioned	Reliability Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Alexandrov et al.,	2007	Retailer employees	USA	Survey	EFA, CFA and Structural Equation Modeling	5591	Convenient sampling	Exploring the effects of frontline employees' perception of management concern for employees and customers on turnover intensions.	Not mentioned	Reliability Established
Schneider et al.,	1998	Employees and Customers	USA	Survey	Longitudinal structural equation modeling	10,005	Not mentioned	Investigating relationship between service climate and customer perception of service quality	Not mentioned	Reliability Established
Salanova et al.,	2005	Employees and Customers	USA	survey	Structural Equation Modeling & MANOVA	1482	Not Mentioned	Examining mediating role of service climate in the predicting employee performance and customer loyalty	Established	Reliability Established
Takeuchi et al.,	2009	Managers & Employees	Japan	Survey	Multilevel Pathways	846	Not Mentioned	Testing multilevel theorizing in human resources management	Not mentioned	Reliability Established
Turk	2005	Academic staff	Sweden	Qualitative and Quantitative	Descriptive analysis & Semi-Structured interview	65	Not mentioned	Studying the effect of performance appraisal on motivation and compensation of academic staff	Not mentioned	No Information
Arshad et al.,	2013	Employees	Pakistan	Survey	Multiple Regression	207	Not mentioned	Investigating the impacts of performance appraisal politics on job satisfaction, turnover intention and loyalty to supervisor	Not mentioned	Reliability Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Igalens & Roussel	1999	Employees	France	Survey	Structural Equation Modeling	579	Not mentioned	Investigating the effects of compensation on employee performance	Established	Reliability Established
Javed et al.,	2010	Managers	Pakistan	Survey	Regression and Correlation	50	Not Mentioned	Investigation of employees' motivation and organizational performance	Not mentioned	No Information
Resurreccion	2012	SMEs Company	Philippines	Survey	Descriptive, t-test and Logistic Regression	30	Not Mentioned	Determining the impact of implementation of select performance management and compensation practices on organizational competitiveness	Not mentioned	Reliability Established
Oladapo & Onyeaso	2013	Company Managers	USA	Survey	Hierarchical Linear Regression	240	Purposive sampling	Investigating of work performance system on organization innovation	Not mentioned	Reliability Established
Burke et al.,	1992	Sales personnel	USA	Survey	Confirmatory Factor Analysis	18457	Not Mentioned	Proposing and testing a two factor higher order model of psychological climate within a retail service environment	Not mentioned	Reliability Established
Bashir, Jianqiao, Jun, Ghazanfar & Khan	2011	Academic Staff	Pakistan	Survey	Descriptive analysis, Pearson Correlation and Hierarchical Linear Regression	674	Simple Random Sampling	Exploring the role of demographic factors in relationship between HRWS and job satisfaction	Not mentioned	Reliability Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Gelade & Ivery	2003	Bank Employees	Taiwan	Longitudinal study & Qaulitative	Pearson Correlation & Path Analysis	14390	Not mentioned	Examining the relationships between human resource management, work climate and organization performance	Not mentioned	Reliability Established
Arthur	1994	Mining Employees	USA	Survey	Descriptive, Pearson Correlation & Multiple Linear Regression	30	Not mentioned	Investigating the effects of human resource practices on organization performance and turnover	Not mentioned	No information
Guthrie	2001	Managing Directors	New Zealand	Survey	Correlation and Regression	164	Not mentioned	Investigating the relationships between firm's use of high involvement work practices and employees' retention and productivity	Not mentioned	Reliability Established
Pappu & Quester	2006	Customers	Australia	Survey	MANOVA	601	Systematic sampling	Examining the relationship between customers' satisfaction with a retailer and the equity associate with the retail band	Established	Reliability Established
Naqvi & Nadeem	2011	Bank Managers	Pakistan	Survey	Multiple Linear Regression	1704	Not mentioned	Investigating effects of work performanc systemon employee motivation	Not mentioned	Reliability Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Jiang, Lepak, Hu & Baer	2012	Not Applicable	USA	Meta-analysis	Meta-analytic Structural Equation Modeling	116	Not applicable	Examining the effects of skill-enhancing, motivation-enhancing and opportunity-enhancing on proximal organizational outcomes, digital outcomes, and financial outcomes	Established	Reliability Established
Hassan, Hagen & Daigs	2006	Employees	USA	Survey	Logistic Regression	131	Not Mentioned	Investigating strategic human resource management practices such as selective hiring, high compensation, extensive training and so on and their relationships with organization performance	Established	Reliability Established
Karami, Analoui & Cusworth	2004	Directors	UK	Survey	Correlation and Chi-Square	114	Not Mentioned	Exploring the relationship between strategic management and firm's performance	Not mentioned	No Information
Jamalullail, Aida Hanim, Mohd Izham & Nurhasyida	2013	Primary school teachers	Malaysia	Survey	Descriptive Analysis & t-test	60	Not Mentioned	Identifying the level of practice in strategic management among administrators of national and Chinese primary schools	Not mentioned	Reliability Established
Mechinda & Patterson	2011	Nurses	Thailand	Qaualiative and Quantitative	Focus group interview and Structural Equation Modeling	270	Purposive	Examining effects of dispositional variables, service climate and job satisfaction on five dimensions of customer-oriented behaviors	Not Mentioned	Reliability Established

Table2.1: (Continued)
Methodological Analysis of Previous Studies on Work Performance System and its Related Constructs

Tsai, Tsai & Chang	2010	Customers	Taiwan	Survey	Multiple Linear Regression	236	Convenience Sampling	Exploring the relationship between customer value, customer satisfaction, and customer loyalty	No Mentioned	Reliability Established
Batt	2002	Managers	USA	Survey	Correlation and Regression	326	Stratified Random Sampling	Examining the relationship between human resource practices, employee quit rates and organization performance in the service sector	Not Mentioned	Reliability Established
Nigam, Nongmaithem, Sharma & Tripathi	2011	Employees	India	Survey	Multiple Regression	750	Not Mentioned	Investigating the relationship between strategic resource management and performance in service sectors	Not Mentioned	Reliability Established
Stajkovic & Luthans	2001	Employees	USA	Experimental Design	Descriptive Analysis and ANCOVA	182	Randomly Assigned	Investigating the effects of monetary incentives, social recognition and feedback on employees' performance	Not Mentioned	No Information

2.12 Research Settings and Subjects Characteristics

The characteristics of the research setting and subjects were analyzed. A detailed description of the research settings and subjects was presented in the methodological table. A close look at the various studies showed that the researchers of these previous studies on high work performance system in strategic human resource management described the research settings and characteristics of their subjects such as gender, age, and locations where their subjects were studying. Furthermore, the selected studies analyzed for the present study were conducted in various settings across organizational levels, ranging from manufacturing to service sectors. It is worth mentioning that although a few studies covered work performance system or strategic human resource management in educational settings, the overwhelming majority of studies were conducted in organizations such as manufacturing companies and the service sector (e.g., banks). As was obvious from the table, the great majority of the reviewed studies were conducted in Asian countries such as Taiwan, Korea, and China while some studies were conducted in Turkey, and other Western countries such as the United States, Australia, Spain and the United Kingdom. More precisely, the analytical meta-analysis suggested that 20 out of 45 (44.4%) empirical studies reviewed in the study were conducted in Asian countries (in which both authors and subjects were from Asia) such as Taiwan, Korea, China, Pakistan, Malaysia, the Philippines, Sri Lanka, Iran, Japan and India while 25 studies (55.6%) were conducted in Western countries such as the United States, United Kingdom, Australia, New Zealand, Belgium, Sweden, Spain, Canada and so on.

2.13 Statistical Techniques Used in the Previous Studies on Work Performance System and Related Constructs

This sub-section presents the percentage distribution of the statistical techniques used by the researchers in these selected empirical studies and the results of the statistical assumptions underlying the use of statistics. It also highlights the researchers' reports of response rate and non-response rate.

The following Table 2.2 presents the distribution of statistical techniques, assumptions underlying their uses, and statistical power across all the studies that were reviewed and discussed in the preceding sections. Analysis of the distribution of statistical techniques revealed that the researchers commonly used two statistical techniques, namely descriptive statistics and correlation. But generally, apart from descriptive statistics, some reviewed studies used chi-square, ANOVA, MANOVA, *t*-test, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM).

There were also cases of multiple regression analyses, ANCOVA, and Principal Component Analysis (PCA). All these statistical techniques were commonly used in these reviewed studies. As expected, descriptive statistics and frequencies were generally used, whether as major methods or to explain the demographic variables and clarify the differences and diversities among the variables concerned. It is known that the nature of a study will determine the appropriate techniques. More specifically, the question(s) that a researcher wants to answer will decide the suitable and fitting technique(s) not otherwise (Tabachnick & Fidell, 2001).

Table 2.2: Percentages of Distribution of Statistical Techniques, Statistical Assumptions, Power, Effect Size, Validity and Reliability

	Statistical Techniques	N	%
1	Descriptive (frequencies. percentages, means and standard deviations) Correlation Chi-Square *t*-test	30	66.7
2	ANOVA Based techniques (One-way ANOVA, Factorial ANOVA, ANCOVA, MANOVA, MANCOVA	4	8.9
3	Regression	24	53.3
4	Data reduction (PCA and FA)	3	6.7
5	Confirmatory Factor Analysis (CFA), SEM, CFA, Path Analysis	11	24.2
6	Statistical Assumptions		
	Mentioned	4	8.9
	No information	41	91.1
7	Statistical power and effect size		
	Mentioned	-	-
	No information	45	100
8	Response return rate		
	Mentioned	-	-
	No information	45	100
9	Reliability		
	Established	31	68.9
	No information	14	31.1

Furthermore, a researcher may employ different techniques to answer research questions from different angles. Since the nature of previous studies was to investigate the relationship between variables, it was expected that correlation, regression, the path analysis model, confirmatory analysis and Structural Equation Modelling were to be used. Although many simple statistical techniques (*t*-test, chi-square, one way ANOVA) may be used to answer the questions of that nature and examine the relationship

between variables but due to inflation of errors and less precision in estimating the relations, studies used more advanced techniques for the complex relationships.

For example, ANOVA and correlation can be used to assess the relation between variables. However, using the Structural Equation Model (SEM) or path analysis would be more adequate if the researcher is looking for causal relationships or wants to link multiple, and observed indicators to unmeasured causes or to assess the overall model fit to data (Hair et al., 1998). Thus, even though all these techniques can be used metaphorically for the same objective, Path Analysis, the Structural Equation Model, Confirmatory Factor Analysis, and Principal Component Analysis are more robust and inherently more powerful than others (ANOVA-based techniques) to assess multiple causal relationships of either endogenous or exogenous variables. Moreover, these techniques could precisely estimate the errors (artifacts). However, multivariate analysis is an effective technique to deal with error inflation when many variables are examined simultaneously.

Thus, a close look at the reviewed studies revealed that 30 studies (66.7%) employed descriptive studies and correlations, 24 studies (53.3%) used different kinds of regressions while 4 studies (8.9%) used ANOVA-based techniques. Moreover, the data reduction (FA and PCA), Confirmatory Factor Analysis, Path Analysis, Structural Equation Modelling and Multilevel Pathway Analysis were used in 11 studies (24.2%). It is worth mentioning that five studies (11.1%) employed mixed- method techniques in which they combined both qualitative (such as interview and observation) and quantitative techniques (such as chi-square, Multiple Linear Regression and Structural Equation Modelling). Finally, *t*-test, chi-square, and correlation were used in nine (20.0%) reviewed studies. Furthermore, experimental technique and qualitative approach were each used in one study (2.2%) respectively.

In relation to power analysis and effect sizes, despite the concern of behavioral scientists about underrating the importance of power and effect size as previously mentioned, it is unfortunate that none of (0%) the reviewed studies mentioned anything about power or effect size. Failure to address the issues of power, effect size, statistical assumptions and the method of selecting sample size did not allow the researcher to know how powerful the findings of these studies were and whether the probability of hypothesized effects actually existed. Since these researchers focused on statistical significance, large sample sizes were selected and type one error (α) was constant at .05, thus it was not known whether the differences were due to errors (sampling errors or measurement errors) or due to real treatment (practical significance).

It is also worth mentioning that 39 out of 45 reviewed studies (86.7%) were quantitative in nature (survey), 5 (11.1%) used mixed-methods approaches and only one study (2.2%) adopted qualitative approach.

2.14 Validity and Reliability of Instruments in Reviewed Studies

In relation to validity and reliability 68.9% of the studies provided sufficient and adequate information about the reliability of the questionnaires used. However, it showed that less concern had been given to the validity issue, despite the belief that validity is more important than reliability. It was found that less than 5% of the studies reported results of validity. The majority of these studies, however, used adopted instruments, and it could be partially understood that they had been validated by their constructors. Notwithstanding, since the results of reliability tests were adequately reported for 31 studies, it would be appropriate and significant if the results of validity assessments were also reported and fully described.

The validity of the instrument is extremely important because a valid instrument measures what it intends to measure. It is worth mentioning that the instrument might be

reliable without being valid but otherwise cannot be applicable. Furthermore, 14 reviewed studies (31.1%) did not provide any information on instrument validity and reliability, hence violating the fundamental requirement of quantitative studies. Although qualitative study does not have to provide Cronbach's alpha type of reliability, it also has its own way to test the reliability of the instrument and then imbue the study with credibility.

2.15 Summary

As mentioned earlier, this chapter was divided into two sections; the first section is a review of previous studies in relation to this present study. The first section concentrated on work performance system and its dimensions (such as staffing, training, involvement, compensation, caring and performance appraisal). The chapter reported studies that have been conducted on these dimensions and their relationship with institutional performance. In addition to work performance system, this chapter also reviewed the studies on the effects of concern for customers and employees on institutional performance and effectiveness. Furthermore, the second section focused on meta-analysis of previous studies especially in relation to the methodology.

It was known through the first section of this review that work performance system has positive and direct effects on institutional performance and indirect effects through concern for customers and employees. This result suggested that success of an organization especially in the educational sector largely depends on strategic human resource management practices. This review of literature showed that although budget is very important in every organization, caring for human resources plays the most significant role in effectiveness, performance and profitability of an organization.

Furthermore, generally, this meta-analysis has produced adequate and relevant information on the developments and trends regarding the concept of work performance

system in strategic human resource management and other related constructs. It has shed light on the conceptual framework, research dimensions and variables that have been tested for and those yet to be tested, and also probable areas to be looked into in the future on various implications of work performance systems. Hence, the problems connected to the work performance system in strategic human resource management according to the reviewed studies can be categorized into different groups.

On the other hand, the methodological analysis of the previous studies indicated that many of these studies violated some fundamental requirements of statistical procedures such as randomization, testing the validity and reliability of the employed scales and assumption of the statistical techniques. Violation of statistical procedures in quantitative research studies would undermine the credibility of their results. Thus, this study would avoid underestimating the statistical procedures and would be sensitive to the guidelines given to statisticians and practitioners.

To summarize, the literature review serves as a ground for the researcher to design the present study especially in establishing the conceptual framework, research method, sampling procedure, and data analysis.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter is to explain the methodology of this study. This chapter contains a description of the method and procedures of study, such as the sampling, data collection, instrumentation, validation, statistical methods to be used for data analysis and pilot study. It is worth emphasizing here that the main objective of this study is to test the proposed model of work performance system in strategic human resource management and to elucidate the nature of its relationship with institutional performance. Hence, to achieve this ultimate goal, this chapter describes the methodology used to answer the research questions stipulated in chapter one. Subsequently, the research design is elaborated, instrumentation is enumerated, validity and reliability issues are addressed, pilot study is reported and data analysis procedures are explained.

3.2 Research Design

Research design refers to the description of procedures adopted by the researcher in conducting a research and it outlines the entire plan of data collection, data analysis and data interpretation (Ary, Jacobs, & Razavieh, 1996). The goal of a sound research design is to provide results that are judged to be credible. In other words, the research design helps to overcome threats to internal and external validity. In this present study, the survey approach would be employed for data collection from the population.

Based on the literature review of statistical technique used in previous studies (in Table 2.2 p. 140) and the needs of data analysis on the hypothesized model in Figure 1.1, p. 31) this research uses the survey method and tests the model using Structural

Equation Modelling (of work performance system in strategic management and its relationship with human resource practices and institutional performance). According to Frey, Botan, and Kreps (2000) and Brody and Stone (1989), the survey method for evaluating research is based on the idea of obtaining information about experiences and feelings of the subjects with regard to services or products in order to evaluate effectiveness. The study employs the non-experimental quantitative research method as a design intended to ensure objectivity, generalizability and reliability (Weinreich, 1996). The quantitative research method is a technique in which participants are selected randomly from the study population in an unbiased manner. It is used to provide a more complete picture of the issue being studied including the target audience and the effectiveness of the program itself, to help identify the strengths and weaknesses that could not be achieved if only one method were used, and add meaning and detail to the study.

The researcher adapted Chuang and Liao's (2010) model. The model is considered to be comprehensive compared to other available models especially in strategic human resource management. The conceptual framework was initially used and tested on firms; however, it is believed due to the nature and degree of similarities of strategic human resource management across different domains, this model can be replicated in institutions of higher learning.

Furthermore, structural equation modeling (SEM) is used and suited to carry out this research project basically because of its enormous statistical power to find and confirm joint relationship between variables not directly observed but are inferred by other observable and measurable variables. The ultimate objective for using SEM in research is to depict the pattern of a series of inter-correlated dependent relationships simultaneously among a set of latent constructs, each measured by one or more manifest variables. SEM is a combination of Factor Analysis and Multiple Linear Regression. It

is a comprehensive technique with regression analysis origin used to test the dissertation's objective for the relationship between observed and implicit variables. Although, SEM is used to investigate relationship like multiple regression, the former statistical method is very robust than the latter in many aspects.

1. Firstly, SEM is used to establish causal relationships between exogenous and endogenous variables, whereas multiple regression relations are not causal in nature.
2. SEM facilitates the simultaneous estimation of multiple dependent variables while multiple regression could not adopt more than a dependent variable. In this study, the dependent variables are dimensions of institution's performance, which are human resource planning, human resource management and human resource development and training.
3. Another significant advantage of SEM is that it allows for mediating variables, whereas multiple regression analysis cannot adopt mediators. In other words, in addition to relationships between exogenous and endogenous variables, SEM is also a powerful statistical tool to investigate the impact of mediators if the effects are not direct between main variables.
4. SEM also tolerates a high degree of multi collinearity among exogenous variables but multiple regression does not.

According to Kline (1998) in SEM, besides being used for similar purposes of multiple regression test, two or more implicit variables depending multi-indicator variable, relative error terms, independent implied variables tested by multi-indicator are used more powerfully in modeling of interactive measure errors.

For practical reasons, the researcher prefers to use structural equation modeling to obtain meaningful accurate results. However, advantages of SEM are strongly dependent on the theory of the research being conducted. The purpose of SEM is basically to put forth whether or not the previously decided relation web can be verified by the data obtained. SEM, despite having been developed for use in genetics (Kline, 2011), is a systematic instrument recently used especially for evaluating the relations among variables and testing conceptual models in the field of education, psychology, sociology, business and so on.

3.3 Rationale, Relevance and Suitability

Quantitative research aims at determining the relationship between two phenomena; dependent and independent variables. When the researcher attempts to establish relationship between variables and determine precisely the contribution of independent variable to dependent variable, the quantitative approach is warranted. Many researchers view quantitative research design as the best approach to scientific research because it offers precise measurement and analysis. In quantitative research design the researcher will count and classify, and build statistical models to then explain what is observed.

According to Atieno (2009), the "quantitative research paradigm…is empirical in nature; it is also known as the scientific research paradigm" (p. 6). This research process includes a method of deductive reasoning by use of measurable tools to collect relevant data. Quantitative research then results in precise measurements. Since the researcher attempts to study the precise relationships between work performance system practices and Omani higher education institutional performance with accurate measurement and to test the model, the appropriate research paradigm is the quantitative approach. Additionally, as previously mentioned, structural equation modeling is a statistical method used to study the causal relationship between multiple endogenous

variables and exogenous variables with ability to investigate the effects of mediator variables. It is firmly believed that the method is relevant and appropriate for carrying out this research.

Therefore, the suitability of the method is not limited to studying the causal relationship between multi variables only, but also in examining precisely the contribution of each element to the fitness of the model and estimation of measurement error of variable.

3.4 Population and Sampling

According to Sekaran and Bougie (2013), a population refers to "a large group of interest". In other words, population is a group of individuals who possess the same characteristics. Accurate definition of population is very essential for quantitative study because researchers select the sample from the population. Thus, precision in definition would empower the researcher in addition to randomization to claim representativeness of the sample and consequently conclude that the findings are generalizable.

In this study, the population comprised all the employees of the Directorate of Human Resource in the Ministry of Education in the Sultanate of Oman. The Ministry of Education is divided into 11 districts which are also further divided into Directorate General of Human Resource Department. Furthermore, every district has its own directorate general of education at state level which manages the educational system in the Sultanate. The human resource department is administered by the undersecretary for educational planning and human resources department; it consists of three distinctive sections, namely Directorate General of Human Resources Development, Directorate General of Planning and Quality Control and Directorate General of Educational Evaluation. This research study as was earlier mentioned would focus on the Directorate General of Human Resources Development which has departments in every district of

the Sultanate. The overall population of the Human Resource Development department including employees at district level is 1948, both male and female employees. The following Table 3.1 highlights the distribution of employees by district.

Table 3.1: Number of Population with Its Respective Directorates

No	Directorate according to District	Population Size (n)
1	Directorate Human Resource Department in the Ministry of Education	267
2	Directorate General of Education Muscat Governorate	222
3	Directorate General of Education Governorate Dhofar	188
4	Directorate General of Education Governorate Musandam	43
5	Directorate General of Education Governorate Al-Buraimi	85
6	Directorate General of Education Governorate Dakhiliyyah Region	196
7	Directorate General of Education Governorate Dhahira Region	128
8	Directorate General of Education Governorate Batinah North Region	310
9	Directorate General of Education Governorate Batinah South Region	209
10	Directorate General of Education Governorate Sharqiah North Region	121
11	Directorate General of Education Governorate Sharqiah South Region	163
12	Department of Education Wusta Region	16
Total		**1948**

The researcher selected the sample size from each of these directorates in addition to the Ministry of Education to have a representative sample and give each district equal opportunity to be part of the research so the findings can be generalized without biasness. Since the issue of gender is often strongly present in research practices the researcher presented in the following Table 3.2 the population of both males and females across the Directorate of the Sultanate Oman and consequently the sample would be selected accordingly

Table 3.2: Distribution of Population According to Gender

No	Directorate according to District	Population Size	Males	Females
1	Directorate Human Resource Department in the Ministry of Education	267	180	87
2	Directorate General of Education Muscat Governorate	222	88	134
3	Directorate General of Education Governorate Dhofar	188	106	82
4	Directorate General of Education Governorate Musandam	43	33	10
5	Directorate General of Education Governorate Al-Buraimi	85	43	42
6	Directorate General of Education Governorate Dakhiliyyah Region	196	130	66
7	Directorate General of Education Governorate Dhahira Region	128	84	44
8	Directorate General of Education Governorate Batinah North Region	310	184	126
9	Directorate General of Education Governorate Batinah South Region	209	126	83
10	Directorate General of Education Governorate Sharqiah North Region	121	79	42
11	Directorate General of Education Governorate Sharqiah South Region	163	101	62
12	Department of Education Wusta Region	16	9	7
	Total	1948	1163	785
	Sample size selected			531

3.5 Sampling Procedures

Sampling means the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population. According to Creswell (2005) a sample is a subgroup of the target population that the researcher attempts to study for the purpose of generalizing the findings to similar situations. Hence, the sample size should be represented if the aim of generalization is to be achieved.

The subjects of this study will be randomly selected as was previously mentioned among the higher managers and staff in the Ministry of Education in the Sultanate of Oman. The randomization of sample selection means that each member of the specified population will have the same probability of being drawn (Edgington, 1980). Every individual in the population has a known nonzero chance of being included in the sample. Consequently selection biases can be minimized. Since the researcher is going to employ Confirmatory Factor Analysis and Structural Equation Modeling to test the conceptual framework respectively, a large sample size would be needed. The samples were selected in relation to their respective population in order to maintain representativeness. The following table would show the population of this study and how the sample would be selected across the Directorates in the Sultanate of Oman.

Sample size was determined based on the number of the population and statistical techniques the researcher attempted to employ to answer the research questions. Thus, since the total population as mentioned in Table 3.3 is 1948 and because the researcher attempts to use Confirmatory and Structural Equation Modeling, the sample of 531 was selected using stratified random sampling technique. The sample size of 531 is robust enough to be representative of the population of this study and also enough to meaningfully investigate the differences among the variables. According to Hair et al. (1998) the large sample size is desirable because it would represent the

population. Furthermore, the issue of sample size is very crucial in statistical analysis or, more precisely, in quantitative research. When researchers compute a sample mean, for example, they try to make some kind of generalization about the population mean either by placing a confidence limit or by testing hypotheses about the population means. Furthermore, when sample sizes are small (even in the event of multivariate normality), both the Maximum Likelihood (ML) and Generalized Least Squares (GLS) estimators yield χ^2 values that are somewhat inflated. Furthermore, as sample size decreases; and non-normality increases, researchers are faced with a growing proportion of analyses that fail to converge, or that result in an improper solution (Byrne, 2002; Kline, 2011).

It is also reported that when sample size is large enough (>500), the SEM would easily estimate the effect size and the risk of non-convergent estimation is diminished (Byrne, 2002; Brown, 2006; Kline, 2011; Schumacker & Lomax, 2010).

Whenever the word "sample" is used, it normally connotes a sample selected from a population randomly or (at least) in a manner which is reasonably random. Ideally, samples are selected, usually by random process, so that they represent the population of interest. The population thus is the group from which the researcher is able to randomly sample (Tabachnick & Fidell, 2001). The process of sampling is what Byrne (2002) identified by "getting a part [to] stand for a whole" (p. 72). This means indirectly that the result could not be generalized to other similar populations unless the sample reflects the parameters of the population from which the elements were selected. In addition, random selection of the sample will guarantee –within a certain known margin of error– representativeness of the sample (Glass & Hopkins, 1996).

Therefore, this study will select the sample randomly by following the stratified sampling technique. The technique is used in order to divide the population according to gender (male and female), so that both genders will get equal representation within

each of these strata. More specifically, a proportionate stratified sample is used to make the same sampling fraction within each stratum. This is one of the best methods for ensuring that a proper number of elements are drawn from a homogenous division of the population. The technique will be used to test the model separately according to gender.

According to Creswell (2012) stratified random sampling would be used when the population reflects an imbalance on a certain characteristic of sample. Therefore, since the population of this study reflects a gender imbalance, where the population of males outnumbered their female counterparts, the researcher corrected this imbalance and underrepresentation by employing stratified random sampling where the samples of males and females would be selected separately.

Creswell stated that "the procedure for a stratified random sample consists of (a) dividing the population by the stratum (e.g., men and women) and (b) sampling within each group in the stratum (e.g., women first and then men) so that the individuals selected are proportional to their representation in the total population" (p. 144).

The age range of the sample was from ages 30 to 55 years. It is worth noticing that the majority of respondents had high degree qualification. The sample would include general managers, assistant general managers and those in authority in the Ministry of Education in the Sultanate of Oman.

Table 3.3: Distribution of the Population and Sample Size According to Directorate

No	Directorate according to District	Population Size	Sample size
1	Directorate Human Resource Department in the ministry of education	267	70
2	Directorate General of Education Muscat Governorate	222	46
3	Directorate General of Education Governorate Dhofar	188	50
4	Directorate General of Education Governorate Musandam	43	25
5	Directorate General of Education Governorate Al-Buraimi	85	30
6	Directorate General of Education Governorate Dakhiliyyah Region	196	50
7	Directorate General of Education Governorate Dhahira Region	128	35
8	Directorate General of Education Governorate Batinah North Region	310	80
9	Directorate General of Education Governorate Batinah South Region	209	37
10	Directorate General of Education Governorate Sharqiah North Region	121	50
11	Directorate General of Education Governorate Sharqiah South Region	163	42
12	Department of Education Wusta Region	16	16
	Total		531

3.6 Instrumentation

An instrument is a tool for collecting information from the subjects. It is a channel where subjects' views and opinions become known. It is the generic term that researchers use for a measurement device (survey, test, questionnaire, etc.). More precisely, an instrument is a tool for collecting information from the subjects. For the instrument to attain credibility, it must be certain that it measures what phenomenon it is supposed to measure (Pedhazur & Schmelkin, 1991).

The instrument of this study is a questionnaire. It is of two types; the first type of questionnaire was adapted from Chuang and Liao (2010) which contained 68 items divided into eleven dimensions. The first 5 items examined staffing, 5 items were for training, 7 items for involvement, 6 items for performance appraisal, 7 items for compensation and rewards, 5 items for caring, 7 items for concern for customers, 8 items for concern for employees, 7 items for service performance, 7 items for helping behavior and finally 4 items for measuring customer knowledge. The item distribution according to their respective dimensions is presented in Table 3.4 (p.161).

The researchers (Chuang & Liao, 2010) tested the validity and reliability of their constructed instrument and it was found to be valid and reliable to be used in any meaningful research activity. According to Chuang and Liao (2010) for high work performance system scale which consisted of training, staffing, involvement, performance appraisal, compensation and caring, many methods were used to assess their suitability and appropriateness. Firstly, Cronbach's alpha was used to test the internal consistency of the scale. It was reported that with the exception of involvement dimension which had a reliability coefficient of .61, the other subscales displayed high internal consistency ($\geq$ .92). Furthermore, to investigate the construct validity of the work performance system, Chuang and Liao employed Factor Analysis to digest the items into their latent variables and Confirmatory Factor Analysis to confirm the results

of Exploratory Factor Analysis. The results of both analyses indicated that the scale was valid and reliable and, consequently, can be used for any research activity.

In relation to the Concern for Employees and Customers' scale, the authors realized that both constructs are theoretically distinguishable; thus, Principal Component Analysis with varimax rotation was used to provide further evidence for the distinctiveness. As was hypothesized, two distinctive factors with eigenvalues greater than 1 were extracted with loading greater than .65. These two factors accounted for 64.43% of total variance explained. The author then employed Confirmatory Factor Analysis (CFA) to further verify the factor structure of the scale. The result of CFA provided more evidence that the two factors are different entities with $\Delta x2 = 676.15$, $\Delta df = 1$, $p < .01$. Moreover, other fit indices suggested that the scale was valid and reliable. The items were loaded on their respective latent factors.

Moreover, service performance, helping behavior and customer knowledge dimensions which contained 18 items were also verified. The authors reported high convergent, discriminant and construct validities for the scale. Additionally, high reliability was also reported by using correlation analysis and Cronbach alpha. The internal consistencies for the scale were .88, .88 and .91 for service performance, helping behavior and customer knowledge respectively. These findings indicated that the adapted scales were sound, valid and reliable and can be used in any meaningful analysis.

On the other hand, the institutional performance questionnaire was a self-constructed scale. The initial pool of possible items was generated from many sources, including literature reviews and meaningful previous instruments. The first draft of the questionnaire led initially to 30 items and was validated by using various methods such as expert comment and peer review. After the validation processes, some items were modified or dropped due to concern about redundancy or item clarity, such as what

Marsh (1994) called jingle (scale with the same label assessing similar constructs) or jangle (scale with different labels assessing different constructs). Eventually, 21 items remained after deletions and modification based on the constructive comments from the experts. The developed items were given to the experts for evaluation and their comments and remarks were taken into consideration in later revision. It is worth mentioning that the questionnaire items were translated into Arabic Language since the respondents were Arabs from Oman, and many of them were not proficient in the English language. Back to back translation was employed since the instrument was intended for the Arabic population. Initially, the original version items were translated from English to Arabic language by authorized translation experts and then translated from Arabic back to English language (back to back translation). The researcher used this method as recommended by many researchers to ensure that the contents of the original version of the questionnaire were completely transferred to the translated version.

3.6.1 Instrument Reliability and Validity

Several types of reliability tests exist but the most commonly used one is Cronbach's alpha, which measures the internal consistency of an instrument. The Cronbach's alpha determines the impact of error on the actual score and its value ranges between 0 (lack of internal consistency) and 1 (perfect internal consistency). Therefore, the closer the value is to one, the higher the reliability coefficient of the item and the smaller the impact of measurement error on the test scores.

On the other hand, validity means "*the appropriateness, meaningfulness, and usefulness of the specific inferences made from the test scores . . . the inferences regarding specifics use of a test are validated, not the test itself" (*American Psychological Association, 1985, p. 9). There are many types of validity; one of them is

called criterion validity. This type of validity is the best and most accurate one to decide whether the instrument measures precisely the phenomenon it purports to measure. It can be done by the assessment of specialists, external examiners, psychologists and experts in the area. The researcher got expert judgment of the self-developed and adapted instrument from the Faculty of Education (University of Malaya) and from the supervisor precisely and changes were made based on the experts' suggestions and recommendations.

The researcher also examined the face validity of the scale, by selecting 5 respondents from the targeted population. The main objective of examining the face validity is to identify any confusing, ambiguous, complex and incomprehensible questionnaire items. The researcher asked 5 selected respondents to identify any ambiguous or incomprehensible word or sentence item by underlining it. Adjustments were made after the exercise to ensure that all the items were clear, simple and understandable.

The respondents were asked to judge their current situation and the desired or ideal situation in their school system for each item using an ascending 11 point Likert scale (Number 1 is Strongly Disagree and Number 11 is Strongly Agree). Demographic items were also included (position, gender, level of education and years of experience in current or similar job).

The instrument consisted of two sections. The first section consisted of demographic characteristics of respondents and personal details such as, gender, and highest educational qualification, experience, and current position. The second section is the attribute that the researcher intends to measure. This section contained 89 items and 14 distinctive factors as highlighted in Table 3.4. Both sections were combined in the form of a final questionnaire with a short letter to the respondents about the aims of the study.

Table 3.4: Distribution of Item based on Their Respective Dimensions

Number	Factors	Number of items	Items
1	Staffing	5	1, 2, 3, 4, 5
2	Training	5	6, 7, 8, 9, 10
3	Involvement	7	11, 12, 13, 14, 15, 16, 17
4	Performance appraisals	6	18, 19, 20, 21, 22, 23
5	Compensation & rewards	7	24, 25, 26, 27, 28, 29, 30
6	Caring	5	31, 32, 33, 34, 35
7	Concern of customers	7	36, 37, 38, 39, 40, 41, 42
8	Concern of employees	8	43, 44, 45, 46, 47, 48, 49, 50
9	Service Performance	7	51, 52, 53, 54, 55, 56, 57
10	Helping behavior	7	58, 59, 60, 61, 62, 63, 64
11	Customer knowledge	4	65, 66, 67, 68
12	Human resource Planning	5	69, 70, 71, 72, 73
13	Human resource	7	74, 75, 76, 77, 78, 79, 80
14	Management Development and Training	9	81, 82, 83, 84, 85, 86, 87, 88, 89

The instrument reliability was tested through Cronbach's alpha and the researcher found the internal consistency of each item was very high. The internal consistencies of the item ranged between .89 to .91. This suggested that the items were highly reliable and can be meaningful for use in this kind of research.

In order to ensure respondents of confidentially, and obtain their support, the names were not written on the questionnaires but rather code numbers were given.

3.6.2 Pilot Study

The term pilot study refers to a mini version of a full-scale study (also called feasibility study), as well as the specific pre-testing of a particular research instrument such as a questionnaire or interview schedule. Pilot studies are a crucial element of a good study

design. Conducting a pilot study does not guarantee success in the main study, but it does increase the likelihood of success. Pilot studies fulfill a range of important functions and can provide valuable insights for other researchers. There is a need for more discussion among researchers of both the process and outcomes of pilot studies.

3.6.3 Reliability of the Pilot Study Data

According to researchers, conducting a pilot study would assist the researcher in many ways before final data collection. It would assist in modifying the study if necessary. Therefore, the pilot study was used to assess the feasibility of a full-scale study, establishing whether the sampling frame and techniques are effective and identifying logistical problems which might occur using the proposed methods.

Hence the researcher conducted pilot study on a set of participants selected from the population. Some 44 participants were selected and Cronbach's alpha was used to examine internal consistencies of the items involved in the instrument. These participants were excluded from the actual study. The researcher was aware that there were many forms of reliability analysis or coefficients but chose the Cronbach's alpha reliability test which was said to be widely used by most researchers and which had been considered effective when checking the reliability of instruments (Coakes & Steed, 2001).

The value of Cronbach alpha ranges between 0 to 1, where 0 means zero reliability (lack of internal consistency) while 1 means complete reliability. However, getting 1 was almost impossible but the closer the value of Cronbach's alpha is near to one the more reliable is the data.

In the case of this study, 89 item questions with 5 demographic variables were prepared in the questionnaire to test the variables under study. Since the Cronbach's alpha is affected by the length of the test (when the items are lengthy Cronbach's alpha

tends to be high and when there are fewer items the Cronbach's alpha inclines to be low) the researcher separated the items into their categories. The researcher followed this step to ensure that external elements did not interfere in assessing the reliability of the questionnaire, so that its precise accuracy and consistency is known (Table 3.5).

Table 3.5: Distribution of Items According to Their Respective Reliability

No.	Dimensions	Number of items	Items	Reliability
1	Staffing	5	1, 2, 3, 4, 5	.802
2	Training	5	6, 7, 8, 9, 10	.815
3	Involvement	7	11, 12, 13, 14, 15, 16, 17	.822
4	Performance appraisals	6	18, 19, 20, 21, 22, 23	.764
5	Compensation and Rewards	7	24, 25, 26, 27, 28, 29, 30	.759
6	Caring	5	31, 32, 33, 34, 35	.861
7	Concern for customers	7	36, 37, 38, 39, 40, 41, 42	.905
8	Concern for employees	7	43, 44, 45, 46, 47, 49, 50	.781
9	Service performance	7	51, 52, 53, 54, 55, 56, 57	.917
10	Helping behavior	7	58,59,60,61,62,63,64	.934
11	Customer knowledge	4	65, 66, 67, 68	.634
12	Human resource planning	5	69, 70, 71, 72, 73	.949
13	Human resource management	7	74, 75, 76, 77, 78, 79, 80	.946
14	Development and training	9	81, 82, 83, 84, 85, 86, 87, 88, 89	.920

The reliability test for all dimensions was found satisfactory. Except for the customer knowledge dimension, the internal consistencies for dimensions ranged between .759 and .949 which suggested that the instrument is reliable, as most researchers have agreed that for any instrument to be reliable, it must meet a minimum point of .70 and above (Hair et al., 1998; Pallant, 2010). It is worth mentioning that, as a result of analysis, one item was discarded and another three items were rephrased. Precisely, item 48 from concern for employee dimension "*Our organization considers employees' goals and values*" was totally deleted from the questionnaire due to the lack of internal consistency, while item 44 from the same dimension (concern for employees) "*Our organization shows very little concern for employees*" was rephrased to become "*Our organization shows concern for employees*". Moreover, item 21 from performance appraisal "*Supervisors do not get together with employees to set their personal goals*" was rephrased to the positive statement "*Supervisor gets together with employees to set their personal goals*" and finally item 66 from customer knowledge dimension "*We only use one strategy to meet customer needs*" was also rephrased to become "*We use more than one strategy to meet customer needs*". Consequently as a result of this deletion and modification, the reliabilities of the concerned dimensions dramatically improved from .613 to .764 for performance appraisal, from .587 to .781 for concern for employees and from .535 to .638 for customer knowledge respectively.

3.7 Data Collection

As previously highlighted, this study used a self-reported questionnaire for data collection. The questionnaire was both adapted and self-constructed which was used for measuring strategic management as practices in the Ministry of Education in the Sultanate of Oman. The participants were randomly selected from the target population through the assistance of the human resources manager of the Ministry of Education in

the Sultanate of Oman. The respondents answered all items in the questionnaire in a maximum 30 minutes.

3.8 Statistical Analysis

This study employed Confirmatory Factor Analysis (CFA) method to validate instruments and to further verify the factor structure of the employed scales. The CFA was also used to link the conceptual theories with their latent variables extracted from observed variables. The CFA would also verify that all items are properly aligned with the correct facets within the general construct being measured.

The study summarized the pattern of relationships among observed variables and provided an operational definition of the underlying process and also tested the theory of concern concepts through the latent process. Furthermore, this method was used to test the theory of human resource practices and predictors regarding the nature of the underlying processes captured by a set of variables (i.e., it involves specifying the nature of relationships among factors based on theory and prior belief before the data were collected).

Once an appropriate measurement model is obtained using Confirmatory Factor Analysis, finally, Structural Equation Modeling was employed to test the adopted strategic management model. More specifically, the researcher measured the degree of fitness of the interrelationships among the constituents of the strategic management underlying factor and their relationship with human resource practice and consequently institutional performance.

Additionally, this method also helps to estimate a series of Structural Equations. Specifically, SEM is a statistical technique combining both features of multiple regression and factor analysis, enabling the researcher not only to assess quite complex interrelated dependent relationships but also to include the effects of measurement

errors in the structural coefficients simultaneously (Hair et al., 1998). SEM can also conceptually be used to answer any research question involving the indirect or direct observation of one or more independent variables or one or more dependent variables. However, the primary goal of SEM is to determine and establish validity of a proposed causal process and/or model. Therefore, SEM is a confirmatory technique. Like any other test or model, the researchers have a sample and want to say something about the population that comprises the sample. They have a covariance matrix to serve as the dataset, which is based on the sample of collected measurements. The empirical question of SEM is therefore whether the proposed model produces a population covariance matrix consistent with the sample covariance matrix. Because one must specify a priori a model that will undergo validation testing, hence, SEM can examine the possibility that the model is adequate or not. Parameters are estimated and compared with the sample covariance matrix. Goodness of fit statistics can be calculated to verify whether the proposed model is appropriate or needs further revision.

SEM will test how much of variance in the dependent variables (DVs) – both manifest and latent DVs – is accounted for by the IVs. It would also test the reliability of each measured variable. And, as previously mentioned, SEM would not investigate the direct relationship between a set of independent variables and dependent variables only but it also has a robust statistical power to examine mediation and moderation, which can include indirect effects.

Since SEM is a combination of both Factor Analysis (FA) and Multiple Regression Analysis (MRA), some readers may question the rationale behind using a very complex technique like SEM and why it not sufficient to use the direct Multiple Linear Regression Analysis. The advantages of using SEM instead of MRA in this study lie in several limitations of MRA.

1. Multiple dependents are not permitted in Multiple Regression Analysis (MRA)
2. Mediating variables cannot be included in the same single model as predictors in Multiple Regression Analysis (MRA).
3. There is no measurement without error. In SEM, the error in every single indicator is accounted, while in MRA the predictor is assumed to be measured without error.
4. Multicollinearity among predictors may hamper the result of interpretation in MRA, whereas multicollinearity is expected among some constituents of SEM.

Therefore, based on the uniqueness of SEM this study methodologically combines both Structural Equation Modeling and Multiple Regression to answer the research questions involved in this research. In summary this study will employ the Confirmatory Factor Analysis (CFA) method to validate instruments and condense the employed scales into their underlying factors. In addition, this research uses Structural Equation Modeling (SEM) to answer the first five research questions and to test the conceptual framework.

3.9 Summary

This chapter highlighted the methodology of the research. It discussed the research design, population and sampling techniques, instrumentation, validity and reliability, data collection, statistical methods and pilot study. The pilot study indicated that the employed instrument was valid and reliable. The internal consistency scores for all dimensions were above the suggested threshold indicating that the instrument is useful and can be used for any academic exercise. One item was removed from the final questionnaire after pilot testing and another two were modified and recoded.

CHAPTER 4

DATA ANALYSIS AND PRESENTATION OF RESULTS

4.1 Introduction

The purpose of this study was to investigate the influence of work performance system in strategic human resource management on institutional performance in the educational system in the Sultanate of Oman. More precisely, the study attempted to investigate the direct effects of the components of work performance system which consists of staffing, training, involvement performance, compensation and caring on higher institutional performance. Also, the study examined their indirect effects through concern for employees and customers, customer knowledge, service performance and helping behavior. Therefore, this chapter presents the results of the analysis of the data collected from 531 participants.

Several statistical analyses were conducted on the collected data in order to answer the research questions. A descriptive analysis of the sample was firstly presented, followed by the measurement model (CFA) of each construct in the Structural Equation Model and then the Structural Equation Model (SEM). The researcher presented three SEM analyses; the first SEM analysis was performed to test the linkage between exogenous (work performance system) and endogenous variables (institutional performance) with introducing mediator variables. The second analysis evaluated the relationship between exogenous and endogenous variable with partial mediators variables (concern for customer and service performance) while the last analysis was used to test the full conceptual framework. In summary, the content of the chapter consists of the following:

- The descriptive analysis of the background of respondents

- The distributional assumptions underlying the use of the Structural Equation Model.
- The assessment of the measurement model of each construct
- The assessment of reliability
- The result of Pearson correlation among the factors in the study.
- The use of the Structural Equation Model (SEM) for research questions is explained with full description of both the endogenous and exogenous variables
- The major findings of the study are presented

4.2 Data Screening

Since the original dataset contained the data type string depicting the responses captured based on a Likers scale that ranged from strongly disagree to strongly agree it needed to be converted to a numeric data type ranging from 1 for strongly disagree to 11 for strongly agree in order to facilitate the SEM using AMOS package (as suggested by Kline, 2011). The researcher used 11 scales to give respondents varied opportunity to choose from various alternative which consequently increase the scale reliability. Variety in response is playing a significant role in reliability analysis. When there are many options for respondents and they answered variably, that would increase the value of the reliability. Therefore, the researcher employed this scale (1-11) to give respondents variety of options and to obtain high reliability scores.

Initially, the total numbers of respondents of the study were 540 from Omani Ministry of Education as was earlier mentioned. After checking the collected questionnaires, it was discovered that 9 questionnaires could not be used due to incomplete answer; therefore only 531 can be used for the final analysis. The data analysis was conducted on the clean and formatted datasets in both SPSS and AMOS.

4.3 Data Cleaning Techniques

To clean the data as proscribed by Creswell (2005), a frequency distribution was generated using SPSS for each question, and histograms and Q-Q plot were created to allow visual inspection for out-of-range data (outliers) and missing values. The purpose of this technique is to solve the problem of missing data by imputing a valid value for other variables using SPSS impute function, because, it has an effect on the accuracy of estimation, specifically in multivariate analysis such as SEM.

The handling of missing data is a very essential step in the pre-analysis part. The method adopted for the missing value was the estimation technique since pairwise deletion is not recommended, and list wise deletion is problematic unless the missing data have proved to be missing at random (MAR). Therefore, using full information maximum likelihood is the most appropriate technique for analyzing missing-response patterns and estimating the missing data (Kline, 2005). To summarize, the results of normality test suggested that data were normally distributed since there was no violation of this fundamental assumption.

4.4 Detection of Outliers

The data were also assessed for univariate and multivariate outliers. The multivariate outlier analysis was completed first. Cases were identified through Mahalanobis distance as multivariate outliers with < .001. Out of the 531 cases, no multivariate outliers were found.

Univariate outliers within continuous variables are considered cases with *z* scores above 3.29 (Tabachnick & Fidell, 2001). Because the data were already converted to *z* scores, numbers above 3.29 were easily detected simply by looking at the range of the data. Removal of the univariate outliers did not significantly improve skewness and kurtosis values, so they were left in the dataset.

4.5 Descriptive Analysis of the Respondents Background

Category frequencies of the demographic variables which are gender, experience, occupation, age and qualification for the sample of 531 respondents from human resource administrators in Oman are shown in Table 4.1.

Table 4.1: Distribution of Respondents According to Their Background Characteristics

Variables	Categories	n	%
Gender	Males	325	62.2
	Females	206	38.8
Experience	1-5	66	12.4
	6-10	66	12.4
	11-15	131	24.7
	16-20	128	24.1
	21-25	98	18.5
	26 and above	42	7.9
Occupation	General Manager	2	.4
	Assistant General Manager	4	.8
	Manager	14	2.6
	Assistant Manager	20	3.8
	Head of Department (HOD)	49	9.2
	Employee	442	83.2
Age	20-25 years	17	3.2
	26-30 years	66	12.4
	31-35 years	129	24.3
	36-40 years	163	30.7
	41-45 years	114	21.5
	46-50 years	33	6.2
	51 and above	9	1.7
Qualification	Diploma	91	17.1
	Bachelor Degree	270	50.8
	Higher Diploma	44	8.3
	Masters	97	18.3
	Ph.D	29	5.5

The table shows that the majority of the respondents participating in this study were male (61.2%, n = 325) while 38.8% (n = 206) were female. This gender imbalance in the sample reflected the real situation in the Sultanate of Oman Ministry of Education,

where males outnumbered their female counterparts. As for the participants' level of experience, it was shown that the majority of them (24.7%, n = 131) have work experience ranging between 16 to 20 years, followed by 24.1% (n = 128) who have between 11 to 15 years of experience. Moreover, the analysis also suggested that 18.5% of the participants (n = 98) have experience of between 21to 25 years, 12.4% (n = 66) have experience between 1 to 5 years while 12.4% (n = 66) have experience between 6 to 10 years. However, only 7.9% (n 42) of the respondents have experience of 26 years and above.

As for the respondents' occupation, Table 4.1 shows that an overwhelming majority of the participants (83.2%, n = 442) were ordinary employees while 9.2% (n = 49) were Heads of Department (HOD). Furthermore, the analysis indicated that 3.8% of the participants (n = 20) were assistant managers, 2.6% (n = 14) were managers, while .8% (n = 4) were assistant general manager respectively. Nonetheless, only .4% of the participants (n = 2) were general managers.

As for the respondents' age, Table 4.1 shows that the majority of participants (30.7%, n = 163) have age ranged between 36 to 40 years, while 24.3% (n = 129) of them have age ranged between 31 to 35 year. Moreover, the analysis indicated that 21.5% (n = 114) were in the age range between 41 to 45, while 12.4% (n = 66) were aged between 26 to 30 years. On the other hand, the analysis suggested that the age of 6.2% (n = 33) ranged between 46 to 50, and 3.2% (n = 17) of the participants had age range between 20 to 25 while the only 1.7% (n = 9) were aged 51 years and above.

For respondents' academic qualification, the table shows that slightly more than half of respondents had a bachelor degree (50.8%, n = 270), while 18.3 % (n = 97) and 17.1% (n = 91) had their masters and diploma respectively. Furthermore, 8.3% (n = 44) had the higher diploma while 5.5% (n = 29) completed their Ph.D.

4.6 Test of Assumptions of Structural Equation Modeling

Structural Equation Modeling shares many fundamental assumptions with other multivariate methods and must be fulfilled before the analysis can be meaningfully interpreted (Hair et al., 1998). These assumptions are independent observations, random sampling of respondents, linearity and normality. Schumacker and Lomax (2010) concluded that if the observed variables are interval-scale and multivariate kurtosis is normal, then the Maximum Likelihood Estimates (MLE), Standard Errors and Chi-square test are appropriate and suitable for interpretation.

Tabachnick and Fidell (2001), moreover, asserted that when the assumption is met, the residuals of analysis are also normally distributed and independent. Multivariate normality is the assumption that each variable and all linear combination of the variables are normally distributed (Tabachnick & Fidell, 2001). The normality of a variable is normally assessed through two major components, which are skewness and kurtosis. Skewness refers to the symmetry of the distribution. A skewed variable is a variable whose mean is not in the center of distribution. On the other hand, kurtosis means the peakedness of a distribution; a distribution is either too peaked (with short, thick tails) or too flat (with long, thin tails) (Tabachnick & Fidell, 2001).

Both skewness and kurtosis were examined, and the results showed that generally (more than 90%) the data met the requirement. It was found that both skewness and kurtosis generally ranged between +1.96 and -1.96 (Schumacker & Lomax, 2010). The plots also revealed that departures from normality were not so extreme and the scores clustered along a straight line, indicating normal distributions of scores.

4.7 Normality Test

As previously highlighted, normality tests are usually employed to investigate the distribution of data set and compute how likely it is for a random variable underlying the data set to be normally distributed. The normality of employed data was tested by using skewness and kurtosis analyses. According to Tabachnick and Fidell (2007), the normality assumption could be tested by using skewness and kurtosis. Skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean and can be calculated by using the following formula: $\gamma_1 = \frac{\sum(Y-\mu)^3}{n\sigma^3}$, which is simply the expected value of the distribution of cubed z scores while the kurtosis is a distribution's degree of kurtosis as $\eta = \beta_2 - 3$, (Pearson, 1895) where $\beta_2 = \frac{\sum(Y-\mu)^4}{n\sigma^4}$, the expected value of the distribution of Z scores which have been raised to the 4th power. β_2 is often referred to as "Pearson's kurtosis," and β_2 - 3 (often symbolized with $\gamma_{2)}$ as "kurtosis excess" or "Fisher's kurtosis," even though it was Pearson who defined kurtosis as $\beta_2 - 3$. An unbiased estimator for $\gamma_2$is

$$g_2 = \frac{n(n+1)\sum Z^4}{(n-1)(n-2)(n-3)} - \frac{3(n-1)^2}{(n-2)(n-3)}.$$

The skewness and kurtosis values can be positive or negative, or even undefined (Tabachnick & Fidell, 2007). However, it was suggested that value of +1.96 or -1.96 is close enough to zero for considering data normally distributed. Conventional but conservative (.01 or .001) alpha level are used to evaluate the significance of skewness and kurtosis with small to moderate sample, but if the sample is large, it is a good idea to look at the shape of the distribution instead of using formal inference tests. Because the standard errors for both skewness and kurtosis decrease with larger N, the null hypothesis therefore is likely to be rejected with large samples when there are only minor deviations from normality (Tabachnick & Fidell, 2007). Hence, by using SPSS,

the researcher examines the normality of the data by thoroughly verifying the values of skewness and kurtosis.

According to Ghasemi and Zahediasl (2012), the normality tests are supplementary to the graphical assessment of normality. They mentioned several tests that can be used to test normality of the data; among them are Kolmogorov-Smirnov (K-S) and Shapiro-Wilk tests. These tests compare the scores in the sample to a normally distributed set of scores with the same mean and standard deviation; the null hypothesis is that "sample distribution is normal." If the test is significant, the distribution is non-normal. For small sample sizes, normality tests have little power to reject the null hypothesis and therefore small samples most often pass normality tests. For large sample sizes, significant results would be derived even in the case of a small deviation from normality, although this small deviation will not affect the results of a parametric test.

However, Tabachnick and Fidell (2007) mentioned that normality test can be investigated by using skewness and kurtosis. As previously highlighted, a skewed variable is one whose mean is not in the center of distribution while kurtosis has to do with the peakedness of a distribution. A distribution is either too peaked (with short and thick tail) or too flat (with long and thin tails). The graphical result revealed no major deviation from normality; thus, the researcher considered the data fulfilled the assumption of normality.

In general, an assessment of the normality of data is a prerequisite for many statistical tests because normally distributed data is an underlying assumption in parametric testing. There are two main methods of assessing normality: graphically and numerically. This test will determine whether data is normal, and therefore, that this assumption is met in data for statistical tests. Statistical tests have the advantage of making an objective judgment of normality.

4.7.1 Normality Test for Work Performance System

Table 4.2 shows the assessment of normality for the measurement model of the work performance system (six factors). Chua (2013) stated that the thresholds for normality of data, skewness and kurtosis should be in the range of - 1.96 to +1.96. Kline (2005) stated that variables with absolute values of the skewness greater than 3.0 seem to be extremely skewed, and a conservative rule of thumb seems to be that absolute values of the kurtosis index greater than 10.0 may suggest a problem. Results of the statistical analyses showed conformity of the data to normality.

Table 4.2: Assessment of Normality for PWS (N =531)

Item	Mean	*SD*	Kurtosis	Skewness
Staffing	6.02	2.22	-.064	-.064
Training	6.28	2.25	-.726	-.208
Involvement	4.99	2.08	-.492	.198
Performance	5.27	2.16	-.556	.125
Compensation	3.78	2.09	.935	1.067
Caring	4.41	2.35	.212	.608

In this study, the statistical values for kurtosis of all five indicators of the work performance system were within the threshold of $\pm$1.96 with the highest value at .935. Similarly, the skewness values for all variables were in the range of $\pm$1.96 with the highest value at 1.067. This implied that the sample was normally distributed and no serious violation of skewness and kurtosis was observed. Therefore the data meet the requirement for Structural Equation Modeling analysis.

4.7.2 Normality Test for Mediator Variables

As shown in Table 4.3 the data were assessed for normality of measurement model of the mediator variables which are concern for customer, concern for employee, service performance, helping behavior and customer knowledge. Results of the graphical and statistical analyses showed conformity of the data to normality. All the seven indicators were located within the acceptable range. This indicated that the sample was normally distributed and there was no violation of the normality assumption.

Table 4.3: Assessment of Normality for Mediator Variables (N=531)

Item	Mean	*SD*	Kurtosis	Skewness
Concern for customer	5.087	2.206	-.620	.231
Concern for employee	4.886	2.047	-.243	.360
Service performance	6.619	2.217	-.407	-.272
Helping behavior	7.454	2.245	-.141	-.771
Customer knowledge	6.396	2.262	-.470	-.314

The statistical values for skewness of all five indicators of mediator variables were within the threshold of $\pm$1.96 with the highest value at -0.771. Similarly, the kurtosis values for all variables were in the range of $\pm$1.96 with the highest value at -.620. This implied that the sample was normally distributed and no serious violation of skewness and kurtosis was observed. Therefore the data meet the requirement for Structural Equation Modeling analysis.

4.7.3 Normality Test for the Institutional Performance Construct

As shown in the Table 4.4 the results of assessment of normality for the institutional performance factors also showed no violations of normality. The distribution of scores for all three factors in the instrument showed acceptable skewness and kurtosis.

Table 4.4: Assessment of Normality for Institutional Performance (N = 531)

Item	Mean	*SD*	Kurtosis	Skewness
Planning	5.391	2.424	-.707	.036
Management	5.329	2.278	-.558	.053
Development and training	5.631	2.264	-.573	.028

The statistical values for skewness of all three indicators of institutional performance variables were within the threshold of $\pm$1.96 with the highest value at 0.053. Similarly, the kurtosis values for all variables were in the range of $\pm$1.96 with the highest value at -.707. This implied that the sample was normally distributed and no serious violation of skewness and kurtosis was observed. Therefore the data meet the requirement for Structural Equation Modeling analysis.

On the other hand, the linearity assumption means that there is a straight-line relationship between two variables. Linearity is very important in a practical sense because Pearson's *r* only captures the linear relationship (Tabachnick & Fidell, 2001). According to Schumacker and Lomax (2010), the extent to which one or both variables deviate from the assumption of a linear relationship will affect the size of the correlation coefficient. The researcher had conducted a series of multiple regressions, using a studentized (SRED) residual pilot against each of the predicted dependent variables to examine the linearity. Visual inspection of the residual plots showed that the scores

were scattered randomly with no distinct pattern, thus, suggesting that this assumption was reasonably met. Finally, lack of evidence of serious violations of the assumptions provided justification for the researcher to continue with measurement model and Structural Equation Modeling and then answer the research questions as mentioned in Chapter 1.

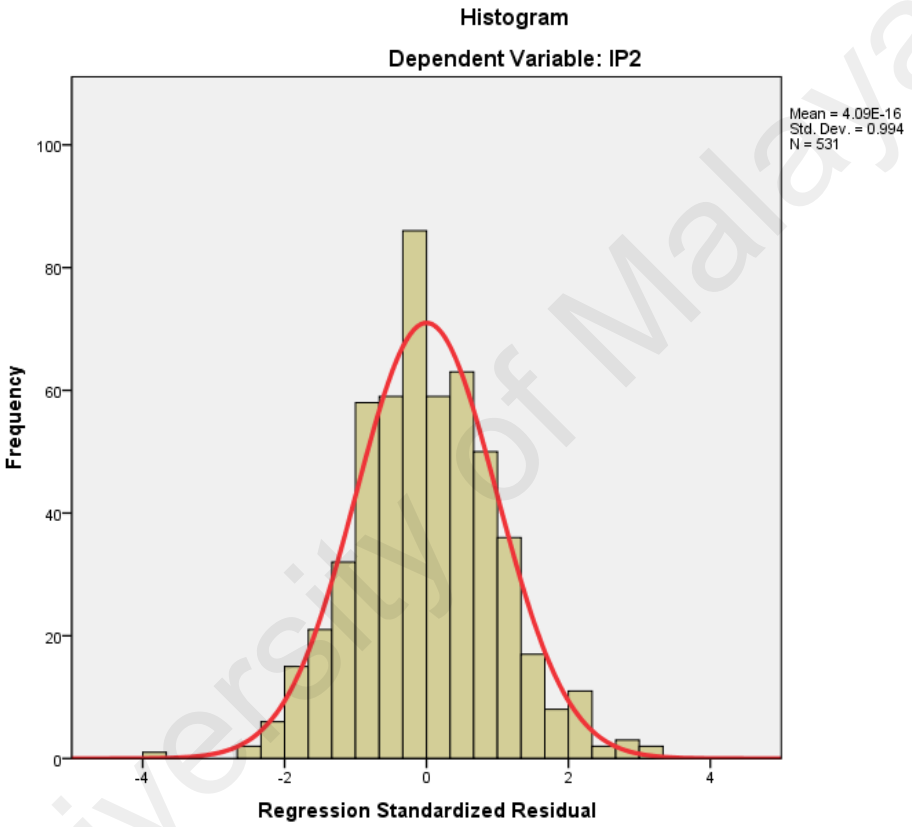


Figure 4.1: Normality Test for Institutional Performance

The histogram for institutional performance also suggested that the normality assumption holds because there is no large deviation of the data from normal distribution. As obviously seen from the histogram (Figure 4.1), the majority of the scores fall within the threshold of normality. This indicated that the data did not violate the assumption of normality; thus, the data can be convincingly used for meaningful research activity.

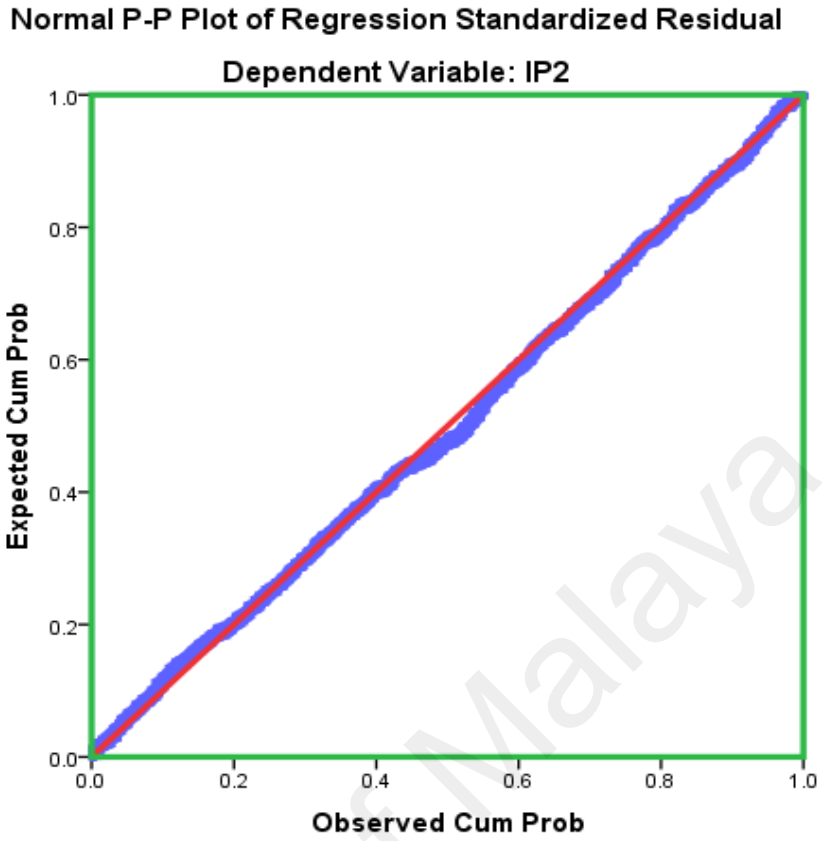


Figure 4.2: Box Plot

The inspection of the normal probability plots (labeled Normal Q-Q plot) suggested that observed value for each score is plotted against the expected value from normal distribution, which indicated that except for minor deviations, the Q-Q plot suggested the normal distribution holds but is not perfect (refer to Figure 4.2).

4.8 Pre-Analysis Process

Survey results for all items were imported from the survey program into the SPSS software computer program for data cleaning and subsequent analysis. No pattern responses and missing values were noted during keying in of the data into the SPSS program. The screening process is extremely important because some respondents might randomly answer the questions or data might be mistakenly entered into the SPSS. Hence, screening the data would allow the detection of any pattern in responses and any extreme scores.

4.9 Reliability of Factors

Reliability is an important aspect of a quantitative research inquiry. It is the degree to which the measures are error free; it reflects the stability and consistency between items used to measure a variable. The scales were checked for internal consistency between items used to measure a variable. The reliability of constructs permits measurement of a set of factors that are internally consistent in their measurement and therefore, are repeatable for other researchers to measure (Hair et al., 1998).

The Cronbach's alpha analysis provides an indication of the average correlation among all the items in the scale. Values range from 0 to 1, with higher values indicating greater reliability. According to Chua (2013), the value of Cronbach's alpha reliabilities between .70 to .95 is acceptable, and values larger than .95 are considered unreliable because that will cause multicollinearity problem among the variables and across the factors. Table 4.5 indicates the reliability test of all the variables for this study.

Table 4.5: Reliability Test of Total Variables

Variables	Number of Items	Cronbach's Alpha
Staffing	5 items	.914
Training	5 items	.914
Involvement in Decision Making	6 items	.908
Performance Apprasial	6 items	.907
Compensation	7 items	.915
Caring	5 items	.908
Concern for Customer	7 items	.904
Concern for Employee	7 items	.908
Service Performance	7 items	.913
Helping Behavior	7 items	.918
Customer Knowledge	4 items	.913
Planning	5 items	.905
Management	7 items	.904
Development	9 items	.904

Cronbach's alpha, as shown in Table 4.5 for all factors was above .70; (this is the minimum level recommended by De Vellis, 2003). As obvious from Table 4.5, the

values of internal consistency for each factor of the study ranged between .904 to .918. This result therefore indicated that the respondents' answers to all the items in the scales were consistent. More precisely, the result showed that respondents understood and interpreted each of the items in the same way which consequently increased the quality of the internal consistency of the item.

To examine the relationships among the independent variables, mediators and dependent variables, the bivariate correlation was tested. The result of analysis indicated substantial relationships among these variables as demonstrated in Table 4.6. Although the magnitudes and directions of relationship among the components concerned were varied, the results of analysis as displayed in the table suggested that structural equation modeling can be theoretically, statistically and meaningfully performed due to weight of the relationships among the variables. It was shown that work performance system components substantially correlated with mediator variables and consequently mediator variables statistically correlated with institutional performance. Hence, it can be concluded at this juncture that concern for customers and service performance may play a mediating role between its antecedents and outcome variable.

Table 4.6: Correlation Coefficient, Means and Standard Deviations of the summated variables in the study

	staff	Train	Involv	Apprai	Compe	cari	C_for_C	C_for_E	S_perfo	H_beha	C_know	Plan	Manag	Develop
staff														
Train	.447**													
Involv	.434**	.520**												
Apprai	.501**	.485**	.672**											
Compe	.279**	.206**	.495**	.468**										
cari	.339**	.307**	.567**	.515**	.624**									
C_for_C	.400**	.426**	.606**	.613**	.519**	.711**								
C_for_E	.290**	.325**	.572**	.501**	.495**	.695**	.696**							
S_perfo	.253**	.208**	.291**	.306**	.140**	.289**	.443**	401**						
H_beha	.230**	.245**	.307**	.284**	.145**	.320**	.431**	.393**	.656**					
C_know	.205**	.236**	.165**	.200**	-.026	.174**	.291**	.263**	.666**	.589**				
Plan	.261**	.389**	.488**	.544**	.369**	.487**	.629**	.490**	.414**	.472**	.298**			
Manag	.413**	.431**	.546**	.595**	.391**	.542**	.671**	.548**	.399**	.456**	.300**	857**		
Develop	.461**	.481**	.514**	.586**	.327**	.496**	.651**	.536**	.434**	.437**	.333**	.731**	.782**	
Means	6.02	6.28	4.96	5.27	3.78	4.41	5.09	4.89	6.62	4.40	5.39	5.62	5.33	6.63
S. D	2.22	2.25	2.08	2.16	2.09	2.35	2.21	2.05	2.23	2.61	2.24	2.42	2.28	2.26

N = 531 ** *p*< .001 and * *p*< .05

Note: staff means staffing, train means training, involve means involvement, apprai means, appraisal, compe means compensation, cari means caring, C_for_C mean concern for customer, C_for_E means Concern for Employees, S_Perfo means Service performance, H_beha means Helping behavior, C_know means customer knowledge, Plan means Planning, Manag means Management and Develop means Development.

4.10 Validity

Although high reliability is a necessary condition for reliable constructs, it is not a sufficient condition without validity. Therefore, Hair et al. (1998) defined construct validity as the "*extent to which a set of measured variables actually represent the theoretical latent construct they are designed to measure*" (p. 707).

4.10.1 Content Validity

Content validity aims at establishing if the measures adequately measure the concept. Extensive literature review was needed to establish the psychometric properties of the scales. Most of the scales adopted have been well established and studies have been conducted using these scales. Additionally, ten academic experts were employed based on their highest level of educational background (e.g., Ph.D) and academic position (e.g., General Manager or Dean of the university) the field had been consulted to validate whether these scales meaningfully measured the constructs they were purported to measure. According to the judgment of the experts, the scales (1 to 11) were relevant and adequate to measure the concept, and, therefore, content validity, specifically face validity, was assured. It is worth mentioning that 90% of the items in the scale were adopted from previous studies; thus, the judgment of the experts was not surprising. More specifically, since the items were adopted from previous studies that have psychometrically validated them in terms of validity and reliability, and the scales have been used extensively to conduct research across the globe the judgment of the experts on the appropriateness of the scale was not surprising.

4.10.2 Convergent Validity

Assessing convergent validity was one of the measurement principles to confirm construct validity. Convergent validity is established when two measures of the same

concept are highly correlated (Hair et al., 2010). In other words, convergent validity is indicated by evidence that different indicators of theoretically similar or overlapping constructs are strongly interrelated (Kline, 2011). Checking for convergent validity was relevant as different items were used to measure a construct. In this study, the factor loadings from confirmatory factor analysis results were used to verify convergent validity. Average variance extracted was also used to examine convergent validity of each construct and the results accounting for more than 50 percent of the corresponding items were considered appropriate (Hair et al., 2010). In other words, for the model to obtain convergent validity, the item loading should reach .50 and above. The value would indicate that the items were related and consequently they are measuring the same component. According to Hair et al. (2010) when items are fairly correlated ($\geq$ .5) that indicated convergent validity of the model was achieved.

4.10.3 Discriminant Validity

Discriminant validity is the extent to which two conceptually similar concepts are distinct. The empirical tests have to demonstrate that the summated scale is sufficiently different from scales of other latent variables (Hair et al., 2010). It is measured by examining the correlation between variables. Although correlation among the items measuring a component is highly warranted, however, the correlation across the various components should be minimized. If the inter-correlations across the components are too high such as a correlation value of .90 and above, then it can hardly be said that these components (X and Y) measure distinct constructs (Kline, 2011). This means if none of the correlation coefficients exceeds .90, it indicates that all the variables are distinct (Hair et al., 2010). In this study, the covariance's between variables from confirmatory factor analysis results were used to verify discriminant validity.

4.11 Confirmatory Factor Analysis (Cfa)

This section presents the results of the confirmatory factor analysis (CFA) used to assess both the measurement models and structural properties of the models. Several ordered steps were followed to test the model. These included developing the structural model, conducting the CFA, constructing a path diagram, assessing model identification, evaluating estimates and model fit, interpreting and analyzing the model, and the final model (Garson, 2009; Norris, 2005).

At first the analysis began with assumption assessment. Detailed evaluation followed and was conducted using the principles outlined for structural equation modeling. Structural equation modeling is a two-stage approach to model fit which makes use of confirmatory factor analysis (CFA) to fit the measurement model to the data and path analysis to fit the structural model to the data.

4.11.1 Assumptions of Assessment

As with all quantitative statistical analysis, data must meet certain assumptions before analysis is effective. For SEM, the continuous and multivariate normality of the data distribution is essential if the fit of the measurement model is to be accurately predicted (Kaplan, 2008). As was previously highlighted, normality was evaluated by the visual inspection of individual histograms, frequency distributions as calculated by SPSS, and AMOS generated normality statistics including Mahalonobis d2 and calculations related to skewness and kurtosis.

Furthermore, the required sample size for SEM depends on the multivariate normality of the data, estimation technique, model complexity, and amount of missing data. Model complexity affects sample size requirements. Models with more measured variables and constructs having fewer than three measured variables all required larger samples. However, when there are missing data, sample size may be necessary to offset

any problems of missing data. Too large or too small a sample size will affect the accuracy and stability of SEM results (Hair et al., 2010).

The proposed full conceptual framework in this study has 47 measured variables; six variables for work performance system which are staffing, training, involvement, performance, compensation and caring. Fourteen variables were used to measure institutional performance with three distinctive factors namely, HR planning, HR management and HR development. Twenty-seven items were used to measure mediator variables with five underlying factors which are concern for customers, concern for employees, customer knowledge, service performance and helping behavior. For a model with this complexity, the minimum sample size required is 200 and the sample size larger than 500 is recommended (Hair et al., 2010). Thus, to make this calculation of model more accurate, the researcher decided to have a large sample to make it more representative of the population, to make the estimation of the model more meaningful and accurate and to obtain a stable maximum likelihood estimation.

4.11.2 Items Parceling Procedure

Item parceling procedure reduces the number of parameter estimations and helps stabilize parameter estimates (Bagozzi & Edwards, 1998); and simplifying complex models without compromising the concept of multiple indicator measurement (Garver & Mentzer, 1999). Item parceling procedure was used in this study to enhance parsimonious estimation. The items aggregated to form scale indicators are shown in Table 4.7

Table 4.7: Aggregated Items to Form Scale Indicators

Observed variable	Indicator	Items
Work performance system	Staffing	Item1, Item2, Item3, Item4, Item5
	Training	Item6, Item7, Item8, Item9, Item 10
	Involvement	Item11, Item12, Item13, Item14, item15, item17
	Performance	Item18, Item19, Item20, Item21, Item22, Item23
	Compensation	Item24, Item25, Item26, Item27, Item28, Item29, Item30
	Caring	Item31, Item32, Item33, Item34, Item35
Mediator Variables	Concern for Customer	Item36, Item37, Item38, Item39, Item40, Item41, Item42
	Concern for Employee	Item43, Item44, Item45, Item46, Item47, Item48, Item49
	Service performance	Item50, Item51, Item52, Item53, Item54, Item55, Item56
	Helping behavior	Item57, Item59, Item59, Item60, Item61, Item62, Item63
	Customer Knowledge	Item64, Item65, Item66, Item67
Institutional performance	HR Planning	Item68, Item69, Item70, Item71, Item72
	HR Management	Item73, Item74, Item75, Item76, Item77, Item78, Item79
	HR Development and training	Item80, Item81, Item82, Item83, Item84, Item85, Item86, Item87, Item88

Note. HR = Human Resource

As can be seen in Table 4.7, for some of the factors of the structural model in this study, item parceling procedure was utilized to improve the variable to sample size ratio (Bandalos & Finney, 2001). The process involves aggregating several items that are valid individual measures of construct. However, the items that represent the parcel must fulfill the requirement of uni-dimensionality, and the level of specificity must be

the same within and across parcels. Therefore, individual items representing each factor for this construct were combined and aggregated together to represent the factors.

4.11.3 Multicollinearity

In multivariate analysis, the problem of multicollinearity has to be addressed. It occurs when any single independent variable is highly correlated with a set of other independent variables. In essence, two separate variables are measuring the same thing, and, therefore, may be redundant in measuring a construct (Kline, 2011). The easiest way to detect collinearity is to examine the correlation matrix for the independent variables; a correlation of .90 and higher indicates substantial collinearity (Hair et al., 2010). Correlation analysis of the data showed that there were no correlations above .90, and, therefore, further analysis and interpretation of the data was possible. This indicates that multicollinearity assumption was not violated. Results of the correlation analysis are shown in Figure 4.7 and Figure 4.14.

4.11.4 Procedures for CFA

In order to answer the research questions and test the hypothesis, a proposed research model was tested. The researcher tested the model and modified it based on the results of goodness of fit indices. Consequently a specific model of work performance system practice that best fits the data was generated. The generated model and its interpretation may help to promote institutional performance and consequently help improve academics' professional practice, professional development and finally quality of their working life.

According to Kline (2005), evaluation of model adequacy involves two steps: measurement model examination and fit of the structural model. The degree of freedom χ^2 statistic is the most conventional indicator which represents the size of discrepancy

between the sample and the model with a non-significant χ^2 value indicating good fit. Because χ^2 test is sensitive to large sample sizes, it has become standard practice to supplement this analysis with other measures of model fit (Byrne, 2001). By evaluating other fit indices, one of which is the adjusted χ^2 divided by the degree of freedom one can reduce the sensitivity of chi-square to the sample size. Then, only the model can be accepted as a good model as it has adequate fit indices. Several fit indices are used to determine how well the model fit such as the comparative fit index (CFI), and root mean-square error of approximation (RMSEA). A CFI value greater than .90 and RMSEA value below .08 suggest a good model fit (.08 is acceptable, larger than .10 is bad). The smaller the chi-square statistic the more adequate the fit of the model is determined (Kline, 2005). However, as previously mentioned, chi-square is sensitive to small and large sample size so the chi-square/df ratio is often used as an alternative (Kline, 2005). These fit indices are used in the following analyses.

4.11.5 Measurement Models

This section presents the results of Confirmatory Factor Analysis CFA to support the construct validity of latent variables (exogenous and endogenous variables). CFA is driven by previous substantive theories and empirical findings. The purpose of using CFA is to test the hypothesis that the proposed conceptual framework fits the empirical data (Bollen, 1989; Pedhazur & Schmelkin, 1991).

4.11.6 Confirmatory Factor Analysis (CFA)

This analysis started with the use of structural equation modeling techniques to examine a first order CFA model designed to test the multidimensionality of a theoretical construct. Specifically, a measurement model was performed on each construct of the Structural Model of this study in order to examine the appropriateness of the

measurement before proceeding to the structural model based on suggestions of practitioners and statisticians (Hair et al., 1998; Schumacker & Lomax, 2010). Hair et al. (1998) suggested that researchers should verify the item reliability especially when summated scales are used as the manifest or predictor in the structural model. Therefore, the researcher carried out a series of confirmatory factors (measurement model) on each of the five constructs in this study; they are the work performance system, mediator variables and institutional performance.

4.12 Results of Analysis for Research Question 1

What are the factors of work performance system in strategic human resource management?

4.12.1 Confirmatory Factor Analysis for Work Performance System Model One

To answer the research question 1 confirmatory factor analysis CFA for work performance system models was run using the AMOS (Analysis of Moment Structure) (Arbuckle & Wothke, 1995-1999).

A model fits the data (or the model is valid for the population of the study) when the Chi-square p >.05, CFI $\geq$.90, RMSEA < .08 and Ratio (Chi-square /df) < 5.0 (see Table 4.8).

Table 4.8: Model fit Indices

Index	Moel fits the data
Chi-square	p>.05
CFI	$\geq$.90
RMSEA	< .08
Ratio (Chi-square /df)	< 5.0

Source. Kline (2011).

Note: when the sample size is > 200 the result of Chi-square is not reliable. Hence, the Chi-square result is not taken into consideration for model- fit analysis.

The work performance system construct contains six distinctive factors; they are staffing, training, involvement, performance appraisal, compensation and caring. However, due to length of the items, the analysis was performed twice. The first three factors were analyzed in a separate model while the second was also run in a different analysis. Then Maximum Likelihood method was used to assess the overall fitness of the model. This application tests the hypothesis that work performance system is a multidimensional construct. It is also worth mentioning that due to large number of the items concerned, another measurement model was tested for the summated scale of the factors.

In a perfect situation, the chi-square value would be zero while model fit would be obtained from a not significant chi-square. A large chi-square value indicates that the observed covariance matrices are far from equal to the estimated covariance matrix (Bollen & Long, 1998). Therefore, a well fitted model would derive from a not significant chi-square. However, the sensitivity of chi-square to the sample size makes practitioners suggest multiple indicator indices for model fit assessment.

Another limitation of chi-square is that it is only a test of statistical significance, and it does not provide information about the degree of goodness of model fit (Bollen & Long, 1998). According to Hair et al. (1998), statistical non significance, however, does not only ensure that the correct model has been obtained but rather that the proposed model fits the observed covariance and correlation well.

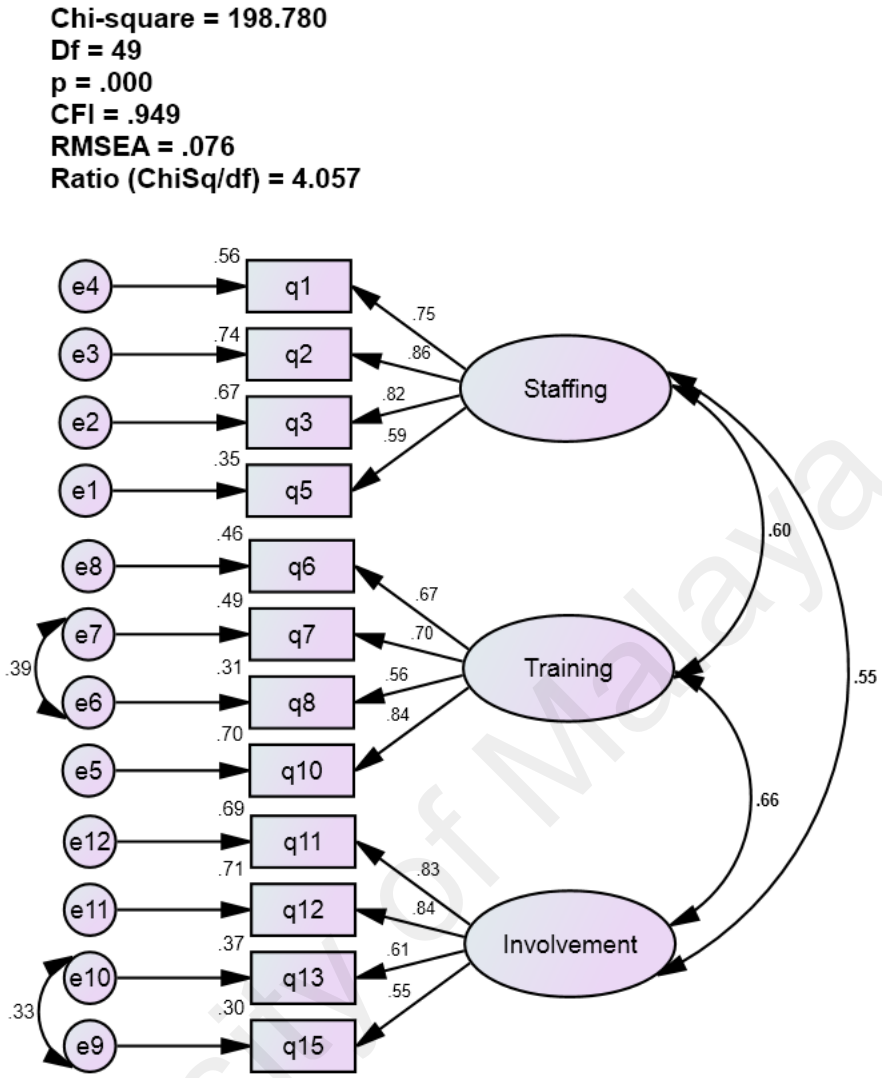
Because of these problems or limitations of chi-square, statisticians and practitioners urge researchers to use other indices to evaluate the model fit (Bollen & Long, 1998; Hair et al., 1998). Hair et al. (1998), Bollen and Long (1998) and Bentler

(1990) suggested multiple indicator indices (such as CFI, RMSEA to mention a few) to evaluate the fitness of the model as was earlier mentioned.

The result in Figure 4.3 shows that the first work performance system measurement model suggested that the model was fit; Chi-Square χ^2 = 198.780, *df* = 49, *p* = .001, CFI (.949) and RMSEA (.076). The value of CMIN/DF was also 4.057 which indicated that the measurement model was adequately fit since the figure fell below the maximum recommended value 5 (see Figure 4.3). These indices supported the argument that the model was well fit.

Theoretically, this result supported the finding of Chuang and Liao (2010) that work performance system can be distinctively categorized into six categories and that these three factors (staffing, training and involvement) adequately represent the covariance matrix of data. It is also suggested to conduct cross-cultural validation of the scale since the sample of this study was culturally and environmentally different from the sample size of Chuang and Liao (2010).

Thus, it can be supported both theoretically and statistically that staffing, training and involvement are part of distinctive factors of work performance system as was found in previous studies (Chuang & Liao, 2010) since there was a lack of evidence of any offending estimates, such as negative variance in the results and higher figure than threshold value of goodness of fit indices.



*Note***:** q1 to q15 represented items of the model

Figure 4.3: Three-factor Measurement Model of Work Performance System I

The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation were examined and presented in Table 4.9. The standardized regression weights results represent what happens after all of the variables (predictors and outcome) have initially been converted into *z*-scores. Standardized relationships say that for a one-standard deviation increment on a predictor, the outcome variable increases (or decreases) by some number of standard deviation corresponding to the β coefficient. On the other hand, the unstandardized regression weight is

expressed in terms of the variables' raw units. Hence, unstandardized regression weight can be interpreted as for every one-raw-unit increment on a predictor, the outcome variable increases (or if β is negative, decreases) by a number of its raw units corresponding to the β coefficient.

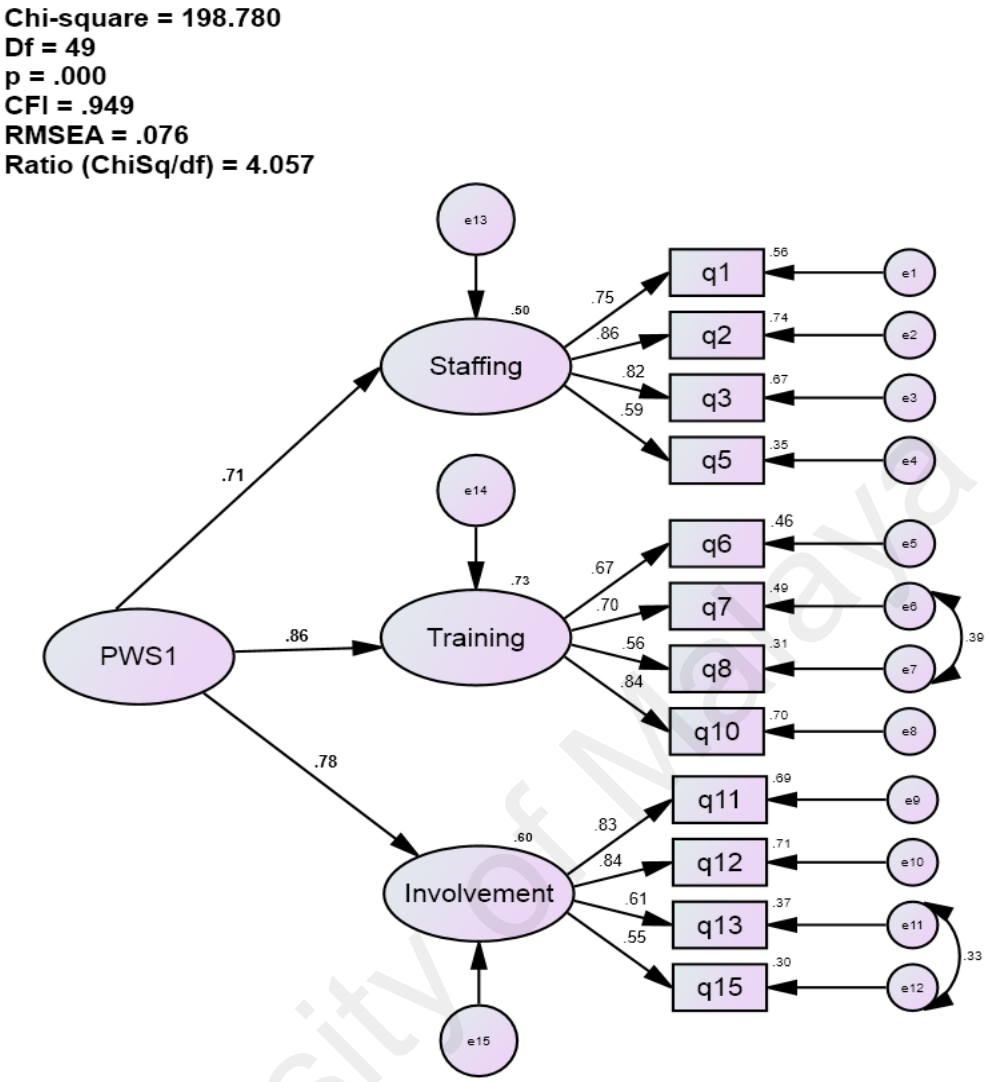
The squared multiple correlations (also called item reliability) were thoroughly evaluated. Item reliability refers to the value that represents the extent to which an observed indicator's variance is explained by the underlying construct. The majority of the squared multiple correlations of indicators (with exception of a few cases) in this measurement model were higher than the acceptable level of .50. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loadings for staffing, training and involvement factors.

Table 4.9: Indicator Loadings Three-factor Measurement Model of Work Performance System

Model	item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Three-factor Measurement Model of Work Performance System	q1	1.232	747	.094	13.068*	.559
	q2	1.415	.860	.100	14.098*	.736
	q3	1.346	.817	.098	13.771*	.667
	q5	1.000	.593	-	-	.352
	q6	.827	.675	.056	14.874*	.455
	q7	.859	.702	.056	15.377*	.493
	q8	.710	.559	.059	11.964*	.312
	q10	1.000	.836	-	-	.699
	q11	1.560	.829	.126	12.396*	.688
	q12	1.543	.841	.124	12.437*	.707
	q13	1.071	.607	.083	12.880*	.369
	q15	1.000	.552	-	-	.304

Note. * significant at $p<.05$

To ensure the contribution of the latent variable to the main construct, second order confirmatory factor analysis was also analyzed. A second-order latent variable is a latent variable whose indicators are themselves latent variables. Figure 4.4 shows the second order of the measurement model based on value of chi-square and its respective *p*-value for work performance system model one. The analysis of the given models, which is the first order measurement model and second order measurement model showed that the data does not fit the model at *p*-value = 0.001. The *p*-value less than 0.05 for measurement model is considered not a good fit model. However, CFI = .949, ratio (CMIN/DF) = 4.057 and RMSEA (0.076) supported the second order CFA. According to these indices, there is no significant difference between first-order and second-order for this construct. The chi-square and other goodness of fit indices are all similar which suggested that both first and second-order analyses similarly fit the proposed measurement model.



*Note***:** q1 to q15 represented items of the model

Figure 4.4: Second-order Factor Measurement Model of Work Performance System (PWSI)

Overall, all tests indicated that the work performance system model one is highly represented or explained by staffing (.71), training (.86) and involvement (.78) as well as all items are reliable to represent the construct. It is worth mentioning that to obtain convergent validity for this model, the researcher deleted items that did not fulfill the factor loading of .50 and above. As a result, 3 items were discarded from the analysis. These three items belonged to the three underlying factors, one from each factor. As can be obviously seen from Figure 4.4, the lowest factor loading is .55 and the highest is

.86, indicating that the items were significantly correlated and consequently measuring the same construct.

Furthermore, the results of unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for this work performance system second-order were examined and presented in Table 4.10. The results suggested that all the items involved in this second-order measurement model were higher than the acceptable level of .50. The values of squared multiple correlation ranged between .552 to .860. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loadings for staffing, training and involvement factors.

Table 4.10: Indicator Loading for PWS1 Second-order Measurement Model

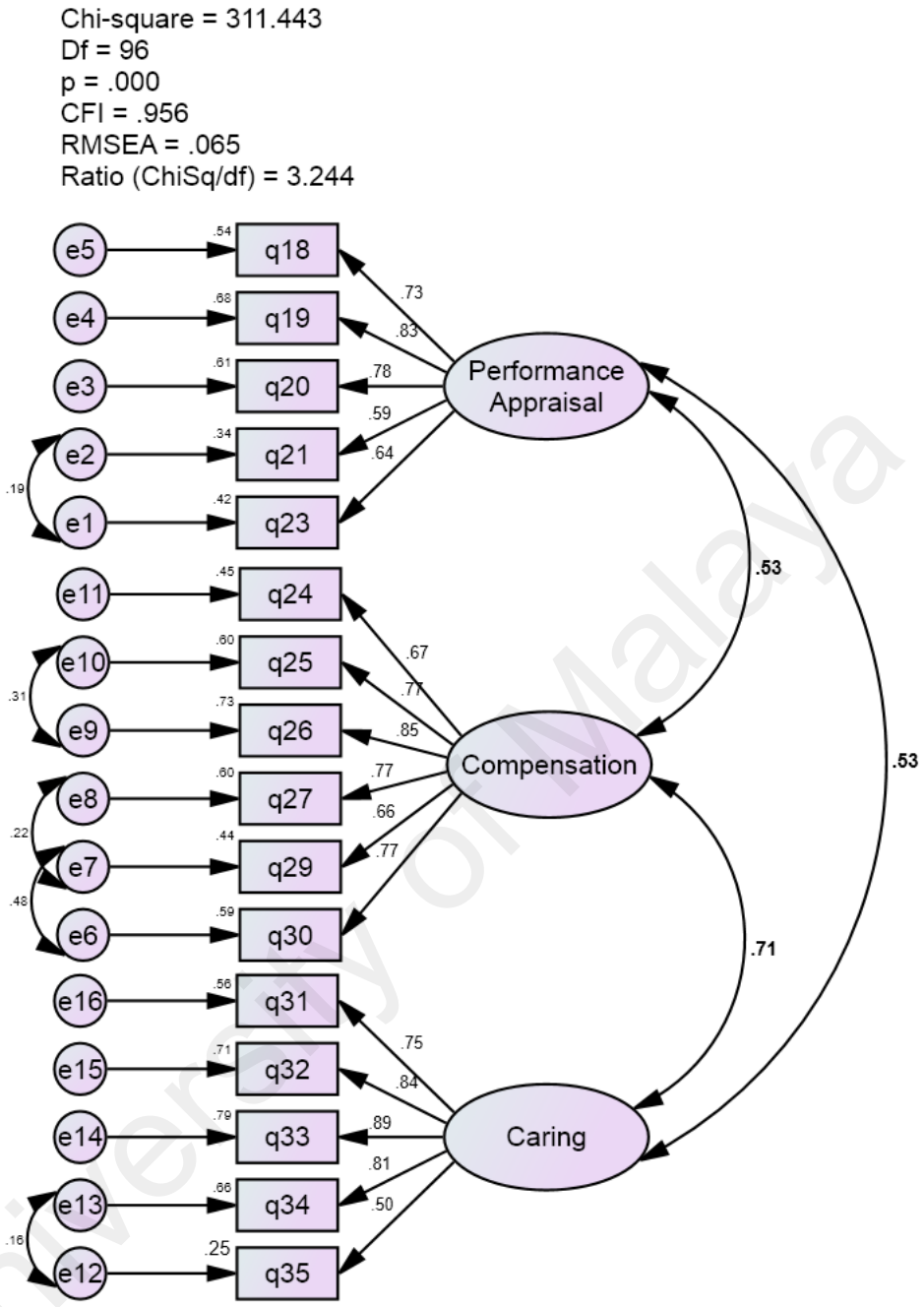
Model	variable	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Measurement	Involvement	1.198	.602	.117	10.226*	.776
PWS1	Training	1.065	.733	.114	9.360*	.856
(First-order)	Staffing	1.000	.499	-	-	.706
	q1	1.000	.304	-	-	.747
	q2	1.149	.369	.061	18.842*	.860
	q3	1.093	.707	.060	18.133*	.817
	q5	.812	.688	.062	13.068*	.593
	q6	1.000	.699	-	-	.675
	q7	1.039	.312	.077	13.492*	.702
	q8	.859	.493	.078	11.010*	.559
	q10	1.210	.455	.081	14.874*	.836
	q11	1.000	.352	-	-	.829
	q12	.989	.667	.052	19.092*	.841
	q13	.687	.739	.050	13.841*	.607
	q15	.641	.559	.052	12.396*	.552

Note. * significant at $p < .05$

4.12.2 Confirmatory Factor Analysis for Work Performance System Model Two

The second construct investigated using the measurement model was performance appraisal, compensation and caring in the work performance system variable. This construct consisted of three underlying factors which are performance appraisal, compensation and caring with 6 items for performance appraisal, 7 items for compensation and 5 items for caring respectively. The same process for the first-order model was employed. In addition to chi-square a number of indices were employed to check the overall fit of the model. These indices included CFI and RMSEA. The result in Figure 4.5 of this analysis showed generally that the model fit with chi-square χ^2 = 311.443, *df* = 96, *p* = .001. Since chi-square with its *df* is very sensitive to sample size, the researcher had turned to other indices to determine the model fit. The results of the measurement model generated fit indices which exceeded the recommended critical value of .90. More specifically, the fit indices were CFI .956 and RMSEA .065.

The value of CMIN/DF was also 3.24 which indicated that the measurement model fit adequately since the figure fell below the maximum recommended value 5 (Figure 4.5). This finding supported theoretically a previous study finding that performance appraisal, compensation and caring are part of distinctive factors of the work performance system as was found in the previous studies (Chuang & Liao, 2010) since there was a lack of evidence of any offending estimates, such as negative variance in the results and higher figure than threshold value of goodness of fit indices. Two items were discarded from this construct; one each from performance appraisal and compensation respectively. These items were discarded because they failed to fulfill the requirement of convergent validity. More precisely, the factor loading of the concerned items were below the recommended value of $\geq$.50, therefore, the researcher decided to discard them from analysis which consequently improved the model.



*Note***:** q18 to q35 represented items of the model

Figure 4.5: Three-factor Measurement Model of Work Performance System II

Furthermore, the unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for this model were also examined and presented in Table 4.11.

Table 4.11: Indicator Loadings for Three-factor Measurement Model of Work Performance System II

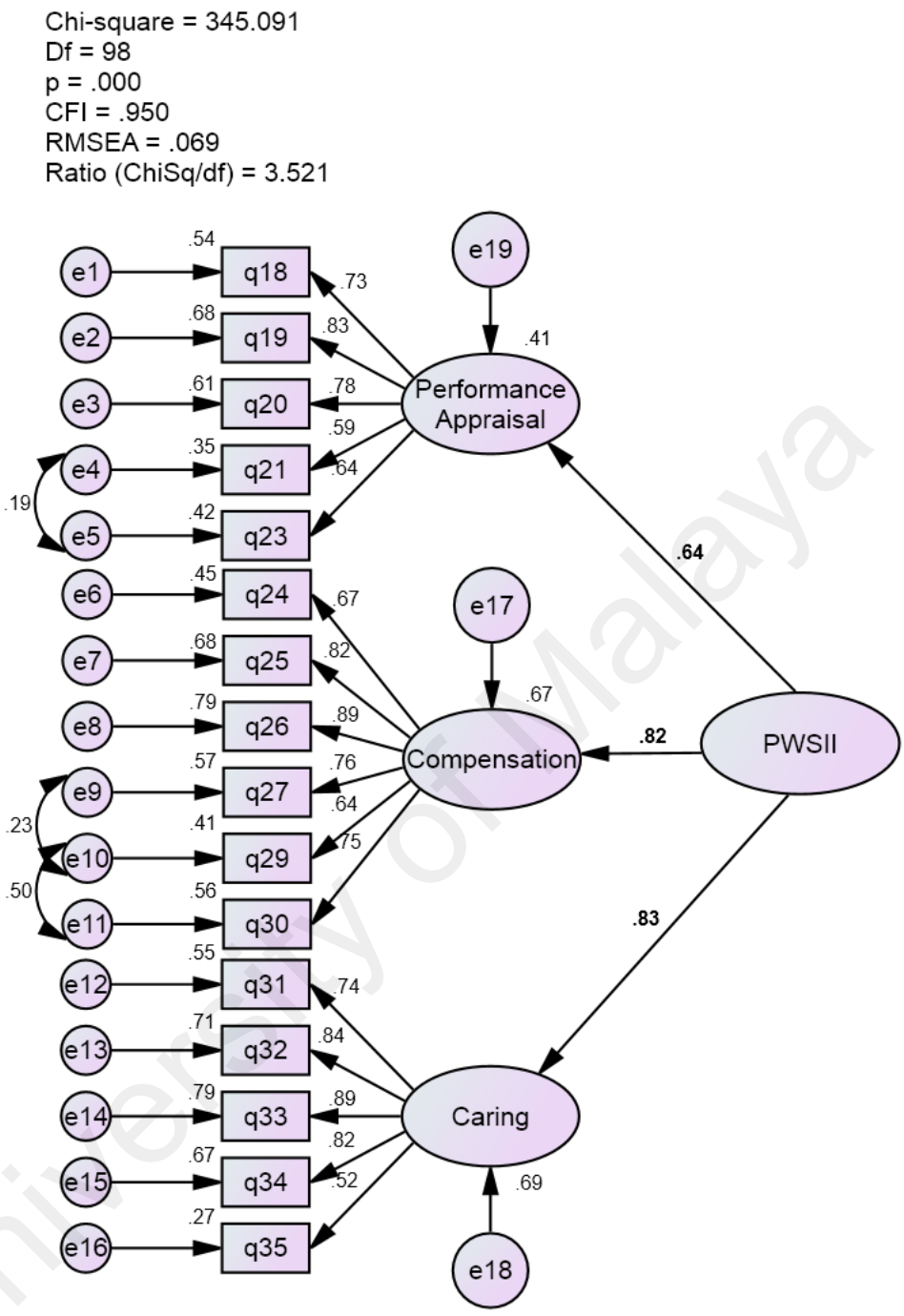
Model	Item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Measurement PWS1 (First-order)	q18	1.256	.733	.091	13.806*	.538
	q19	1.394	.827	.093	14.938*	.684
	q20	1.251	.784	.086	14.469*	.614
	q21	1.004	.587	.078	12.876*	.345
	q23	1.00	.645	-	-	.416
	q24	.805	.673	.052	15.402*	.452
	q25	.987	.775	.056	17.537*	.600
	q26	1.080	.852	.055	19.628*	.725
	q27	.942	.774	.052	18.004*	600
	q29	.898	.661	.044	20.275*	.437
	q30	1.000	.768	-	-	.589
	q31	1.331	.746	.119	11.202*	.556
	q32	1.639	.844	.139	11.805*	.712
	q33	1.612	.890	.134	12.019*	.792
	q34	1.500	.810	.121	12.418*	.656
	q35	1.000	.503	-	-	.253

Note. * significant at $p < .05$

The majority of the squared multiple correlations of indicators (with exception of a few cases) in this measurement model were higher than the acceptable level of .50. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loading for performance appraisal, compensation and caring factors respectively.

On the other hand, the researcher tested the second-order of the work performance system due to significant fit of the first-order to examine whether there is another latent construct accounting for the factors. The hypothesized measurement model for the second-order work performance system remained factors with their standardized loadings is presented in Figure 4.6. These factors are performance appraisal, compensation and caring. Initially, the researcher included all the items belonging to the factors under the estimation including two items discarded from first-order. The purpose is to test the conceptual framework that it is multidimensional and composed of three factors with second-order as was done first-order. With the exception of chi-square $\chi^2 = 345.091$, $df = 98$, $p = .001$ that were very sensitive to the sample size, the measurement indices model fit yielded fit indices exceeding the recommended critical value of .90 (Hair et al., 1998; Schumacker & Lomax, 2010). These indices were CFI (.950) and RMSEA (.069). The CMIN/DF was also 3.52 which fell well below the maximum recommended value of 5 (see Figure 4.6). Based on this evidence, it could be suggested that the model was fit.

The result of second-order confirmatory factor analysis (measurement model) provided support for the existence of three distinctive factors of the model. However, comparing the result of second-order and first-order, it is appeared that first-order is more fit with the collected data than second-order. The chi-square in the first-order is lower than in the second-order and the goodness of fit indices are higher and better in the first-order than in the second-order. Thus, it can be concluded that the first-order is more suitable for the data than second-order. This finding replicated previous studies (Chuang & Liao, 2010) that examined the work performance system construct. This conclusion is supported by lack of offending estimates and the high level of goodness of fit indices that exceeded the recommended level.



Note = q18 to q35 represented items of the model

Figure 4.6: Second-order Factor Measurement Model of Work Performance System (PWSII)

As was the case for the first-order measurement model of PWS2, the unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for second-order were also investigated and presented in Table 4.12. The

result of analysis suggested that the majority of the squared multiple correlations of indicators (with the exception of a few cases) in this measurement model were higher than the acceptable level of .50. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loading for performance appraisal, compensation and caring factors respectively.

Table4.12: Indicator Loading for PWS2 Second-order Measurement Model

Model	Item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Measurement	Performance	1.000	.642	-	-	.691
PWS2	Compensation	1.604	.817	.174	9.192*	.668
(Second-	Caring	1.211	.831	.152	7.952*	.412
order)	q18	1.256	.733	.091	13.808*	.538
	q19	1.393	.827	.093	14.940*	.684
	q20	1.251	.784	.086	14.473*	.614
	q21	1.005	.588	.078	12.888*	.346
	q23	1.000	.645	-	-	.416
	q24	.823	.669	.054	15.275*	.448
	q25	1.078	.824	.056	19.156*	.679
	q26	1.161	.891	.056	20.704*	.793
	q27	.947	.757	.054	17.472*	.573
	q29	.893	.643	.044	20.127*	.413
	q30	1.000	.747	-	-	.558
	q31	1.275	.741	.109	11.715*	.550
	q32	1.576	.842	.127	12.444*	.709
	q33	1.551	.889	.122	12.714*	.790
	q34	1.457	.817	.119	12.277*	.667
	q35	1.000	.522	-	-	.272

Note. * significant at $p < .05$

Because all work performance system factors with their respective items could not be psychometrically tested and analyzed simultaneously, the researcher used summated scale of these factors. As presented in Figure 4.7, the items of each component were combined. Hence, the measurement model was performed on the summated scale to investigate the appropriateness of the scale. The Maximum Likelihood estimation was also used to generate estimate of parameters in the measurement model. As carried out

with the previous measurement model, numbers of indices were examined to determine the overall model fit. The chi-square was χ^2 = .000, *df* = 1, *p* = .990. This result suggested that the model perfectly fit the data. Moreover, the result of generated indices also indicated that the model is perfect. The result generated fit indices exceeding the recommended critical value of .90. The CFI (1.00) and RMSEA =.000. The value of CMIN/DF was .000, indicating that the model was well fit since the number fell well below the maximum recommended value of 5 (refer to Figure 4.7).

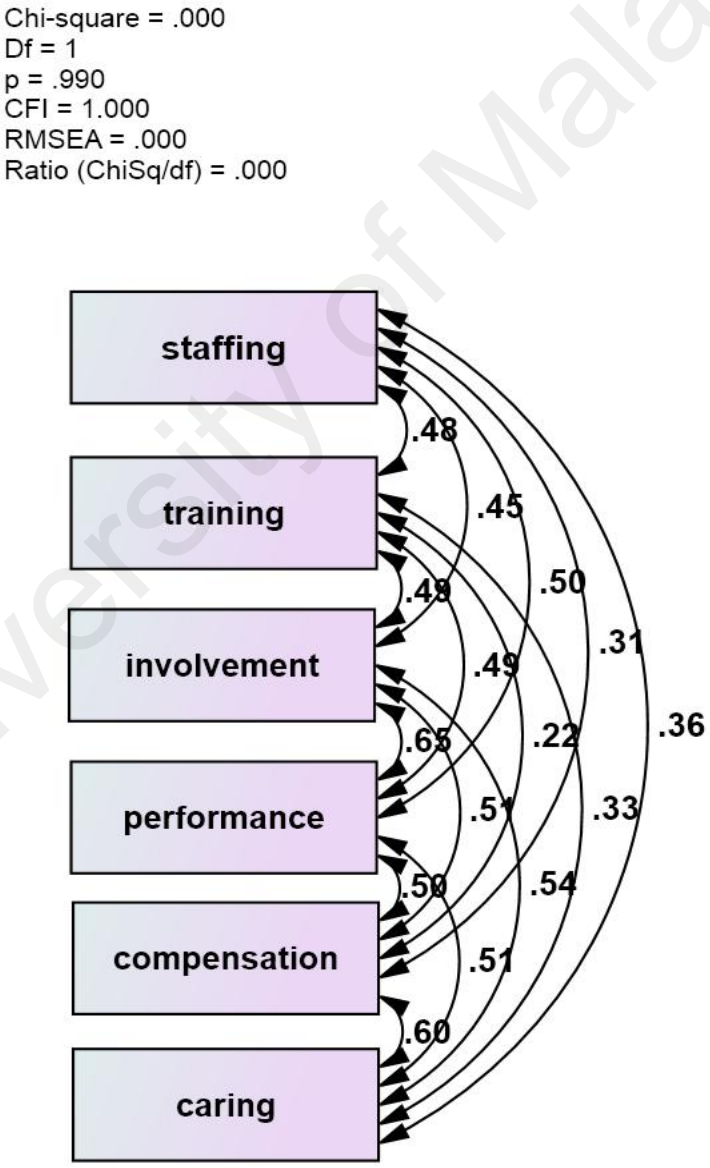


Figure 4.7: Interco relation among the Six Dimensions of Work Performance System Summated Scale

4.12.3 Summary of Research Question One

In summary, this analysis indicated that there are six underlying factors of work performance system such as staffing, training, involvement in decision making, performance appraisal, compensation, and caring. According to this analysis, the items of factors highly loaded into their respective factors. Furthermore, the confirmatory factor analysis also replicated the result of previous studies which suggested that the underlying factors of performance work system are six. Additionally, the items were significantly loaded on their respective factors which indicated that the construct validity of the model holds. Also, the correlation among the factors suggested that the convergent and discriminant validity were maintained since the correlation among the items was relatively high and any sign of multicollinearity problem was not observed.

4.13 Results Of Analysis For Research Question 2

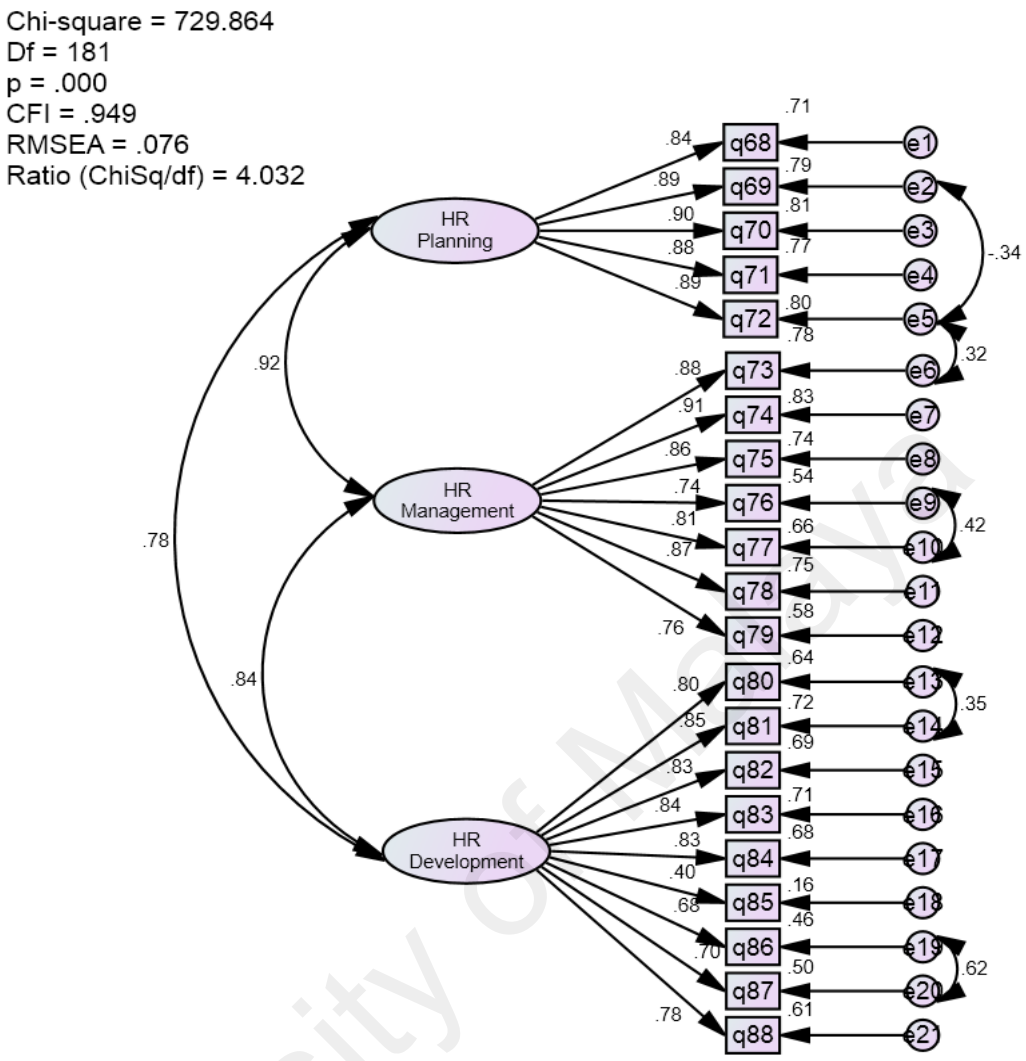
What are the factors of institutional performance in human resource practices?

4.13.1 Confirmatory Factor Analysis for Institutional Performance

To answer the research question 2 CFA analysis was conducted on institutional performance. The construct contained three distinctive factors namely; planning, management and development, and training. The first factor (HR planning) consisted of five items, HR management contained seven items while HR development and training consisted of nine items. The Maximum Likelihood of estimation was also used to generate estimate of parameters in the measurement model to investigate whether the factors concerned belong to a construct. A number of indices were examined to determine the overall model fit. The chi-square was $\chi^2 = 729.864$, $df = 181$, $p = .001$. Although the significance of p value is considered a negative sign in the measurement model, due to the sensitivity of chi-square especially when sample size is high, the

researcher relied on other indices to determine the fit. The result in Figure 4.8 generated fit indices that exceeded the recommended critical value: CFI (.949) and RMSEA (.076). The value of CMIN/DF was 4.032, indicating that the model was well fit since the number fell well below the maximum recommended value of 5 (refer to Figure 4.8).

This conclusion was strengthened by lack of evidence of any offending estimates such as negative variance in the result, and the high levels of goodness of fit indices. The factor loadings for each factor of institutional performance were also significant above .50. Furthermore, there was a high covariance relationship among three dimensions of the construct. The analysis showed covariance of .78, .84 and .92 for HR planning, HR management and Development and training respectively. The other indices indicated that model fit the data and the measurement can be considered as a good model.



Note: = q68 to q88 represented items of the model, HR is human resource

Figure 4.8: First- order Measurement Model Institutional Performance and its Sub-Dimensions

The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for institutional performance were examined and presented in Table 4.13. The item reliability was thoroughly evaluated and the result of the squared multiple correlations of indicators (with exception of two items; item 86 and 87) in this measurement model were higher than the acceptable level of .50.

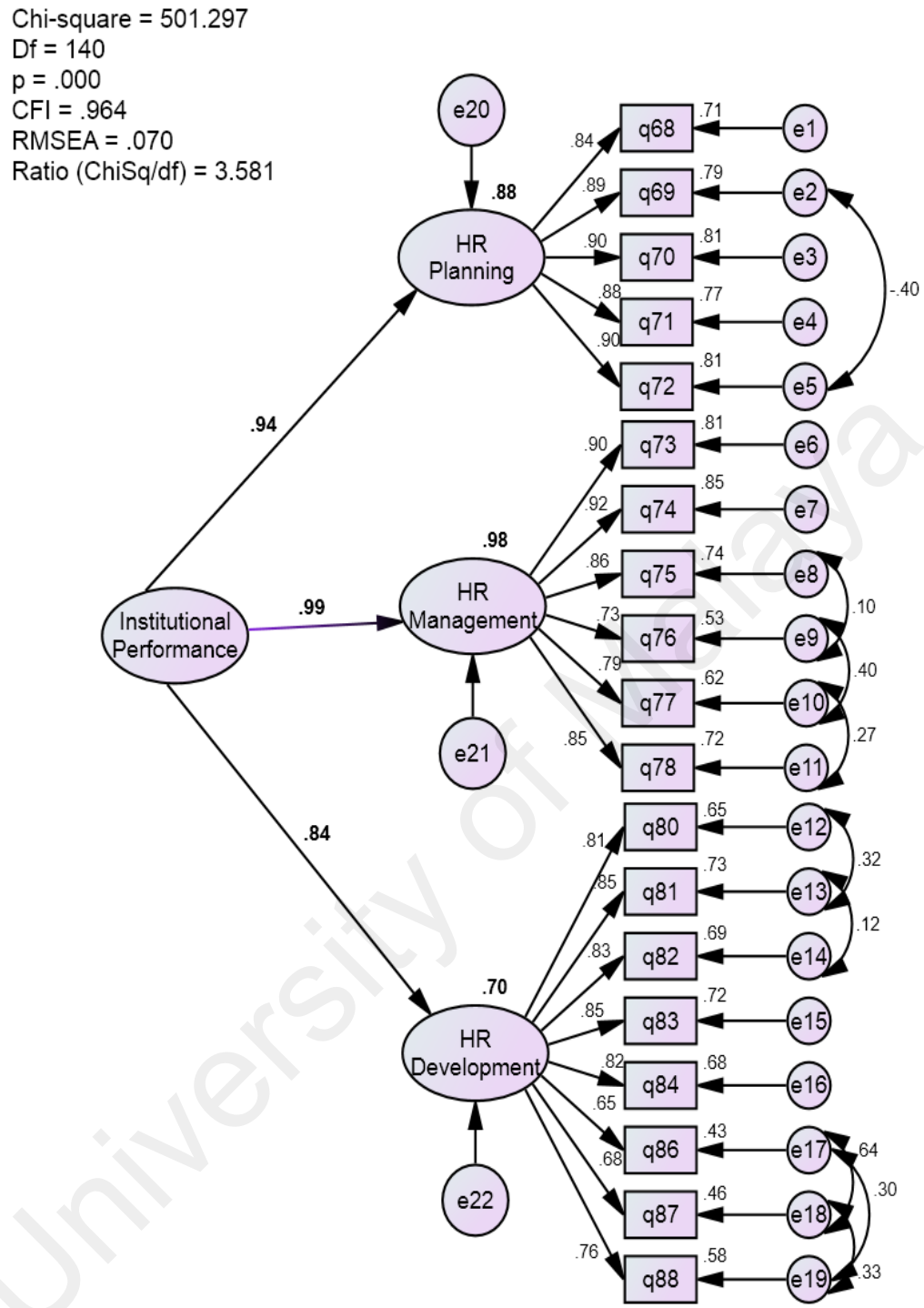
Table 4.13: Indicator Loading for Institutional Performance Measurement Model

Model	Item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Measurement	q68	1.000	.843	-	-	.711
Institutional	q69	1.025	.889	.038	27.157*	.790
performance	q70	1.037	.903	.037	28.213*	.815
(First-order)	q71	1.069	.879	.040	26.865*	.773
	q72	1.068	.893	.039	27.425*	797
	q73	1.000	.885	-	-	.783
	q74	.997	.911	.031	32.176*	.831
	q75	.942	.859	.033	28.167*	.738
	q76	.799	.737	.038	21.233*	.543
	q77	.888	.810	.035	25.067*	.656
	q78	.947	.865	.033	28.596*	.749
	q79	.856	.760	.038	22.377*	.578
	q80	1.000	.802	-	-	.643
	q81	1.070	.849	.038	28.094*	.721
	q82	1.085	.830	.050	21.900*	689
	q83	1.063	.844	.047	22.429*	.713
	q84	1.065	.826	.049	21.758*	.683
	q85	.549	.404	.059	9.322*	.163
	q86	.883	.678	053	16.803*	.459
	q87	.919	.704	.052	17.616*	.495
	q88	.988	.778	.049	20.053*	.605

Note. * significant at $p < .05$

This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loadings for HR planning, HR management and HR development and training factors.

Interestingly, the researcher tested the second-order of institutional performance's construct after examining the first order measurement model. The hypothesized measurement model for the institutional performance with standardized loadings is presented in Figure 4.9.



Note: = q68 to q88 represented items of the model, HR is human resource

Figure 4.9: Second-order Measurement Model Institutional Performance and its Sub-dimensions

As in the case for the first order, the second-order also consisted of three distinctive factors namely, HR planning, HR management and HR development, and training. The items for each factor were 5, 7 and 8 respectively. However, in the first-order measurement model, the number of items for factor three (HR development and training) is 9 items but the factor loading of the item 85 was .40 indicating minimal contribution of the item into the factor. Also, item 79 caused very serious error in the model (negative error) and therefore, the researcher decided to discard these two items from the second-order, eventually leading to the improved model. The result in Figure 4.9 generated fit indices exceeding the recommended critical values, χ^2 = 501.297, *df* = 140, *p* = .001, the CFI (.964) and RMSEA (.070). The value of CMIN/DF was 3.581, indicating that the model was well fit since the number fell well below the maximum recommended value of 5 (refer to Figure 4.9). This conclusion was strengthened by high levels of goodness of fit indices and lack of evidence of any offending estimates such as negative variance in the result. The factor loading of the items also were very significant since they exceeded the .50 threshold requirement; covariance among the factors was .94, .99, .84 for HR planning, HR management and HR development and training respectively. The summary of model-fit statistics for the five construct was displayed in Figure 4.9.

The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for institutional performance were examined and presented in Table 4.14.

Table4.14: Indicator Loading for Institutional Performance Measurement Model

Model	Item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Measurement Institutional performance (Second-order)	HR Planning	1.182	.938	.067	17.721*	.699
	HR Management	1.333	.988	.070	19.105*	.975
	HR Development	1.000	.836	-	-	.879
	q68	1.000	.843	-	-	.711
	q69	1.025	.888	.038	27.162*	.789
	q70	1.034	.900	.037	28.090*	.809
	q71	1.069	.879	.040	26.914*	.773
	q72	1.084	.900	.039	27.871*	.811
	q73	1.000	.898	-	-	.807
	q74	.991	.923	.029	34.408*	.851
	q75	.926	.859	.032	28.921*	.738
	q76	.771	.727	.037	21.008*	.528
	q77	.845	.790	.035	24.365*	.624
	q78	.909	.846	.033	27.947*	.715
	q80	1.000	.807	-	-	.652
	q81	1.067	.853	.038	27.712*	.727
	q82	1.080	.832	.049	21.975*	.692
	q83	1.059	.847	.047	22.584*	.717
	q84	1.056	.824	.049	21.759*	.680
	q86	.845	.653	.053	16.011*	.426
	q87	.878	.677	.052	16.757*	.458
	q88	.960	.761	.049	19.485*	.578

Note. * significant at $p < .05$

As seen in Table 4.14, the item reliability was thoroughly evaluated and the result of the squared multiple correlations of indicators (with exception of two items; item q86 and q87) in this measurement model were higher than the acceptable level of .50. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for

this analysis show relatively higher indicator loadings for HR planning, HR management and HR development and training factors.

4.13.2 Summary of Research Question 2

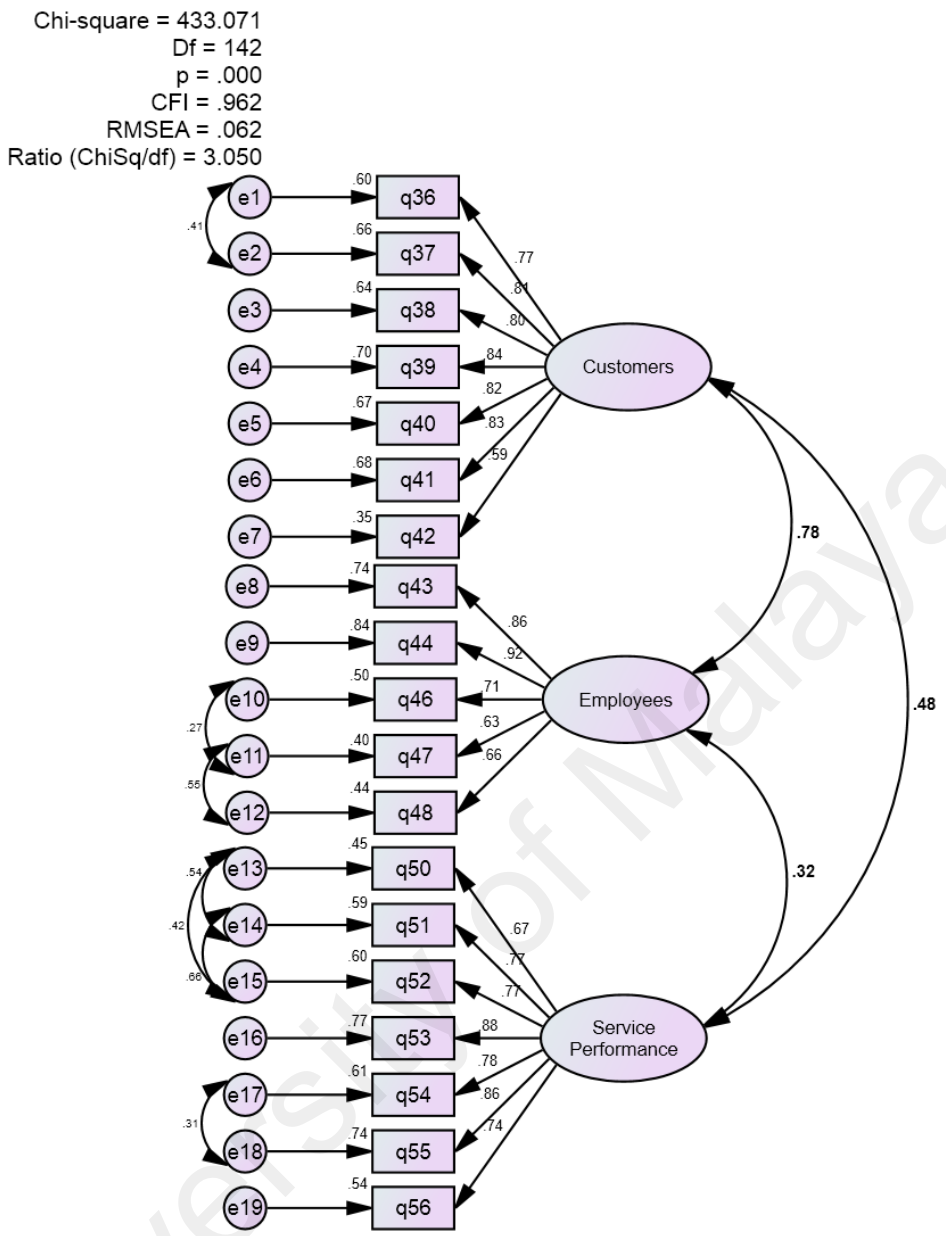
In summary, the confirmatory factor analysis indicated that there were three distinctive factors for institutional performance, which are HR planning, HR management, and HR training and development. The result of analysis was in accordance with previous studies that suggested the underlying factors of the institutional performance are three as found in this study. This result echoed the view that the institutional performance can be measured in terms of its HR planning, HR management and HR training and development. The result also showed that the items of these factors were significantly loaded as expected, indicating that the construct validity was achieved, hence suggesting that institutional performance in human resource management has three factors. The convergent and discriminant validity was also achieved since items were significantly high loaded onto their respective factors but without multicollinearity problem.

4.14 Confirmatory Factor Analysis for Mediator Variables

4.14.1 First Order of CFA for Concern for Customers, Concern for Employees and Service Performance

The researcher tested appropriateness of the mediator variables. They consisted of three factors namely, concern for customers, concern for employees and customer service. Each of these factors contained 7 items with correlation of some of their errors. The Maximum Likelihood estimation was used to generate an estimate of parameters in the measurement model. A number of indices were evaluated to assess the overall model fit. The chi-square was χ^2 = 433.077, df = 142, p = .001. Since it was asserted that chi-square is sensitive to sample size, the researcher had assessed other indices. Some of the results generated fit indices exceeding the recommended critical value of .90. The result in Figure 4.10 showed the CFI (.962) and RMSEA (.062). The value of CMIN/DF was also 3.05, indicating that the model was reasonably fit since the number fell well below the maximum recommended value of 5 (see Figure 4. 10).

The convergent validity was evaluated through the item loading. According to the analysis, two items of concern from employees did not meet the requirement of convergent validity because of low values of factor loading of $\geq$.50. Hence, the researcher decided to discard these items from analysis which consequently led to the improvement of the model fit.



Note: = q36 to q56 represented items of the model

Figure 4.10: Three-factor measurement model of concern for customers, Concrn for employees and service performance.

Moreover, the unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for mediator variables were also investigated and presented in Table 4.15. The result of analysis suggested that the overwhelming majority of the squared multiple correlations of indicators (with exception for 5 items; item q42, q45, q47, q48, q49 which were below the recommended value) were higher than the acceptable level of .50.

Table 4.15: Indicator Loading for Mediator Variables1 First-order Measurement Model

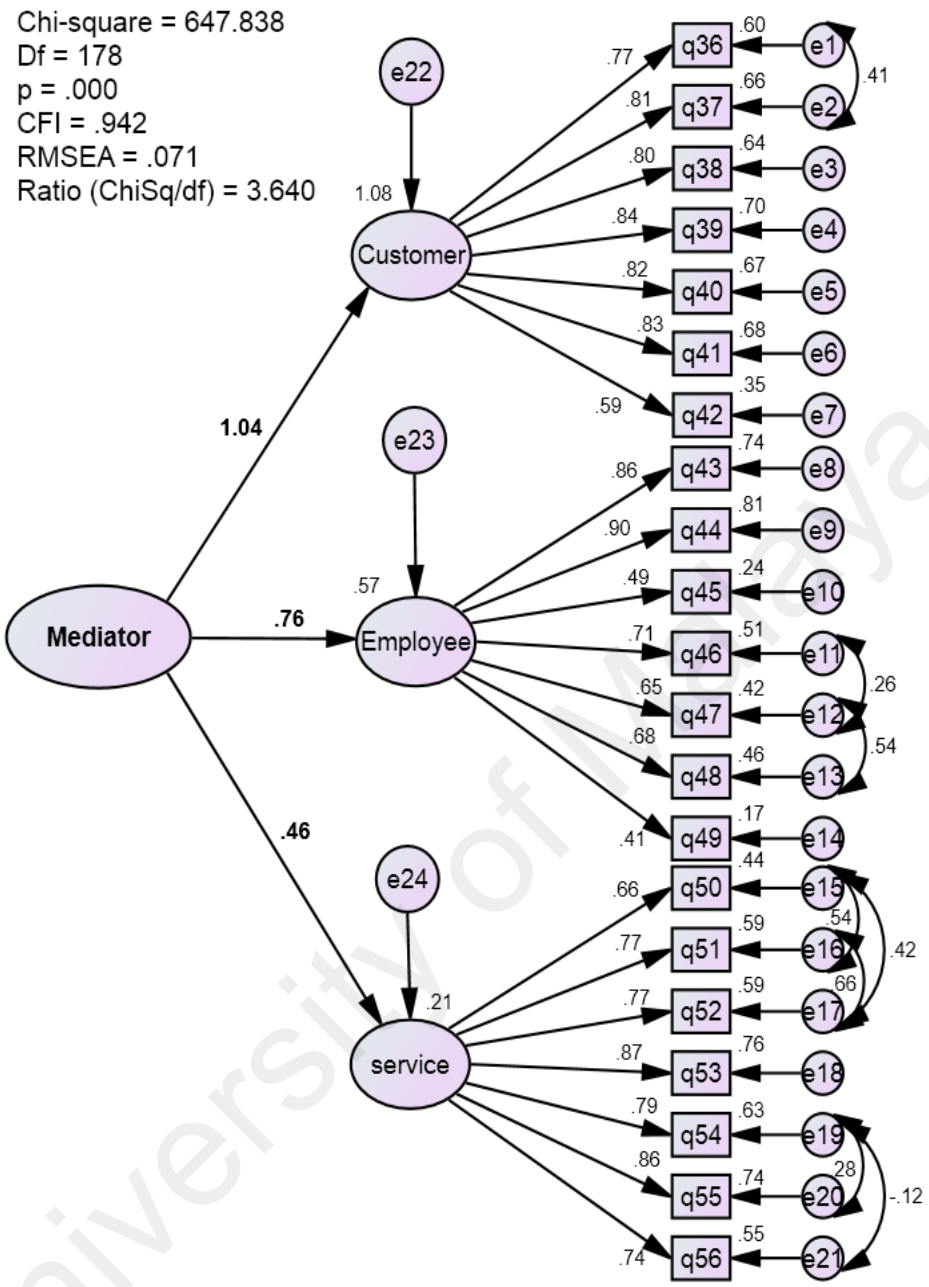
Model	Item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
mediator	q36	.951	.772	047	20.433*	.596
variables	q37	1.034	.813	.047	22.081*	.662
Measurement	q38	1.002	.800	046	21.594*	.640
(First-order)	q39	1.026	.835	.045	23.005*	..697
	q40	1.024	817	046	22.266*	.668
	q41	1.000	.827	-	-	.685
	q42	.745	.592	051	14.478*	.350
	q43	1.289	.863	.075	17.129*	.744
	q44	1.334	.915	.075	17.774*	.837
	q46	1.050	.707	.072	14.535*	.500
	q47	.940	.632	.048	19.519*	.399
	q48	1.000	.664	-	-	.441
	q50	.896	.668	.058	15.558*	.446
	q51	.972	.770	.053	18.398*	.593
	q52	.967	.771	.052	18.436*	.595
	q53	1.126	.876	.053	21.233	.768
	q54	1.000	.781	-	-	.610
	q55	1.092	.858	.043	25.585*	.737
	q56	.932	.736	.053	17.4988	.542

Note. * significant at $p<.05$

This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loading for concern for customers, concern for employees, and service performance factors respectively.

4.14.2 Second Order for Concern for Customers, Concern for Employees and Service Performance

Furthermore, the second-order of this model was also tested to examine whether the second-order is more appropriate and fit the data compared to first-order. The analysis suggested better model fit compared to first order. According to the results in Figure 4.11, the statistical chi-square χ^2 = 647.838, *df* = 178, *p* = .001 was slightly decreased, while there is improvement in other goodness of fit indices. These indices were CFI (.942) and RMSEA (.071). The value of CMIN/DF was 3.640, indicating that the model was well fit since the number fell well below the maximum recommended value of 5 (refer to Figure 4.11). This conclusion was strengthened by the high levels of goodness of fit indices and lack of evidence of any offending estimates such as negative variance in the result. The most beneficial application of second-order Confirmatory Factor Analysis is to gain a broader picture or level of generalization that is not revealed by the first-order (Gorsuch, 1993). McClain (1996) suggested that the second-order CFA could provide different perspective on theoretical constructs. More significantly, Gorsuch (1993) asserted that "first-order Confirmatory Factors indicate areas of generalizability. More generalization can occur within a factor than across factors, but that does not eliminate generalization across factors" (p. 240). Accordingly, second-order analysis was applied in this study to gain the generalizability of the factor structure. Based on this evidence, it could be suggested that the model was fit. The result of second-order confirmatory factor analysis (measurement model) provided support for the existence of three distinctive factors of the model. This finding replicated that of previous studies (Chuang & Liao, 2010) on the work performance system construct. This conclusion is supported by lack of offending estimates and the high level of goodness of fit indices that were above the recommended level.



Note. q36 to q56 represented items of the model

Figure 4.11: Second-order factor of concern for customers, concern for employees and service performance.

It was also shown that most of the factor loadings for each variable were significantly above .50 except one item of customer service with a factor loading of .49 almost close to 0.5. Also, there is a high covariance relationship among the three factors; .46, .76 and .104 for service performance, concern for employees and concern for customers

respectively. Hence, these are indications that the model has acceptable goodness-of-fit (N = 531).

Additionally, the unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for mediator variables were also investigated and presented in Table 4.16. The result of analysis suggested that the overwhelming majority of the squared multiple correlations of indicators (except for 6 items; item q42, q45, q47, q48, q49, q50 which were below the recommended value) were higher than the acceptable level of .50. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis show relatively higher indicator loading for concern for customers, concern for employees, and service performance factors respectively.

Table 4.16: Indicator Loading for Mediator Variables1 Second-order Measurement Model

Model	Variables	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
	Concern for customer	. 1.213	1.039	.126	9.594*	1.080
	Concern for employee	1.000	.758			.574
	Service performance	.483	.462	.054	8.867*	.213
mediator variables1 (second-order)	q36	1.000	.772	-	-	.597
	q37	1.087	.814	.041	26.195*	.662
	q38	1.054	.800	.054	19.636*	.641
	q39	1.079	.836	.052	20.686*	.698
	q40	1.077	.817	.053	20.135*	.668
	q41	1.050	.827	.051	20.415*	.683
	q42	.782	.591	.057	13.827*	.350
	q43	1.000	.862	-	-	.743
	q44	1.017	.899	.038	26.816*	.808
	q45	.585	. .489	.050	11.652*	.239
	q46	.822	.713	.044	18.860*	.508
	q47	.750	.647	.046	16.466*	.419
	q48	.796	.682	.045	17.715*	.465
	q49	.505	.409	.053	9.513*	.168
	q50	1.000	.665	-	-	.442
	q51	1.085	.766	.048	22.408*	.587
	q52	1.082	.769	.053	20.223*	.592
	q53	1.257	.872	.074	17.066*	.761
	q54	1.140	.793	.073	15.546*	.629
	q55	1.228	.860	.073	16.790*	.740
	q56	1.057	.744	.071	14.988*	.553

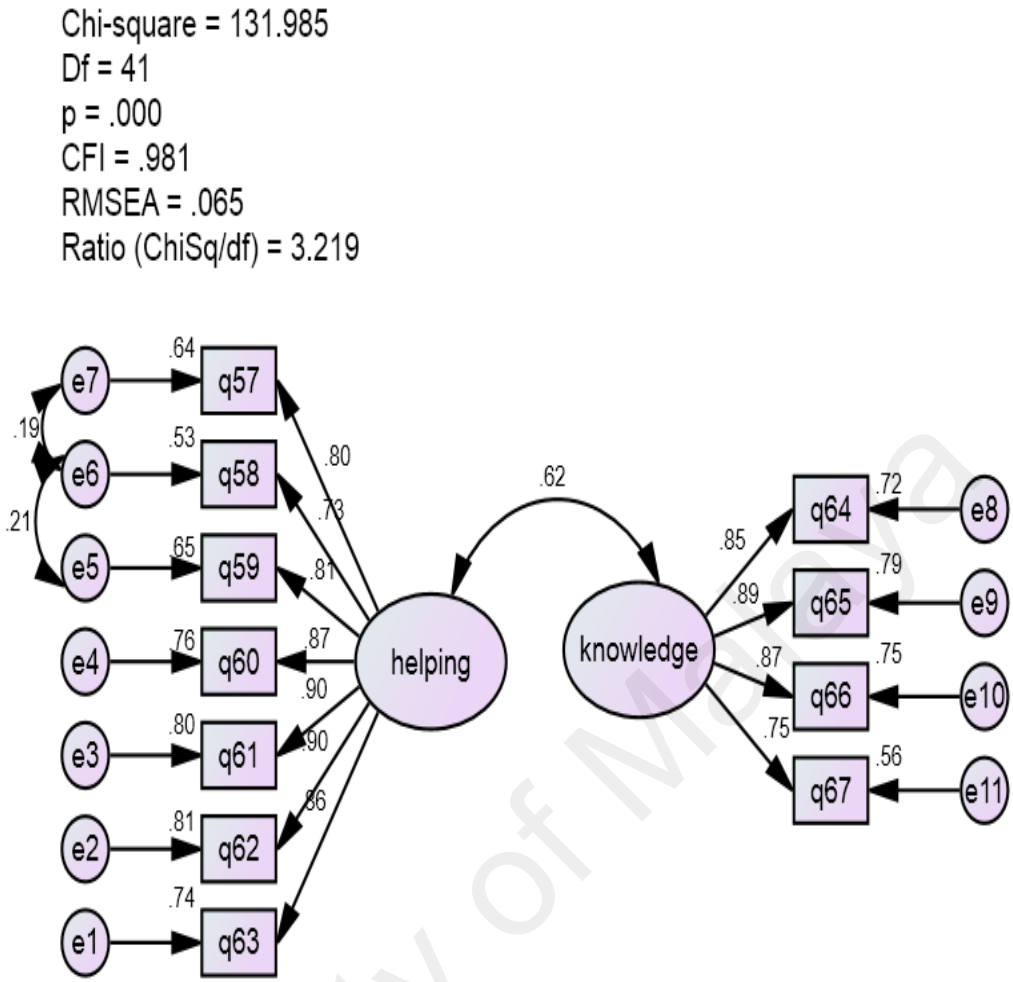
Note. * significant at $p < .05$

4.14.3 First Order for Mediator Construct

Cconfirmatory factor analysis was conducted on another two factors, mediator variables namely helping behavior and customer knowledge. The first factor contained seven items while the second factor contained four items. The researcher used the

measurement model to test the suitability of the model and verify the uniqueness of each item and its contribution to the goodness of the model. The Maximum Likelihood estimation was used to generate an estimate of parameters in the measurement model.

As was the case with previous analyses, a number of indices were evaluated to assess the overall model fit. The chi-square was χ^2 = 131.985, *df* = 41, *p* = .001. Significance of chi-square index is an indication that the model does not fit the data. However, as constantly mentioned, since the chi-square is sensitive to sample size, the researcher had assessed other indices. The results generated fit indices exceeding the recommended critical value of .90. The CFI (.981) and RMSEA (.065) were obtained. The value of CMIN/DF was also 3.219, indicating that the model was well fit since the number fell well below the maximum recommended value of 5 (see Figure 4. 12). Moreover, the factor loadings of each item are above the threshold of .50 suggesting that the model maintained convergent validity. The lowest value of factor loading for concerned items was .73 while the highest value was .90; these high values indicated that the items loaded on each factor were significantly correlated which means that the items were measuring the same construct.



Note. q57 to q67 represented items of the model

Figure 4.12: Two-factor measurement model of helping behavior (helping) and customer knowledge (knowledge)

Furthermore, the researcher investigated the unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlations for this model and the result is presented in Table 4.17. The analysis showed that the squared multiple correlation for all the items of this construct were higher than the acceptable level of .50. This indicated that the latent factors in this analysis accounted for more than half of the explained variance in each indicator. In other words, this result showed the quality of items used to measure the helping behavior and customer knowledge respectively. With regard to factor loadings, the results of this analysis found relatively higher indicator loadings for helping behavior and customer knowledge factors respectively.

Table 4.17: Indicator Loading for Mediator Variables2 First-order Measurement Model

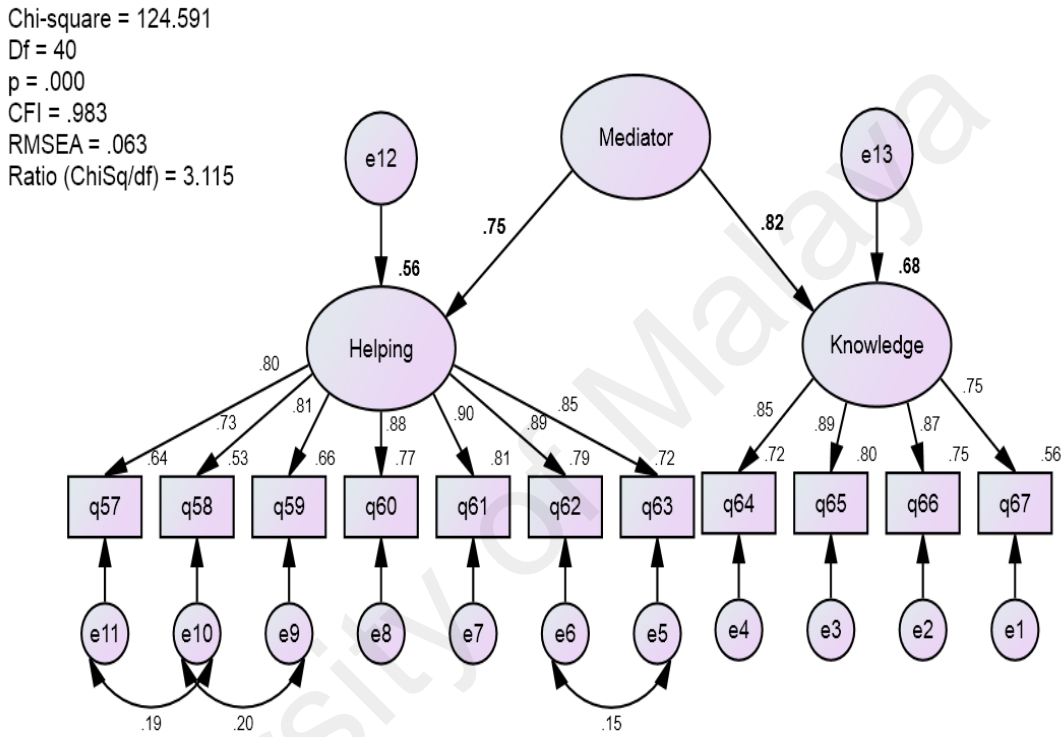
Model	Item	Unstandardized	Standardized	Standard error	Critical ratio	Squared multiple correlation
Measurement for mediator variables2 (First-order)	q57	.923	.800	.040	23.333*	.640
	q58	.876	.727	.044	28.820*	.528
	q59	.978	.807	.041	23.701*	.651
	q60	1.071	.873	.039	27.329*	.651
	q61	1.043	.897	.036	28.820*	.804
	q62	1.063	.898	.037	28.820*	.806
	q63	1.000	.862	-	-	.743
	q64	1.000	.850	-	-	.723
	q65	1.051	.892	.040	26.183*	.795
	q66	1.027	.865	.041	25.046*	..749
	q67	.905	.748	.045	20.007*	.559

Note. * significant at $p < .05$

4.14.4 Second Order for Mediator Construct

The researcher also tested the second-order for value construct to testify possibility of being a latent construct accounted for these two factors. The result of analysis suggested that the second-order confirmatory factor analysis is more fit compared to the first order model. The hypothesized measurement model for the value construct factors component with standardized loadings is presented in the following Figure 4.13. According to the results, the chi-square for the model, $\chi^2 = 124.591$, $df = 40$, $p = .001$, indicating poor fit. However, other fit indices were evaluated due to the sensitivity of chi-square index. The other indices suggested that the model is highly fit; the CFI (.983) and RMSEA (.063) both fulfilled the standard of good fit. The value of CMIN/DF was also 3.115,

indicating that the model was well fit since the number fell well below the maximum recommended value of 5.0 (see Figure 4.13). It was also shown that all the factor loadings for each dimension were significantly above .50 and the covariance values were very high.



Note. q57 to q67 represented items of the model

Figure 4.13: Second-order factor of helping behavior (helping) and customer knowledge (knowledge)

The analysis showed that the squared multiple correlations for all the items of this construct as presented in Table 4.18 were higher than the acceptable level of .50. This indicated that the latent factors in this analysis accounted for more than half of the explained variance in each indicator. In other words, this result showed the quality of items used to measure the helping behavior and customer knowledge respectively. With regard to factor loadings, the results of this analysis found relatively higher indicator loadings for helping behavior and customer knowledge factors respectively.

Table 4.18: Indicator Loading for Mediator Variables2 Second-order Measurement Model

Model	Item	Unstandar-dized	Standar-dized	Standard error	Critical ratio	Squared multiple correlation
Measure-	Helping	1.000	.748	-	-	.560
ment Value	Knowledge	1.000	.825	-	-	.680
Construct	q57	936	801	.041	22.793*	.642
(second-	q58	.891	.730	.045	19.682*	.533
order)	q59	.995	.811	.043	23.248*	.658
	q60	1.090	.877	041	26.601*	.770
	q61	1.057	.898	.038	27.730*	.806
	q62	1.066	.890	.036	27.730*	.791
	q63	1.000	.851	-	-	.725
	q64	1.105	.850	.055	20.005*	.723
	q65	1.161	.892	.055	21.013*	.795
	q66	1.135	.865	.056	20.379*	.748
	q67	1.000	.748	-	-	.559

Note * significant at $p < .05$

Because all mediator variables could not be analyzed simultaneously, the researcher employed a summated scale. As presented in Figure 4.14, items of each component were combined and summated. Therefore, the measurement model was performed to examine the mediator variables after having been summated. The Maximum Likelihood estimation was also used to generate estimate of parameters in the measurement model. As carried out with the previous measurement model, numbers of indices were examined to determine the overall model fit. The result of this analysis indicated perfect fit. The chi-square was $\chi^2 = .000$, $df = 1$, $p = .998$. The generated fit indices also proved

perfect fit given the value of CFI (1.00) and RMSEA (.00). The value of CMIN/DF was .00, indicating that the model was perfectly fit since the number fell well below the maximum recommended value of 5 (refer to figure 4.14).

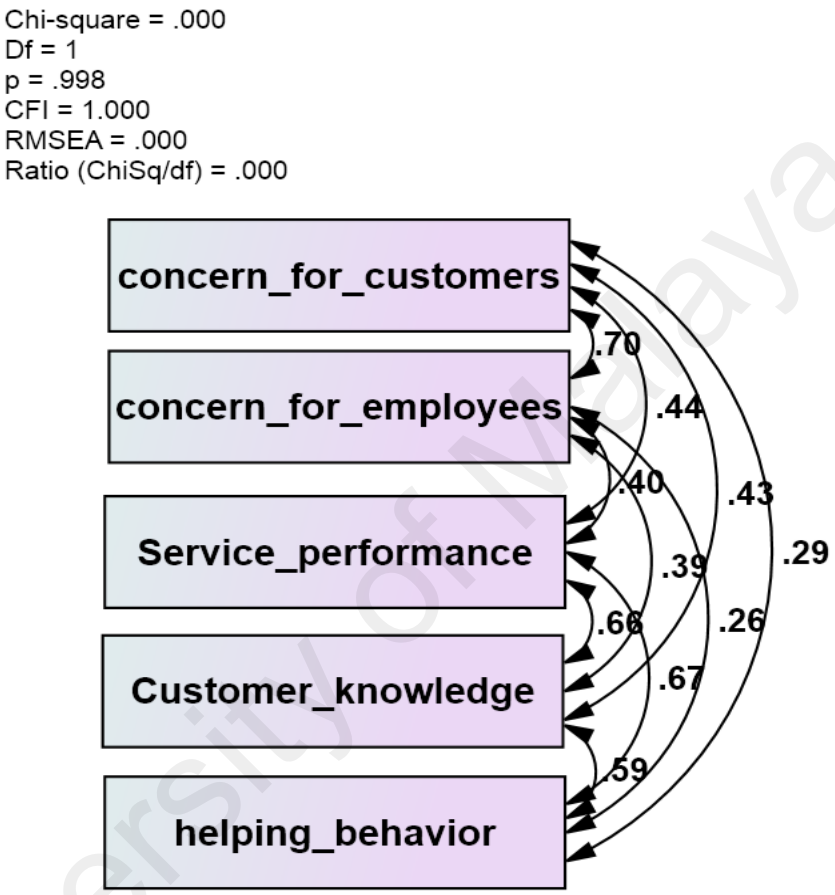


Figure 4.14: Summated scale for mediator variables.

4.14.5 Summary of the Mediator Variables

In summary, the analysis of first-order, second-order and summated scale found that the mediator variables were loaded according to the hypothesis and the construct validity of the scale was achieved. The analysis found five distinctive factors for mediator variables which are concern for customers, concern for employees, service performance, customer knowledge and helping behavior.

Table 4.19: Summary of Model-Fit Statistics for Measurement Models

Model	χ^2	χ^2/df	DF	CFI	RMSEA
Work performance system1first-order	198.780	4.05	49	.949	.076
Work performance system1 second-order	198.780	406	49	.949	.076
Work performance system 2 first-order	311.443	3.24	96	.956	.065
Work performance system 2 second-order	345.091	3.52	98	.950	.069
Summated scale for Work performance system	.000	.000	1	1.00	.000
Mediator variables1 first-order	433.071	3.05	142	.962	.062
Mediator variables1 second-order	647.838	3.64	178	.942	.071
Mediator variables 2 first-order	131.935	3.21	41	.981	.065
Mediator variables2 second-order	124.511	3.11	40	.983	.063
Summated Scale for Mediator Variables	.000	.000	1	1.00	.000
Institutional performance first-order	729.864	4.03	181	.949	.070
Institutional performance second - order	501.297	3.58	140	.964	.070

The analysis showed that the goodness of fit indices were above the recommended values, suggesting that the model did fit. Interestingly, the convergent and discriminant validity was also maintained since correlations among the factors were reasonably high

and there was no problem of multicollinearity in the scale. Table 4.19 presents the model fit indices for the entire model in the study.

4.15 Structural Model of the Study

Having been satisfied with model-fit of the various measurement models of all the variables in the study, the researcher investigated the structural equation model of the proposed model to answer the research questions 3, 4 and 5. The hypothesized model was investigated in many stages. Firstly, the researcher assessed the causal relationship between exogenous and endogenous constructs with non-mediation variables included; this aimed at investigating their relationship and comparing and contrasting between the goodness of fit indices. Secondly, the partial mediation structural model was also tested and chi-square and other goodness of fit indices of the model were tested and differences were observed and recorded. Thirdly, the full hypothesized structural model was assessed in attempting to investigate its suitability and extend the goodness of fit indices to meet the requirement specified by statisticians and practitioners. Furthermore, the direction, magnitude and significance of the path corresponding to each hypothesis of the conceptual framework were examined once the hypothesized partial mediation model was confirmed. Finally, the squared multiple correlation was investigated to determine proportion of variance explained by the exogenous construct in the conceptual framework (Hair et al., 1998). The structural model tests a set of hypothesized associations among variables (Holbert & Stephenson, 2002). This structural model comprises the set of exogenous and endogenous variables. It also includes the diagrams of the conceptual framework and the final model to be presented.

4.16 Results of Analysis for Research Question 3

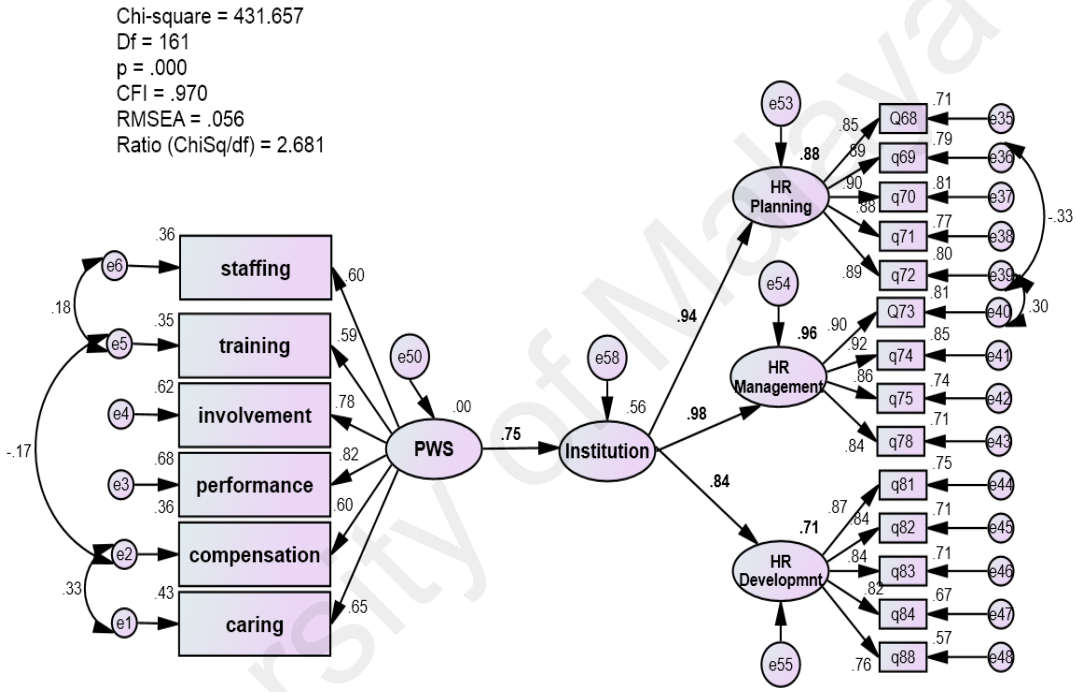
Is there any significant effect of work performance system in strategic human resource management on institutional performance?

4.16.1 Direct Effect of Work Performance System on Institutional Performance

The Structural Equation Modeling technique was used as the main statistical tool to test the main hypotheses proposed in this study. As suggested by Hair et al. (1998), the proposed conceptual framework was modeled in a recursive manner to avoid problems associated with statistical identification. This is more so for the present empirical data that was cross-sectional in nature. As previously mentioned, this section describes testing of the relationship between exogenous and endogenous variables without introducing the mediator variables. This was aimed at investigating the nature, magnitude and direction of the relationship before the partial and full hypothesized model were tested. A total of 20 indicators were contained in this structural model. Each indicator was connected to the underlying theoretical construct in a reflective manner. As previously highlighted, some of these indicators were fixed so the model could be identified. The structural relationships between latent constructs represented by single headed straight arrows were specified according to the hypotheses established.

The result in Figure 4.15 χ^2 = 431.657, *df* = 161, *p* = .001 , χ^2/df = 2.68, CFI = .970, RMSEA = 0.056). The chi-square with its respected *p*-value suggested that the model is not fit and its respective *p*-value is analysis not fit the data since the *p*-value is less than .05. However, since the chi-square yield (χ^2) is sensitive to sample size (especially when sample size is larger than 200), the researcher turned to other goodness of fit indices to examine the model appropriateness. The values of CFI, and RMSEA suggested that the model is fit, which can be interpreted that the observed covariance matrix matches the estimated covariance matrix in the empirical data (Hair et al., 1998).

Moreover, the normed chi-square (χ^2/df) was also examined given the sensitivity of chi-square statistical test to sample size (Byrne 2001). The normed chi-square (χ^2/df) showed a value of 2.68. This value falls within the acceptable ratio of less than 5.0 for χ^2/df value (Hair et al., 1998). In summary, the various indices of overall goodness-of-fit for the model indicated good fit.



Note. HR= human resource, PWS= work performance system, q68 to q88 represented items of the model

Figure 4.15: Structural model of the relationship between work performance system and Institutional Performance

The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for partial structural equation modeling were examined and presented in Table 4.20.

Table 4.20: Indicator Loading for Structural Model

Model	Item	Unstandardized	Standardized	Standard error	Critical ration	Squared multiple correlation
Structural model	Institution	1.001	.745	.079	12.739*	.556
	HR Planning	1.000	.939	-	-	.881
	HR Management	1.111	.980	.047	23.553*	.961
	HR Development	.921	.841	.048	19.182*	.708
	Caring	1.000	.652	-	-	.425
	Compensation	.855	.597	.059	14.573*	.356
	Performance	1.119	.825	.073	15.300*	.680
	Involvement	1.039	.785	.070	14.808*	.616
	Training	.840	.594	.071	11.775*	.353
	Staffing	.900	.601	.076	11.916*	.361
	q68	1.000	.846	-	-	.715
	q69	1.021	.887	.037	27.224*	.787
	q70	1.034	.902	.036	28.356*	.814
	q71	1.067	.880	.039	27.030*	.774
	q72	1.070	.894	.039	27.645*	.799
	q73	1.000	.898	-	-	.806
	q74	.994	.922	.029	34.103*	.849
	q75	.928	.858	.032	28.746*	.736
	q78	.911	.844	.033	27.721*	.712
	q81	1.000	.866	-	-	.751
	q82	1.008	.842	.040	25.170*	.709
	q83	.973	.844	.039	25.250*	.712
	q84	.965	.817	.040	23.897*	.668
	q88	.881	.757	.042	21.092*	.573

Note. * significant at $p<.05$

With the exception of minor cases, the squared multiple correlations of indicators reached the threshold of .50. This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator.

Regarding factor loading, the results for this analysis found relatively higher indicator loadings for the component of partial structural model with their indicators. The analysis indicated that work performance system predicted institutional performance ($\beta = .75$, $p < .001$). This suggestes that when higher education institutions adapt the work performance system, their performance will enhance dramatically.

4.16.2 Summary for Research Question 3

The result of analysis for research question 3 confirmed that there is a significant effect of work performance system on institutional performance. The analysis also indicated that work performance system predicted 56% of institutional performance ($\beta = .75$, $p < .001$; $\chi^2 = .56$)

4.17 Results of Analysis for Research Question 4

Are (a) concern for employees, (b) concern for customers, (c) service performance, (d) customer knowledge, and (e) helping behavior mediating the relationship between work performance system in strategic human resource management and institutional performance?

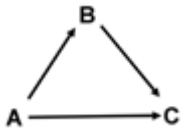
4.17.1 Effect of Work Performance System on Institutional Performance with Mediated Effect (Indirect Effects)

Having been satisfied with the causal structural relationship between exogenous and endogenous variables, the researcher tested the model again but with partial mediation (concern for customers and service performance). This hypothesized structural effect

led to a proposal of a partially mediated model in which concern for customers and service performance were modeled as mediators between the work performance system construct and institutional performance construct. This partially mediated model was proposed based on Baron and Kenny's (1986) three required conditions for mediation effects; these conditions are:

1. The independent variable must affect the mediating variable. In this instance, the high performance work system construct must affect the concern for customer and service performance.
2. The independent variable must affect the dependent variable. In this model, the work performance system construct must have effect on the outcome variable (institutional performance).
3. The mediator must have effect on the dependent variable. In this case, concern for customer and service performance must affect institutional performance.

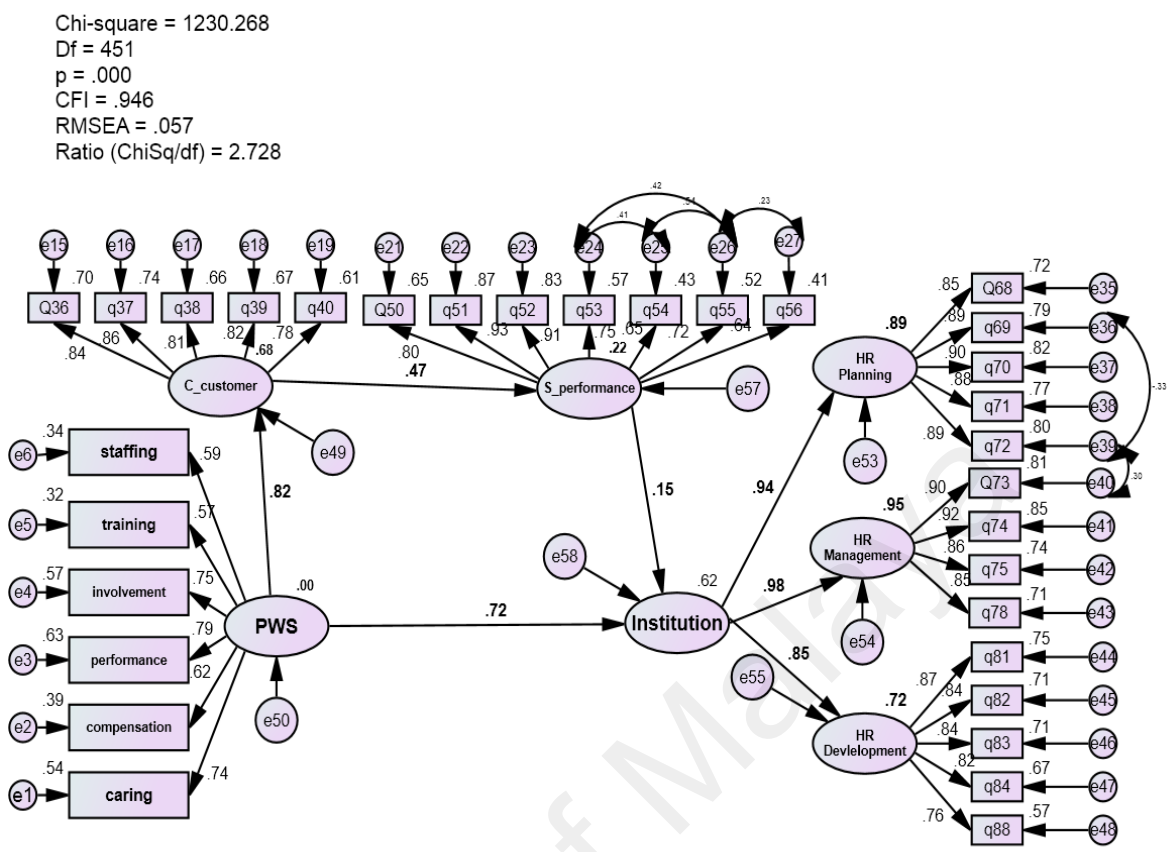
When these conditions for mediation proposed by Baron and Kenny (1986) were examined, it appeared that the three conditions were met. Thus, testing mediation effect using SEM requires significant correlations between independent variable, mediating variable, and the ultimate dependent variable (Hair et al., 1998). Furthermore, according to Baron and Kenny (1986), there are three equations indicating the test of relationship of the mediation model. A meditational model is a causal model, whereby it is hypothesized that A "causes" B and that B then "causes" C. However, four conditions were introduced by Holmbeck (1997) and MacKinnon, Chondra, Jeanne, Stephen, and Virgil (2002) for using mediated variables in the model.



Four conditions must be met for B to be a mediator:

1) A (predictor) is significantly associated with C
2) A (predictor) is significantly associated with B
3) B is significantly associated with C (after controlling for A)
4) The impact of A on C is significantly less after controlling for B

(A= PWS, B = customer knowledge and service performance and C = Institutional performance) SEM is appropriate to use when the researcher has multiple measures for each of the constructs. Results of the effect of work performance systems on institutional performance with the presence of mediators, namely, concern for customers and service performance are analyzed in Figure 4.16 and Table 4.21 χ^2 = 1230.268, *df* = 451, *p* = .001. Interestingly, for structural model with partial mediator variables, chi-square, the normed chi-square (χ^2/df) showed a value of 2.728. This value falls within the acceptable ratio of less than 5.0 for χ^2/df value (Hair et al., 1998). The CFI was 0.946 which is incremental fit indices and this value has exceeded the recommended level of 0.90. For the badness-of-fit index, Root Mean Square Error of Approximation (RMSEA), the value of .057 was well below 0.08. The researcher accepted the model as a fit model and continued totet the full conceptual framework. It is worth mentioning that the chi-square value was expected to be significant due to large sample size.



Note. HR = human resource, PWS = work performance system, q36 to q88 represented items of the model

Figure 4.16: Structural model of exogenous and endogenous variables with partial mediators (concern for customers, service performance)

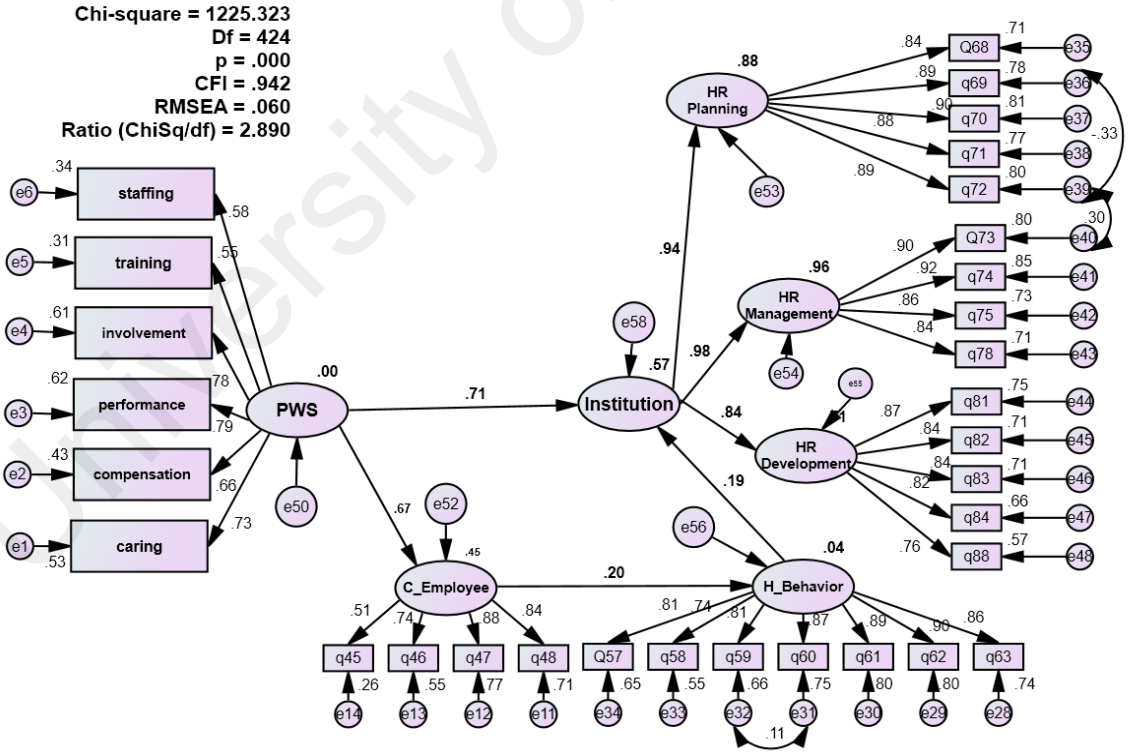
The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for partial structural equation modeling were examined and presented in Table 4.21. The examination of squared multiple correlations of this model indicated that the overwhelming majority of indicators achieved the minimum threshold required (.50). This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. As for factor loading, the results for this analysis found relatively higher indicator loadings for the component of partial structural model with their indicators.

Table 4.21: Indicator Loading for Partial Structural Model

Model	Items	Unstandardized	Standardized	Standard Error	Critical ration	Square multiple Correlation
Partial structu-ral model	Concerned customer	1.028	.822	.065	15.912*	.675
	Service performance	.469	.471	.046	10.169*	.221
	Institution	.860	.718	.062	13.841*	.618
	Institution	.140	.146	.035	4.063*	.618
	HR Planning	1.000	.941			.886
	HR Management	1.104	.977	.047	23.714*	.954
	HR Development	.923	.846	.048	19.379*	.716
	caring	1.000	.735			.540
	compensation	.797	.625	.058	13.859*	0391
	performance	.955	.793	.054	17.722*	.630
	involvement	.885	.754	.053	16.819*	.568
	training	.713	.568	.057	12.562*	.323
	staffing	.780	.587	.060	12.989*	.344
	Q36	1.000	.839			.703
	q37	1.059	.861	.043	24.564*	.741
	q38	.982	.810	.044	22.349*	.656
	q39	.976	.821	.043	22.805*	.674
	q40	.949	.782	.045	21.202*	.612
	Q50	1.000	.804			. 646
	q51	1.095	.934	.042	26.164*	873
	q52	1.061	.913	.042	25.379*	.833
	q53	.898	.753	.046	19.363*	.567
	q54	.775	.653	.048	16.134*	.426
	q55	.836	.721	.046	18.305*	.520
	q56	.752	.640	.048	15.763*	.409
	q68	1.000	.846			.716
	q69	1.019	.887	.037	27.262*	.786
	q70	1.034	.903	.036	28.449*	.815
	q71	1.066	.880	.039	27.090*	.774
	q72	1.069	.894	.039	27.726*	.800
	q73	1.000	.898			.806
	q74	.993	.921	.029	34.099*	.849
	q75	.928	.858	.032	28.799*	.737
	q78	.912	.845	.033	27.834*	.714
	q81	1.000	.867			.752
	q82	1.008	.842	.040	25.231*	.710
	q83	.972	.844	.038	25.292*	.712
	q84	.964	.817	.040	23.937*	.668
	q88	.882	.758	.042	21.159*	.575

Note. q36- q88 represented items of the model**,*** Significant at $p < .05$

The effects of work performance system on institutional performance with mediators concern for employees and helping behavior are presented in Figure 4.17 and Table 4.21 where χ^2 =1225.323, *df* = 424, *p*= .001. The results show that for the structural model with partial mediator variables, chi-square, the normed chi-square (χ^2/df) showed a value of 2.890. This value falls within the acceptable ratio of less than 5.0 for χ^2/df value (Hair et al., 1998). The CFI was 0.942 which is the incremental fit index and this value has exceeded the recommended level of 0.90. For the badness-of-fit index, Root Mean Square Error of Approximation (RMSEA), the value of .060 was below 0.08. The researcher accepted the model as a fit model and continued to test the full hypothesized model. It is worth mentioning that the chi-square value was expected to be significant due to large sample size.



Note. HR= human resource, PWS= work performance system, q45 to q88 represented items of the model

Figure 4.17: Structural model of exogenous and endogenous variables with partial mediators (concern for employees, helping behavior).

The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for partial structural equation modeling were examined and presented in the following Table 4.22.

Table 4.22: Indicator Loading for Partial Structural Model

Model	Item	Unstandardized	Standardized	Standard error	Critical ration	Squared multiple correlation
partial	C-Employee	.862	.669	.067	12.884*	.000
Structural	H-Behavior	.185	.196	.045	4.155*	.468
model	Institution	.843	..709	.061	13.865*	.038
	Institution	.187	.191	.034	5.544*	.571
	HR Planning	1.000	.937			.706
	HR Management	1.111	.980	.047	23.404*	.961
	HR Development	.922	.840	.048	19.062*	.879
	Caring	1.000	.731			.571
	Compensation	.854	.659	.059	14.415*	.665
	Performance	.953	.787	.055	17.215*	.710
	Involvement	.920	.778	.054	17.036*	.707
	Training	.699	.553	.058	12.069*	.749
	Staffing	.774	.579	.061	12.651*	.709
	q48	1.000	.842			.709
	q47	1.049	.876	.046	22.682*	.767
	q46	..868	.741	.046	18.732*	.548
	q45	.620	.510	.052	11.842*	.260
	q63	1.000	.859			.737
	q62	1.066	.897	.037	28.559*	.805
	q61	1.043	.894	.037	28.556*	.799
	q60	1.069	.868	.040	26.761*	.754
	q59	.987	.811	.042	23.650*	.658
	q58	.903	.744	.044	20.674*	.554
	Q57	.935	.807	.040	23.573*	.612
	Q68	1.000	.844	-	-	.712
	q69	1.020	.885	.038	26.996*	.784
	q70	1.034	.901	.037	28.155*	.812
	q71	1.066	.878	.040	26.834*	.771
	q72	1.070	.893	.039	27.460*	.797
	Q73	1.000	.896		-	.803
	q74	.994	.921	.029	33.860*	.848
	q75	.927	.856	.033	28.462*	.732
	q78	.911	.842	.033	27.498*	.709
	q81	1.000	.865		-	.749
	q82	1.008	.841	.040	25.011*	.707
	q83	.973	.842	.039	25.105*	.710
	q84	.964	.815	.041	23.735*	.665
	q88	.881	.755	.042	20.970*	.571

Note. q36- q88 represented items of the model**;** * Significant at $p < 05$

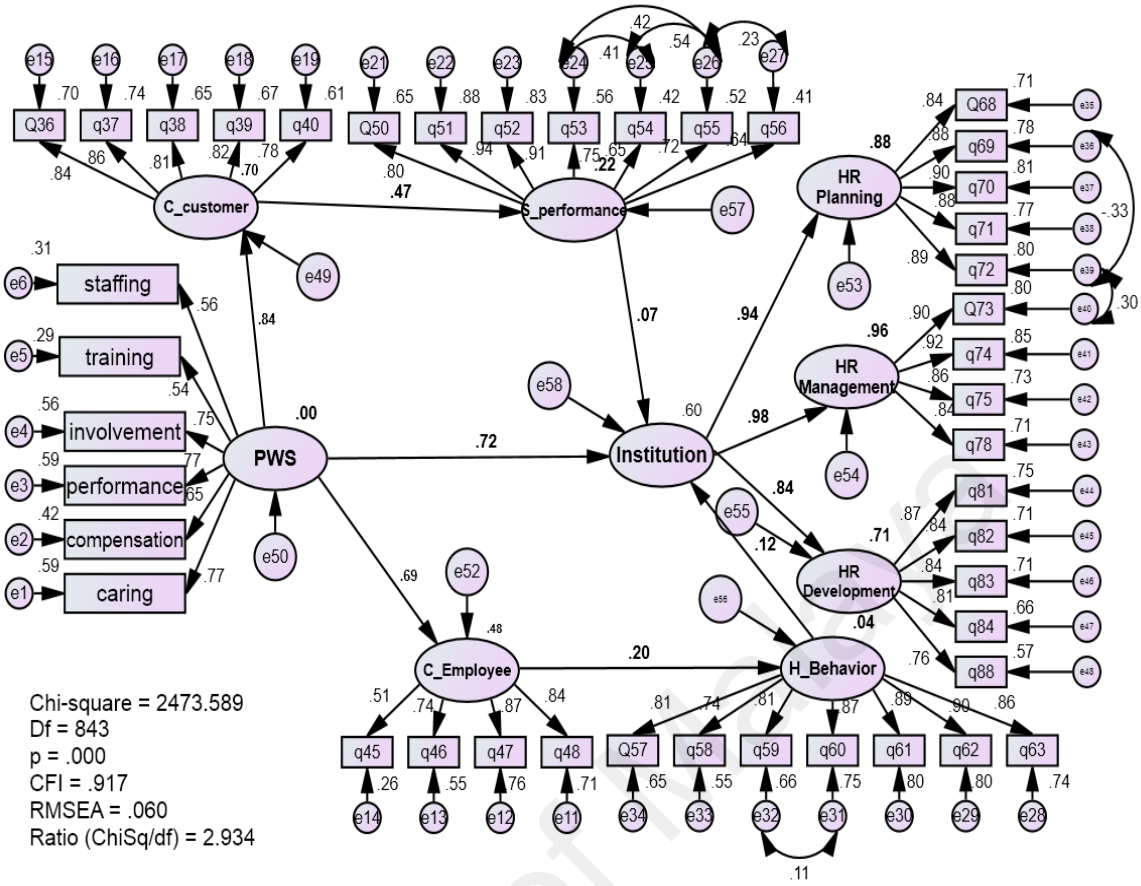
Examination of squared multiple correlations of this model suggested that the great majority of indicators achieved the minimum threshold required (.50). This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. Although two items did not meet the .50 cut-off, these items were retained considering that they were important indicators and the content validity associated with these items was high. This was also because other estimates such as factor loading, variance extracted and composite reliability remained satisfactory. With regard to factor loading, the results for this analysis found relatively higher indicator loadings for the component of partial structural model with their indicators.

4.17.2 Mediating Effect of Concern for Employees, Concern for Customers, Service Performance, Customer Knowledge and Helping Behavior on the Relationships between Work Performance System and Institutional Performance

In order to answer research question four, structural equation modeling was also used. The objective of this analysis was to examine the effects of work performance system on institutional performance with consideration of the indirect effects between both variables through concern for customers, concern for employees, service performance and helping behavior. The findings of analysis revealed that the structural model with mediator variables fit the data as shown in Figure 4.18. More precisely, the result showed chi-square $\chi^2 = 2473.589$, $df = 834$, $p = .001$. The normed chi-square (χ^2/df) showed a value of 2.934. This value falls within the acceptable ratio of less than 5.0 for χ^2/df value (Hair et al. 1998). The CFI was 0.917 which is the incremental fit index and this value has exceeded the recommended level of 0.90. For the badness-of-fit index,

Root Mean Square Error of Approximation (RMSEA), the value of .060 was well below 0.08. The researcher accepted the model as a fit model and continued to test the full conceptual framework. It is worth mentioning that the chi-square value was expected to be significant due to large sample size. The examination of squared multiple correlations of this model indicated that the overwhelming majority of indicators achieved the minimum threshold required (.50). This indicated that most of the latent factors in this analysis accounted for more than half of the explained variance in each indicator. With regard to factor loading, the results for this analysis found relatively higher indicator loadings for the component of partial structural model with their indicators.

The result of analysis indicated substantial direct relationship between work performance system and institution ($\beta = .72$, $p = .001$). This finding suggested that if an institution adapts the work performance system that would facilitate its performance. Furthermore, the research also suggested that mediator variables play a significant role in mediating the relationship between work performance system and institutional performance. According to the finding, adaptation of work performance system leads to concern for employees ($\beta = .69$, $p = .001$) which also enhances employee helping behavior ($\beta = .20$, $p = .001$) and consequently promotes institutional performance ($\beta = .12$, $p = .001$). Similarly, work performance system boosted concern for customers' habit ($\beta = .84$, $p = .001$) which leads to service performance ($\beta = .47$, $p = .001$) and consequently affects institutional performance ($\beta = .07$, $p = .05$). According to these findings, mediator variables play an important role in mediating effects of work performance system on institutional performance.



*Note***.** HR= human resource, PWS= work performance system, q36 to q88 represented items of the model

Figure 4.18: Structural model of exogenous and endogenous variables with partial mediators (concern for customers, service performance, concern for employees, helping behavior)

Table 4.23 displays the direct and indirect relationships among the factors of this analysis. As obvious from the table, there are substantial relationships among the target variables.

Table 4.23: Indicator Loading of Direct and Indirect Effects

Item			Unstandardized	Standardized	S.E.	C.R.	Squared multiple correlation
C-Employee	<---	PWS	.849	.693	061	14.000*	481
C-customer	<---	PWS	.998	.835	.059	17.013*	.698
H-Behavior	<---	C-Employee	.193	..204	.045	4.322*	.041
S-performance	<---	C-customer	.470	.471	.046	10.178*	.221
Institution	<---	PWS	.812	.720	.056	14.158*	.602
Institution	<---	S-performance	.065	.069	.034	1.921*	..602
Institution	<---	H-Behavior	.114	.118	.032	3.572*	..602
Planning	<---	Institution	1.000	.938	-	-	.881
Management	<---	Institution	1.107	.977	.047	23.380*	..955
Development	<---	Institution	.924	.842	.048	19.104*	.710
caring	<---	PWS	1.000	.769	-	-	.592
compensation	<---	PWS	.792	.650	.053	15.069*	.422
performance	<---	PWS	..886	.771	.048	18.289*	.594
involvement	<---	PWS	..838	.747	.048	17.650*	.558
training	<---	PWS	.648	.520	.053	12.303*	.292
staffing	<---	PWS	.710	.540	.056	12.767*	.313
q48	<---	C-Employee	1.000	.842	-	-	.709
q47	<---	C-Employee	1.044	.872	.046	22.694*	.760
q46	<---	C-Employee	870	.743	.046	18.812*	.551
q45	<---	C-Employee	.625	.514	.052	11.954*	.264
q36	<---	C-customer	1.000	.838	-	-	.703
q37	<---	C-customer	1.059	.861	.043	24.573*	.740
q38	<---	C-customer	.982	.809	.044	22.320*	.655
q39	<---	C-customer	.978	.822	.043	22.851*	.675
q40	<---	C-customer	.950	.782	.045	21.213*	.612
q50	<---	S-performance	1.000	.804	-	-	.646
q51	<---	S-performance	1.096	.936	.042	26.236*	.876
q52	<---	S-performance	1.060	.912	.042	25.388*	.832

Table 4.23: (Continued)
Indicator Loading of Direct and Indirect Effects

Item			Unstandardized	Standardized	S.E.	C.R.	Squared multiple correlation
q53	<---	S-performance	.896	.752	.046	19.335*	.565
q54	<---	S-performance	.773	.651	.048	16.100*	.424
q55	<---	S-performance	.834	.720	.046	18.281*	.519
q56	<---	S-performance	.750	.638	.048	15.730*	.408
q63	<---	H-Behavior	1.000	.859	-	-	.738
q62	<---	H-Behavior	1.066	.897	.037	28.579*	.805
q61	<---	H-Behavior	1.043	.894	.037	28.391*	.799
q60	<---	H-Behavior	1.069	.868	.040	26.770*	.754
q59	<---	H-Behavior	.986	.811	.042	23.642*	.657
q58	<---	H-Behavior	.902	.743	.044	20.654*	.553
q57	<---	H-Behavior	.935	.807	.040	23.570*	.651
q68	<---	Planning	1.000	.844	-	-	.712
q69	<---	Planning	1.019	.884	.038	26.919*	.782
q70	<---	Planning	1.034	.901	.037	28.100*	.812
q71	<---	Planning	1.066	.877	.040	26.760*	.770
q72	<---	Planning	1.070	.893	.039	27.402*	.797
q73	<---	Management	1.000	.896	-	-	.802
q74	<---	Management	.993	.920	.029	33.695*	.846
q75	<---	Management	.928	.855	.033	28.401*	.732
q78	<---	Management	.911	.842	.033	27.448*	.712
q81	<---	Development	1.000	.865	-	-	.749
q82	<---	Development	1.008	.840	.040	24.971*	.706
q83	<---	Development	.972	.841	.039	25.037*	.708
q84	<---	Development	.964	.815	.041	23.686*	.664
q88	<---	Development	.881	.755	.042	20.940*	.570

Note.: q48- q88 represented items of the model

* Significant at $p < .05$

4.17.3 Size of Moderating Effect of the Four Mediators on the Relationship between Work Performance System and Institutional Performance

The sizes of mediating effect of concern for customers, service performance, concern for employees and helping behavior on the relationship between work performance system and institutional performance were further analyzed. Results of the analysis are presented in Table 4.24.

Table 4.24: Direct, Indirect and Total Effect

Standardized effect	Work Performance System → Institutional Performance
Direct effect	.718*
Indirect effects	.046*
Total effect	.764*

Note. * Significant at $p<.05$

The results in Table 4.24 indicate that there is a standardized direct effect of the relationship between work performance system and institutional performance ($\beta = .718$, $p < .05$). With the inclusion of the four mediators, the relationship increased .046 unit to a larger effect size ($\beta = .718$, $p < .05$). The results indicate that the four variables (concern for customers, service performance, concern for employees and helping behavior) significantly mediated the relationship between work performance system and institutional performance, and the effect is positive. In other words, the four variables are significant mediators that enhance the relationship between work performance system and institutional performance.

4.17.4 Summary of Research Question 4

In summary, the analysis of the entire model indicated the model fit the data. The results showed that four mediator variables such as concern for employees, concern for customers, service performance, and helping behavior, play a pivotal role in mediating between work performance system and institutional performance; moreover the results showed that the customer knowledge has no direct effect on institutional performance.

4.18 Full Conceptual Framework

4.18.1 Results of Analysis for Research Question 5

Is the hypothesized model of the relationships between work performance system and institutional performance of higher institution applicable to the population of higher education institutions in Sultanate of Oman?

4.18.2 Convergent validity of the model

Before data analysis on the full model, validity (convergent and discriminant) is explained to ensure that the model has high validity. Convergent validity test like Crombach's alpha measures the internal consistency of the items within one construct. It is a measure of whether constructs that theoretically should be related to each other are, in fact observed to be related. Evidence for convergent validity was confirmed based on the factor loadings of all observed variables. The researcher determined convergent validity from the measurement model by examining whether each indicator's estimated loading on its posited underlying factor was large.

Anderson and Gerbing (1988) suggest that parameter estimates should be high in value and *t*-values should be statistically significant. The standardized factor loading should be significantly linked to the latent construct and have at least factor loading of .50 and ideally exceed .70 and be statistically significant at the .001 level (Hair et al.,

1998). Therefore, the items with low factor loading were automatically discarded from the measurement model because low factor loading indicate potential problems. The results of measurement models for all the components suggested that all factor loadings fulfill the requirement of .50 as previously highlighted. The measures in the resulting measurement model showed acceptable convergent validity, with each measure being significantly related to its underlying factor and *t*-values were statistically significant.

Furthermore, the squared multiple correlation (item reliability) in the CFA model was also investigated. Item reliability refers to the value that represents the extent to which an observed indicator's variance is explained by the underlying construct (Hair et al., 1998). The squared multiple correlations of indicators in the measurement model were higher than the acceptable level of .50 (Bolen, 1990). This suggested that the latent constructs in the study accounted for more than half of the explained variance in each indicator. As shown in Table 4.25, all standardized loading estimates were statistically significant and the majority of estimates except for minor cases fulfilled the requirement of convergence of $\geq$ 0.50, indicating that all the items converge on the intended construct that was measured.

Table 4.25: Standardized Estimate, Standard Error and Critical Ratio

			Estimate	S.E.	C.R.	*p*
C_Employee	<---	PWS	.848	.061	13.987	***
C_customer	<---	PWS	.999	.059	17.026	***
H_Behavior	<---	C_Employee	.192	.045	4.306	***
S_performance	<---	C_Knowledge	.638	.052	12.249	***
S_performance	<---	C_customer	.222	.037	6.032	***
Institution	<---	PWS	.805	.055	14.648	***
Institution	<---	S_performance	.083	.033	2.493	.013
Institution	<---	H_Behavior	.107	.032	3.336	***
HR_Planning	<---	Institution	1.000			
HR_Management	<---	Institution	1.106	.048	23.033	***
HR_Development	<---	Institution	.924	.049	18.851	***
Caring	<---	PWS	1.000			
compensation	<---	PWS	.793	.053	15.107	***
Performance	<---	PWS	.886	.048	18.293	***
Involvement	<---	PWS	.838	.047	17.651	***
Training	<---	PWS	.648	.053	12.300	***
Staffing	<---	PWS	.709	.056	12.763	***

Note. *** * Significant at $p < .001$

To substantiate the size of factor loadings as an indicator of convergent validity, average variance extracted (AVE) and construct reliability (CR) were examined. The AVE and construct reliability of the indicators are shown in Table 4.25. An AVE of .50 or higher suggested adequate convergence while a construct reliability of .70 or higher indicated good reliability (Hair et al., 2010). Reliability between .60 and .70 may be adequate if other indicators of a model's construct validity are good (Hair et al., 1998).

4.18.3 Discriminant Validity of the model

Discriminant validity is conceptualized as the extent to which a construct is truly distinct from other constructs. To measure discriminant validity, chi-square difference

test was performed on the nested models. Three models that were specified provided evidence for discriminant validity. The first structural model was performed to establish the relationship between exogenous and endogenous variables without mediators. The second structural model was employed to evaluate the relationship between exogenous and endogenous variables with partial mediator variables. The third model is the full conceptual framework which contained exogenous, endogenous and all mediator variables. The chi-squares for these models were observed, recorded and compared with each other. It is obvious from the results of analyses that major differences exist among the values of chi-square due to differences of the models and the numbers of variables contained in each model.

4.18.4 The Full Model of Relationship Between Work Performance System and Institutional Performance

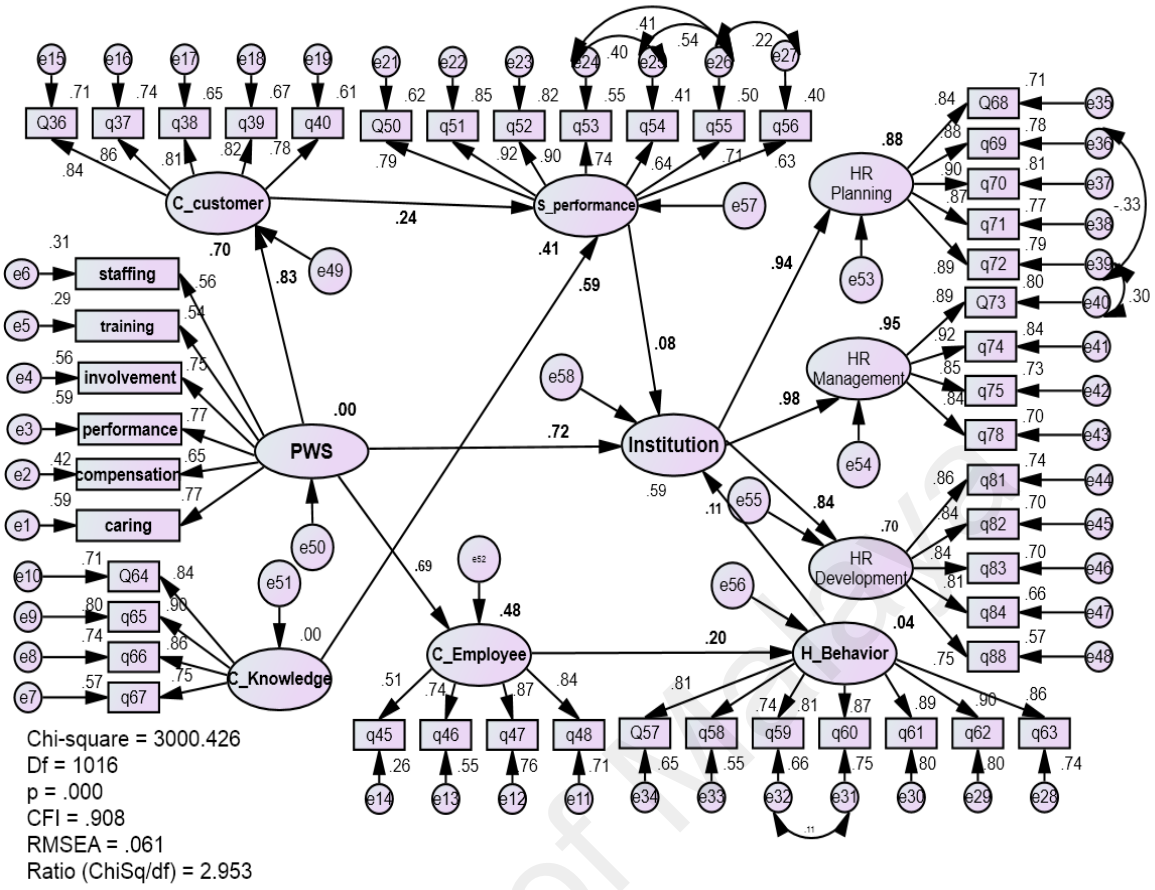
After testing the causal relationship between exogenous and endogenous variable model and partial mediation model and obtaining satisfactory result of the model, the researcher tested the full conceptual framework. This model contained 47 indicators and they were simultaneously analyzed to examine the suitability of the model and its goodness of fit indices.

Research model testing and analyses were conducted through three general approaches. First, the proposed model analyses were conducted using covariance's and the most widely used maximum-likelihood estimation method with AMOS 20. Second, the model development strategy was followed using model re-specification procedure which aims at identifying the source of misfit and then generate a model that achieves better fit of data (Byrne, 2001). Based on Bollen's (1990) recommendation, this model examined multiple indices of model fit because a model may achieve good fit on a particular fit index but be inadequate on others. The selection of indices for this study

was based on the recommendations of Hu and Bentler (1995) and Hair et al. (1998). As previously highlighted, for model acceptance and goodness of fit for the empirical data, both the measurement and structural model should meet the requirements of selected indices. Following the suggestion of McIntosh (2007), the first overall test of model fit selected was the chi-square test. A significant chi-square statistic indicates a poor model fit. As the chi-square test is extremely sensitive to sample size (Bentler 1990), the chi-square normalized by degrees of freedom (χ^2/df) was also used. An acceptable ratio for χ^2/df value should be less than 5.0 (Hair et al., 1998).

According to Hair et al. (1998), researchers should report at least one incremental index and one absolute index, in addition to the chi-square value; at least one of the indices should be a badness-of-fit index. For the badness-of-fit index, RMSEA was chosen as it often provides consistent results across different estimation approaches. Following this guideline, other than chi-square and normed χ^2/df value, model fit for the present study was examined using multiple indices including Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) (Hu & Bentler, 1995). Following common practice, acceptable model fit is indicated by value greater than $\geq$ .90 for CFI and a value of less than .08 for RMSEA. However, a cut-off value close to .95 for CFI; and a cut-off value close to .06 for RMSEA are needed to support existence of a relatively good fit between the conceptual framework and the observed data (Hu & Bentler, 1995). In this study, the more stringent criteria proposed by Hu and Bentler (1995) for approximate fit indices were adopted to examine the appropriateness of the structural model.

The results in Figure 4.19 indicated that the model fit the data well (RMSEA = .061; CFI = .908; ratio = 2.95). It means that model can significantly be applied to the population of this study.



Note.HR= human resource, PWS = work performance system, q36 to q88 represented items of the model

Figure 4.19: The full conceptual framework.

The unstandardized and standardized regression weight, standard error, critical ratio and squared multiple correlation for partial structural equation modeling were examined and presented in Table 4.26. With the exception of minor cases, the squared multiple correlations of indicators reached the threshold of .50. This indicated that most of the indicators in this analysis accounted for more than half of the explained variance in each indicator. With regards to factor loading, the results for this analysis found relatively higher indicator loadings for the component of partial structural model with their indicators. Also, deleting these indicators would leave the model uncompleted as was hypothesized. Hence, the researcher decided to retain these indicators.

The result of analysis in Figure 4.19 and Table 4.26 indicated substantial direct relationship between work performance system and institution ((β = .72, p = .001). This finding suggested that if an institution adopted the work performance system, that would facilitate its performance. Furthermore, the research also suggested that mediator variables play a significant role in mediating the relationship between work performance system and institutional performance. According to the finding, adoption of work performance system leads to concern for employees (β = .96, p <.001) which will also enhance employees' helping behavior (β = .20, p < .001) and consequently promote institutional performance (β = .11, p < .001). Similarly, the work performance system boosted concern for customers' habit (β = .83, p <.001) hence leading to service performance (β = .24, p <.001) and consequently affecting institutional performance (β = .08, p < .001). According to these findings, mediator variables play an important role in mediating effects of work performance system on institutional performance.

Table 4.26: Indicator Loading for Full Hypothesized Structural Model

Variables			Unstandardized	Standardized	S.E	C. R	SMC
C-Employee	<---	PWS	.848	.693	.061	13.987*	.576
C-customer	<---	PWS	.999	.834	.059	17.026*	.696
H-Behavior	<---	C-Employee	.192	.203	.045	4.306*	.560
S-performance	<---	C-Knowledge	.638	.594	.052	12.249*	.480
S-performance	<---	C-customer	.222	.236	.037	6.032*	.000
Institution	<---	PWS	.805	.724	.055	14.648*	.041
Institution	<---	S-performance	.083	.084	.033	2.493*	.408
Institution	<---	H-Behavior	.107	.111	.032	3.336*	.591
Planning	<---	Institution	1.000	.937	-	-	.878
MNG	<---	Institution	1.106	.977	.048	23.033*	.954
DVLP	<---	Institution	.924	.839	.049	18.851*	.704
caring	<---	PWS	1.000	.770	-	-	.592
compensation	<---	PWS	.793	.651	.053	15.107*	.424
performance	<---	PWS	.886	.771	.048	18.293*	.594
involvement	<---	PWS	.838	.747	.047	17.651*	.558
training	<---	PWS	.648	.540	.053	12.300*	.292
staffing	<---	PWS	.709	.559	.056	12.763*	.313
q67	<---	C-Knowledge	1.000	.752	-	-	.566
q66	<---	C-Knowledge	1.124	.862	.055	20.503*	.744
q65	<---	C-Knowledge	1.161	.897	.054	21.340*	.805
Q64	<---	C-Knowledge	1.091	.844	.054	20.030*	.713
q48	<---	C-Employee	1.000	.842	-	-	.709
q47	<---	C-Employee	1.044	.872	.046	22.697*	.760
q46	<---	C-Employee	.870	.743	.046	18.815*	.551
q45	<---	C-Employee	.625	.513	.052	11.947*	.263
Q36	<---	C-customer	1.000	.840	-	-	.705
q37	<---	C-customer	1.060	.863	.043	24.734*	.745
q38	<---	C-customer	.977	.807	.044	22.258*	.651
q39	<---	C-customer	.973	.819	.043	22.791*	.671
q40	<---	C-customer	.948	.782	.045	21.238*	.612
Q50	<---	S-performance	1.000	.786	-	-	.618
q51	<---	S-performance	1.090	.922	.045	24.357*	.850
q52	<---	S-performance	1.063	.904	.045	23.798*	.817
q53	<---	S-performance	.908	.742	.049	18.443*	.551
q54	<---	S-performance	.785	.640	.051	15.396*	.409
q55	<---	S-performance	.847	.709	.049	17.419*	.503
q56	<---	S-performance	.766	.630	.051	15.137*	.396
q63	<---	H-Behavior	1.000	.859	-	-	.738
q62	<---	H-Behavior	1.066	.897	.037	28.581*	.805
q61	<---	H-Behavior	1.043	.894	.037	28.395*	.799
q60	<---	H-Behavior	1.069	.868	.040	26.771*	.754
q59	<---	H-Behavior	.986	.811	.042	23.641*	.657
q58	<---	H-Behavior	.902	.743	.044	20.653*	.553
Q57	<---	H-Behavior	.935	.807	.040	23.570*	.651
Q68	<---	Planning	1.000	.841			.707
q69	<---	Planning	1.019	.882	.038	26.577*	.778
q70	<---	Planning	1.034	.899	.037	27.752*	.808
q71	<---	Planning	1.066	.875	.040	26.428*	.766
q72	<---	Planning	1.070	.890	.040	27.055*	.793
Q73	<---	MNG	1.000	.893	-	-	.798
q74	<---	MNG	.993	.918	.030	33.221*	.843
q75	<---	MNG	.928	.852	.033	28.008*	.726
q78	<---	MNG	.911	.839	.034	27.074*	.703
q81	<---	DVLP	1.000	.863	-	-	.745
q82	<---	DVLP	1.008	.838	.041	24.702*	.702
q83	<---	DVLP	.972	.839	.039	24.768*	.704
q84	<---	DVLP	.964	.812	.041	23.433*	.659
q88	<---	DVLP	.881	.752	.043	20.719*	.565

Note. MNG = Mangement, DVLP = Development, q 67- q88 represented items of the model. * Significant at $p < .05$

Analysis of the structural model revealed chi-square χ^2 = 3000.426, *df* = 1016, *p* = .001, χ^2/df = 2.953, CFI = 0.908 and RMSEA = 0.061). This chi-square suggested that the model did not fit the empirical data. The overall model chi-square was 3000.426 with 1016 degrees of freedom. The *p*-value associated with the chi-square was 0.001. This significant *p*-value did not indicate that the observed covariance matrix matches the estimated covariance matrix in the empirical data (Hair et al., 1998).

However, it is recommended that other model fit indices should be scrutinized closely given sensitivity of the chi-square especially to large sample size (Byrne, 2001). For this full hypothesized structural model, the normed chi-square (χ^2/df) as previously highlighted showed a value of 2.953. This value falls within the acceptable ratio of less than 5.0 for χ^2/df value (Hair et al. 1998). The CFI was 0.908 which is the incremental fit index and this value has exceeded the recommended level of 0.90. For the badness-of-fit index, Root Mean Square Error of Approximation (RMSEA), the value of 0.061 was well below 0.08. The goodness of fit indices indicated that the model was fit since it displayed higher values of goodness of fit indices and it lacked evidence of any offending estimates, such as negative variance in the results.

4.18.5 Summary of Results of Research Question 5

In summary, the analysis of the entire model indicated the model fit the data. The result showed that work performance system causally, statistically and positively related to institutional performance. It also suggested that mediator variables such as concern for employees and concern for customers play a pivotal role in mediating between work performance system and institutional performance. Also, the result showed that concern for customers and concern for employees have no direct relationship with institutional performance but they are influencing it through employees' helping behavior and service performance respectively. Finally, the findings showed that customer knowledge

has no direct effect on institutional performance; however, it influences institutional performance through service performance. Therefore it is also an important factor of institutional performance.

4.19 Summary

Chapter four described analyses of the collected data and presented the findings. The researcher performed measurement model and structural model tests on the collected data. The study aimed at investigating the relationship between work performance system and institutional performance. It also attempted to examine the role of the mediator variables in linkage between work performance system and institutional performance. Many high statistical methods were used to achieve the objective but the most significant ones were Confirmatory Factor Analysis (CFA) and Structural Equation Modeling. The researcher used the first method to test the measurement model of each construct in the study before they can be combined for the structural model, while the second method was employed to test the entire constructs involved simultaneously. The result of analysis indicated that the both measuremet and structural models fit the data properly. These findings suggested that work performance system caused institutions of higher learning to achieve high performance. It also indicated that mediator variables were extremely important if the institution of higher learning were to achieve its objectives. Furthermore, the findings also showed that the underlying latent variables were psychometrically sound as hypothesized and found in the pilot study. The correlation analysis showed many significant relationships among the factors of the study and the discussion of these factors will be presented in Chapter five.

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this final chapter, the results of the current study are summarized and discussed. Information about the findings and the statistical analyses are explained. The research questions guiding this study are discussed in terms of the findings. The limitations of the study and recommendations for future research are presented.

Ultimately, this study investigated the role of work performance system in strategic management on institutional performance in the Sultanate of Oman. Precisely, the study examined work performance system impact on human resources' staff performance. As explicitly highlighted in the literature review, many empirical studies have garnered evidence supporting that work performance system or systems of human resource practices including comprehensive recruitment and selection procedures, incentive compensation and performance management systems and extensive employee involvement and training enhance employee ability, motivation, commitment, opportunities to contribute and institutional performance (Batt, 2002; Boxall & Purcell, 2002; Huselid, 1995). Therefore, this chapter will discuss the findings presented in chapter four in line with previous studies.

It is worth mentioning that the current study was conducted on Ministry of Education staff in the Sultanate of Oman. Therefore, the study attempted to examine the impacts of staffing, training, involvement in decision making, performance appraisal, compensation and caring on institutional performance. The study tested a proposed model to identify whether it fitted the education sector as it did for the industrial sector. Thus, the findings of this study will be explained in light of the Omani educational system, although they could be generalized to other similar situations.

5.2 Discussions of Findings

The ultimate goal of this study was to investigate the relationship between work performance system and higher education institutional performance in the Sultanate of Oman. As was previously highlighted the work performance system factors consisted of staffing, training, involvement in decision making, performance appraisal, compensation and caring. Some 531 administrators aged between 20 to 51 were randomly selected from the human resource department at the Ministry of Education of Oman. The questionnaires were administered to them to collect data on the aforementioned factors. The collected data were then analyzed using descriptive statistics, Confirmatory Factor Analysis, and the Structural Equation Model (SEM). The findings of the study are consistent with previous studies which suggested that work performance system positively and statistically related to the institutional performance.

5.3 Dimensionality of the Constructs

5.3.1 Finding 1

The results of the Confirmatory Factor Analysis (CFA) demonstrated that each construct was found to be within the one-dimensional construct. The analysis indicated that the work performance system items were statistically and significantly loaded into their respective factors. Unlike in Exploratory Factor Analysis, the items were controlled and placed in their respective factors based on theoretical underpinning and familiarity with the topic under study. In other words, a confirmatory factor analyst starts the analysis with a firm idea about the number of factors in the analysis and which variables are most likely to load into each factor. According to Brown (2006) in Confirmatory Factor Analysis (CFA) the researcher must pre-specify all aspects of the factor model such as the number of factors and patterns of indictor-factor loading.

Hence, the result of analysis as presented in chapter four indicated that fulfilled the requirement of unidimensionality. The items were neatly and significantly loaded as was predetermined and stipulated by previous studies. The unidimensionality of the construct was also replicated by the result of the Structural Equation Model. Additionally, the researcher validated the scales (the questionnaires) by using Confirmatory Factor Analysis (CFA); although the application of sophisticated statistical methods, such as the Structural Equation Model, was very important to test the hypotheses and examine the causal relationship where the simple statistical methods might fail to identify the existing relationships, he believed that more attention should be paid to the measures on which statistical procedures were conducted. By paying more attention to the measures or scales, the researcher empirically proved that the differences found in the study really existed rather than attributing them to measurement or sampling errors (Bond & Fox, 2001). The analysis supported the conceptual design of the inventories since the construct validity of the scales was maintained. In other words, the items measured precisely what they purported to measure, convincing model fit was obtained and analyses of their psychometric properties were validated.

The result was consistent with previous study. According to Chuang and Liao (2010) the predetermined six factor model fit the data well. They found that the confirmatory factor analysis indicated that the hypothesized six factor model fit the data well (χ^2 = 306.17, df = 231, p = .01, RMSEA = .05, NNFI = .96 and CFI = .97. Chuang and Liao (2010) also tested the discriminant validity by comparing the hypothesized six factor model with another model; however, the result suggested that the hypothesized six factor model provided a better fit for the data than the five factor model. Furthermore, as previously stated, the Structural Equation Model confirmed the unidimensionality of each construct in the study. The Structural Model was found to be perfectly fitted. This conclusion is strengthened by lack of evidence of any offending

estimates such as negative variance in the results, an indication that each construct of the model was proved to be a unidimensional construct, thus fulfilling one of the main objectives of using Confirmatory Factor Analysis.

On the other hand, the examination of underlying factors of human resource practices through Confirmatory Factor Analysis and Structural Equation Modeling also found six distinctive underlying factors significantly affecting institutional performance. These factors are staffing, training, involvement in decision making, performance appraisal, compensation and caring. This study found that these factors were substantially affecting institutional performance as previously hypothesized. The analyses of these statistical methods indicated that human resource practices extracted from the data accounted for the majority of the variances in the human resource practices. The Structural Equation Model indicated that standardized regression weight values ranged between .54 to .77 reflecting the high contribution of each factor to the human resource practices construct. More precisely, the standardized regression of caring (.77), compensation (.65), performance appraisal (.77), involvement (.75), training (.54) and staffing (.56) respectively were determined. Interestingly, the correlation table also suggested that correlations among these factors ranged between .41 to .69. This finding highlighted the importance of extracting underlying factors of human resource practices and how they represent the construct under study.

Similarly, several previous studies (Chuang & Liao, 2010; Huselid, 1995; Pfeiffer, 1998) found the same factors. According to the researchers, the underlying factors of the work performance system are recruitment, training, involvement in decision making, performance appraisal, compensation and caring. According to many researchers (Chuang & Liao, 2010; Huselid, 1995; Pfeiffer, 1998) work performance system is a multi-dimensional construct; it includes staffing, training, involvement, performance, compensation, caring and other factors. This finding is supported by the

theories of strategic management in human resource, namely, universalistic theory (Delery & Doty, 1996) and contingency theory (Wright & Snell, 1998). In 1999, Pfeffer and Veiga (1999) highlighted seven of the 15 best practices that were labelled as strategic human resource practices; these 7 practices are employee security, selective hiring, effective use of teams, effective compensation, performance appraisal, training and development and reduction of status differences. Huselid (1995) along with Pfeiffer and Veiga (1999) agreed on many of these best practices outlined; however. Huselid (1995) added more of the best practices. The additional factors are grievance procedures, promotional criteria and employee ownership. According to Huselid (1995) numerous empirical studies have garnered evidence supporting a premise that work performance system including "comprehensive recruitment and selection procedures, incentive compensation, performance management systems and extensive employee involvement and training" (p. 635) are designed to enhance employee ability, motivation and opportunities to contribute could enhance institutional performance.

Furthermore, although Evans and Davis (2005) asserted that work performance system is an integrated system of human resource practices that are internally consistent (alignment among HR practices) and externally consistent (align with organization strategies), its elements consist of but are not limited to selective staffing, self-managed teams, decentralized decision making, extensive training, flexible job design, open communication and performance contingent component. On the other hand, after an extensive review of literature, Chuang and Liao (2010) carefully selected what they called the most influential factors of work performance systems. This study adopted the Chuang and Liao (2010) work performance system model and it was found to have comprehensively examined the construct. As was found in Chuang and Liao (2010, the researcher also found that work performance system is multifaceted and dimensional. Using Confirmatory Factor Analysis, this study indicated that the six distinctive factors

were found to be representing work performance system accounted for more than 70% of the variance of the construct. Moreover, the result of CFA also asserted that the work performance system consisted of six distinctive components because the model well fitted the data since the all statistical indices had values above the recommended threshold and there were no negative errors.

Interestingly, according to the result of structural equation modeling in this study, performance appraisal (β =.771) and caring (β =.770) were the major predictors of work performance system. This finding indicated the importance of performance appraisal and caring for the employees in the construct of work performance system. The finding was in accordance with many previous studies. According to Teclemichael and Soeters (2006) performance appraisal has significant effect on employee outcomes and their performance and can be considered as the most salient and influential factors of the work performance system. Ali et al. (2012) in their study conducted on transportation organization employees in Iran found that the performance appraisal process in the organization influences employee intrinsic motivation (β =.414, p = .001) and enhances their work performance. Lawson (2000) hinted that individual performance and pay have to be in accord as only then is it possible to motivate people enough for them to improve their performance and work quality. This finding is supported by the theories of strategic management in human resource, namely, universalistic theory (Delery & Doty, 1996) and contingency theory (Wright & Snell, 1998).

In addition, it is necessary to grant procedural justice, accuracy and suitability of appraisal procedures and to continuously drive toward a result-driven climate through the shaping and changing of institutional performance appraisal and compensation culture (Boyd & Ken, 2004; Grote, 2000; Weiss, 2001). One antecedent to distributive and procedural justice of performance appraisal is social justice between groups and

employees (Turk, 2005). When an organization fails to compensate and reward employees based on the magnitude of their contributions, then the employees waste their time on getting the desired levels of compensation and not on improving their work.

It was firmly believed that a negative appraisal can have adverse consequences on an employee's sense of self-worth and importance within the work environment. Other job aspects (e.g., work motivation, performance, interpersonal relationships, communication and support of organizational goals) also can be negatively impacted.

The process of appraising performance is "a sequence of interrelated events designed, administered, and operated for the intentional purpose of observing, measuring, and altering employee workplace behavior" (p. 4). Thus, a major indicator of effective human resource use through a viable performance appraisal system is the impact of that system on productivity improvement. Productivity relates directly to the performance of all employees in the organization. Thus, the performance appraisal "is a fundamental requirement for improving the productivity of an organization's human resources because it is through an appraisal that each individual's productivity is evaluated" (Latham & Wexley, 1994, p. 6).

Furthermore, Arshad et al. (2013) in their study on telecom organizations in Pakistan, found a negative and weak correlation between perceived performance appraisal politics on one hand and job satisfaction (β = -0.239, p = .01) and loyalty to supervisor (β = -.295, p = .01) on the other, while perceived performance appraisal politics was positively but weakly related to turnover intention (β = .257, p = .01). Chen, Wu, and Leung (2008) found that individual performance appraisal has both direct and indirect effects on attitudinal reactions to workgroups. Performance evaluations give an organization and its managers an opportunity to demonstrate care and support by emphasizing an employee's strengths and by suggesting ways to

improve any weaknesses through training and development programs. When employees perceive that they are supported and cared for, they will be more likely to stay with the organization as a form of reciprocation, thereby leading to lower voluntary turnover.

Furthermore, this study also found caring to be the most influential factor of work performance system after performance appraisal. According to the findings of this study, caring also plays an important role in the work performance system because it is considered one of the most significant climate factors that enhance employees' sense of belongingness. Feeling of belongingness hence is a very essential factor in the organization to motivate employees and increase their productivity. The study found caring to be the second significant factor of the work performance system that significantly contributes to institutional performance after performance appraisal. This finding highlighted the enormous effect of caring on employees and consequently on the entire organization. This finding echoed many previous study findings. According to an empirical study conducted by Muse and Stamper (2007), perceived organizational support has been found to be positively related to work attitudes such as job satisfaction, affective commitment, and behaviors such as attendance, in-role performance, extra-role performance, turnover intentions and institutional performance.

Schneider and Bowen (1995) moreover emphatically stated that caring for employee well-being in an organization is a necessary step to gaining employee commitment, motivation and improved performance. They further highlighted that an organization whose strategic goal is creation of climate for service to build and maintain customer satisfaction has to first create a climate for employee well-being. A climate for service or for treating customers well can only exist if service employees collectively perceive that they are treated well, that is, if a positive climate for employee well-being exists (Schneider & Bowen, 1992).

Interestingly, Kopelman et al. (1990) also asserted that managerial support and concern for employee well-being not only affect performance through motivational processes (p. 306), but also enhance their morale and sense of belonging. That is, an organization's employees are more likely to perform well for a caring management that protects employee well-being than for a non-caring management. Consistently, Schneider and Bowen (1992, p. 6) posited that the good treatment of service personnel by management translated into good treatment of customers by service personnel (that is, high service performance). Underlying this effect might be that well-treated personnel are more likely to engage in contextual performance behaviors integral to high service performance.

Moreover, Brief and Motowidlo (1986) suggested a direct link between a concern for employee well-being and pro-social behaviors toward customers. In a positive organizational climate for employee well-being, an organization's personnel might engage in these behaviors because:

an organizational climate characterized by warmth, friendliness, supportiveness, and cooperation is probably one in which there are strong norms of reciprocity, high levels of group cohesiveness, formal and informal reinforcement contingencies which reward pro-social acts, and role models behaving pro-socially (Brief & Motowidlo, p. 719).

Initial empirical evidence is supportive of the climate-for-employee-well-being/climate-for-service link. As emphasized in the literature review, Borucki and Burke (1999), in their study of 463 retail chain stores, found a positive, cross-sectional relationship between store-level climate for employee well-being and store-level sales performance. Additionally, Muse and Stamper (2007) found direct relation between perceived organizational support and all types of performance.

Thus, it can be concluded that performance appraisal and caring for the employees were the most salient, influential and best work performance system elements that affect institutional performance.

5.3.2 Finding 2

Confirmatory Factor Analysis was used to investigate the underlying factors of the institutional performance. It was found that institutional performance was distinctively and psychometrically loaded into three underlying factors which are human resource planning, human resource management and human resource development and training. The Confirmatory Factor Analysis (CFA) yielded a meaningful result as was previously hypothesized. The result of the analysis indicated that human resource management factor was the most significant factor of institutional performance based on the factor loading of the analysis following by human resource planning and then human resource development and training. This result suggested the importance of management in higher institution as well as in other human organizations. As highlighted earlier by Kopelman et al. (1990) and Schneider and Bowen (1992) managerial support is one major pillar of the organization found to empirically affect organization development. That is, an organization's employees are more likely to perform well for a caring management that protects employee well-being than for a non-caring management. The management process considered as an element of institutional performance can be described as an objective, logical, systematic approach for making major decisions in an organization. It attempts to organize qualitative and quantitative information in a way that allows effective decisions to be made under conditions of uncertainty.

The overall management of challenge of the strategic management of human capital is to use data from the measurement of teaching and student performance, at times just called measures of teaching effectiveness to guide human capital management

decisions over time, from recruitment, to development and motivation and compensation and retention (p. 3).

In addition to human resource management, human resource planning dimension is also considered a very significant factor of institutional performance based on the result of confirmatory factor analysis. According to the finding, human resource planning is another important underlying factor of institutional performance after the human resource management factor followed by development and training.

On the other hand, since performance improvement is considered to be the backbone of strategic management, many researchers considered planning as another significant factor of institutional performance. An organization's top managers foster the development of strategic planning capability by engaging in such planning over and over again. According to Christensen (1997), just as ongoing practice leads to competence at the top, the practice of strategic planning at other management levels leads to embedded competence within the entire management team. Consistent with this study, many academic research activities have suggested a multidimensional characteristic of institutional performance. Planning is one of the major pillars of performance because it is continuous process and not a once yearly event. Thus, in order for organizations to achieve high performance, the planning process must be very sound, continuous and strategic. Andersen (2004) discovered a positive relationship between formal planning and institutional performance in dynamic environments. Accordingly, Shrader et al. (1989) asserted that operational and strategic planning seem to provide means for managers to cope with uncertainty, improve performance and ultimately ensure the survival of the firms (p. 60).

Human resource development and training was found to be the third underlying dimension of institutional performance. The survival of any organization in the competitive society largely depends on its ability to train its human resource to be

creative, innovative, and inventive enough to enhance performance and increase competitive advantage (Edralin, 2004; Lynton & Pareek, 2000; Vemić, 2007). Training and development is a significant element of human resource practices that help in enhancing employees' skills, knowledge, and competence hence improving employees' ability to perform more efficiently (Palo & Padhi, 2003). Training and development play a pivotal role in ensuring organizational effectiveness (Goldstein & Ford, 2002). It is one of the most pervasive techniques for improving employees' performance and enhancing organizational productivity (Gupta & Bostrom, 2006). Employees are the indispensable asset and key element of gaining competitive advantage of any organization. Organizations that want to be relevant, competitive and advanced must invest in training and development.

Since training and development are indispensable strategic tools for effective individual and institutional performance, organizations are spending money on it with confidence that it will earn them a competitive advantage in business (Edralin, 2004; Lynton & Pareek, 2000). Moreover, for any organization to achieve its target goals and objectives in this competitive world, adequate and relevant training and staff development cannot be over emphasized. Organizations are expected to identify training needs of their employees and design training programs that will help to optimally utilize their workforce toward actualizing organizational objectives (Kennedy, Chyung, Winiecke, & Brinkerholff, 2013).

Training and development is a technique used to transfer to employees relevant skills, knowledge and competence to improve their performance on current jobs and future assignments (Katou & Budhwar, 2006). It is not negotiable for organizations to adequately train their employees for efficient and optimal performance toward realizing their set goals and objectives (Asare-Bediako, 2002). Employees' training and development is a strategic determination to facilitate learning of the job related

knowledge, skills, ability and behavior crucial for efficient performance capable of enhancing organizational effectiveness (Edralin, 2004; Lynton & Pareek, 2000). Training is requisite to enhancing workers capability, reasoning faculty and competence (Palo & Padhi, 2003) which will improve institutional performance (Edralin, 2004; Lynton & Pareek, 2000) besides helping in gaining the competitive edge (Kennedy & Daim, 2010). Training and development increases employees' efficiencies, innovation, invention, capacity to accept new technologies and techniques (Edralin, 2004; Lynton & Pareek, 2000). Hence organizations must be able to identify the training and development needs of employees and select techniques suitable for these needs, plan how to implement them and thereafter evaluate outcomes (Kennedy & Daim, 2010).

As found by many previous studies, according to Lepak, Liao, Chung, and Harden (2006), it might be fruitful to conceptualize human resource practices as falling into one of three primary dimensions: skill-enhancing human resource practices, motivation-enhancing human resource practices, and opportunity-enhancing human resource practices. Skill enhancing human resource practice is designed to ensure appropriately skilled employees; they include comprehensive recruitment, rigorous selection, and extensive training. Motivation-enhancing human resource practices are implemented to enhance employee motivation. Typical ones include developmental performance management, competitive compensation, incentives and rewards, extensive benefits, promotion and career development, and job security. Opportunity-enhancing human resource practices are designed to empower employees to use their skills and motivation to achieve organizational objectives. Practices such as flexible job design, work teams, employee involvement, and information sharing are generally used to offer these opportunities. The use of the three dimensions of human resource systems instead of a unidimensional or two-dimensional framework is based on an examination of

differential effects of the three dimensions of human resource systems on different types of human resource outcomes.

5.3.3 Finding 3

The findings of the major objective of the study involved causal relationships between work performance system and higher education institutional performance in the Sultanate of Oman. As previously highlighted, work performance system consisted of hypothesized predetermined six factors that collectively affect the performance of administrators in the human resource department of the Sultanate of Oman. These factors are staffing, training, involvement in decision making, performance appraisal, compensation and caring. The study hypothesized that there were causal relationships between the work performance system factors and institutional performance which are represented by human resource planning, human resource management and human resource development and training. Furthermore, it was also hypothesized that there might also be variables that mediated effects between the work performance system and institutional performance such as concern for customers, concern for employees, service performance and helping behavior.

By using the Structural Equation Model, the study found substantial relationships and links between work performance system on one side, and the institutional performance on the other side. This finding indicated that when the human resource management practices are collectively implemented in the organization, it would lead to synergistic benefit. It is also found that work performance system enhances institutional performance by combining innovative work and management practice with reorganized work flows, advanced information systems and new technologies. Furthermore, a performance work organization builds on and develops the skills and abilities of frontline workers to achieve gains in speed, flexibility,

productivity and customer satisfaction. The finding was supported by many previous studies that related work performance system with institutional performance. Studies (Brown, 2004; Chuang & Liao, 2010; Guest, 1987; Guthrie, 2001; Jackson et al., 1989; Thompson & Heron, 2005; Wright & McMahan, 1992; Wright & Snell, 1998) asserted that work performance system undoubtedly enhanced employee motivation, maximizing their effort and ability, consequently promoting institutional performance.

Moreover, it was also discovered that strategic management development enhances strategic commitment and facilitate, complement and encourage the development of organizational and individual competence in strategic management (Brown, 2005). Brown (2005) further emphasized that organizations may have sufficient capital and might even acquire high productive technology; however, without committed human powers, the capital and infrastructure might fail to uplift the standard of the organization to achieve its targeted goals and face its enormous challenges. According to universalistic theorists, there is a universal set of human resource management best practices that enhance institutional performance and facilitate employee psychological factors to rigorously involve in the job which consequently facilitate institutional performance (Lau & Ngo, 2004). Huselid (1995) stated that as part of the work performance system, the human capital activities can improve institutional performance through the skill of employee, incentives and the organizational work structure. Differences in human resource management level can also reflect the different level of human capital investment (Lepak & Snell, 1999).

Lepak, Liao, Chung, and Harden (2006) asserted that through the work performance system, organizations provide the chance for employees to take part in decision making, recognition of employee's input which induce motivation, improve knowledge, skill and ability to perform. Researchers also believed that the work performance system has the potential to create significant positive results such as

improved productivity and increased quality levels institutional performance, productivity, financial performance, innovation and reduce employee turnover (Brown, 2004; Chuang & Liao, 2010; Guest, 1987; Guthrie, 2001; Huselid, 1995). The researcher also found in this study that the contribution of work performance system to institutional performance based on standardized regression weight was 72%; this suggests that work performance system plays a significant role in the total variance of institutional performance. Combs et al. (2006) in their meta-analysis study found that work performance system practices strongly predict institutional performance when measures depict work performance system practices rather individual practices (β = .28 and r = .14, p = .01). According to Huselid (1995) strategic human resource management practices improve knowledge, skill and abilities of the institution's employees, increase their motivation, reduce attrition and enhance retention of quality employees while encouraging non-performers to leave the organization.

Furthermore, Huselid (1995) holistically evaluated the links between systems of High Performance Work Practices and firm performance. Results based on a national sample of nearly one thousand firms indicated that these practices have an economically and statistically significant impact on both intermediate employee outcome (turnover and productivity) and short- and long-term measures of corporate financial performance. Moreover, Delaney and Huselid (1996) studied 590 profit and nonprofit organizations to research the impact of selection, training, compensation, grievance procedures, decision making and internal promotional practices and the interaction of these practices on two perceptual measures of institutional performance. Perceptions of market performance were related to all of the human resource practices except for the measure of decentralized decision making, but perceptions of institutional performance were related only to incentive compensation. In another article, Delery and Doty (1996) found that organizations that had strategically adopted human resource best practices

reported return on assets and return on equity figures nearly 50% higher than competing institutions that had not adopted these human resource systems.

Moreover, Mak and Syed Akhtar (2003) collected data from 63 publicly listed Hong Kong companies through a questionnaire on objective measures of human resource management practices and subjective measures of strategic orientations. The human resource management practices included job description, internal career opportunity, job security, profit sharing, training, performance appraisal and voice mechanisms. Company performance was represented by return on equity. Correlation analysis indicated that only job description and profit sharing correlated positively and significantly with the company performance across both managerial and non-managerial employees.

Studies also found that adopting work performance system in institutions practically empowered employees to act, and motivated them to do their tasks effectively (Becker & Huselid, 1998; Becker et al., 1997; Huselid, 1995).

Furthermore, some empirical evidence also suggested that work performance system models benefit workers in terms of increased performance, higher wages, and increased job satisfaction while reducing levels of absenteeism (Appelbaum et al., 2000; Barling, Kelloway, & Iverson, 2003; Batt, 2002; Capelli & Neumark, 2004; Harley, Allen & Sargent, 2007; Macky & Boxall, 2008; Takeuchi et al., 2009; Wood & de Menezes, 2008). However, empirical evidence also argues that work performance system could simultaneously provide job satisfaction but increase stress levels (Kashefi, 2009). This stress could increase the potential risk of conflicts because of the higher interdependency and pressure among colleagues working in teams (Askenazy & Caroli, 2010).

Using data from Canadian organizations, Godard (2000) found that a moderate use of high performance institutional practices increased job satisfaction but that further

increasing levels of high performance could have a negative influence. Kashefi (2009) confirmed this result and found that work performance system simultaneously increased job satisfaction and job stress. Kashefi warns that increasing levels of job stress may eventually erode the value from higher job satisfaction and productivity associated with this strategy. Vidal (2007) analyzed whether the increase in front-line workers' responsibilities and abilities increased job satisfaction. He concluded that workers can be relatively satisfied under traditional Fordism arrangements and that increasing employee involvement does not necessarily increase satisfaction. Researchers used different perspectives to analyze the determinants of job satisfaction. In order to analyze the effect of work performance system on job satisfaction, some differences between the older and newer models of work organization need pointing out. An important difference between work performance system and traditional Tayloristic organizational models is that work performance system models have a holistic perspective. A holistic point of view encourages organizations to provide non-managerial employees with the opportunity to participate in decision making, to work in self-managed teams, to enhance their skills through job rotation, and to give them more autonomy over task performance. In addition, there is a higher level of communication between co-workers and customers. Because of these changes, employers can assume that the new way of organizing will benefit employees and thus lead to increased job satisfaction. Appelbaum et al. (2000) found that opportunity to participate in decision making led to the creation of trust between employees and their supervisors. At the same time, workers experienced their jobs as challenging and intrinsically rewarding. Trust and intrinsic rewards related positively to high organizational commitment, high job satisfaction, and low work-related stress.

Moreover, the study also found that effective utilizing of work performance system would also add to institutional performance, affect employee commitment,

voluntary employee turnover, and elevate employee morale and motivation, employee knowledge, motivation and involvement (Sun, Aryee, & Law, 2007). This study also indicated that applying work performance system not only affects employee performance and morale in the private sector but there result also holds across the public-sector. Sun et al. (2007) also found that recruitment and selection, compensation and training and development associated with work performance system and profoundly predicted new hire quit rates. However, performance appraisal and information sharing were not important predictors of new hire turnover. This study demonstrates the importance of examining work performance system practice individually. Decoupling work performance system components will allow scholars and practitioners to determine if certain work performance system practices are of greater importance than other components of the practice.

Consistent with previous studies, Takeuchi et al. (2009) discovered that work performance system statistically and positively affect individual job satisfaction (β =.23, p = < .05) and individual affective commitment (β =.25, p = <.05). Interestingly, Seong (2011) found that work performance system was significantly related to profitability (β = .29, F = 14.83, p = .001), while the work performance system index had a significant main effect on profitability (β = .30, p =.001).

In their meta-analytic study, Combs et al. (2006) found strong effect of work performance system on institutional performance (β = .28) than individual practice (β = .14). Despite that different magnitude effect of work performance system reported by previous studies, this finding precisely indicated the effect of work performance system on institutional performance.

5.3.4 Finding 4

To assess indirect relationships between work performance system and institutional performance, some mediator variables were introduced. It is worth mentioning that the selection of mediator variables was based on extensive literature review. As previously highlighted, this study adopted the Chuang and Liao (2010) approach that used the same mediator variables and also reviewed many previous studies. The results of the Structural Equation Model suggested that the relationships between work performance system and institutional performance is not only directional but there are also indirect relationships between them through concern for employees, concern for customers, customer knowledge, service performance and helping behavior. Based on the Structural Equation Model, both concern for customers and concern for employees have no direct effects on institutional performance but rather their effects operate through service performance and helping behavior respectively. This finding suggested that concern for customer and concern for employees were not directly related to institutional performance but facilitate it through quality of service performance and employees' helping behavior.

According to this finding, the work performance system strongly facilitate concern for customers (β =.83) and concern for employees (β =.69) processes while concern for customers enhance employees' service performance. Moreover, the result of the structural equation modeling also indicated that the employees' service performance boost customers' knowledge (β =.59) which eventually contribute significantly to institutional performance. On the other hand, the finding also suggested that concern for employees has a significant effect on employee helping behavior attitude (β =.20) which also subsequently promote institutional performance. Thus, it is obvious from these findings the important roles played by these mediator variables due to their indirect effects on institutional performance.

In consensus with these findings, Carlson et al. (2006), Chuang and Liao (2010) and Huselid (1995) found indirect effects of concern for employees, concern for customers, customer knowledge, service performance and helping behavior on institutional performance. According to Burke et al. (1992), individual employees "may cognitively appraise their work environment in terms of what is significant or meaningful not only to their well-being but also to the well-being of other relevant organizational constituencies" (p. 718). Consistently, Schneider and Bowen (1992) argued that a positive climate for customer well-being and positive climate for employees' well-being are very distinctive because an organization might have policies and practices that are positive to the sense of employees that they have been treated well but have little relationship with service customers' experience unless the organization also has policies and practices that encourage and promote service excellence. Thus, the statement indicated that concern for employees and concern for customers are different entities; if one is adopted it does not necessarily automatically lead to the other unless appropriate measures are taken to enhance both concerns. This finding highlighted the significance of strategic human resource management practices because adoption of work performance system features individually might not be effective for achieving the institutional goals.

Moreover, Takeuchi et al. (2009) found that concern for employees' climate mediated the relationship between work performance system and individual job satisfaction and affective commitment. More precisely, the study shows that concern for employees' climate positively related to both job satisfaction (β =.50, p= .001) and affective commitment (β =.75, p = .001) which subsequently lead to institutional performance, productivity and enhanced helping behavior characters of the employees towards the customers. Consistently, Chuang and Liao (2010) found concern for employees (β =.49, p = .001), and concern for customers (β =.38, p = .001) related to

organization market performance through service performance (β =.21, p = .05) and helping behavior (β =.29, p = .001) respectively. This finding confirmed the theory of work performance system which stated that dimensions of work performance system relate with institutional performance mediated by concern for customers and employees, service performance and helping behavior. It was found that the concern for customers' climate mediated the relationship between work performance system and concern for employees mediated the relationship between work performance system and employees helping behavior and their readiness to render assistance to coworkers.

The concern for customers 'climate means the employees' shared perception of the policies, practices and procedures regarding service quality provided to the customers form the focal unit (Borucki & Burke, 1999; Schneider et al., 1998). The human resource practices implemented in an organization may signal to its employees the extent to which the unit values, expects and rewards providing good service, thus influencing employees' climate perceptions about the unit's concern for customers' interest (Chuang & Liao, 2010). Interestingly, the importance of management service was also found to be positively related to employees' shared perceptions of service climate (Borucki & Burke, 1999). Furthermore, Schneider et al. (1998) proposed that employee perceptions of how much the organization cares about customers or service quality rest on their perceptions about organization human resource practices. The study found the causal linkage between human resource practices and employee shared perception about concern for customers.

5.3.5 Finding 5

Validity of a model, test and analysis is considered as a fundamental requirement of quantitative research. It is a process where the researcher tries to provide evidence to support the appropriateness, meaningfulness and usefulness of the specific inferences

made from scores about individuals from a given sample and in a given context. The concept, method, and process of validation are central to constructing and evaluating measures used in social, behavioral, health and human sciences for without validation, any inferences made from a measure are potentially meaningless (Zumbo, 1998).

Examination of validity using Structural Equation Modeling has been considered as a new method to assess the meaningfulness and appropriateness of a test or an analysis. Unlike traditional methods of assessing validity, structural equation modeling holistically was assessing the appropriateness of findings and the possibility of generalization across similar situations. Therefore, the validity of this study was tested through both confirmatory factor analysis and structural equation modeling. The results of both analyses indicated that the measurement model and structural model were both statistically and practically valid and convincingly fit the data. In exception of chi-squares and their respective *p*-values for both the measurement and structural model, all indicators of goodness of fit indices reached the recommended threshold; which indicated that the models were fit. More precisely, the analysis found that factor loadings for all retained items were above the recommended values of .50 which is considered to be a sign that items measured what they attempted to measure and all the items within the same factor were highly correlated.

Interestingly, the findings also indicated that models maintained discriminant validity. The analysis showed that despite correlation among the items, the factor were distinct. In other words, the items maintain their identity; thus, there is not multi-collinearity problem in the analysis which is another sign of validity and fitness of the model.

Most importantly, Root-Mean-Square Error of Approximation popularly known as RMSEA which examine the discrepancy between proposed model and collected data indicated that models were all fit, this non-statistically significant chi-square value

indicates that the sample covariance matrix and the reproduced model-implied covariance matrix are similar. The analyses of this study whether measurement models or structural models were within the RMSEA thresholds recommended by statisticians and practitioners, which also unequivocally indicated that models were valid and fit properly.

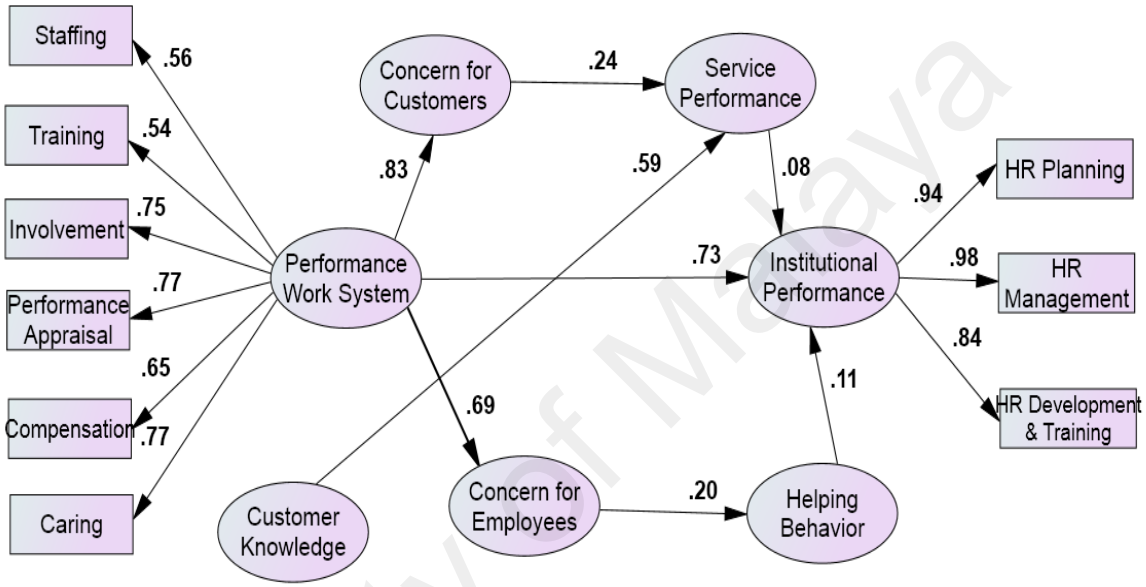


Figure 5.1: Model of the study

5.4 Practical Implications

The present study illuminates several areas for those working, involved and concerned with higher learning institutions. In general, the contribution of the study is noteworthy whether at individual level such as employee, institutional level such as lecturers and administrators or national level such as Ministry of Education. The results of present study suggest that strategic human resource management practices play a significant role in the development of higher institutions. Thus, if these factors were disintegrated or employed separately, the higher education institution might not achieve its targets.

Additionally, this study also found that the relationships between predetermined factors of institutional performance might not always be direct. It was found that

employees were deeply affected by employers' treatment. When the employees feel fair treatment, belongingness and well-being it would translated into the actions that benefit the institution and uplift its standard. Schneider et al. (1998) emphasized that "those organizations that create the proper set of foundation conditions for employee work have provided a basis for the development of a service climate" (p. 150). Burke et al. (1992) also asserted that employees' perceptions of their work environment could model in terms of two factors; concern for employees and concern for customers. It is widely documented that the employer-employee relationship has a significant impact on employee performance which would eventually affect employee interaction with customers and would impact on institutional performance. Thus, for the organization to achieve its ultimate goals, employee welfare should be the priority, which would automatically lead to employee concern for customers. As stressed by Schneider et al. (1998), a service climate focuses service employee effort and competency on delivering quality service, which in turn yields positive experiences for customers as well as positive customer perceptions of service quality. Service climate refers to employees' shared perceptions of the practices, procedures, and behaviors that are rewarded, supported, and expected by the organization with regard to customer service and customer service quality (Schneider et al., 1998).

5.5 Theoretical Implications

The findings of this research support major theories of strategic human resource management. However, the strategic human resource management theory ignored the mediator variables such as concern for customers, service performance, concern for employees, customer knowledge and helping behavior. As a result, Chuang and Liao (2010) validated their research model by including these mediating variables to measure market performance instead of institutional performance. Moreover, their research

model confirmed that work performance system not only had a significant direct effect on market performance, but also indirect effects through concern for customers and employees respectively. This study expanded the previous theoretical underpinnings work performance by incorporating mediator variables such as concern for customers, concern for employees, helping behavior, customer service and service performance. By incorporating these elements into the relationship between work performance system and institution performance, the precise relation direct and indirect would be holistically and comprehensively understood. In doing so, the present study extended Chuang and Liao's research model by incorporating institutional performance, which has three sub-dimensions, namely, HR planning, HR management and HR development and training instead of market performance. The findings of this study show that the hypothesized model exhibited a better understanding of Chuang and Liao' research model. This is the significant contribution to the body of knowledge.

5.6 Methodological Implications

This research utilizes the quantitative research approach. The SEM model of this research is relevant and complements other research methods in strategic human resource management. Utilization of structural equation modeling in this study enhances the finding of this study since SEM is causal in nature. The causal relationship in SEM indicating that exogenous variables cause endogenous variables which can be simply translated that work performance cause effectiveness and performance of higher education institutions.

5.7 Policy Implications

The findings of this research constitute important inputs to policy making processes pertaining to strategic human resource management. The findings are of particular

importance to the Omani Ministry of Education because knowing effects of these elements individually and collectively would give the policy-makers opportunity to diagnose the problems facing higher education institutions and how to find appropriate solutions for them.

5.8 Leadership and Management Implications

The findings of this research have established the crucial roles of effective strategic leaders and efficient mangers to transform organizations into high performing organizations. By adopting this work performance system the leaders would effectively transform the higher education institution into a better place to acquire knowledge.

5.9 Conclusion

In conclusion the results of present study show that there are six underlying factors of work performance system based on confirmatory factor analysis. These factors are staffing, training, involvement in decision making, performance appraisal, compensation, and caring. The confirmatory factor analysis also indicated that there were three distinctive factors for institutional performance, which are HR planning, HR management and HR development and training. Interestingly, the study also found significant effect of work performance system in strategic human resource management on institutional performance. This simply means that when higher education institutions adopt work performance system, it will enhance their performance dramatically. Additionally, the study also suggested that the relationship between work performance system and institutional performance is not only direct relation but there are also indirect relation via mediator variables. There four mediator variables such as concern for employees, concern for customers, service performance, and helping behavior, played a pivotal role in mediating between work performance system and institutional

performance. The present study suggests that customer knowledge has no direct effect on institutional performance; however, it influences institutional performance through service performance.

5.10 Limitations and Recommendations

In the light of the findings of the study, and based on the theoretical and empirical evidence presented by previous research, the study makes the following recommendations for future research. The limitations to this study are presented in this section.

The samples of the study were employees of the Directorate of Human Resource in the Sultanate of Oman where all of the respondents were Muslims and from only one ethnicity (Arab). However, if the study were conducted in a multireligious and multicultural context, the findings might be different. Thus, the researcher would strongly recommend that future studies must take into consideration the representativeness of different races and ideologies because what research finds to be true with Muslim or Arab employees might appear not true with other groups or religions, and even if it is found replicated across the ethnic groups and religions, the magnitude might be different.

The study adopted the model from Chuang and Liao (2010); the model used for customer service firms might not apply to higher learning institutions. Although, the model is fit, many more future studies are needed to thoroughly and comprehensively understand the effect of work performance system on institutional performance.

5.10 Suggestions for Future Studies

Although this study employed high and sophisticated statistical methods to examine the relationships among the constructs, the results might be different if experimental studies

and longitudinal statistical methods were used. The experimental methods would precisely diagnose the actual relationship among the constructs of the study while the longitudinal study would precisely describe the patterns of the change and establish the direction and the magnitude of causal relationship. Moreover, the combination of qualitative and quantitative methods (mixed method) should be encouraged so both methods can complement each other for more exploration. By using mixed method to carry out the research, the researcher would be able to explain the relationships existing among the constructs in a more comprehensive manner. Thus, the researcher recommends that future study should employ mixed method to explain the interaction between work performance system and institutional performance holistically and comprehensively.

REFERENCES

Abell, D. F. (1993).*Managing with dual strategies: Mastering the present, pre-empting the future*. New York, NY: The Free Press.

Abowd, J. M. (1990). Does performance-based managerial compensation affect corporate performance? *Industrial and Labor Relations Review, 45*(3), 52-73.

Ahmad, S., & Schroeder, R. G. (2002). The importance of recruitment and selection process for sustainability of total quality management. *International Journal of Quality & Reliability Management, 19*(5), 540-550.

Al Bulushi, A., & Rao, D. H. (2014). Application of Balanced Score Card (BSC), Strategy Map and Key Performance Indicators (KPI)-for an Engineering college in Oman. *Asian Journal of Education and e-Learning, 2*(1).

Alavi, M., & Leidner, D. E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly, 25*, 107–136.

Alexandrova, A., Babakus, E., & Yavas, U. (2007). The effects of perceived management concern for frontline employers and customers on turnover intentions. *Journal of Service Research, 9*(4), 356-371.

Al-Hamdani, D. (2003). *Introduction of Multimedia Project learning in a technology-rich environment: A study of teacher attitudes and influencing factors in Basic Education Schools in Oman*. (Ph.D. thesis. University of Hull, England).

Ali, S. B., Mahdi, A., & Malihe, J. (2012). The effect of employees' performance appraisal procedure on their intrinsic motivation. *International Journal of Academic Research in Business and Social Sciences, 2*(12), 161-168.

Allen, P. L. (2003). Performance appraisals with more gain, less pain. *Harvard Management Communication Letter, 6*(3).

Al-Sarmi, A. M., & Al-Hemyari, Z. A. (2014). Goals and objectives: Statistical techniques and measures for performance improvement of HEIs in Oman. *International Journal of Management in Education, 8*(3), 244-264.

Alvarez, K., Salas, E., & Garofano, C. (2004). An integrated model of training evaluation and effectiveness. *Human Resource Development Review, 4,* 385–416.

American Psychological Association. (1985). *Standards for educational and psychological testing*. Washington, DC: Author.

Anderson, G. C. (1993). *Managing appraisal systems*. Cambridge, MA: Blackwell.

Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423.

Andersen, T. J. (2004). Integrating decentralized strategy making and strategic planningprocesses in dynamic environments. *Journal of Management Studies, 41*(8), 1271-1299.

Anthony, W. P., Perrewe, P. L., & Kacmar, K. M. (1996). *Strategic human resource management*. Orlando, FL: Harcourt Brace.

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Ithaca, NY: Cornell University Press.

Aragon, I. B., & Valle, R. S. (2013). Does training managers pay off? *The International Journal of Human Resource Management, 24*(8), 1671–1684.

Arbuckle, J. L., & Wothke, W. (1995-1999). *AMOS 4.0 User's Guide*. Chicago, IL: Small waters Corporation.

Armstrong, M. (2006). *Armstrong's handbook of human resource management practice*. London, UK: Kogan Page.

Armstrong, M. (2009). *Armstrong's handbook of human resource management practice*. London, UK: Kogan Page.

Armstrong, M., & Baron, A. (2004). *Managing performance: Performance management in action.* London, UK: Chartered Institute of Personnel and Development.

Arshad, M. A., Masood, M. T., & Amin, G. (2013). Effects of performance appraisal politics on job satisfaction, turnover intention and loyalty to supervisor. *International Review of Management and Business Research, 2*(3), 653-637.

Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management, 37*, 670–687.

Ary, D., Jacobs, L. C., & Razavieh, A. (1996). *Introduction to research in education* (5th ed.).Orlando, FL: Harcourt Brace.

Asare-Bediako, K. (2002). *Professional skills in human resource management*. Accra, Ghana: Kasbed.

Askenazy, P., & Caroli, E. (2010). Innovative work practices, information technologies, and working conditions: Evidence for France. *Industrial Relations: A Journal of Economy and Society, 49*(4), 544-565.

Atieno, O. (2009). An analysis of the strengths and limitations of qualitative and quantitative research paradigms. *Problems of Education in the 21st Century, 13*(1),13-38.

Babakus, E. C. C., Bienstock, J. R. V., & Scotter. (2004). Linking perceived quality and customer satisfaction to store traffic and revenue growth. *Decision Sciences, 35*(4), 713-737.

Bae, J., & Lawler, J. J. (2000). Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Academy of Management Journal, 43*, 502–519.

Bagozzi, R. P., & Edwards, E. A. (1998). Goal setting and goal pursuit in the regulation of body weight. *Psychology and Health, 13*, 593- 621.

Bailey, T. (1993). Organizational innovation in the apparel industry. *Industrial Relations, 32*, 30-48.

Baird, L., & Meshoulam, I. (1988). Managing two fits of strategic human resource management. *Academy of Management Review, 13*(1), 116–128.

Baird, L., Meshoulam, I., & Degive, G. (1983). Meshing human resources planning with strategic business planning. *A Model Approach, Personnel, 60*(5), 14-25.

Bamberger, P., & Meshoulam, H. (2000). *Human resource strategy: Formulation, implementation and impact*. Beverly Hills, CA: Sage.

Bandalos, D. L., & Finney, S. J. (2001). Item parceling issues in structural equation modeling. In G. A. Marcoulides & R. E. Schumacker (Eds.), *Advanced structural equation modeling: New developments and techniques*. Mahwah, NJ: Erlbaum.

Banks, C. G., & May, K. E. (1999). Performance management: The real glue in organizations. In A. Korman, & A. I. Krayt (Eds.), *Evolving practices in Human Resource Management*. San Francisco, CA: Jossey-Bass.

Barling, J., Kelloway, E., & Iverson, R. (2003). High-quality work, job satisfaction, and occupational injuries. *Journal of Applied Psychology, 88*(2), 276-283.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management Studies, 17*(1), 99–120.

Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management, 27*(6), 643-673.

Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management, 37*, 31–46.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Bartel, A. P. (2000). Measuring the employer's return on investments in training: Evidence from the Literature. *Industrial Relations, 39*(3), 502-524.

Bashir, M., Jianqiao, L., Jun, Z., Ghazanfar, F., & Khan, M. (2011). The role of demographic factors in the relationship between performance work system and job satisfaction: A multidimensional approach. *International Journal of Business and Social Science, 2*(18), 207-218.

Bassi, L. J., Ludwig, J., McMurrer, D., & Van Buren, M. (2002). Profiting from learning: Firm-level effects of training investments and market implications. *Singapore Management Review, 24*, 61–76.

Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of Management Journal, 45*, 587–597.

Becker, B. E., & Huselid, M. A. (1998). Performance work systems and firm performance: A synthesis of research and managerial implications. In G. R. Ferris (Ed.), *Research in personnel and human resource management* (Vol. 16, pp. 53–101). Stamford, CT: JAI Press.

Becker, B. E., Huselid, M. A., Pickus, P. S., & Spratt, M. F. (1997). HR as a source of shareholder value: Research and recommendations. *Human Resource Management, 36*(1), 39-47.

Becker, B. E., Huselid, M. A., & Urich, D. (2001). *The human resource scorecard: Linking people, strategy and performance*. Boston, MA: Harvard Business School Press.

Beer, M., Spector, B., Lawrence, P., Quinn Mills, D., & Walton, R. (1984). *Managing human assets*. New York, NY: The Free Press.

Bennett, N., Ketchen, D. J., Jr., & Schultz, E. B. (1998). An examination of factors associated with the integration of human resource management and strategic decision making. *Human Resource Management, 37*(1), 3-16.

Bentler, P. M. (1990). Comparative fit indexes in structural model. *Psychological Bulletin, 107*(2), 238-246.

Biggs, J. B. (1990). Effects of language medium of instruction on approaches to learning. *Educational Research Journal, 5*, 18-28.

Bjerke, D. C., Cleveland, J. N., Morrison, R. F., & Wilson, W. C. (1987). Officer fitness report evaluation study (*Report No. TR 88 - 4*). San Diego, CA: Navy Personnel Research and Development Center.

Black, S. E., & Lynch, L. M. (1996). Human-capital investments and productivity. *American Economic Review, 86*(2), 263-267.

Bohlander, G., Snell, S., & Sherman, A. (2001). *Managing human resources*. New York, NY: South-Western College.

Bollen, K. A. (1989). *Structural equations with latent variables*. New York, NY: Wiley.

Bollen, K. A. (1990). Overall fit in covariance structure models: Two types of sample size effects. *Psychological Bulletin, 107*, 256-259.

Bollen, K. A., & Long, S. J. (1998). *Testing structural equation model*. London, UK: Sage.

Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management, 5,* 8–18.

Bonn, M. A., & Forbringer, L. R. (1992). Reducing turnover in the hospitality industry: An overview of recruitment, selection and retention. *International Journal of Hospitality Management, 11*(1), 47-63.

Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 71–98). San Francisco, CA: Jossey-Bass.

Borucki, C., & Burke, J. M. (1999). An examination of service-related antecedents to retail store performance. *Journal of Organizational Behavior, 20*(6), 943-962.

Boselie, J. P., Hesselink, M. G., Paauwe, J., & Van Der Wiele, A. (2001). *Human Resource Management and performance: Commitment oriented work systems through the eyes of employees*. Paper presented at the Academy of Management Annual Meeting, Washington, D.C.

Bowen, D. E., & Ostroff, C. (2004).Understanding HRM-firm performance linkage: The role of the strength of the HRM system. *Academy of Management Review, 29,* 203-221.

Bowen, D. E., & Schneider, B. (1988). Services marketing and management: Implications for organizational behavior. *Research in Organizational Behavior, 10,* 43–80.

Boxall, P. F. (1996). The strategic HRM debate and the resource-based view of the firm. *Human Resource Management Journal, 6*(3), 59–75.

Boxall, P., & Purcell, J. (2008). *Strategy and human resources management*. Basingstoke, UK: Palgrave Macmillan.

Boxall, P., & Purcell, J. (2002). *Strategy and human recourse management*. New York, NY: Palgrave Macmillan.

Boyd, N., & Ken, K. (2004). Expanding the view of performance appraisal by introducing social justice concerns. *Administrative Theory & Praxis, 26*(3), 249-77.

Brault, A. T., & Beckwith, C. A. (2003). *Human resources adding value in higher education*. Knoxville, TN: College and University Professional Association for Human Resources.

Breene, T. R. S., Nunes, P. F., & Shill, W. E. (2007). The Chief Strategy Officer. *Harvard Business Review,* 1: 84-96.

Brews, P., & Purohit, D. (2007). Strategic planning in unstable environments. *Long Range Planning, 40*(1), 64 – 83.

Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review, 11*, 710-725.

Brody, E. W., & Stone, G. C. (1989). *Public relations research*. New York, NY: Praeger.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: The Guilford Press.

Brown, M., Hyatt, D., & Benson, J. (2010). Consequences of performance appraisal experience. *Personnel Review, 39*(3), 375-396.

Brown, P. (2004). Strategic capability development in the higher education sector. *International Journal of Educational Management, 18*(17), 436-445.

Brown, P. (2005). The evolving role of strategic management development. *The Journal of Management Development, 24*(3), 209-222.

Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin, 120,* 235-255.

Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort and performance. *Journal of Applied Psychology, 81*, 358-368.

Burke, M. J., Borucki, C., & Hurley, A. E. (1992). Conceptualizing psychological climate in a retail service. *Journal of Applied Psychology, 77*(5), 717-729.

Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Erlbaum.

Byrne, D. (2002). *Interpreting quantitative data*. London, UK: Sage.

Capelli, P., & Neumark, D. (2004). External job churning and internal job flexibility: Evidence on the functional flexibility and core-periphery hypotheses. *Industrial Relations, 43*(1), 48-182.

Cardy, R. L., & Dobbins, G. H. (1994). *Performance appraisal: Alternative perspectives*. Cincinnati, OH: South Western Publishing.

Carlson, D. S., Upton, N., & Seaman, S. (2006). The impact of human resource practices and compensation design on performance: An analysis of family-owned firms. *Journal of Small Business Management, 44*(4), 531-543.

Carroll, S. J., & Schneir, C. E. (1982). *Performance appraisal and review systems: The identification, measurement, and development of performance in organizations*. Glenview, IL: Scott, Foresman.

Chandler, A. D. (1962). *Strategy and structure*. Cambridge, MA: MIT Press.

Chen, T., Wu, P., & Leung, K. (2008). Individual performance appraisal and appraise reactions to workgroups. *Personnel Review, 40*(1), 87-105.

Che-Rose, & Naresh, K. (2006). The influence of organizational and human resource management on performance. *Performance Improvement, 45*(4), 18-48.

Christensen, C. M. (1997). Making strategy: Learning by doing. *Harvard Business Review*, *75*(6), 141-156.

Chua, Y. P. (2013). *Mastering research statistics*. Shah Alam, Malaysia: McGraw-Hill.

Chuang, C., & Liao, H. (2010). Strategic human resources management in service context: Taking care of business by taking care of employees and customers. *Personnel Psychology, 63,* 153-196.

Cleveland, J. N., & Murphy, K. R. (1992). Analyzing performance appraisal as goal-directed behavior. *Research in Personnel and Human Resources Management, 10*(2), 121-185.

Cohen, J. (1990). Things I have learned so far. *American Psychologist, 45*(12), 1304-1312.

Cole M. G. (2004). Delirium in elderly patients. *Am. J. Geriatr. Psychiatry 12,* 7–2110. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/14729554

Collins, C. J., & Allen, M. (2006). Research report on phase 4 of Cornell University/Gevity Institute Study on human resource management practices and firm performance in small businesses: A look at the effects of HR practices on financial performance and turnover. Center for Advanced Human Resource Studies Working Paper, Cornell University.

Collins, R., & Druten, K. V. (2003). *Human resource management practices*. Retrieved from http://www.edu.au/agsm/web.agsm.nsf/AttachmentByTitle/CCHREPORT2003/$FILE/C

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work system practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology, 59,* 501-528.

Congram, C. A. (1991). Building relationships that last. In *The AMA handbook of marketing for the service industries* (pp. 263-380). New York, NY: AMACOM.

Conway, J. M. (1999). Distinguishing contextual performance from task performance for managerial jobs. *Journal of Applied Psychology, 84,* 3–13.

Cooke, F. L. (2000). Human Resource Strategy to improve Organizational Performance: A route for British firms? *Working Paper No 9*. EWERC, Manchester School of Management. Retrieved from http://www.leeds.ac.uk/esrcfutureofwork/downloads/workingpaperdownloads/paper9.pdf

Coakes, S. J., & Steed, L. G. (2001). *SPSS: Analysis without anguish*. Brisbane, AU: Jacaranda Wiley.

Cotton, J. L., Vollrath, D. A., Proggatt, K. L., Lengnick-Hall, M. L., & Jennings, K. R. (1988). Employee participation: Diverse forms and different outcomes. *Academy of Management Review, 13*(1), 8-22.

Creswell, J. W. (2005). *Educational research*. New York, NY: Pearson.

Creswell, J. W. (2012). *Educational research* (4th ed.). New York, NY: Pearson.

CUPA-HR. (2006). *2006-07 National Faculty Salary Survey by Discipline and Rank in Four-Year Colleges and Universities*. Knoxville, TN: College and University Professional Association for Human Resources.

Cyert, R. M. (1978). *The* management of universities of constant or decreasing size. *Public Administration Review, 38*: 344-349.

Dachler, H. P., & Wilpert, B. (1978). Conceptual dimensions and boundaries of participation in organizations: A critical evaluation. *Administrative Science Quarterly, 23*, 1-39.

Dastmalchian, A., Blyton, P., & Adamson, R. (1989). Industrial relations climate: Testing a construct. *Journal of Occupational Psychology, 62*, 21–32.

David, M. E., David, F. R., & David, F. (2009). The quantitative strategic planning matrix (QSPM) applied to a retail computer store. *The Coastal Business Journal, 8*(1), 42-52.

De Vellis (2003). *Scale development: Theory and applications*. Thousand Oaks, CA: SAGE.

Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal, 39*(4), 949-969.

Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Test of universalistic, contingency and configurational predictions. *Academy of Management Journal, 39*(4), 802-835.

Delmotte, J., Maes, J., Faems, D., Forrier, A., Sels, L., & DeWinne, S. (2006). Liking HRM and small business performance: An examination of impact of HRM intensity on the productivity and financial performance of small business. *Small Business Economics, 26*, 83-101.

Desouza, K., & Awazu, Y. (2005). What do they know? *Business Strategy Review, 16*(1), 45-42.

Dyer, J. (2005). *Human resource management: Evolving roles and responsibilities*. Washington, DC: Bureau of National Affairs.

Edgington, E. S. (1980). Random assignment and statistical tests for one-subject experiments. *Behavioral Assessment*, *2*(1), 19-28.

Edwards, T., & Rees, C. (2006). *International human resource management: Globalization, national systems and multinational companies*. Harlow, UK: Pearson.

Edralin, D. M. (2004). Training: A strategic HRM function. *De La Salle University–College of Business and Economics Notes on Business, 7*(4), 1-7.

Eisenhardt, K. M. (1988). Agency and institutional-theory explanation: The case of retail sales compensation. *Academy of Management Journal, 31*, 488-511.

Evans, J. R., & Lindsay, W. M. (1999). *The management and control of quality* (4th ed.). Cincinnati OH: South-Western College Publishing.

Evans, W. R., & Davis, W. D. (2005). High-performance work systems and organization performance: The mediating role of internal social structure. *Journal of Management, 31*(5), 758- 775.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy, 88,* 288-307.

Fey, C. F., Bjorkman, I., & Pavlovskaya, A. (2000). The effect of Human Resource Management practices on Finn performance in Russia. *International Journal of Human Resource Management, 11*(1), 1 - 18.

Fiedler, F. E. (1964). *A theory of leadership effectiveness.* In L. Berkowitz (Ed.), *Advances in experimental social psychology*. New York, NY: Academic Press.

Folger, R., Konovsky, M. A., & Cropanzano, R. (1992). A due process metaphor for performance appraisal. *Research in Organization Behavior, 14*, 129-177.

Freeman, R. E., & McVea, J. (2001). A stakeholder approach to strategic management. In M. Hitt, R. E. Freeman & J. Harrison (Eds.), *The Blackwell handbook of strategic management* (pp. 189–207). Oxford, UK: Blackwell.

Frey, L. R., Botan, C. H., & Kreps, G. L. (2000). *Investing communication: An introduction to research methods*. Boston, MA: Allyn & Bacon.

Frey, R.S. (2001). Knowledge management proposal development, and small business. *Journal of Management Development, 20,* 38–54.

Gandhi, M. M. (2015). Total quality management in higher education in India. *International Journal of Organizational Behavior & Management Perspectives, 3*(4), 1200-1211.

Garson, D. (2009). Structural Equation Modelling: Statnotes, from North Carolina State University. Retrieved from http://faculty.chass.ncsu.edu/PA765/structur.htm

Garver, M. S., & Mentzer, J. T. (1999). Logistics research methods: Employing structural equation modeling to test for construct validity. *Journal of Business Logistics, 20*(1), 33-57.

Gelade, G., & Ivery, M. (2003). The impact of human resource management and work climate on organizational performance. *Personnel Psychology, 56*, 383-404.

Ghasemi, A., & Zahediasl, A. (2012). Normality test for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology Metabolism, 10*(2), 486-489.

Glass, G. V., & Hopkins, K. D. (1996). *Statistical methods in education and psychology* (3rd ed.). Boston, MA: Allyn & Bacon.

Godard, J. (2000). High performance and the transformation of work: The implications of alternative work practices for the experience and outcomes of work. *Industrial Labor Relations Review, 54*(4), 776-789.

Goldstein, I. L., & Ford, J. K. (2002). *Training in organizations: Needs assessment, development, and evaluation.* Belmont, CA: Wadsworth.

Gorsuch, L.R. (1993). *Factor analysis* (2nd ed.). Hillsdate, NJ: Earlbaum.

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management, 33*, 3119-3135.

Grote, D. (2000). Public sector organizations. *Public Personnel Management, 29*(1), 1-20.

Guaspari, J. (1998). Customer means customer. *Quality Digest, 1*, 35-38.

Guenther, T. W., & Schmidt, U. (2015). Adoption and use of management controls in higher education institutions. In I.M. Welpe, J. Wollersheim, S.Ringelhan & M. Osterloh (Eds.), *Incentives and performance: Governance of knowledge-intensive organizations* (pp. 361-378). Heidelberg, Germany: Springer.

Guest, D. E. (1987). Human resource management and industrial relations. *Journal of Educational Management, 18*(17), 436-445.

Guest, D. E., Michie, J., Conway, N., & Sheenan, M. (2003). Human resource management and corporate performance in the UK. *British Journal of Industrial Relations, 41*(2), 291 – 314.

Gupta, S., & Bostrom, R. (2006). Using peer-to-peer technology for collaborative knowledge management: Concepts, frameworks and research issues. *Knowledge Management Research & Practice, 4*(3), 187-196.

Guthrie, J. P. (2001). High involvement work practices, turnover and productivity: Evidence from New Zealand. *Academy of Management Journal, 44*, 180-190.

Guzzo, R. A., Jette, R. D., & Katzell, R. A. (1985). The effects of psychologically based intervention programs on worker productivity: A meta-analysis. *Personnel Psychology, 38*, 275-291.

Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology, 55*, 259-286.

Hair, F., Anderson, E., Tatham, L., & Black, C. (1998). *Multivariate data analysis*. Englewood Cliffs, NJ: Prentice-Hall.

Hair F., Anderson, E., Tatham, L., & Black, C. (2010). *Multivariate data analysis: A global perspective*. Boston, MA: Pearson Education.

Hakkak, M., Mohammadi, M., & Musavi, K. (2014). Investigating the role of customer relationship management over the relationship between customer knowledge management and customer satisfaction. *Asian Journal of Research in Social Sciences and Humanities*, *4*(2), 513-52.

Hargis, M. B., & Bradley, D. B. (2011). Strategic human resource management in small and growing firms: Aligning valuable resources. *Academy of Strategic Management Journal 10*(2), 105-125.

Harley, B., Allen, B., & Sargent, L. (2007). Performance work systems and employee experience of workin the service sector: The case of aged care. *British Journal of Industrial Relations*, *45*(3), 607-633.

Hartline, M. D., Maxham, J. G., & McKee, D. O. (2000). Corridors of influence in the dissemination of customer oriented strategy to customer contact service employees. *Journal of Marketing, 64*(4), 35-50.

Hassan, M., Hagen, A., & Daigs, I. (2006). Strategic human resources as a strategic weapon for enhancing labor productivity: Empirical evidence. *Academy of Strategic Management Journal*, *5*, 75-83.

Hayton, J. C. (2005). Promoting corporate entrepreneurship through human resource management practices: A review of empirical research. *Human Resource Management Review, 15*(1), 21-41.

Hénard, F., Diamond, L., & Roseveare, D. (2012). Approaches to internationalization and their implications for strategic management and institutional practice. Retrieved from www.oecd.org/edu/imhe/Approaches 20to20internationalisation: 20-M 20final: 20-20web. pdf

Henderson, R. (1980). *Performance appraisal: Theory to practice*. Reston, VA: Reston Publishing.

Henderson, R. I. (2003). *Compensation administration in a knowledge based world* (9th ed.). Upper Saddle River, NJ: Prentice Hall.

Hendry, C., & Pettigrew, A. (1996). The practice of strategic human resource management. *Personnel Review, 15*, 2-8.

Heskett, L., Sasser, W. E., Jones, T. O., Loveman, G. W., & Schlesinger, L. A. (1994). Putting the service profit chain to work. *Harvard Business Review, 72*(2), 164-175.

Hinckley, S. R. (1985). A closer look at participation. *Organizational Dynamics, 13*(3), 57-67.

Hofmann, D. A., & Stetzer, A. (1996). A cross-level investigation of factors influencing unsafe behaviors and accidents. *Personnel Psychology, 49,* 307–339.

Holbert, R. L., & Stephenson, M. T. (2002). Structural equation modeling in the communication sciences. *Human Communication Research, 28,* 531-551.

Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 4,* 599 –610.

Hornby, A. S. (2000). *Oxford Advanced Learner's Dictionary of Current English*. Oxford University Press.

Hornqren C., Faster G., & Datar S. (2002). *Cost accounting: A managerial emphasis*. Englewood Cliffs, NJ: Prentice Hall.

Hu, L. T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76–99). Thousand Oaks, CA: Sage.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Huang, J. L., & Ford, J. K. (2012). Driving locus of control and driving behavior: Inducing change through driver training. *Transportation Research Part F: Traffic Psychology and Behavior, 15,* 358-368.

Hunter, E., & Schmidt, L. (1990). *Method of meta-analysis correcting error and bias in research findings*. London, UK: Sage.

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.

Ifill, S., & Moreland, N. (1999). Auditing recruitment and selection using generic benchmarking: A case study. *The TQM Magazine, 11*(5), 333-341.

Igalens, J., & Roussel, P. (1999). A study of relationship between compensation package, work motivation and job satisfaction. *Journal of Organizational Behavior, 20,* 1003-1025.

Jackson, S. E., & Schuler, R. S. (1995). Understanding human resource management in the context of organizations and their environments. *Annual Review of Psychology, 46,* 237– 264.

Jackson, S. E., Schuler, R. S., & Rivero, J. (1989). Organizational characteristics as predictors of personnel practices. *Personnel Psychology, 42,* 727–786.

Jacobs, R. R. (1986). Numerical ratings scales. In R. A. Berk (Ed.), *Performance assessment methods and applications* (pp. 82-99). Baltimore, MD: The Johns Hopkins University Press.

Jamalullail, A. W., Aida Hanim, A. H., Mohd Izham, M., & Nurhasyida A. (2013). Strategic management in national and Chinese primary school in Malaysia. *Asian Social Science, 9*(12), 44-49.

James, S. E., & James, L. R. (1989). Integrating work perception: explorations into the measurement of meaning. *Journal of Applied Psychology, 74,* 739-751.

Javed, S., Khan, M. A., Azam, K., & Iqbal, S. (2010). Employee compensation and organization financial performance. *Interdisciplinary Journal of Contemporary Research in Business, 1*(9), 130- 143.

Jeffrey, K (1995). Performance work systems and firm performance. *Monthly Labor Review*, 29-36.

Jette, R. D., & Wertheim, E. G. (1994). Performance appraisal. In W. R. Tracey (Ed.), *Human resources management and development handbook* (pp. 281-282). New York, NY: American Management Association.

Ji, L., Huang, J., Liu, Z., Zhu, H., & Cai, Z. (2012). The effects of employee training on the relationship between environmental attitude and firms' performance in sustainable development. *The International Journal of Human Resource Management, 23*(15), 2995–3008.

Jiang, K., Lepak, D. P., Hu, J., & Baer, 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.

Ju, S., Kong, L., Hussin, Z. H., & Jusoff, K. (2008). The influence of employee benefits towards organizational commitment. *Asian Social Science, 4*, 147-150.

Juttner, U., & Wehrh, H. P. (1994). Relationship marketing from a value system perspective. *International Journal of Service Industry Management, 5,* 54-73.

Kanter, R. M. (1982). Dilemmas of managing participation. *Organizational Dynamics, 11*(1), 5-27.

Kanter, R. M. (1983). *The change masters: Innovation and entrepreneurship in the American corporation*. New York, NY: Simon & Schuster.

Kanter, R. M. (1984). *The change masters: Innovations for productivity in the American corporation.* New York, NY: Simon & Schuster.

Kanungo, R. N. (1982a). Measurement of job and work involvement. *Journal of Applied Psychology, 77,* 341-349.

Kanungo, R. (1982b). *Work alienation: An integrative approach*. New York, NY: Wiley.

Kaplan, D. (2008). Structural Equation Modeling: Foundations and Extensions (Advanced Quantitative Techniques in the Social Sciences). *SAGE Advanced Quantitative Techniques in the Social Sciences Series*, vol. 10. Thousand Oaks, CA: SAGE.

Kaplan, R. S., & Norton, D. P. (2001). *The Strategy-Focused organization: How balanced scorecard companies thrive in the new competitive environment*. Boston, MA: HBS Press.

Karami, A., Analoui, F., & Cusworth, J. (2004). Strategic human resource management and resource-based approach: The evidence from British manufacturing industry. *Management Research News, 27*(6), 50-68.

Kashefi, M. (2009). Job satisfaction and/or job stress. *Current Sociology, 57*(6), 809-828.

Katou, A. A., & Budhwar, P. S. (2006). Human resource management systems and organizational performance: A test of a mediating model in the Greek manufacture in context. *The International Journal of Human Resource Management, 17*(7), 1223-1253.

Keller, J. M. (1983). Motivational design of instruction. *Instructional Design Theories and Models: An Overview of their Current Status, 1*, 383-434.

Kelliher, C., & Perret, G. (2001). Business strategies and approaches to HRM: A case study of new developments in the UK restaurant industry. *Personnel Review, 30*(4), 421-437.

Kennedy, E., & Daim, T. U. (2010). A strategy to assist management in workforce engagement and employee retention in the high tech engineering environment. *Evaluation and Program Planning, 33*(4), 468–476.

Kennedy, P. E., Chyung, S. Y., Winiecke, D. J., & Brinkerholff, R. O. (2014). Training professionals' usage and understanding of Kirkpatrick's Level 3 and Level 4evaluations. *International Journal of Training and Development, 18*(1), pp. 1-21.

Kerr, J., & Slocum, J. W. Jr. (1987).Managing corporate culture through reward systems. *Academy of Management Executive, 1*(2), 99-108. doi: 10.5465/AME.1987.4275817

Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford Press.

Koontz, H., & Weihrich, H. (1994). *Administration: Una perspective global*. Mexico: McGraw-Hill.

Kopelman, R. E., Brief, A. P., & Guzzo, R. A. (1990). The role of climate and culture in productivity. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 282-318). San Francisco, CA: Jossey-Bass.

Kozlowski, S. J., & Bell, B. S. (2003). Work groups and teams in organizations. In Borman W. C., Igen, D. R. & Klimoski, R. J. (Eds.), *Handbook of psychology* (pp. 333-375). New York, NY: Wiley.

Kuvaas, B. (2007). Different relationship between perceptions of developmental performance appraisal and work performance. *Personnel Review, 36*(3), 378-397.

Latham, G. P., & Wexley, K. N. (1994). *Increasing productivity through performance appraisal*. Reading, MA: Addison-Wesley.

Lau, C., & Ngo, H. (2004). The HR system, organizational culture and product innovation. *International Business Review, 13,* 685-703.

Lawler, E. E. (1981). *Pay and organizational development*. Reading, MA: Addison-Wesley.

Lawler, E. E. (1986). What's wrong with point-factor job evaluation, *Compensation and Benefits Review, 18*(2), 20–28.

Lawler, E. E., Ledford, G. E., & Mohrman, S. A. (1989). *Employee involvement in America: A study of contemporary practice*. Houston, TX: American Productivity & Quality Center.

Lawson, P. (2000). Performance related pay. In R. Thorpe & G. Homan (Eds.), *Strategic reward system* (pp. 302-317). Harlow, UK: Pearson.

Lee, J., & Miller, D. (1995). People matter: Commitment to employees, strategy and performance in Korean firms. *Strategic Management Journal, 20*(6), 579-593.

Lee, T. W., Mitchell, T. R., Holton, B. C., McDaniel, L. S., & Hill, J. W. (1999). The unfolding model of voluntary turnover: A replication and extension. *Academy of Management Journal, 42*(4), 450-62.

Leiter, M. P., & Maslach, C. (2001). Burnout and quality in a speed-up world. *Journal of Quality and Participation, 24*, 48–51.

Leonard, J. S. (1990). Executive pay and firm performance. *Industrial and Labor Relations Review, 43*(3), 13-29.

Lepak, D. P., Liao, H., Chung, Y., & Harden, E. E. (2006). A conceptual review of human resource management systems in strategic human resource management research. *Research in Personnel and Human Resources Management, 25*(1), 217–271.

Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review, 24*, 31-48.

Lewis, P. (2003). New China – old ways?: A case study of the prospects for implementing human resource management practices in a Chinese state-owned enterprise. *Employee Relations*, *25*(1), 42-60.

Liao, H., & Chuang, A. (2004). A multilevel investigation of factors influencing employee service performance and customer outcomes. *Academy of Management Journal, 47,* 41–58.

Liao, H., & Rupp, D. E. (2005). The impact of justice climate and justice orientation on work outcomes: a cross-level multifocal framework. *Journal of Applied Psychology, 90,* 242-256.

Locke, E. A., & Schweiger, D. M. (1979). Participation in decision-making: One more look. *Research in Organizational Behavior, 2,* 265-339.

Lodahl, T., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology, 49,* 24-33.

Longenecker, C. O., Sims, J. H., & Gioia, D. A. (1987). Behind the mask: The politics of employee appraisal. *Academy of Management Executive, 1*(3), 183-193.

Lynton, R. P., & Pareek, U. N. (2000). *Training for organizational transformation: For trainers, consultants and principals*. Thousand Oaks, CA: Sage.

MacDuffie, J. P. (1995). Human resource bundles on manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review, 48*(2), 197-221.

MacDuffie, J. P. (2005). Human resource bundles and manufacturing performance. *Industrial Relations Review, 48*(2), 199-221.

MacKinnon, D. P., Chondra M. L., Jeanne M. H., Stephen G. W., & Virgil S. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7*(1), 83–104.

Macky, K., & Boxall, P. (2008). High-involvement work processes, work intensification and employee wellbeing: A study of New Zealand worker experiences. *Asia Pacific Journal of Human Resources, 46*(1), 38-55.

Mahoney, B., & Decktop, L. (2006). *Organizational business strategies and HRM policies*. Englewood Cliffs, NJ: Prentice Hall.

Mak, S. K. M., & Akhtar, S. (2003). Human resource management practices, strategic orientations, and company performance: A correlation study of publicly listed companies. *Journal of American Academy of Business*, *2*(2), 510-515.

Mansour, Zaei, E., Yarahmadzehi, M. H., & Abtin, A. (2013). Strategic management practices in the local authorities: Factors associated with adoption of strategic management practices in the local authorities. *Interdisciplinary Journal of Contemporary Research in Business, 5*(3). Retrieved from http://journal-archieves34.webs.com/739-744.pdf

Mao, N., Song, H., & Han, Y. (2013). High-performance work systems and influence processes on employees' attitudes perspectives from China. *International Journal of Manpower, 34*(7), 736-752.

Marchington, M., & Wilkinson, A. (2008). *Human resource management at work: People management and development* (4th ed.). Harlow, UK: Pearson.

Marsh, H. W. (1994). Sport motivation orientations: Beware of jingle-jangle fallacies. *Journal of Sport and Exercise Psychology, 16*: 365-380.

Martin-Alcazar, T. Remero-Fernandez, L., & Sanchez-Gardey, G. (2005). Strategic human resource management: Integrating the universalistic, contingent, configurational and contextual perspective. *International Journal of Human Resource Management, 16*(5), 633-659.

Martin-Tapia, Inmaculada, J. A., Aragon-Correa, & Guthrie, J. P. (2009). Performance work systems and export performance. *International Journal of Human Resource Management, 20*(3), 633-653.

Marwat, Z. A., Arif, M., & Jan, K. (2009). Impact of selection, training, performance appraisal and compensation on employee performance. *Interdisciplinary Journal of Contemporary Research in Business, 1*(7), 189-198.

McAllister, D. J., & Bigley, G. A. (2002). Work context and the definition of self: How organizational care influences organization-based self-esteem. *Academy of Management Journal, 45*, 894-904.

McClain, A. L. (1996). Hierarchical analytic methods that yield different perspectives on data dynamics: Aids to interpretation. *Advances in Social Science Methodology, 4*, 229-240.

McGregor, D. (1960). *The human side of enterprise*. New York, NY: McGraw-Hill.

McIntosh, C. (2007). Rethinking fit assessment in structural equation modelling: A commentary and elaboration on Barrett (2007). *Personality and Individual Differences, 42*(5), 859-867.

McMahan, G. C., Virick, M., & Wright, P. M. (1999). Alternative theoretical perspectives for strategic human resource management revisited: Progress, problems, and prospects. In G. R. Ferris, P. M. Wright, L. D. Dyer, J. W. Boudreau, & G. T. Milkovich (Eds.), *Research in personnel and human resources management: Supplement. Strategic human resource management in the 21st century* (pp. 99-122). Stamford, CT: JAI Press.

McNamara, T. K., Parry, E., Lee, J., & Pittcatsouphes, M. (2012). The effect of training on organizational performance: Differences by age composition and cultural context. *The International Journal of Human Resource Management, 23*(6): 1226–1244.

Mechinda, P., & Patterson, P. (2011). The impact of service climate and service provider personality on employees' customer-oriented behavior in a high contact setting. *Journal of Services Marketing, 25*(2), 101-113.

MER-Education at a Glance: OECD Indicators (2012). Rertrieved from http://www.oecd.org/unitedstates/CN%20-%20United%20States.pdf

Mergen, E., Grant, D., & Widrick, S. M. (2000). Quality management applied to higher education. *Total Quality Management, 11*(3), 345-352.

Messersmith, J. G., & Guthrie J. P. (2010). Performance work systems in emergent organizations: Implications for firm performance. *Human Resource Management, 49*(2), 241-264.

Meyer, M. W., & Gupta, V. (1994).The performance paradox. *Research in Organizational Behavior, 16,* 309–369.

Miah, M. K., & 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,* 908-923.

Miles, R. E., & Snow, C. C. (1978).*Organizational strategy, structure, and process*. New York, NY: McGraw-Hill.

Milkovich, G. T. (1991). Restructuring of human resource management in the U.S: Strategic diversity. Center for advanced human resource studies (CAHRS). Retrieved from http://digitalcommons.ilr.cornell.edu/cahrswp

Milkovich, G. T., & Newman, J. M. (2008). *Compensation* (9th ed.). Boston, MA: McGraw-Hill/Irwin.

Miller, P. (1989). Strategic HRM: What it is and what it isn't. *Personnel Management, 2,* 45-51.

Millmore, M. (2003). Just how extensive is the practice of strategic recruitment and selection? *Irish Journal of Management, 24*(1), 87-92.

Millmore, M., Lewis, P., Saunders, M., Thornhill, A., & Morrow, T. (2007). *Strategic human resource management: Contemporary issues*. Harlow: Prentice Hall.

Ministry of Education, (2004). *Education in the Sultanate of Oman: Preparing our students for tomorrow*. Muscat, Oman: Author.

Ministry of Education. (2006). *From access to success*. Sultanate of Oman.

Ministry of Education. (2010). MOE Potral. Retrieved fromhttp//www,moe.gov.om

Ministry of Information. (1995). *The speeches of H. M. Sultan Qaboos bin Said, 1970-1995*. Oman: Oman Newspaper House.

Ministry of Information. (2008). *Oman 2008-2009*. Muscat, Sultanate of Oman.

Misa, K. F., & Stein, T. (1983). Strategic HRM and the bottom line. *Personnel Administrator, 28,* 27-30.

Mohrman, A. M., Resnick-West, S. M., & Lawler, E. E. (1989). *Designing performance appraisal systems: Aligning appraisals and organizational realities*. San Francisco, CA: Jossey-Bass.

Mondy, R. W. (2007). *Human resources management*. Upper Saddle River, NJ: Pearson Prentice Hall.

Moravec, M. (1996). Bringing performance management out of the stone age. *Management Review, 85*(2), 38-42.

Muda, M. N., & Yusof, Z. M. (2015). Conceptual framework for knowledge sharing initiative in institution of higher learning to enhance the teaching performance and innovation. *Scientific Journal of PPI-UKM, 2*(1), 10-16.

Mullins, J. L. (1999). *Management and organizational behavior*. London, UK: Prentice Hall.

Murphy, K. R., & Cleveland, J. N. (1991). *Performance appraisal: An organizational perspective*. Boston, MA: Allyn & Bacon.

Murphy, K. R., & Cleveland, J. N. (1995). *Understanding performance appraisal: Social, organizational and goal-based perspectives*. Thousand Oaks, CA: Sage.

Muse, L. A., & Stamper, C. L. (2007). Perceived organizational support: Evidence for mediated association with work performance. *Journal of Managerial Issues, 19*(4), 517-535.

Naqvi, R., & Nadeem, S. (2011). Impact of high performance work practices system on motivation. *Interdisciplinary Journal of Contemporary Research in Business, 3*(8), 197-210. Retrieved from http://www.journal-archieves13.webs.com/197-210.pdf

Nawab, S., & Bhatt, K. (2011). Influence of employee compensation on organizational commitment and job satisfaction: A case of study of educational sector of Pakistan. *International Journal of Business and Social Sciences, 2*(8), 25-32.

Ng, I., & Dastmalchian, A. (2011). Perceived training benefits and training bundles: A Canadian study. *The International Journal of Human Resource Management, 22*(4), 829 – 842.

Nigam, A. K., Nongmaithem, S., Sharma, S., & Tripathi, N. (2011). The impact of strategic human resource management on the performance of firms in India: A study of service sector firms. *Journal of Indian Business Research, 3*(3), 148–167.

Noddings, N. (2003). *Caring: A feminine approach to ethics and moral education* (2nd ed.). Berkeley, CA: University of California Press.

Norris, A. E. (2005). Structural Equation Modeling. In B. H. Munroe (Ed.), *Statistical methods for health care research* (5th ed.). Philadelphia, PA: J.B. Lippincott.

Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance, 10*(2), 85-97.

O'Toole, L. J., & Meier, K. J. (2014). Public management, context, and performance: In quest of a more general theory. *Journal of Public Administration Research and Theory, 9,* 505-554.

Okpara, L. (2004). *Job satisfaction and organizational commitment: Are there differences between American and Nigerian managers employed in the US MNCs in Nigeria?* Academy of Business & Administrative Sciences, Briarcliffe College, Switzerland.

Oladapo, V., & Onyeaso, G. (2013). An empirical investigation of sub dimensions of high performance work system that predict organization innovation. *International Journal of Management and Marketing Research, 6,* 67-79.

Osborne, D., & Gaebler, T. (1992). *Reinventing government*. Reading, MA: Addison-Wesley.

Osterman, P. (1987). Choice of employment systems in internal labor market. *Instructional Relations, 26*(1), 46-67.

Osterman, P. (1994). How common is workplace transformation and how can we explain who does it? *Industrial and Labor Relations Review, 38,*136-154.

Paik, K., Parboteeah, P., & Shim, W. (2007). The relationship between perceived compensation, organizational commitment and job satisfaction: The case of Mexican workers in the Korean Maquiladoras. *International Journal of Human Resource Management, 18*(10),1768–1781.

Pallant, J. (2010). *SPSS Survival Manual: A step by step guide to data analysis using SPSS* (4th ed.). Maidenhead, UK:. Open University Press.

Palo, S., & Padhi, N. (2003). Measuring effectiveness of TQM training: An Indian study. *International Journal of Training and Development, 7*(3), 203-216.

Pappu, R., & Quster, P. (2006). Does customer satisfaction lead to improved brand equity? An empirical examination of two categories of retail brands. *Journal of Product and Brand Management, 15*(1), 4-14.

Paquette, S. (2006). Retrieved from http://www.fis.utoronto.ca/phd/Documents/Paquette%20%20Customer%20Knowledge%20Man agement.pdf

Parker, C. P., Baltes, B., Young, S. A., Huff, J., Lacost, H. A., & Roberts, J. (2003). Relationships between psychological climate and work outcomes: A meta-analytic review. *Journal of Organizational Behavior, 24*(4), 389-416.

Patz, A. L. (1975). Performance appraisal useful but still resisted. *Harvard Business Review, 53*(3), 74-80.

Paulin, M., Ferguson, R. J., & Bergeron, J. (2006). Service climate and organizational commitment: The importance of customer linkages. *Journal of Business Research, 59*(8), 906-915.

Paullay, I., Alliger, G., & Stone-Romero, E. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology, 79,* 224-8.

Payne, S. C., & Webber, S. S. (2006). Effects of service provider attitudes and employment statues on citizenship behaviors and customers' attitudes and loyalty behavior. *Journal Applied Psychology, 91*(2), 365-378.

Pearce, J. A., & Robinson, R. B., Jr. (1982). *Formulation and implementation of competitive strategy* (2nd ed.). Georgetown, Canada: Irwin.

Pearce, J. A., & Robinson, R. B. (1988). *Strategic management: Strategy formulation and implementation.* Georgetown, Canada: Irwin.

Pedhazur, J., & Schmelkin, P. (1991). *Measurement, design and analysis: An integrated approach*. Hillsdale, NJ: Erlbaum.

Pfeffer, J. (1981). Management as symbolic action: The creation and maintenance of organizational paradigms. *Research in Organizational Behavior, 3,* 1–52.

Pfeffer, J. (1994). *Competitive advantage through people*. Boston: MA: Harvard Business School Press.

Pfeffer, J. (1998). *The human equation: Building profits by putting people first*. Boston, MA: Harvard Business School Press.

Pfeffer, J. (2001). *Fighting the war for talent is hazardous for your organization*. Working Paper No. 1687. Stanford Business. Retrieved from https://www.gsb.stanford.edu/gsb-cmis/gsb-cmis-download-auth/317631

Pfeffer, J., & Veiga, J. F. (1999). Putting people first for organizational success. *The Academy of Management Executive, 13*(2), 37-48.

Plumbley, P. (1985). *Recruitment and selection*. London, UK: Institute of Personnel Management.

Purcell, J. (2001). *The meaning of strategy in human resource management: A critical text* (2nd ed.). London, UK: Thompson Learning.

Rabinowitz, S., & Hall, D.T. (1977). Organizational research on job involvement. *Psychological Bulletin, 84,* 265-288.

Rao, M. V. K. S. (2014). The Impact of entrepreneurial orientation and leadership styles on business performance: A study on micro, small and medium enterprises. *International Journal of Entrepreneurship and Business Environment Perspectives, 1*(2), 473-479.

Rasool, B. N., & Nouman, M. (2013). Measuring the extent of a high performance work system: A mixed methodology approach. *Pakistan Journal of Commerce and Social Sciences, 7*(3), 628-645.

Reichheld, F., & Teal, T. (1996). *The loyalty effect: The hidden force behind growth, profits,and lasting value*. Boston, MA: Harvard Business School Press.

Resurreccion, P. R. (2012). Performance management and compensation as drivers of organization competitiveness: The Philippine perspective. *International Journal of Business and Social Science, 3*(21), 20-30.

Rhoades, L., Eisenberger, R., & Armeli (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology, 86*(5), 825-836.

Richbell, S., & Wu, B. (2006). *Values and rewards: Perceptions of performance related pay in a Sino American joint venture, Work Values and Behavior*. Paper presented at ISSWOV 10th Bi-Annual Conference, Tallinn, Estonia, June 25-29 (pp. 333-340).

Robbins, S. P. (1991). *Organizational behavior: Concepts, controversies and applications.* Englewood Cliffs, NJ: Prentice Hall.

Rogers, E. W., & Wright, P. M. (1998). Measuring organizational performance in strategic human resource management: Problems, prospects and performance information markets. *Human Resource Management Review, 8*, 311-331.

Rothwell, W. J., & Sredl, H. J. (2000). *The ASTD reference guide to workplace learning and performance: Present and future roles and competencies* (3rd. ed, Vols. 1–2). Amherst, MA: HRD Press.

Russell, J. S., Terborg, J. R., & Powers, M. L. (1985). Organizational performance and organizational level training and support. *Personnel Psychology, 38*(4), 849-863.

Ryan, A., Schmit, M., & Johnson, R. (1996). Attitudes and effectiveness: Examining relations at an organizational level. *Personnel Psychology, 49*, 853–882.

Salancik, G. J., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly, 23*, 224-253.

Salanova, M., Agut, S., & Peiro, J. M. (2005). Linking organizational resources and work engagement to employee performance and customers' loyalty: The mediation of service climate. *Journal of Applied Psychology, 90*(6), 1217-1227.

Sallis, E. (2014). *Total quality management in education*. London, UK: Routledge.

Saraswat, A. (2015). Managing organizational culture and identity in a dual sector college. *Higher Education, Skills and Work-Based Learning, 5*(1), 20-46.

Sashkin, M. (1984). Participative management is an ethical imperative. *Organizational Dynamics*, *13*, 5-22.

Sashkin, M. (1986). Participative management remains an ethical imperative. *Organizational Dynamics*, *14*, 62-75.

Schmidt, L. (1992). What do data really mean? Research findings, meta-analysis, and cumulative knowledge in psychology. *American Psychologist, 47*(10), 1173-1181.

Schmit, M. J., & Allscheid, S. P. (1995). Employee attitude and customer satisfaction: making theoretical and empirical connections. *Personnel Psychology, 48*, 521-536.

Schneider, B., & Bowen, D. (1992). Personnel/human resources management in the service sector. In K. R. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (pp. 1-30). Greenwich, CT: JAI Press.

Schneider, B., & Bowen, D. (1995). *Winning the service game*. Boston, MA: Harvard Business School Press.

Schneider, B., & White, S. (2004). *Service quality: Research perspectives*. Thousand Oaks, CA: Sage.

Schneider, B., White, S., & Paul, C. (1998). Linking service climate and customer perceptions of service quality: Test of a causal model. *Journal of Applied Psychology*, *83*(2), 150-163.

Schuler, R., & Jackson, S. (1987). Linking competitive strategies with human resource management practices. *Academy of Management Executive, 9*, 207-219.

Schuler, R. S., & Macmillan, I. C. (1984). Gaining competitive advantage through human resource management practices. *Human Resource Management, 23*(3), 241-256.

Schulte, M., Ostroff, C., & Kinicki, A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross-level study of climate-satisfaction relationships. *Journal of Occupational and Organizational Psychology, 79*, 645-671.

Schumacker, R. E., & Lomax, R. G. (2010). *A beginner's guide to structural equation modeling*. Mahwah, NJ: Erlbaum.

Schwepker, C. H., & Good, D. J. (2012). Sales quotas: Unwanted consequence on trust in organization, customer-oriented selling and sales performance. *Journal of Marketing Theory and Practice, 20*, 437- 452.

Scott, J. (2009). Performance appraisals that actually improvement performance. *Career and Technical Education, 5*, 22-25.

Sean, A. W. (2005). Diane E. Johnson, Theorizing about the impact of strategic human resource management. *Human Resource Management Review, 15,* 1–19. Retrieved from http://novintarjome.com/wp-content/uploads/2013/08/1-s2.0-S1053482205000069-main.pdf

Sekaran, U. (1989). Paths to the job satisfaction of banking employees. *Journal of Organizational Behaviour, 10*: 347-359.

Sekaran, U., & Bougie, R. (2013). *Research methods for business: A skill-building approach*. British library.

Sekaran, U., & Mowday, R. T. (1981). A cross cultural analysis of the influence of individual and job characteristics on job involvement. *International Review of Applied Psychology, 30:* 51-64.

Selden, S., Schimmoeller, L., & Thompson, R. (2013). The influence of high performance work systems on voluntary turnover of new hires in US state governments. *Personnel Review, 42*(3), 300-323.

Sels, L., Winne, S., Delmotte, J., Maes, J., Faems, D., & Forrei, A. (2006). Linking HRM and small business performance: An examination of the impact of HRM intensity on the productivity and financial performance of small business. *Small Business Economics, 26,* 86-101.

Seong, J. Y. (2011). The effects of performance work systems, entrepreneurship and organizational culture on organizational performance. *Seoul Journal of Business, 17*(1), 1-35.

Shipton, H., Fay, D., West, M., Patterson, M., & Birdi, K. (2005). Managing people to promote innovation. *Creativity and Innovation Management, 14*, 118–128.

Shipton, H., West, M. A., Dawson, J., Birdi, K., & Patterson, M. (2006). HRM as a predictor of innovation. *Human Resource Management Journal, 16*, 3–27.

Shrader, C. B., Lincoln, J. R., & Hoffman, A. N. (1989). The network structures of organizations: Effects of task contingencies and distributional form. *Human Relations, 42*(1), 43-66.

Sinclair, M. (2003). Three futures for university provision: The social justice market, state capitalism and private for-profit universities. *Journal of Higher Education Policy & Management, 25*(2), 161-71.

Skinner, E., & Kindermann, T. A. (2009). A motivational perspective on engagement and disaffection. *Educational and Psychological Measurement, 69*(3), 493-525.

Smith, H. P., & Brouwer, P. J. (1977). *Performance appraisal and human development: A practical guide to effective managing*. Reading, MA: Addison-Wesley.

Smith, R. J. (1994). *Strategic management and planning in the public sector*. Harlow, UK: Longman.

Smith Cook, D. S., & Ferris, G. R. (1986). Strategic human resource management and firm effectiveness in industries experiencing decline. *Human Resource Management, 25,* 441-458.

Sonnenfeld, J. A., & Peiperl, M. A. (1988). Staffing policy as a strategic response: Atypology of career system. *Academy of Management Review, 13,* 588-600.

Stajkovic, A. D., & Luthans, F. (2001). The differential effects of incentive motivators on work performance. *Academy of Management Journal, 44,* 580–590.

Starr, S. (1986). IEs share thoughts on productivity and quality. *Industrial Engineering, 19*(11), 70-73.

Steers, R. M. (1975). Problems in the measurement of organizational-effectiveness. *Administrative Science Quarterly, 20,* 546-558.

Storey, J. (2007). *Human resource management: A critical text* (3rd ed.). Homewood, IL: Richard D. Irwin.

Sultana, A., Irum, S., Ahmed, K., & Mehmood, N. (2012). Impact of training on employee performance: A study of telecommunication sector in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business, 4*(6), 464-661.

Sun, L., Aryee, S., & Law, K. S. (2007). High performance human resource practices, citizenship behavior and organizational performance: A relational perspective. *Academy of Management Journal, 50,* 558-577.

Sung, J., & Ashton, D. N. (2005). *Achieving best practice in your business. High performance work practices: Linking strategy and skills to performance outcomes.* London, UK: Department of Trade and Industry in association with CIPD.

Sureshchandar, G. S., Rajendran, C., & Anantharaman, R. N. (2002). The relationship between management's perception of total quality service and customer perceptions of service quality. *Total Quality Management, 13*(1), 69-88.

Swanson, R. A. (2001). Human resource development and its underlying theory. *Human Resource Development International, 4*(3), 299-312.

Tabachnick, G., & Fidell, S. (2001). *Using multivariate statistics*. Boston, MA: Allyn & Bacon.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). New York, NY: Allyn & Bacon.

Takeuchi, R., Chen, G., & Lepak, D. (2009). Through the looking glass of a social system: Cross-level effects of performance work systems of employees' attitudes. *Personnel Psychology, 62,* 1-29.

Tanova, C. (2003). Firm size and recruitment: Staffing practices in small and large organizations in north Cyprus. *Career Development International, 8*(2), 107-114.

Teater, B. (2010). *An introduction to applying social work theories and methods*. London, UK: Open University Press.

Teclemichael, M., & Soeters, J. L. (2006). Challenges and prospects of HRM in developing countries: Testing the HRM-performance link in Eritrean Civil Service. *International Journal of Human Resource Management, 17*(1), 86-105.

Terpstra, D. (1996). The search for effective methods (employee recruitment and selection). *HR Focus, 17*(5), 16-18.

Terpstra, D. E., & Rozell, E. J. (1993). The relationship of staffing practices to organizational level measures of performance. *Personnel Psychology, 46*(1), 27-48.

Thompson, M., & Heron, P. (2005). The difference a manager can make: Organizational justice and knowledge worker commitment. *The International Journal of Human Resource Management, 16*(3), 383-404.

Tompkins, J. (2002). Strategic human resources management in government: Unresolved issues. *Public Personnel Administration, 31*(1), 95-110.

Truss, C., & Gratton, L. (1994). Strategic human resource management: A conceptual approach. *International Journal of Human Resource Management, 5*(3), 663-686.

Tsai, M., Tsai, C., & Chang, H. (2010). The effect of customer value, customer satisfaction and switching costs on customer loyalty: An empirical study of hypermarkets in Taiwan. *Social Behavior and Personality, 36*(6), 729-740.

Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. (1997). Alternative approaches to the employee-organization relationship: Does investment in employees pay off. *Academy of Management Journal, 40,* 1089-1121.

Turk, K. (2005). Performance appraisal and the compensation of academic staff in the University of Tartu. *Baltic Journal of Management, 3*(1), 40-54.

Ulferts, G., Wirtz, P., & Peterson, E. (2009). Strategic human resource planning in academia. *American Journal of Business Education, 2*(7), 1-9.

Ulrich, D., & Lake, D. (1990). *Organizational capability: Competing from the inside out*. New York, NY: Wiley.

Vandenberghe, C., Bentein, K., Michon, R., Chebat, J. C., Tremblay, M., & Fils, J. (2007). An examination of the role of perceived support and employee commitment in employee customer encounters. *Journal of Applied Psychology, 92,* 1177–1187.

Vemić, J. (2007). Employee training and development and the learning organization. *Facta Universitatis Series: Economics and Organization*, *4*(2), 209-216.

Vidal, M. (2007). Lean production, worker empowerment, and job satisfaction: A qualitative analysis and critique. *Critical Sociology, 33*(1-2), 247-278.

Vinit, D. (2015). The Behavioral Theory of the (Governed) Firm: Corporate Board Influences on Organizations' Responses to Performance Shortfalls. Retrieved from http://amj.aom.org/content/early/2015/02/12/amj.2013.0948

Wagner, J. A. (1994). Participation's effects on performance and satisfaction: A reconsideration of research evidence. *Academy of Management Review, 19,* 312-330.

Waiganjo, E. W., Mukulu, E., & Kahiri, J. (2012). Relationship between strategic human resources management and firm performance of Kenya's corporate organization. *International Journal of Humanities and Social Sciences, 2*(1), 62-70.

Warschauer, M. (2004). The allures and illusions of modernity: Technology and educational reform in Egypt. *Education Policy Analysis Archives, 11*(38), 377-390. Retrieved from http://epaa.asu.edu/epaa/v11n38/

Way, S. A. (2002). Performance work systems and intermediate indicators of firm performance within the US small business sector. *Journal of Management, 28*(6), 765-785.

Way, S. A., & Johnson, D. E. (2005). Theorizing about the impact of strategic human resource management. *Human Resource Management Review, 15,* 1-19.

Weinreich, N. K. (1996). A more perfect union: Integrating quantitative and qualitative methods in social marketing research. *Social Marketing Quarterly, 3*(1), 53-58.

Weiss, W. (2001). Appraising employee performance. *Supervision, 62*(10): 10-13.

Welbourne, T., & Andrews, A. (1996). Predicting the performance of initial public offerings. Should human resource management be in the equation? *Academy of Management Journal, 30*: 891-919.

Whitener, E. (2001). Do "high commitment" human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modeling. *Journal of Management, 27,* 515–535.

Wickramasinghe, V. (2007). Staffing practices in the private sector in Sri Lanka. *Career Development International, 12*(2), 108-128.

Williams, C. (2003). *Effective management* (3rd ed.). Mason, OH: South-Western.

Williamson, I. (2000). Employer legitimacy and recruitment success in small businesses. *Entrepreneurship Theory and Practice, 25*(1), 27-42.

Wood, S., & De Menezes, L. (2008). Comparing perspectives of high involvement management and organizational performance across the British economy. *International Journal of Human Resources Management, 19*(4), 639-683.

Wright, P. M., & Boswell, W. R. (2002). Desegregating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management, 28*(3), 247-276.

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management, 18*, 295-320.

Wright, P. M., & Snell, S. A. (1998). Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *Academy of Management Review, 23*, 756–772.

Wright, P., Gardner, T., Moynihan, L., & Allen, M. (2005). The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology Journal, 58*(2), 409-446.

Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human resources and sustained competitive advantage: A resource-based perspective. *International Journal of Human Resource Management, 5*(2), 301-326.

Youndt, M. A., Snell, S.A., Dean, J. W., & Lepak, D. P. (1996). Human resource manager, manufacturing strategy and firm performance. *Academy of Management Journal, 39,* 836–866.

Zacharatos, A., Barling, J., & Iverson, R.D. (2005). High-performance work systems and occupational safety. *Journal of Applied Psychology, 90*(1), 77-93.

Zahra, S. A., Neubaum, D. O., & Huse, M. (2000). Entrepreneurship in medium-size companies: Exploring the effects of ownership and governance systems. *Journal of Management, 26*(5), 947-976.

Zumbo, B. D. (1998). Validity theory and the methods used in validation: Perspectives from the social and behavioral sciences. [Special issue] *Journal Social Indicators Research, 45*(1–3), 1–359.

APPENDIX A

Questionnaire in English language

Assalamualaikum Warahmatullah Wabarakatuh

Dear Respondent,

This is an administrative survey. The purpose of the study is to investigate the effect of work performance system in strategic management on institution performance under human resource in the Ministry of Education of the Sultanate of Oman. Please kindly offer your perception on each of the following statements by ticking (√) the scale that most closely describes your personal feeling.

I would feel honored if you could respond sincerely to this questionnaire. The identity and personal information you provide with be treated strictly confidential and will not be released to any person under any circumstances. Therefore, the researcher would like you to respond truly and sincerely according to your opinion and belief.

General order: Please read properly and mark the appropriate box (√)

Thank you in advance for your co-operation in my research.

Yours sincerely,

Researcher

Saleh Al-Sinawi

Email: Sinawi104@hotmail.com

Section A: Demographic Variables

General order: Please read properly and mark the appropriate box (√)

1. Gender
   Male ☐
   Female ☐

2. Years of Experience
   1-5 ☐
   6-10 ☐
   11-15 ☐
   16-20 ☐
   21-25 ☐
   26 and above ☐

3. Position
   General Manager ☐
   Assistant General Manager ☐
   Manager ☐
   Manager ☐
   Assistant Manager ☐
   Head of section ☐
   Employee ☐

4. Age
   20-25 ☐
   26-30 ☐
   31-35 ☐
   36-40 ☐
   41-45 ☐
   46-50 ☐
   50 above ☐

5. Qualifications
   Diploma ☐
   Bachelor Degree ☐
   Higher diploma ☐
   Master degree ☐
   Ph.D ☐

Section B: Questionnaire Items

Instruction:

Please read each item carefully and tick (√) the relevant scale that most closely describes your personal feelings.

The scale of this questionnaire is ranged between 1 (**strongly disagree**) and 11 (**strongly agree)** on each item.

Variable	N	**ITEMES**	**SCALE**									
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Staffing	1	The organization selects the best all-around candidates when recruiting employees											
	2	The organization places priority on candidates' potential to learn when recruiting employees											
	3	Requirement emphasize traits and abilities required for providing high quality of customer services.											
	4	Internal candidates are given priority for job openings											

	5	Qualified employees have good opportunities for promotion.											
Training	6	The organization holds an orientation for newcomers to learn about the company											
	7	The organization continuously provides training programs											
	8	The organization invests considerable time and money in training											
	9	Training is comprehensive, not limited to skill training											
	10	High quality of customer services is emphasized in training											

Involvement & participation	11	If decision made might affect employees, the organization asks them for opinion in advance											
	12	Employees are often asked to participate in work-related decisions											
	13	Employees have discretion in handling customer additional requests											
	14	Employees have discretion in settling customer complaints without reporting to a supervisor or other specialists.											
	15	Employees are allowed to make necessary changes in the way they perform their work.											
	16	The organization fully supports employees with necessary equipment and resources for providing high quality customer services											

	17	The organization does not share information with employees (e.g., store operation, sales, etc.).												
Performances Appraisals	18	Performance appraisals provide employees with feedback for personal development.												
	19	Performance appraisals are based on multiple sources (self, coworkers, supervisor, customers, etc.)												
	20	Performance appraisals are based on objective, quantifiable results.												
	21	Supervisors get together with employees to set their personal goals.												
	22	Satisfying customers is the most important work guideline.												
	23	Meeting customers' needs is emphasized in performance appraisals												
Compensation &rewards	24	On average the pay level (including incentives) of our employees is higher than that of our ministry.												
	25	Employee salaries and rewards are determined by their performance.												
	26	The organization rewards employees for new ideas for improving customer services.												
	27	The organization provides a variety of benefits.												
	28	The organization does not attach importance to firmness of compensation/rewards.												

	29	Employees receive monetary or nonmonetary rewards for great effort and good performance.												
	30	The organization gives special rewards to employees who are excellent in serving customers.												
Caring	31	The organization considers employees off-work situations (family, school, etc.) when planning schedules.												
	32	The organization cares about work safety and health of employees.												
	33	The organization cares about work-life balance of employees.												
	34	The organization has its ways or methods to alleviate work stress.												
	35	The organization has formal grievance procedures to take care of employee's complaints or appeals.												
Concern for customers	36	The efforts to measure and track the quality of work and service in our organization.												
	37	The leadership shown and management in our organization in supporting the service quality effort.												
	38	The job knowledge and skills of employees in our organization to deliver superior quality service.												
	39	The effectiveness of communication efforts of the management to both employees and customers.												

	40	The tools, technology, and other resources provided to employees to support the delivery of superior quality service.											
	41	The overall quality of services provided by our organization.											
	42	The recognition and rewards employees receive for the delivery of superior work and service.											
Concern of employees	43	Our organization cares about employees' opinions.											
	44	Our organization shows concern for employees.											
	45	Our organization would forgive employees' honest mistakes.											
	46	Our organization really cares about employee well- being.											
	47	Our organization is willing to help if employees need special favor.											
	48	Help is available from our organization when employees have a problem.											
	49	If given the opportunity, our organization would take advantage of employees.											
Service performance	50	Our employees are able to help customers when needed.											
	51	Our employees explain items (services) features and benefit to overcome customers' objection.											

	52	Our employees point out and relate item (service) features to customers' needs.											
	53	Our employees approach customers quickly.											
	54	Our employees suggest (services) customers might like but did not think of.											
	55	Our employees ask good questions and listen attentively to find out what customer wants.											
	56	Our employees are friendly and helpful to customers.											
Helping Behavior	57	Our employees help each other out if someone falls behind in his/her work.											
	58	Our employees "touch base" with other coworkers before initiating actions that might affect them.											
	59	Our employees encourage each other when someone is down.											
	60	Our employees willingly share their expertise with other coworkers of the organization.											
	61	Our employees take steps to try prevent problems with other coworkers.											
	62	Our employees willingly give their time to help coworkers who have work-related problems.											

	63	Our employees try to act like peacemakers when other coworkers have disagreements.											
Customer knowledge	64	We have a number of strategies for dealing with different customers and situations.											
	65	We only use more than one strategy to meet customer needs.											
	66	We can use different approach for dealing with almost every customer service situation.											
	67	Our knowledge of different types of customer is very broad.											
Human resource planning (HRP)	68	The organization plans its human resources using strategic human resources planning approach.											
	69	The organization's human resource planning is integrated with organization's long range strategic planning.											
	70	Human resource planning is undertaken in the context of strengths, opportunities weakness, and threats.											
	71	Objectives of strategic HRP are linked and supported strategic vision, mission, and objective of the organization.											
	72	The organization adopts a strategic approach in implementation of its human resources plan.											

Human resource management (HRM)	73	The organization adopts a strategic approach to its human resources management.												
	74	Human resources management functions are vertically and horizontally integrated with strategic organizational functions.												
	75	The recruitment and selection of organizational staff are conducted using strategic approaches.												
	76	The organization designed and implemented strategic compensation packages for its staff.												
	77	The organization practices performance management to manage the performance of its human resources.												
	78	The careers of organization's human resources are strategically planned, developed and managed.												
	79	The organization practices non-confrontational synergistic approach in managing employee relationship.												
Human resource Development (HRD)	80	The organization prepares and implements short, medium, and long term human resource development plans for it human resources.												
	81	The organization undertakes systematic and continuous training needs analysis for all staff.												
	82	Pre-service training of organization's human resource is linked to strategic human resource plan and recruitment strategies.												

	83	Training programs are designed to support and fulfill the requirement to develop organizational human resources.												
	84	The organization carefully select internal and external training providers to conduct training for its human resources.												
	85	Training programs must support the vision, mission, and objective of the organization.												
	86	The organization evaluates all training programs conducted to its human resources.												
	87	Training evaluation is conducted systematically and covers all aspect of evaluation.												
	88	The organization beliefs and adopts competency- based human resource development systems.												

APPENDIX B

Questionnaire in Arabic language

الأستاذ/ الدكتور

المحترم

السلام عليكم ورحمة الله تعالى وبركاته....وبعد،،،

تهدف هذه الاستبانة إلى التعرف على آراء موظفي وزراة التربية والتعليم في سلطنة عمان حول:**"العلاقة بين نظام أداء العمل والأداءالمؤسسي في الادارة الاستراتيجية للموارد البشرية"**، وهي ضمن متطلبات الحصول على درجة الدكتوراه في الادارة من معهد الدراسات العليا في جامعة الملايا بكوالالمبور (ماليزيا).

لذا، يرجو الباحث من السادة الكرام أن يتكرموا بالإجابة على أسئلة هذه الاستبانة، مع توخي الدقة، والوضوح، في الإجابة على كل خيار يختارونه. ويأمل الباحث أن تساهم آراؤهم القيمة على تطوير العمل في الوزراة، بغية تحقيق الأهداف التعليمية المرسومة.

يرجى منك وضع علامة (√) **في المكان المناسب لاختيارك حسب ما يمليه عليك ضميرك دون رضوخ لأي ضغوط**، إن الإجابة على كل بند من بنود هذه الاستبانة تعد أمانة، كما تجب الإشارة إلى أن إجابتك محل تقدير واحترام وتعامل بسرية تامة، ولا تستخدم إلا لغرض البحث العلمي .

هذا وتفضلوا بقبول فائق الاحترام،،،،

الباحث/ صالح بن حمود السناوي

القسم الأول: البيانات الشخصية

1- الجنس

- ذكر
- أنثى

2- سنوات الخبرة

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26 فأكثر

3- الوظيفة الحالية

- مدير عام
- مدير عام مساعد
- مدير دائرة
- مدير دائرة مساعد
- رئيس قسم
- موظف

4- العمر

- 20-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51 فأكبر

5- المؤهل التعليمي

- الدبلوم
- البكالويوس
- الدبلوم بعد البكالويوس (العالي)
- الماجستير
- الدكتوراه

القسم الثاني: محاور الاستبانة

المتغير	رقم	البنود	السلم										
			1	2	3	4	5	6	7	8	9	10	11
التوظيف	1	تختار المؤسسة أفضل المرشحين من حيث المؤهلات عند التوظيف											
	2	تضع المؤسسة الأولوية للمرشحين الذين يملكون الامكانات والقدرات على التعلم عند التوظيف											
	3	تركز متطلبات العمل على الصفات والقدرات المطلوبة لتوفير جودة عالية من الخدمات للمراجعين											
	4	يتم إعطاء الألوية للمرشحين من داخل المؤسسة											
	5	هناك فرص جيدة لترقية الموظفين المؤهلين											
التدريب	6	توفر المؤسسة التوجيه المناسب للموظفين الجدد للتعرف على المؤسسة والإلمام بها											
	7	توفر المؤسسة البرامج التدريبية بشكل مستمر											
	8	تستثمر المؤسسة كثيرا من المال والجهد في التدريب											
	9	التدريب في المؤسسه شامل وليس مقتصرا على المهارات فقط											
	10	هناك تركيز على الجودة العالية لخدمات الموظفين في التدريب											

المشاركة في القرارات والاقتراحات	11	تقوم المؤسسة بأخذ آراء الموظفين مقدما اذا كانت القرارات المتخذة تؤثر عليهم															
	12	يطلب من الموظفين المشاركة في القرارات المتعلقة بالعمل															
	13	للموظفين حرية التصرف بتعقل في التعامل مع طلبات المراجعين الإضافية															
	14	للموظفين حرية التصرف مع شكاوى المراجعين دون إعلام المسؤول أو الخبراء الآخرين															
	15	يسمح للموظفين بإجراء التغييرات الضرورية في طريقة ادائهم لعملهم															
	16	تقوم المؤسسة بدعم الموظفين بالمصادر والمواد الضرورية لتوفير خدمات عالية الجودة للمراجعين															
	17	لا تقوم المؤسسة بإشراك الموظفين بالمعلومات (مثل عمليات التخزين والمبيعات...الخ)															
تقييم الاداء	18	يوفر تقييم الأداء معلومات للموظفين من أجل التنمية الشخصية															
	19	يستند تقييم الأداء على مصادر متعددة (الشخص نفسة وزملاء العمل والمدراء والمراجعين ...الخ)															
	20	يعتمد تقييم الأداء على نتائج موضوعية وقابلة للقياس الكمي															
	21	يجتمع المدراء مع الموظفين لتحديد أهدافهم															

		الشخصية																
	22	إن إرضاء العملاء هو الأهمية القصوى في العمل																
	23	يتم التأكيد على الإيفاء بحاجات العملاء في تقييم الأداء																
البدلات والحوافز	24	إن معدل الأجور (بما فيها الحوافز) للموظفين في هذه الدائرة هو أعلى من معدل الأجور في الدوائر الاخرى في الوزارة																
	25	يتم تحديد رواتب ومكافآت الموظفين بناء على أدائهم																
	26	تقدم المؤسسة المكافآت للموظفين بناء على الأفكار الجديدة التي يطرحونها من أجل تحسين خدمات المراجعين																
	27	تقدّم المؤسسة العديد من المزايا (المكافآت، الدورات، الترقية)																
	28	لا تعطي المؤسسة أهمية كبيرة للبدلات والمكافآت																
	29	يحصل الموظفون على مكافآت نقدية وغير نقدية على جهودهم الكبيرة وأدائهم الجيد																
	30	تقدم المؤسسة مكافآت خاصة للموظفين المتميزين في خدمة المراجعين																
الرعاية والاهتمام	31	عند وضع الخطط تأخذ المؤسسة بعين الاعتبار أوضاع الموظفين خارج نطاق العمل (مثل العائلة والمدرسة ... الخ)																

	32	تهتم المؤسسة بصحة وسلامة الموظفين													
	33	تهتم المؤسسة بالحفاظ على التوازن بين الحياة والعمل للموظفين													
	34	المؤسسة لديها أساليبها لتخفيف ضغوط العمل													
	35	المؤسسة لديها إجراءات رسمية للتعامل مع تظلمات وشكاوى الموظفين													
رضا العملاء (المراجعين)	36	هناك إجراءات وجهود لقياس وتتبع جودة العمل والخدمات في المؤسسة													
	37	هناك اهتمام إداري في المؤسسة لدعم جهود جودة الخدمات													
	38	هناك معرفة وظيفية ومهارات لدى الموظفين في المؤسسة لتوفير خدمات عالية الجودة													
	39	هناك جهود فعالة من جانب الإدارة للتواصل مع الموظفين والملاجعين على حد سواء													
	40	هناك أدوات وتقنيات ومصادر اخرى تساعد الموظفين على توفير خدمات متميزة عالية الجودة													
	41	هناك جودة شاملة للخدمات التي تقدمها المؤسسة													
	42	التقدير والمكافآت التي يحصل عليها الموظفون عند أدائهم عملاً متميزاً وخدماتٍ متميزةً													
اهتمامات الموظفين	43	تهتم المؤسسة بآراء الموظفين													
	44	تهتم المؤسسة كثيراً بحاجات الموظفين													

	45	تتسامح المؤسسة مع أخطاء الموظفين العفوية															
	46	تهتم المؤسسة برفاهية الموظفين															
	47	المؤسسة على استعداد للمساعدة اذا كان الموظف بحاجة لخدمة خاصة															
	48	توّفر المؤسسة المساعدة عندما تكون هناك مشاكل عند الموظف															
	49	تستفيد المؤسسة من الموظفين عندما تتاح لها الفرصة															
أداء الخدمة	50	يستطيع الموظفون مساعدة المراجعين عند الحاجة															
	51	يقوم الموظفون بشرح ملامح الخدمات والمزايا وذلك للتخفيف من اعتراضات المراجعين															
	52	يقوم الموظفون بتوضيح الخدمات والميزات وربطها مع حاجات المراجعين															
	53	يتواصل الموظفون مع المراجعين بسرعة															
	54	يقترح الموظفون خدمات يحبها المراجعين ولم يفكروا بها															
	55	يسأل الموظفون أسئلة جيدة ويستمعون بعناية لمعرفة حاجات المراجعين															
	56	إن الموظفين ودودون ولطفاء مع المراجعين															
سلوك المساعدة	57	يساعد الموظفون بعضهم بعضا إذا لم يستطع أحدهم الحفاظ على مستوى الخدمة في العمل															

	58	يوجد لدى الموظفين "قاعدة اتصال" مع زملاء العمل الآخرين قبل الشروع في إجراءات قد تؤثر عليهم.																
	59	يشجّع الموظفون بعضهم بعضا إذا كان أحدهم مرهقا																
	60	يقوم الموظفون بتبادل خبراتهم مع زملاء العمل الأخرين في المؤسسة عن طيب خاطر																
	61	يتخذ الموظفون خطوات لمحاولة منع المشاكل مع زملاء العمل الأخرين																
	62	يعطي الموظفون عن طيب خاطر وقتهم لمساعدة زملاءهم في العمل الذين لديهم مشاكل متعلقة بالعمل.																
	63	يحاول الموظفون إيجاد حلول سلمية عندما تكون هناك خلافات بين زملاء العمل																
معرفة العملاء (المراجعين)	64	هناك العديد من الاستراتيجيات للتعامل مع المراجعين والأوضاع المختلفة																
	65	استخدمنا أكثر من استراتيجية واحدة لتلبية احتياجات المراجعين																
	66	هناك إمكانية لاستخدام طرق مختلفة للتعامل مع وضع كل من المراجعين وتقديم الخدمات لهم																
	67	إن معرفتنا بأنواع المراجعين المختلفة واسعة جدا																
الموارد البشرية	68	تخطط المؤسسة مواردها البشرية باستخدام منهج التخطيط الاستراتيجي للموارد البشرية																

	69	إن تنظيم تخطيط الموارد البشرية متكامل مع تخطيط المؤسسة الاستراتيجي على المدى البعيد															
	70	يتم اتخاذ تخطيط الموارد البشرية ضمن سياق الفرص ونقاط القوة ونقاط الضعف والمخاطر															
	71	إن أهداف التخطيط الاستراتيجي للموارد البشرية مرتبط مع الرؤية الاستراتيجية للمؤسسة ورسالتها وأهدافها															
	72	تتبنى المؤسسة منهجا استراتيجيا لتنفيذ خطة الموارد البشرية															
إدارة الموارد البشرية	73	تتبنى المؤسسة منهجا استراتيجيا في إدارة الموارد البشرية															
	74	تتكامل أهداف إدارة الموارد البشرية مع الأهداف التنظيمية الاستراتيجية.															
	75	يتم توظيف واختيار الهيئة التنظيمية باستخدام المنهج الاستراتيجي المناسب															
	76	تقوم المؤسسة بتصميم التعويض المناسب وتنفيذه للموظفين															
	77	تمارس المؤسسة منهج إدارة الأداء للتعامل مع أداء موظفي الموارد البشرية															
	78	إن مهنة تنظيم الموارد البشرية يتم تخطيطها استراتيجيا وتطويرها وإدارتها															
	79	تمارس المنظمة نهج تعاوني غير تصادمي في إدارة العلاقات بين الموظفين															

تطوير الموارد البشرية	80	تقوم المؤسسة بإعداد وتنفيذ خطط تطوير خاصة بالموارد البشرية على المدى القصير والمتوسط والطويل															
	81	تقوم المؤسسة بإجراء تحليل منتظم ومستمر لحاجات الموظفين التدريبية															
	82	إن التدريب ما قبل الخدمة لمؤسسة الموارد البشرية مرتبط مع خطط الموارد البشرية الاستراتيجية واستراتيجيات التوظيف															
	83	يتم تصميم البرامج التدريبية لدعم وتلبية المتطلبات لإيجاد موارد بشرية منتظمة															
	84	تختار المؤسسة التدريب الداخلي والخارجي بعناية لتوفير التدريب المناسب للموظفين															
	85	يجب إن تدعم البرامج التدريبية رؤية ورسالة وأهداف المؤسسة															
	86	تقوم المؤسسة بتقييم جميع البرامج التدريبية التي تجريها للموارد البشرية															
	87	يتم إجراء تقييم التدريب بشكل منتظم وهو يغطي كل جوانب التدريب															
	88	تتبنى المؤسسة أنظمة تنافسية تطويرية للموارد البشرية															