

Impact of High Performance Work Practices System on Organizational Performance

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DEDICATION

“The last opinion of an ignorant person is the first opinion of the person of intellect.”

“The person of intellect is the one who questions his own opinions, and does not trust what his self incites him to do.”

Ameer-UI-Momaneen ALI Ibn-e-Abi Talib (AS)

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This thesis represents my process of becoming. It is appropriate to thank those who have been part of my journey.

To my supervisor, whose turn of phrase brought elegance to my fractured thoughts

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ABSTRACT

High performance work practices system is of key importance not only in strategic human resource literature but also for the organizations that are striving for excellence in today's competitive markets. This research study highlights the contribution of high performance work practices to further the level of employee's attitude and behavior and organizational performance through developing high performance work practices system in the banking sector. These systems provide a source of competitive advantage if they are unique because of their historic time boundedness, rareness, and inimitability.

The overall purpose of the present research is to identify the high performance work practices that have the potential not only to positively enhance employee's attitude and behavior but also positively affecting organizational performance and employee's productivity; in most cases employee's attitude and behavior mediate the relationship between high performance work practices and performance outcomes. The key objective and contribution of current study is to explore the impact of the moderating role of the resource base view on the relationship between high performance work practices and employee's attitude and behavior.

The study is based on middle and senior level managers of the banking sector. Convenient sampling technique is used to collect data from senior and middle level managers from all over the Pakistan. Questionnaires were used to collect responses; 3000 questionnaires were sent to the bank managers in all four provinces of Pakistan that are divided in to three banking regions i.e. south, central and north through Pakistan postal services and personal visits where regions were reachable. Out of 3000 questionnaires, 1704 responses were received making a response rate of more than 56.8%. For the purpose of data validity, cronbach's alpha and factor analysis were used. Organizational performance is measured with: dimensions of subjective performance based on different item used by past researchers; financial performance consisting of book base measures i.e. return on equity (ROE), return on assets (ROA); and, market base measures i.e. market to book value of economic profit (MBVEP) and Tobin Q (TQ). Three years data from 2007 to 2009 were collected from State Bank of Pakistan.

For testing hypotheses i.e. the impact of high performance work practices on organizational performance, on employee's productivity and on HR outcomes, multiple regression techniques were used. The same multiple regression techniques were also used to study the mediation of HR outcomes i.e. employee's behavior and attitude on the relationship between high performance work practices and organizational performance and employee's productivity through the technique used by Baron and Kenny (1986). Moderated multiple regression were used to study the effect of the

moderator on the relationship between high performance work practices system and employee's attitude and behavior.

Results indicate that high performance work practices have a positive and significant impact on organizational performance and employee's productivity. Results also establish the mediating role of HR outcome i.e. employee's attitude and behavior to further the level of organizational performance and employee's productivity. It is also proved that the view of middle and senior level managers about time boundedness, rareness, and inimitability of high performance work practices plays a moderating role to further the impact of high performance work practices.

Overall, the high performance work practices system were significantly related to the HR outcomes i.e. attitude and behavior, which, in turn, were significantly related to overall organizational performance and employee's productivity. Moreover, as hypothesized, the HR outcome i.e. attitude and behavior acted as mediators of the relationship between high performance work practices systems and organizational performance and employee's productivity. On the other hand, the mediating hypotheses for organizational book base financial measures as well as one of the organizational market base financial measures were not supported.

The relationships between high performance work practices i.e. selectivity in recruitment (SIR), information sharing (IS), self-managed team (SMT), reduced status distinctions and barriers (RSDB) and measurement of HR practices and attitude are clearly moderated by RBV. On the other hand, RBV has also moderated the relationships between behavior and following high performance practices, such as employment security (ES), employment ownership (EO), information sharing (IS), self-managed teams (SMT) and reduced status distinctions and barriers (RSDB).

The current study contributes to Strategic HRM research, as it is an attempt to explore the relationship between high performance work practices and organizational performance and employee's productivity along with dimensions of employee attitude and behavior. For management, it provides guidance such as applying a combination of practices that not only directly affect productivity and performance but also develops positive attitude and behavior, which furthers the level of performance. Self-reported data cross and sectional analysis constitute limitations of the current study. Directions for future researches are also discussed i.e. in future researcher can include the objective data and should go for longitudinal study.

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CHAPTER 1

INTRODUCTION

Human resource management was discussed from a strategic perspective for the first time in 1970s, and researchers at Michigan University were among those who initially used the term of strategic human resource management. Over time within academic and business circles, the notion of strategic human resource management became one of the important and popular topics for discussion. As the concept of competitive advantage is more and more associated with employees and management of employees, human resource management has become such a factor that can positively influence performance and is difficult to imitate (Grundy, 1997; Sun, Aryee, and Law, 2007; Akhtar et al, 2008; Qiao et al, 2009).

Globally, as well as in Pakistan, there is growing realization that increasing focus on employees can enhance the performance of an organization. Human Resources departments are trying to prove that they add value to the organization's performance. They are battling to justify the reasons for their existence in organizations. However, perhaps one of the reasons that HR has not been more successful in communicating the importance of what they do is because they have tended not to express it in economic terms. Researchers like Huselid (1995), MacDuffie (1995), Delery and Doty (1996), Boselie, Dietz, & Boon (2005), Danford et al (2008), Guthrie et al (2009), Fabling and Grimes (2010) have worked hard to establish the empirical relationship between human resource management and organizational performance. This literature still leaves room for improvement. There are many research studies on this subject but with respect to

Pakistani organizations, particularly Pakistani banks the research efforts are at the shallow end of the research pool. This situation creates room for the current study.

Research and discussion on the links between human resource practices and Strategic human resource management has numerous definitions in literature without having a consensus on a common definition among researchers. Few of the researchers have defined it as a strategic component of human resource management or as human resource related decisions that take place at different levels within an organization (David et al, 2000; Wall and Wood, 2005; Macky and Boxall, 2007). Others have focused on human resource strategy to define strategic human resource management. Overall, Strategic human resource management is often viewed as a set of decisions regarding the acquisition, allocation, utilization, and development of human resources that affect organizational performance (Dyer, 1984; Wright and Boswell, 2002; Thompson and Harley, 2007; Subramony, 2009). However, it must be noted that historically the focus of organizational strategic decisions are usually tangible assets i.e. equipment, financial resources and technology, etc. As a result, human resource, which is an intangible asset remain out of focus. Organizations, over time, and through the efforts of strategic human resource experts realized that they must try to explore how employees, which are valuable asset of an organization, can be managed through the same principles and strategies that are used to manage tangible assets.

All of the terms used currently i.e. intellectual capital, knowledge workers; high performance work practices systems, high involvement work practices systems, high commitment work practices systems, actually highlight the keen interest of researchers in “employees” for the value

addition to gain competitive advantage. Organization's desire to achieve more competitiveness and efficiency as compared to their competitors has made strategic human resource management prominent (Wright et al., 1998). Organizations and academicians are focusing on required employee attitudes and behaviors through proper management of human resources that leads to competitive advantage through motivated and involved employees that can work with speed and flexibility to create value and to act as inimitable, non-substitutable and rare resource to give competitive advantage over the rest of competitors in the environment (Barney, 1991; Porter, 1996).

The strategic HRM literature answers the most fundamental question that is, does the human resource management system of an organization provide competitive advantage, sustained for longer period of time (Schendel, 1996; Harley et al, 2007). Consequently, the literature helps us to develop a statement that the HRM system can be of a strategic nature, capable of creating competitive advantage. Overall HR practitioners and academicians are increasingly relying on behavioral competitive strategies, core competencies and capabilities of employees for competitive advantage because it is inimitable and heterogeneous (Hamel and Prahalad, 1994; Stalk, Evans, and Shulman, 1992; Sun, Aryee, & Law, 2007; Zhang and Li, 2009)

In order to create a motivated workplace to gain competitive advantage, research has focused on the impact of different HR practices to develop or identify a system of practices, which can enhance organizational performance. Usually researchers recommend the use of high performance practices such as training and skill development, information sharing, incentive pay based on performance appraisal, participation, and empowerment, which consequently develop

motivated, skilled, and well-informed employees resulting in competitive advantage. Evidence points out that bundling the HR practices aligned with business strategies can develop a work system known as high performance work practices system (HPWPS) and in return, it can help the organization to develop required competencies (Dyer, 1993; Levine, 1995; Pfeffer, 1994; Law, Tse and Zhou 2003; Kim and Wright, 2010). Today's strategic HR research has focused on high performance work systems (HPWS), known as the system of HR practices which is developed to make employees more motivated and skilled to be source of sustainable competitive advantage (Levine 1995; Pfeffer 1998; Andersen et al, 2007; Li et al, 2011).

The achievement of sustainable competitive advantage through human resource management can be explained through the resource-based view (RBV), which has provided base for the conceptual and theoretical development of the SHRM literature. As per literature the resources of a firm are defined as tangible or intangible assets (Wernerfelt, 1984) and along with physical resources, people can be effective part of the firm (Penrose, 1959). These resources must be rare, valuable, inimitable and un-substitutable (Barney, 1986, 1991, 2001) for the firm to achieve competitive advantage. Factors like technology, natural resources productivity improvements and low cost leadership have been contributing in value creation within an organization but these and other traditional types of competitive advantages are disappearing because these are hard to develop and easy to imitate (Barney, 1995; Colbert, 2004; Sun, Aryee, & Law, 2007). Human resource can lead to sustainable competitive advantage because according to Penrose (1959), the distinctiveness of human beings from other resources is constituted on the bases of its capability to learn, transfer knowledge and to make productive use of resources.

The literature on RBV of the firm has speculated that sustainable competitive advantage for the company is created through policies or practices but only when they operate in a multifaceted system that is not easily imitated; sustainable competitive advantage cannot be achieved through individual policies and practices, which can be easily imitated. The RBV of the firm is with the concept that sustainable competitive advantage can be created through complex system of HR practices as such systems are inimitable (Barney, 1995). It further examines how an organization over the span of time maintains sustainable competitive advantage (Wernerfelt, 1984; Connor, 1991; Barney, 1991; Preuss 2003; Macky and Boxall, 2007). This means that in future intangible resources i.e. high performance human resource practices that constitute high performance work practices system (HPWPS) will create value. However, the literature has presented limited empirical evidence to support the claim regarding HRM intangibles and competitive advantage.

With this background, this study aims to identify human resource practices that can create a high performance work practices system, focusing valuable and non-substitutable practices lead to competitive advantage. That is, the study examines whether a HPWPS has a direct impact on organizational performance or indirect impact on organizational performance through improved employee attitude and behavior, which in turn lead to competitive advantage.

1.1. THEORETICAL PERSPECTIVE

This study uses a combination of three theoretical bases in order to identify and design the key research questions. It firstly uses the universalistic perspective of strategic human resource management for theorizing the link between human resource practices and organizational performance. Secondly, it uses the literature on high performance work practices to identify

human resource practices, which can be part of high performance work practices system for improved organizational performance. Thirdly, it uses the resource-based view, arguing that high performance work practices can lead to high performance and competitive advantage only when these practices are rare, inimitable, and time bounded.

The link between human resource management and performance has been based on alternative modes of universalistic, contingency, and configurational perspectives (Delery and Doty, 1996). According to universalistic perspective, any number of selected best practices can be used to create value in different business contexts without any regard to type of strategy adopted. Practices that are proven best in literature help to enhance organizational performance (Pfeffer, 1994; Huselid, 1995).

Contingency perspective focuses on strategy used or implemented. Human resource practices are selected in the light of such strategy and this strategic choice is aligned with environmental characteristics, based on the assumption that a vertical fit is required between human resource management practices choices, strategy and environmental characteristics to outperform the competitors in market (Youndt et al., 1996).

The base of the configurational perspective is system approach. Both, the vertical fit and horizontal fit are required along with the concept of equifinality. Vertical fit implies that human resource practices are aligned with strategic objective of the organization and horizontal fit implies these selected human resource practices must be internally consistent with each other (Arthur, 1994;

MacDuffie, 1995). However, Equi-finality implies that different organizations may choose different human resource management configurations to achieve same level of performance.

In this study, the actual challenge is to identify the perspective that is applicable in service sector out of the three perspectives explained above. The selection of universalistic perspective is justified for service sector based on the arguments given by Delery and Doty (1996). First, there are numerous studies, which prove accuracy of universalistic approach (Guest et al., 2001), for example, providing employment security can always be better than not providing it. However, the impact of providing employment security depends on the degree to which this provision is aligned with the strategy implemented (contingency). It shows both perspectives are distinctive at different level. Second, in contingency perspective, selection of human resource practices depends on selection of theory of service sector strategy and organizational performance depends upon the interaction of strategy and practices. The scope of this study is selection of best HR practices, not the interaction of strategy and practices. Third, in contingency and configurational perspective one need to develop appropriate level of information on organizational strategy without such information these perspective cannot be proved as valid (Wright and McMahan, 1992). Since the service sector in Pakistan is low on strategic planning and relies more on intuitive strategies based on personal experiences (Schindehutte and Morris, 2001). The developed conceptual framework is based on universalistic perspective (Delery and Doty, 1996).

1.2. STRATEGIC HUMAN RESOURCE MANAGEMENT

Although, the term SHRM is very popular among researchers but consensus on a single, comprehensive definition has not emerged so far causing some researchers to conclude almost

every person related to human resource management, whether a researcher, author, practitioner, or even a teacher has its own concept of strategic human resource management. In general strategic human resource management theorist identified investments in organizational employees as a main strategic activity that helps the organization to be effective and have competitive edge over competitors (Youndt, Snell and Lepak, 1996; Li et al, 2011). This strategic activity helps to develop such skills in employees, which not only add economic value but also because of being tacit in nature and socially complex are difficult to be imitated by the competitors (Barney, 1991; Thompson and Harley, 2007).

Consequently developing and utilizing employee's skills is an imperative for gaining competitive advantage through selectivity in recruiting the required human capital by providing competitive support and benefits to the employees. When Wright and McMahan (1992) say that strategic human resource management means achievement of organizational goals through strategically planned deployed human resource management practices and activities it supports our argument that adopting strategically selected human resource practices means "being strategic". Our perception of strategic human resource management is derived from the work of most of the researchers in the HR field who have traditionally concentrated on technical innovations in practices. They did not focus on traditional bundles of HR practices but focused on the effects of different combinations of selection, training, appraisal, and rewards on individual-level outcomes of job satisfaction or performance (Datta, Guthrie, and Wright, 2003). Sisson and Storey (2000) are delivering the same argument. According to them, word strategic means that analysis of business and its context must be intentionally linked to systematically designed human resource activities. It means a set of proactive human resource management practices are to be designed and

implemented to ensure organization to achieve its goals through employees because there is a clear empirical evidence in literature that adaptation of appropriate human resource management practices are linked with organizational performance (Wan, Ong, and Kok, 2002).

Empirical research supports that strategic HRM positively impacts on organizational performance in one or other way for example, according to Sheridan (1992) employees turnover were reduced due to humanistic organizational culture and such high performance work practice system which focuses on family friendly practices, compensation based on equity and employment security makes employees more satisfied, committed and reduces turnover (Osterman, 1987). All of these HR practices contribute a lot in organizational performance. According to Ichniowski et al, (1997) these human resource management practices increases the level of productivity, which is reflected through improved employee and organizational performance.

A plethora of research is available based on individual and firm level analysis, objective and subjective data collection, and interpretation, longitudinal and cross sectional studies, to establish the finding more robust that HR and organizational performance has been strongly linked and business performance is subject to choice of high performance work practices (Guest et al. 2003; Qiao et al, 2009). As Becker and Gerhart (1996) and Gerhart (1999) clearly stated that one standard deviation increase in use of high performance work practices system results in organizational performance increase up to 20 percent. As far as the individual performance is concerned, HRM practices help to increase employee's discretionary efforts through motivation, which in turn affects employee's commitment, productivity and turnover (Huselid, 1995).

Ultimately, increase in individual performance positively affects organizational performance. This process of improving individual and organizational performance is required to be appropriately developed and deployed in a developing country like Pakistan, in its fast growing service sector.

Universal perspective has identified all of the links of human resource management with different outcomes as discussed above, mostly positive i.e. firm value, productivity (Huselid, 1995), efficiency, customer service (Becker and Gerhart, 1996), and organizational survival (Welbourne and Andrews, 1996). Moreover, it is quite possible that the human resource practices, which are proved to be strongly affecting organizational performance in literature, turned out to be insignificantly related to organizational performance because of data analysis. However, development of conceptual framework is based on those practices, which are expected to affect organizational performance in literature.

1.3.1. BANKING SECTOR IN PAKISTAN: An over view

Research for this study has been conducted in the banking sector of Pakistan. Thus, a brief over view of the banking sector has been presented before stating the research objectives. The banking sector of Islamic republic of Pakistan has gone through significant changes since 1947. Presently, this sector is acting as a backbone of the economy and playing a leading role in the country's economy. This sector has 25 local private banks, four public sector banks and seven foreign banks along with four specialized banks with 9087 branches in total (SBP report 2010; Appendix B). According to State Bank of Pakistan banking review (2010) for the last decade or so the banking sector performance has been outstanding. In 1990's financial liberalization started and state owned

banks were privatized. Various modes of privatization were adopted to get the optimal price. Muslim commercial bank (MCB) was sold to local bidders. Allied Bank Limited (ABL) was privatized through sale of shares to bank's own employees. United Bank Limited (UBL) and Habib Bank Limited (HBL) were privatized through sale of shares to strategic foreign investors. National Bank of Pakistan was listed at Karachi Stock Exchange (KSE) and some percentage of shares was sold to public. However, government of Pakistan remained the major stakeholder. Currently (2010), 77% of the commercial banking sector is owned by private sector.

While profit before and after tax shows an increase from 2000 to 2007, there has been some decrease in these figures over the last few years (SBP, 2010). Poor economic conditions and rampant inflation is eroding people capacity to repay loans. It is contributing to further the level of bad debts. The increase in number of banks shows that there is stillroom for banks to operate profitably if managed efficiently. Yet at the same time increased competition for all banks.

As market is becoming saturated that means in future banks are to rely upon their internal resources for survival (SBP report, 2010). Under such cutthroat competition, it is imperative for commercial banks to focus on human resource capital through adaptation of appropriate high performance work practices system to gain competitive edge. Only those banks would be in advantage that will focus on capacity building through adoption of high performance work practices system. Therefore, current industrial dynamics open the door to explore relationship between high performance work practices and performance. The current study is in the same context. Now banks are to look inside for competitive advantage (Barney, 1995). Human resources are one of the key options for commercial banks to gain competitive edge over their competitors. Only those banks are to make difference in the market that have adopted high

performance work practices which leads to competitive advantage. This situation creates a lot of room for current study.

Other reasons also support the decision to study the Pakistani banking sector. The banking sector is expected to remain a strong contributor to the sustained recovery and growth of the Pakistani economy (SBP, 2010). Further, the banking sector remains the largest source of creating employment opportunities, through SMEs' and other credit schemes (PES, 2010). Finally, given the importance of employees to the economic growth and a lack of systematic study in HRM practices in banking sector, recommends immediate action to examine the relationship between HRM practices and bank performance.

1.5. RESEARCH QUESTIONS

The basic objective of this study is the confirming and identifying the components of a successful HPWP system in order to improve organizational performance by studying the Pakistani banking sector. Therefore, the present study addresses the following research questions:

- 1: What is the inter-relationship between HPWPS, employee demographics, HRM outcomes, organizational performance and employee' productivity?
- 2: Do HRM outcomes play a mediating role between HPWPS and organizational performance as well as employees' productivity?

- 3: Does RBV play a moderating role between HPWPS and HR outcomes i.e. employee's attitude and behavior?

1.6. OBJECTIVES OF THE STUDY

This study extends research exploring the concept of bundling of HRM practices in strategic HRM that lead to HPWPS and their implementations within the organization. It support previous researches that found that bundling of HRM practices is positively and significantly related to organizational performance (David and Wan, 2000; Wan et al, 2002; Cunha et al, 2003; Andersen et al, 2007; Kim and Wright, 2010) and extends it by including the mediating role of HRM outcomes and moderating role of resource base view in the after mentioned relationship. The intent of this study is to gain consensus, from bank managers / experts as to what are the components of a high performance work practice system construct for managers within the banking sector of Pakistan and then use these to explore the impact of HR practices on organization performance.

To be more precise the objectives of the study are mentioned, as follows.

- To identify the relationship between High Performance Work Practices System (HPWPS) and organizational performance.
- To find out the relationship between High Performance Work Practices System (HPWPS) and employee's productivity.
- To explore the mediating effect of HR outcome i.e. employee's attitude and behavior between HPWPS and organizational performance.

- To explore the mediating effect of HR outcome i.e. employee's attitude and behavior between HPWPS and employee's productivity.
- To explore the moderating effect of RBV on the relationship between HPWPS and HR outcome i.e. employee's attitude and behavior.
- To develop an integrated model of HPWPS and organization performance to investigate relative variance in dependent variable because of the independent variables.

1.7. SIGNIFICANCE OF THE STUDY

The key significance of the current study is the investigation of the fundamental RBV theoretical statement that time bounded, rare, and inimitable organizational resources and capabilities can be a source of competitive advantage (Barney, 1991). Firstly, the firm's adopted and utilized resources and capabilities shall have time path history (Amit & Schoemaker, 1993; Barney, 1991; Grant, 1991) which means resources and capabilities were developed over time (Barney, 1986). Secondly, these resources and capabilities must be rare (Barney, 1991). Most of the Strategic HRM researchers have proposed that skills, competencies, and capabilities of resources make them rare (Wright et al., 1994). Thirdly, such resources and capabilities are imitable due to causal ambiguity, and social complexity (Wright et al., 1994).

In the current study, the moderating variable of resource-based view is developed to measure the perceptions of middle and senior level managers in banking sector about the adopted high performance work practices constituting the high performance work practices system. The

construct of RBV in current study has the same three dimensions of RBV as discussed above. First, time boundedness, which, means for how long the practices are adopted by the bank, focuses on time path history of adopted practices. Second, rareness, which means none of the competitors, is implementing these high performance work practices as our bank has implemented, focuses on rareness of the adopted practices. Third, inimitability that means competitors cannot imitate our adopted high performance work practices (Barney, 1991; 1995; 2001) focuses on inimitability of adopted practices. This construct explores that how perception of the senior and middle level managers on above-mentioned dimension affects the banking sector managers' attitude and behavior to positively contribute to organizational performance. It enhances the managers' ability to manage organizational performance indirectly by proactively addressing this dimension of human resource. This study suggests that perception of managers about adopted practices positively moderates their attitudes and behaviors.

The results of this study could give practitioners in the field of HRM a method for affecting the HR outcome and the perception of middle and senior level managers about the high performance work practices they have adopted, this perception in turn can enhance the HR outcomes. The results of the study could also provide data necessary for practitioners to feel more comfortable addressing the attitude, behavior of employees and particular dimension of organizational performance through adopting different set of high performance work practices constituting relevant high performance work practices systems.

This study of high performance work practices system should be important to Pakistani banking sector, the custodian of public and private funds and playing an important role in the

development and growth of economy as a whole. This study of high performance work practices system will especially be relevant to South Asian banking sector now as several are faced with imminent performance issue because the research setting in Pakistan surrogates most of the south Asian countries' research setting.

1.8. THESIS PROGRESSION

The researcher aims to pursue this study into empirical evidence for the Pakistani banking sector within the boundaries of high performance work practices system models and resource base view theory. In the following chapters the existing literature is been reviewed in relation to high performance work practices system, attitude and behavior, organizational performance in the context of theories and empirical research. The current chapter provided introduction, theoretical perspective, overview of strategic human resource management, service sector, banking sector in Pakistan, background of the study, significance of the study and research problem. It also explained development of research question and objectives of the study. It gave rationale of the research and discussed the significance of study.

Chapter 2 reviews the literature. This review of the literature helps to identify variables, to understand main links and to develop hypotheses. In this chapter, the concept of high performance work practices is established through literature, and the concept of resource base view and its integration with high performance work practices is discussed. The chapter also focuses on resources, capabilities, and sustainable complete advantage. This discussion leads towards the development of hypotheses.

Chapter 3 investigates the empirical methodology appropriate to our study and sets out our models for the necessary analyses. Research design and other methodological details like population, sample, variables, selected instruments, data collection, and analysis have been discussed. It further provides reliability and validity of the whole process of information collection sources, procedures, selection of variables, statistical analysis etc. The main objective of this chapter is to outline the steps followed in carrying out the research. The researcher chose a suitable methodology to explore the impact of SHRM, and gave specific attention to those human resource management activities that can be addressed in service sector of Pakistan. In this way, the problems associated with a lack of empirical information on SHRM in service sector, and any retrospective biases, are addressed. Brief justification is offered at times to extend the reasoning behind the choices made by the researcher.

Chapters 4 contain explanations of related tests, analyses, applied econometric techniques, and findings. This chapter explains descriptive statistics and correlations for all the study's variables. It presents the key results of the study. The objective is to identify significantly emerged high performance practices after regressing all of the practices with organizational subjective and financial performance with the concept of time boundedness, rareness, and inimitability.

Chapter 5 concludes the thesis with recommendations for future research. This research focuses on the development of HPWPS model for middle and senior level managers in the banking industry of Pakistan. The model serves as a medium to integrate findings about the dimensions of HRM work practices and organizational performance. The outcome dimensions of organizational performance

can be utilized to determine the effectiveness of HPWPS, which are pertinent dimensions for the banking industry. Based on prior empirical work this study started with 13 HRM work practice dimensions and organizational performance as the dependent variable. It also helps to clarify the relationships between the best HRM practices and firm performance. Our argument is that to affect performance, the practices must emerge significantly on both dimensions of RBV i.e. time boundedness, rareness, and inimitability.

1.6. SUMMARY

In this chapter, the researcher presented information on the use and importance of human resource management and strategic human resource management and their link with organizational performance with the concept that people are main source of competitive advantage even in a developing country like Pakistan. The concept of bundling of HRM practices was explained with universalistic theoretical perspective and the concept of resource-based view was linked with competitive advantage. The chapter has also thrown light on background and significance of the study and discussed research question and objectives of the study. The rationale of selecting Pakistani-banking sector for research is discussed and justified. The next chapter provides details of other studies in the same area.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In this chapter, the discussion is focused on: high performance work practices systems as a part of human resource management, strategic human resource management; Pakistani banking sector's performance attitudes, and behaviors of employees and financial and non-financial indicators of performance from a theoretical and empirical perspective. This part of the thesis also identifies and defines resources, capabilities and competencies in the light of resource base view theory for current research to enhance organizational performance and to gain competitive advantage. Finally, it discusses the conceptual model and association among these variables and ends with the hypotheses that can be formed.

2.1. HIGH PERFORMANCE WORK PRACTICES SYSTEM

Human resource practices are not effective independently. They always operate in an interrelated complex system, in the literature of strategic human resource management (SHRM). Such a system of interrelated HRM practices is known as a high performance work practices (HPWP) system (Becker and Huselid, 1998). According to Snell and Bohlander, (2007) a high-performance work practices system (HPWPS) can be defined as a specific combination of HR practices, work structures, and processes that maximizes employee knowledge, skill, commitment, and flexibility.

while there is consensus in HR literature that an HPWP system should be formulated to help the employees to be skillful, competent, motivated and capable of decision making (Delery and

Doty; Huselid, 1995; MacDuffie, 1995), unfortunately only limited theory specifies how HR practices should be bundled together. The concept of high performance work systems (HPWS) has received limited attention in the literature (Delery, 1998). In addition, most of the managers cannot 'bundle' or integrate HRM practices into HPWS that is suitable for the organizations to develop strategies (Barney and Wright, 1997). Over all, there is evidence to suggest that a single bundle is more effective than multiple bundles to develop high performance work practices comprehensively (MacDuffie, 1995).

Regarding the component practices of HPWS, there is considerable overlap in practices identified in Table 2.1 reflects the human resource practices that are identified and recommended as high performance work practices by different researchers. It clearly reflects bundles of high performance work practices that are constituted and used in different studies. As reflected in Table 2.1, eight practices are recommended by the U.S. Department of Labor (1993), sixteen practices were recommended by Pfeffer (1994) later on thirteen practices were identified by Pfeffer, Hatano, and Santalainen, (1995), Delery and Doty (1996) reduced the list of sixteen practices to seven.

Afterward Pfeffer (1998) reduced his original list of sixteen high performance work practices to seven as mentioned in Table 2.1. Delery and Doty (1996) conceived these seven practices as best practices they were of the point of view that comparatively some practices are always better than other the firms must identify them and adopt these practices as best practices.

Researchers have used different statistical tools to identify the HR practices, for example MacDuffie (1995) and Guest, Conway and Dewe (2004). Guest et al (2004) have surveyed 1308 managers in manufacturing sector by using fourteen practices and developed high performance work practices system through factor and regression analysis. Hartog and Verburg (2004) used a sample of 175 firms to prove the association between HPWP systems and organizational performance by including information sharing, incentive pay for performance and selectivity in recruitment and other practices selected through literature. The same pattern has been used to select HRM practices in prior empirical works (i.e. Huselid, 1995; Delery and Doty, 1996; Becker and Huselid, 1998; Hartog, 2004).

Table 2.1: Different HR practices focused by different researchers

U.S. Department of Labor (1993)	<ol style="list-style-type: none"> 1. Extensive recruitment and selection process 2. Training procedures 3. Formal information sharing 4. Attitude assessment 5. Job design 6. Grievance procedures 7. Labor-management participation programs 8. Performance appraisal, promotion, and incentive compensation systems that recognize and reward employee merit
Pfeffer (1994)	<ol style="list-style-type: none"> 1. Employment security 2. Selectivity in recruiting 3. High wages 4. Emphasis on training and skill development 5. Sharing information 6. Symbolic egalitarianism 7. Wage compression across levels and departments 8. Incentive compensation such as gain sharing, pay for performance, and pay for skill 9. Employee ownership 10. Teams and job redesign 11. Cross-training and cross-utilization 12. Participation and empowerment 13. Promotion from within 14. Long-term perspective 15. Measurement to assess progress 16. Overarching vision or rationale

Pfeffer, Hatano, and Santalainen, (1995)	<ol style="list-style-type: none"> 1. Employment security 2. Selectivity in recruiting 3. High wages 4. Incentive pay 5. Employee ownership 6. Information sharing 7. Participation and empowerment 8. Self-managed teams 9. Training and skill development 10. Cross-utilization and cross-training 11. Symbolic egalitarianism 12. Wage compression, and 13. Promotion from within
Pfeffer (1998)	<ol style="list-style-type: none"> 1. Employment security 2. Selective hiring of new personnel 3. Self-managed teams and decentralization of decision making as the basic principles of organizational design 4. Comparatively high compensation contingent on organizational performance 5. Extensive training 6. Reduced status distinctions and barriers, including dress, language, office arrangements, and wage differences across levels 7. Extensive sharing of financial and performance information throughout the organization
Delery and Doty (1996)	<ol style="list-style-type: none"> 1. Internal career opportunities 2. Formal training systems 3. Appraisal measures 4. Profit sharing 5. Employment security 6. Voice mechanisms 7. Job definition
Murphy (2006)	<ol style="list-style-type: none"> 1. Employment Security 2. Selectivity in Recruiting 3. High Wages 4. Incentive Pay Based on Performance Appraisal 5. Employee Ownership 6. Information Sharing 7. Participation and Empowerment 8. Self-Managed Teams 9. Training and Skill Development 10. Reduced Status Distinctions and Barriers 11. Job Design 12. Promotion From Within 13. Measurement of the HR Practices 14. Quality of work/life

Researchers have also used different types of performance measures to establish the link between HR practices and outcomes. Further, research has been carried out in different sectors. Table 2.2 presents a list of different HRM practices and their links with different types of performance measures. Column 1 titled as HRM practices shows the list of HRM practices. Column 2 titled as

performance types, shows the list of performance measures used against the HRM practice mentioned in column one. Column 3 titled as researchers, mentions the proxies of researcher's name as A, B, C, D etc., which are mentioned at the bottom of this table. Column four titled as research subject, gives the list of sectors or industry where these researchers conducted research to establish a link between HRM practices and performance measured.

For example, the researcher D mentioned at the bottom of Table 2.2 is Delaney and Huselid (1996). They conducted research on profit and nonprofit firms to establish a link between staffing selectivity and perceptual performance. The highlighted researcher B (Delery and Doty, 1996) were the only among many who have conducted research in banking sector with financial performance measures. overall, variety of outcome variables, such as perceptual performance, financial performance, employee productivity and profitability have been used.

Table 2.2: Preceding research regarding different HR practices and performance

	HRM practice	Performance types	Researchers	Research Subject
1	Staffing selectivity	Perceptual performance Perceptual performance Financial performance	D F N	Profit and nonprofit firms The SBU of Fortune 500 companies Company
2	Internal career opportunities	Financial performance Organizational effectiveness	B P	Bank Healthcare industry
3	HR planning	Firm performance	C	High-tech firms

4	Training	Healthcare outcome (Mortality) Financial performance Employee productivity Perceptual performance Financial performance Financial performance Perceptual performance Perceptual performance Performance and commitment Organizational effectiveness Financial performance Innovation performance	A B C D F G H J K P Q R	Hospitals Bank High-tech firms Profit and nonprofit firms The SBU of Fortune 500 companies Firms Company Company Fortune500 pharmaceutical company Healthy work organization Manufacturing plants Business firms
5	Employment security	Financial performance Firm performance Perceptual performance	B C H	Bank High-tech firms Russian subsidiaries of West Co.
6	Job descriptions	Financial performance Financial performance	B E	Bank Publicly companies
7	Team working	Healthcare outcome (Mortality) Employee productivity Perceptual performance Employ productivity Financial performance	A C H L Q	Hospitals High-tech firms Perceptual performance Healthcare industry Manufacturing plants
8	Benefits and Profit sharing	Financial performance Employee productivity Financial performance	B C E	Bank High-tech firms Publicly companies
9	Incentive compensation	Perceptual performance Financial performance	D Q	Profit and nonprofit firms Manufacturing plants
10	Performance appraisal	Healthcare outcome (Mortality) Financial performance Employee productivity Financial performance Individual performance Firm profitability Firm profitability	A B C F I O M	Hospitals Bank High-tech firms The SBU of Fortune 500 companies Company Firm Firm
11	Employee participation	Financial performance Financial performance	B Q	Bank Manufacturing plants
12	Employee communication	Organizational effectiveness Financial performance	P Q	Healthy work organization Manufacturing plants

A. West et al. (2002)	B. Delery and Doty(1 996)	C. Chang and Chen(2002)
D. Delaney and Huselid(1996)	E. Simon and Syed(2003)	F. Martell et al., (1996)
G. Huselid(1995)	H. Carl and Ingmar(2001)	I. Fletcher and Williams(1985)
J. D'Arcimoles (1997)	K. Morrow et al.(1 997)	L. Borrill et al. (2000)
M. Gerhart and Milkovich(1 990)	N. Terpstra and Rozell(1 993)	O. Borman(1991)
P. Browne(2000)	Q. Ahmad and Schroeder (2003)	R. Laursen and Foss (2003)

2.1.1. SELECTED PRACTICES of HPWP SYSTEM FOR THE CURRENT STUDY

In light of the studies listed in Table 2.1 and Table 2.2, it is possible to identify such HR practices which have repeatedly formed a part of HPWPS. These practices, which are listed below, form a part of proposed HPWPS in the current study.

1. Employment Security:

The construct of employment security in current study is defined as “the organization’s focus on total employment maintenance” (Murphy, 2006). For example, the employees are protected from the factors that are not in their control like economic recessions and liking and disliking of senior management. Whereas, the employees who are with undesirable behaviors and incompetence are not protected.

2. Selectivity in Recruiting:

It is defined as “adopting such selecting methods that has been developed through time, based on experience” (Murphy, 2006). By selectivity in recruitment Organizations focus on attracting the right people with the right skills, which insures organizational ability not only to create a pool of applicant but also of selecting the required skill (Pfeffer, 1998).

3. High Wages:

It is defined as “offering comparatively high wages to the employees” (Murphy, 2006). High wages gauge the importance of employees. Compensation is a key factor that reflects the employee’s worth for the organization. It reflects take home salary, which can consist of fixed salary, bonuses, commissions, profit sharing, and incentives.

4. Incentive Pay Based on Performance Appraisal:

This construct is defined as “opportunity provided to the employees to increase their pay by improving their performance” (Murphy, 2006). Pay to performance is an important component of high performance work practices system. It includes achieving targets, meeting deadlines, showing benchmark behaviors in difficult situations etc. It helps to adjust organizations salary bill without layoff (Pfeffer, Hatano and Santalainen, 1995).

5. Employee Ownership:

It is defined as “providing employees with the stock option plans (ESOPs), proprietary or partner interest etc” (Murphy, 2006). It includes all types of the financial incentive plans that are designed to get employees involved with the organization and get them aligned with shareholders (Huselid, 1995).

6. Information Sharing:

It is defined as “providing employees with the required information regarding strategy, targets and goals, financial performance and on ongoing operations along with training to interpret and use this shared information” (Murphy, 2006). Information shared with the employees promotes a

culture of trust. It helps the employees to increase their contribution if they are provided with required information on above-mentioned issues.

7. Participation and Empowerment:

It is defined as “ the focus of organization on delegation of authority, encouraging workers to participate in decision making, enabling them to control work processes as required and provision of grievances system” (Pfeffer, Hatano and Santalainen, 1995). This consequently signals that employees are important.

8. Self-Managed Teams:

It can be defined as “the teams that are characterized with high level of autonomy, discretion, and flexibility to provide an opportunity for employees to be innovative, to take initiative and apply their skills in the best way” (Murphy, 2006).

9. Training and Skill Development:

It can be defined as “the focus of organization to provide opportunities to the employees to enhance their skills and abilities to take initiative not only in identifying the problem but also resolving it by changing the work methods without losing their focus on quality” (Pfeffer, 1998). Skill development is the key area focused by high performance practices in literature. High performance practices systems cannot be developed without focusing on training. It helps the organizations to enhance the skills of front line employees.

10. Reduced Status Distinctions and Barriers:

It can be defined as “the focus of the organization to reduce status distinctions and barriers by adopting such policies that decreases the gaps between office arrangements, language, dresses and pay differences across the organization” (Pfeffer, 1998). Status distinctions and barriers are the impediment in developing relationships and creating positive work environment.

11. Job Design:

It is defined as “the extent to which jobs are defined with clarity” (Murphy, 2006). As per literature, employees are more productive if jobs are defined with clarity and properly communicated to employees without any ambiguity (Delery and Doty, 1996).

12. Promotion from Within:

It is defined as “the extent to which organization prefer their employees to be promoted to upper level of management” (Murphy, 2006). Employees perceive more fairness and transparency in work environment if policy of promotion from within is implemented. It provides an incentive to perform well because status is attached with performance (Pfeffer, Hatano and Santalainen, 1995).

13. Measurement of the HR Practices:

It is defined as “the extent to which organization focus on measurement of implemented human resource practices and feedback mechanism” (Murphy, 2006). The success of high performance work practices system depends upon such mechanism, which is constituted by attitude assessment and objective measurement surveys (Pfeffer, Hatano and Santalainen, 1995).

14. Quality of Work/Life:

It is defined as “the extent to which organization focus on providing their employees with quality of work/life”. It distinguishes between the degree of emotional, intellectual, or cultural satisfaction in a person's everyday life as distinct from the degree of material comfort or “more time with family, less time at work (Murphy, 2006). These practices, indirectly and collectively are likely to influence employees attitude and behaviors, and organizational performance.

2.2. HRM OUTCOME

In HRM literature, the relationship between performance and HRM practices is established through HR outcomes such as attitudes and behaviors of employees. High performance work practices also affect organizational performance through HRM outcomes (Guest, 1997; Paauwe, 1998; Fey et al., 2000). It has been assumed in the literature that HRM outcomes mediate between high performance work practices and organizational performance i.e. First high performance work practices develop certain employee's attitude and behavior which in turn affect performance (Paauwe, 1998).

HRM outcomes like employee's intention to leave, job satisfaction and organizational commitment can be influenced through HRM practices (Huang, 2000). While the early models of Beer (1984) and Guest (1989) provided conceptual foundation of the link between HRM practices and performance, the empirical research to explore this link emerged in 90's in the work of Arthur (1994), Huselid (1995) and many others. Later this link became a key part of HR literature and

research. (Arthur, 1994; Huselid, 1995; MacDuffie, 1995; Dean and Lepak, 1996; Huselid and Becker, 1996; Delaney and Huselid, 1996; Delery and Doty, 1996; Ichniowski et al., 1997; Becker and Huselid, 1998; Huang, 2000).

As this literature developed, the Resource base view (RBV) theory provided base to the above arguments that high performance practices directly affect organizational performance (Youndt et al., 1996; Guest, 1997; Paauwe, 1998; Fey et al., 2000; Paauwe and Boselie, 2003). that is, the resource-based theory helped to understand the conversion of high performance work practices into high organizational performance. By suggesting that motivation, job satisfaction, and organizational commitment made an employee a valuable asset and become more productive, rare, and irreplaceable. (MacDuffie, 1995).

There is a growing consensus among researchers in literature to explain the phenomenon of translating high performance work practices system into performance through the resource base view (RBV) theoretical perspective (MacDuffie, 1995; Becker and Gerhart, 1996; Guest, 1997; Fey et al., 2000). This argument helps to develop a rationale that high performance work practices system and organizational performance are not only significantly linked but also supported by a theoretical perspective.

Assessing that motivated and committed employees are valuable asset, the conceptual framework of this study highlights that there is a mediation of HRM outcomes to enhance the effect of high performance work practices on organizational performance. It is being assumed that if employees are more motivated and committed than they will be more productive and effective; the satisfaction with their job i.e. duties and responsibilities make the employees more

productive as compared to dissatisfied and confused employees; and intention to stay affects employee performance positively as compared to intention to leave on organizational.. It means HPWP system's contribution depends upon the above-mentioned HRM outcomes (Becker and Gerhart, 1996; Guest, 2001; Paauwe, 1998).

The above discussion gives rise to the question that which HRM practices lead to what HRM outcomes i.e. motivation, job satisfaction and turnover intentions, commitment, and absenteeism. A lot of research has been conducted to identify the relationship between HRM practices and HRM outcome but somehow the clear net impact is yet to be identified although different research studies have found that HR practices and HRM outcomes are positively correlated. For example, compensation programs and motivation/job-satisfaction are found to be linked significantly (Huselid, 1995; Lienert, 1998). Similarly, Ahmad and Schroeder (2003) found that motivation and promotion opportunities are significantly linked. Other significant links like compensation and retention (Aredo, 2002; Taormina, 1999), investment in training and employee competence (Kalleberg and Moody, 1994), job descriptions and placement and role clarity (Becker and Gerhart, 1996; Fey et al., 2000), recruitment and selection and employee competence (Hsu and Leat, 2000; Huselid, 1995) were also found significant. In addition to individual links between HR practices and outcomes, research has suggested that a firm's performance is influenced by the high performance work practices HR outcomes. For example, the landmark model proposed by Beer et al (1984) has cost effectiveness as intermediary variable and in Becker and Huselid (1998) model employee's skill and motivation as intermediary variables. Ferris et al (1999) presented a model with employee's attitude and behavior as intermediary variable. Chadwick and Cappelli (1999) proposed internal capabilities as intermediary variable in

the context of resource based view. The model presented by Paauwe and Richardson (1997) stresses that the high performance work practices system should be designed to lead to HR outcomes of employee's attitudes and behaviors which in turn will affect the organizational performance.

Thus, high performance work practices are successful if they influence on employee's behavior and attitude (Jackson et al. 1989) and only motivated and satisfied employees can be a source of success for the firm. this is possible only if these high performance practices are selected carefully and systematically which in turn will result in employee's positive attitude and behavior and it will further positively affect organizational performance (Becker and Wilson, 2000; Fey et al., 2000; Guest, 2001).

Arthur (1994) is of the opinion that such employee's attitudes and behaviors that support organizational objectives help the organization to achieve long lasting performance. Employees with positive attitude and behavior will work for the benefit of the organization, which will positively affect organizational performance and employee's productivity. In addition, employees without positive attitude and behavior, even if they are highly skilled, are unlikely to contribute discretionary effort to improve their productivity and organizational performance (MacDuffie, 1995).

Additional studies which have supported the mediating role of HR outcome between high performance work practices and organizational performance and employee's productivity includes Ostroff and Bowen (2000), Delery and Shaw (2001), Becker and Gerhart(1996) and these

researchers are of the opinion that focusing only on direct relation will be very simplistic because such relation cannot explain the phenomenon that high performance work practices are responsible for change; instead it is the employee's attitude and behavior that translate high performance work practices into organizational performance and employee's productivity. Thus high organizational performance and employee's productivity is not possible unless employees respond positively to high performance work practices through their positive attitude and behavior.

In this study, it is assumed that the employee's behaviors and attitudes are mediating the relationship between HRM practices and firm's performance. The Figure 2.1 presents that there are two ways to explain the relationship between high performance work practices system and organizational financial and subjective performance and employee's productivity. First, the direct impact of high performance work practices on organizational performance and employee's productivity. Second, the impact of high performance work practices through HR outcomes.

Thus, based on the literature review and the above discussion above following relationships are hypothesized. These hypotheses focus on the direct relationships between high performance work practices system and employee's attitude and behavior.

1(a) - H₁: High performance work practices system is positively and significantly related to attitudinal outcome.

1(b) - H₁: High performance work practices system is positively and significantly related to behavioral outcome.

While the literature also suggest a relationship between high performance work practices system and organizational performance, the dimentions of performance are discussed in detail before following hypothesis connecting this area, which are presented in section 2.3.

2.3. PERFORMANCE: A MULTI-DIMENSIONAL CONCEPT

The concepts of both financial performance and subjective performance are a part of this study because other authors such as Boselie et al. (2005), Paauwe (2004), Guest (2003), Guthari (2001) and Delaney & Huselid (1996) have used and agreed for these multiple measures of performance.

2.3.1. ORGANIZATIONAL PERFORMANCE

In past research, subjective or non-financial performance has been measured through perceived organizational performance and market performance, as by using these relative measures a broad assessment of subjective performance is possible. Subjective performance has been based on self-report variables, in studies by Delaney and Huselid (1996) and Kuldeep Singh (2004). They have created aspects as perceived profitability and market share, growth in sales, customer satisfaction, product quality, ability to attract employees, relations between management and employees, new product development, marketing of products or services and ability to retain employees.

Financial performance data of book base measures and market base measures have also been used in prior research. Example of book base measures include return on equity (ROE) which is measured by net profit divided by shareholder equity and return on assets (ROA) which is measured by net profit divided by total assets. Market base measures include market to book value

ratio of economic profit (MBVEP) and Tobin Q (TQ) that is calculated as market value of equity plus market value of debt divided by book value of equity plus book value of debt. A plethora of research is available in support of using both objective and subjective indicators of organizational performance and both are considered to be valid (Guest, 2003; Guthrie, 2001).

2.3.2. PRODUCTIVITY

Another proxy for organizational performance is productivity. The HR practices are strongly correlated with firm's performance i.e. employee's productivity, profitability, growth rates, and Tobin's Q, for example, Bloom et al. (2010) has indicated that modern HR practices have large effects on productivity and profitability. Bloom and Van Reenen (2007) explained in their research that HR management is highly correlated with labor productivity and a significant correlation is apparent with alternative measures of performance such as profitability, sales growth, and firm survival. Since many HR practices appear to be highly correlated, some researchers have aggregated them into a smaller number of summary measures. Huselid (1995) and Huselid and Becker (1996) found that these factors were positively and significantly related to productivity, profitability and Tobin's Q. Ichniowski, Shaw and Prennushi (1993), using longitudinal data from 30 steel plants, found the impact of "cooperative and innovative" HRM practices to have a positive and significant effect on productivity. Similarly, Arthur (1994) in his study of 30 steel "minimills," found that those with commitment based human resource systems, had higher productivity than firms with "control" systems i.e. emphasizing the development of employee's commitment based resource production efforts than emphasizing efficiency and the reduction of labor costs. Finally, MacDuffie (1995) found that "bundles" of internally consistent HRM practices were associated with higher productivity and quality in 62 automotive assembly

plants. Ichniowski (1990) concluded that the use of progressive HRM practices was associated with both high productivity and high financial performance in 65 business units.

Each of the above-discussed studies had focused on the impact of systems of High Performance Work Practices on employee productivity. This literature is at an early stage but clearly suggests that introducing modern HRM practice into firms leads to significant improvements in performance. Based on the above discussion, a series of hypothesis are added to the list already presented in section 2.2. These focus on the relationship between high performance work practices system and organizational performance

1(c) - H₁: High performance work practices system is positively and significantly related to organizational book base financial performance.

1(d) - H₁: High performance work practices system is positively and significantly related to organizational market base financial performance.

1(e) - H₁: High performance work practices system is positively and significantly related to employee's productivity.

1(f) - H₁: High performance work practices system is positively and significantly related to organizational subjective performance.

As discussed in section 2.2, the link between HPWPS and performance can be direct, or it can be through HR outcomes. For the later, high performance work practices affect HR outcomes and HR outcomes affect organizational performance. As the operationalization of the HR outcomes in this research is through employee's attitudes and behaviours (hypothesis 1(a) and 1(b)), it is

hypothesized that these attitudes and behaviours impact performance outcomes. For the relationships between attitudes and performance outcomes, the following relationships are hypothesized

2(a) - H₁: HRM outcome i.e. attitude is positively and significantly related to organizational book base financial performance.

2(b) - H₁: HRM outcome i.e. attitude is positively and significantly related to organizational market base financial performance.

2(c) - H₁: HRM outcomes i.e. attitude is positively and significantly related to employee's productivity.

2(d) - H₁: HRM outcomes i.e. attitude is positively and significantly related to organizational subjective performance.

The same relationships are repeated for the relationship between behavior and performance outcomes.

2(e) - H₁: HRM outcome i.e. behavior is positively and significantly related to organizational book base financial performance.

2(f) - H₁: HRM outcome i.e. behavior is positively and significantly related to organizational market base financial performance.

2(g) - H₁: HRM outcomes i.e. behavior is positively and significantly related to employee's productivity.

2(h) - H₁: HRM outcomes i.e. behavior is positively and significantly related to organizational subjective performance.

Finally, to complete the sets of hypothesis related to high performance work practices system, HR outcomes and organizational performance, a set of hypothesis is based on the mediating role of HR outcomes in the relationship between high performance work practices system and organizational performance. The following two hypotheses are based on the mediating role of employee's attitude between HPWPS and organizational book base and market base financial performance.

3(a) - H₁: HR outcomes i.e. attitude, mediate between HPWP and organizational book base financial performance.

3(b) - H₁: HR outcomes i.e. attitude, mediate between HPWP and organizational market base financial performance.

The following two hypotheses are based on the mediating role of employee's behavior between HPWPS and organizational book base and market base financial performance.

3(c) - H₁: HR outcomes i.e. behavior, mediate between HPWP and organizational book base financial performance.

3(d) - H₁: HR outcomes i.e. behavior, mediate between HPWP and organizational market base financial performance.

The following two hypotheses are based on the mediating role of employee's attitudes and behaviors between HPWPS and employee's productivity.

3(e) - H₁: HR outcomes mediate i.e. attitude, between HPWP and employee's productivity.

3(f) - H₁: HR outcomes mediate i.e. behavior, between HPWP and employee's productivity.

The following two hypotheses are based on the mediating role of employee's attitudes and behaviors between HPWPS and organizational subjective performance.

3(g) - H₁: HR outcomes i.e. attitude, mediate between HPWP and subjective organizational performance.

3(h) - H₁: HR outcomes i.e. behavior, mediate between HPWP and subjective organizational performance.

2.4. THE RESOURCE-BASED VIEW

The resource-based view (RBV) is an economic tool that helps an organization to identify the strategic resources available to a firm. By using the resources that are at the firm's disposal, firms can gain competitive advantage (Wernerfelt 1984). If these resources are heterogeneous and immovable, then short term competitive advantage can be transformed into sustainable competitive advantage (Barney 1991, Peteraf 1993).

The key focus of the theory is identification of a firm's resources that can be marked as potential and key resources. The process of identification cannot be completed unless those resources are evaluated on the bases of following criteria:

Valuable

The resource must enable a firm to create value, by either performing more than its competitors perform or helps to work on its own weaknesses (Barney 1991; Amit and Shoemaker 1993). Moreover the transaction cost regarding the investment in the resources must not be greater than the benefits that flow out of the value-creating strategy (Mahoney and Pandian 1992).

Rare

By definition, rareness gives value to a resource. It is the value of a resource that reflects the expected returns in future in a perfectly competitive strategic factor market (Barney 1986a; Dierickx and Cool 1989; Barney 1991).

In-imitable

If the exact nature of the resource leading to the firm's competitive advantage is unknown then this causal ambiguity results in an important underlying factor of inimitability (Peteraf 1993). If such a resource is knowledge based or socially complex then it further strengthens the causal ambiguity (Mahoney and Pandian, 1992). According to Conner and Prahalad (1996), such knowledge-based and socially complex resources are the essence of the resource-based perspective.

Non-substitutable

The lack of substitutability is also an important aspect along with other characteristics like being rare, potentially value creating and imperfectly imitable (Dierickx and Cool 1989; Barney 1991). If the firm's value creating strategy can be substituted by an alternative strategy by any competitor in the market then the firm can suffer zero economic profits (Barney 1986a; Conner 1991).

Sustainable competitive advantage is not possible unless the resources possess all four characteristics within the framework of the resource-based view (Barney, 1991). Resources, which fulfill the above-mentioned criteria, must be protected and taken care of to improve the organizational performance (Crook, Ketchen, Combs, and Todd, 2008).

2.4.1. OVERVIEW

Origin of the resource based view can be traced back to the work of Coase (1937), Penrose (1959) and Chandler (1977) who emphasized that organizational performance depends upon the organizational resource's importance and their implication. Lippman and Rumelt (1982) explained uncertain imitability in the same theoretical perspective. In the field of strategic management, Wernerfelt (1984) was the first to name this popular body of research as resource base view (RBV) of the Firm in his article. Rumelt (1984) focused isolating mechanisms and Barney (1986) wrote two publications that can be closely related to Wernerfelt's first article. Dierickx and Cool (1989) highlighted inimitability and its causes. The concept of strategic factor market presented by Barney (1991) is also based on theoretical perspective of resource base view. Futher, Amit and Shoemaker (1993) provided for more approaches that are practical.

All of this conceptual integration could have been possible just because different researcher, as discussed above, provided the solid theoretical foundation. According to resource based view a firm is capable to gain sustainable competitive advantage when such resources are employed which cannot be imitated by competitors (Mahoney and Pandian 1992) because of the characteristics like being rare, valuable, inimitable, non-tradable, non-substitutable as well as firm specific (Barney 1995). It also explains that not all resources of a firm may contribute to a firm's sustainable competitive advantage. The difference between performances among the firms is a result of heterogeneity of assets. The RBV is majorly held responsible to focus on the firm's capabilities of maintaining the bundling of resources that cannot be copied by the rival firms.

2.4.2. IDENTIFYING RESOURCES, CAPABILITIES, COMPETENCIES THROUGH RBV

A firm's strategy, its idiosyncratic resources, and its performance are the focus of resource base view (Grant, 1991; Barney, 1991; Hall, 1992; Amit and Schoemaker, 1993). This perspective identifies firm's internal resources and capabilities as key source not only for a competitive strategy but also for superior economic returns (Barney, 1991; Grant, 1991).

According to Dierickx and Cool (1989) a firm may gain sustainable competitive advantage on the bases of it idiosyncratic resource. According to Barney (1991), the resource-based view defines competitive advantage as the firm implementing such a value creating strategy, which is not implemented, by any of the other rival or competitor firm at the same time. However, this competitive advantage may not be sustainable because there is a chance that any other firm might

be able to copy this competitive advantage (Barney, 1991; Amit and Schoemaker, 1993). It requires asset stock accumulation from strategic factor market.

Barney (1986) introduced the concept of strategic factor market as a source of acquiring such assets that are necessary to implement the strategy. The supply of resources is limited otherwise, their free availability will encourage firms to attain and potentially use it. Thus strategic factor market has to be imperfectly competitive otherwise it would not be possible to extract superior economic performance from any factor because cost of acquiring strategic resources and using them to implement strategies will be equal except the expectations about the future value of such strategic assets that may vary from firm to firm.

It means that the theories of perfect market competition are not sufficient to develop a theory of economic rent because if strategic factor market is perfectly competitive than firms will be able to obtain normal economic rent only. Therefore strategic factor market has to be imperfectly competitive to obtain more than normal rent, which leaves us with only two ways to generate such economic rent first, in the face of uncertainty and second, through being lucky (Barney, 1986a). Moreover it is also assumed that all of the assets are traded in strategic factor market but the assets that are intangible cannot be traded i.e. reputation, loyalty, trust. It means a market of such intangible assets does not exist, such asset stocks are accumulated with the passage of time instead of being traded.

These assets are of real economic value but cannot be termed as commodities; economists call them "externalities". The firm may hire imperfect substitutes of such required inputs but when it comes to firm specific strategic assets these can only be developed internally through time. This

idiosyncratic characteristic of the firm specific asset makes them inimitable, non-substitutable, and non-tradable. That is why it's better to accumulate intangible resources, which are generally developed rather than bought (Dierickx and Cool, 1989).

At any point in time, all organizations are likely to have unique set of intangible resources and capabilities that leads to superior economic returns. Hall (1992) explains that any intangible resource can be taken as an asset if it is with the characteristic of "belongingness" and it enjoys legal protection i.e. trademark, copyrights, patents, registered designs, contracts, trade secrets, network, and reputation. Whereas the intangible resources that are termed as skills or competency include employees' know how, and of suppliers and distributors, their aptitude and the culture that enables them have such a mindset where customer comes first, their ability to accept and handle change. Further, these intangible resources are also categorized as people dependent and people independent. Abraham and Ashler, (2004) has identified six elements of intangible resources i.e. labor relations, internal auditing, organizational culture, human capital, managerial capabilities and perceived organizational reputation.

As the business scenario continuously changes, these resources, and capabilities must evolve or emerge to cope that change (Amit and Schoemaker, 1993). Thus, firm may focus to analyze the assets already owned to gain competitive advantage, particularly the assets not owned by any of the rival firms. Examples of such intangible internal assets include managers' teamwork, organizational unique experience, special manufacturing know how etc (Barney, 1986). These unique sets of assets make them differ regarding performance even if they exist with the same structures and in the same environment (Amit and Schoemaker, 1993). Focal point of the resource-based view is that competitive advantage and superior profits of the firm are the result

of proper utilization of firm's resources and capabilities (Barney, 1991). This means if a firm rightly identifies the resources or assets then it can create competitive advantage, which makes identifying the resources and capabilities very important.

2.4.3. IDENTIFYING RESOURCES, ASSETS AND CAPABILITIES

Barney (1991) focusing on Draft (1983) works explains that firm resources are the collection of all processes, attributes, knowledge, assets and capabilities that firm possesses. It is the firm's ability to control and appropriately use these resources to formulate and implement strategies that help the firm to further the level of performance.

In 1993, Amit and Schoemaker (1993) contributed by splitting previous construct of resource into resources and capabilities. According to them, usually resources are nonspecific to the firm and they are tradable as well. On the other hand, capabilities utilize resources and are firm specific (Hoopes, Madsen and Walker, 2003). Presently, resource base view (RBV) literature has accepted this explanation of resources and capabilities and it is widely adopted by the researchers (Barney, Wright and Ketchen, 2001).

Thus, resource means an asset or input that might be tangible or intangible, which an organization owns or controls on permanent or on semi-permanent bases. It may be difficult to determine such resources due to uncertainty of external environment. On the other hand, capability refers to the ability of a firm to perform a coordinated set of tasks or utilization of resources to achieve its objectives, the focus of capabilities is internal (Constance and Peteraf, 2003).

They can also be defined as the abilities to adopt, integrate and reconfigure the internal and external organizational skills, resources and functional competence to cope with changing environment (Teece *et al.* 1997). This makes them firm specific and developed because of interactions of firm's resources (Amit and Schoemaker 1993). Capabilities has also been defiend as strategic routines by which firms achieve new resources and configurations as per market condition (Eisenhardt et al., 2000).

In the resource-based view, a firm is always seen as a bundle of resources, capabilities, and assets (Barney, 1991; Conner, 1991; Grant, 1992). However, Barney's concept has been criticized for ignoring the dynamics of resource configuration and integration and focusing only on evaluation of resources from stand-alone viewpoint. As a result, even when Barney (1991) talks about bundle of resources his conceptual framework treats the resources as distinct, separate items. Many researchers through acknowledging the bundling of resources (Dierickx and Cool, 1989; Grant, 1991) address this issue. However, simple bundles can be easily identified and imitated, and if their substitute can be found easily, it negatively affects the ability to generate economic rent (Grant, 1991).

Practically it is very difficult to figure out situations where single strategic resource can contribute a lot; usually bundle of different resources together provide competitive advantage (Barney, 1991). The bundle of resource may vary in all respect i.e. in number, types, individual contribution, moreover different resources may appear prominent in different bundles. Such configuration may lead to the creation of new intangible resources because it is quite possible that contribution of a bundle of resource might be greater than the sum of the contribution of each individual resource,

such resources can be termed as quasi – resource (Smith et al, 1996) or externalities (Barney, 1986b). The resources also act as catalysts by enabling another resource to contribute in competitiveness without making any direct contribution by itself in a bundle of resource known as enabling resources (Smith et al, 1996).

The main objective of the process of bundling is to optimize an organization's opportunities for success. Resources are the foundation of a firm and the basis for firm capabilities. They are bundled together to build capabilities i.e. building capabilities is the process of integrating resources in particular market context through continues feedback and monitoring which is also time path dependent. Managers are required to identify resources to bundle together to develop such capabilities that are required to compete effectively because competitive outcomes are determined by the set of resources that are appropriately bundled and deployed. Every organization is in need of multiple capabilities and that requires multiple bundling of multiple resources with multiple deployments, which seems to be complex and ambiguous because some resources will be an advantage for one set of capabilities and disadvantage for other set of capabilities. This process can be same in different organizations but its outcome varies as the selection of resources and the fashion of bundling is its managers' sole decision. That makes the task of bundling of resources challenging for managers. Managers always try to bundle their best resources but when it comes to human resource the skills are embedded within individuals so bundling of skills comes through individuals (Sirmon et al, 2008). These individuals are the stock of knowledge, skills and abilities that are accumulated over time. This stock of available factor is owned and controlled by the firm that helps to produce final products by combining different factors and applying technology through human resource. The firm's capacity to deploy the available stock of factors constitutes

firm's capability i.e. through organizational processes and interaction of resources. As the strategic value of the resources and capabilities is enhanced, buying or imitating such resources becomes more difficult (Amit and Schoemaker, 1993).

Capabilities are further classified as 'operational' or 'dynamic.' Operational capability is known as high level routine or collection of routines. It generally involves executing and coordinating different tasks to perform an activity (Winter, 2000). Dynamic capabilities are, also sets of routines but do not affect firm's output directly. Instead, they build and reconfigure operational capabilities and by affecting, the operational capabilities indirectly contribute to firm's output. It means that the dynamic capabilities are the "ultimate" capabilities that are required by an organization which are conducive to long-term performance (Teece et al., 1997). Dynamic capabilities are the firm ability to recreate and reconfigure its resources and capabilities and to respond to environmental change through up gradation and reconstruction of core capabilities to gain competitive edge over competitors (Wang and Ahmed, 2007).

Overall, both operational and dynamic capabilities must be routine activities. The activity conducted at random and in an unreliable manner does not constitute a capability i.e. having a capability means achieving the minimum level of functionality that permits repeated performance of an activity with some reliability. Culture plays an important role in developing such bundles of resources by creating good habits, values, attitude, and ability to accept and react to challenges and thus contribute to competitive advantage (Hall, 1992).

2.4.4. CATEGORIES OF RESOURCES

In order to operationalize resources, it is important to identify categories of resources through literature. Different researchers have categorized resources differently. For example, Barney (1991) introduced three categories of capital: physical capital consisting of plant, technology and equipment; employees' knowledge and experience constituting human capital; and, third social relations, structures, monitoring and controlling activities tagged as organizational capital. Grant (1991) introduced six categories of resources by adding three more categories to Barney's list as discussed above. The first addition consisted of software, designs, music or text known as technological resources. Literature considers them as 'intellectual property'. The second addition consisted of a firm's ability to deliver functional and social expectations and to build a unique identity to create trust, which in return builds the informal framework of a company. This is known as reputation. The third addition consisted of cash, securities, credit lines, loan facilities, etc. possessed by an organization; this is known as financial resources. The difference between resources is created through their ability to generate economic rent for competitive advantage (Black and Boal, 1994). Out of these categories, the intangible resources are identified as assets and skills. The characteristics of belongingness make an intangible resource as "asset" that might be trademarks, networks, contracts, patents, registered designs, copyrights, reputation, trade secrets, etc. (Dierickx and Cool 1989). The skills or competency include employees' know how, and of suppliers and distributors, their aptitude and the culture that enables them have such a mindset where customer comes first, their ability to accept and handle change. These intangible assets are people dependent (Hall, 1992).

Intangible resources are as important as tangible assets but when it comes to documentation of the value added by such assets through accountancy, things become tough. To earn profit the businesses have to be knowledge and information positive as well as cash positive (Hall, 1992). However, accountants and bookkeepers reluctantly endorse intangible resources to balance sheet. One can use the difference between the stock market value of the firm and the replacement value of its tangible assets to identify the value of the intangible resources. Moreover valuation ratios can be the source to highlight the importance of firms' intangible resources (Grant, 1991).

2.4.5. IDENTIFYING RESOURCES IN CURRENT RESEARCH

The resource base view explains a firm as a bundle of both tangible and intangible resources and capabilities for competitive advantage (Barney, 1991; Grant, 1991; Wernerfelt, 1984). Thus, HR strategic assets based on internal processes and HR functions can be taken as resources or capabilities, particularly with findings such as by Grant (1991), that employee's know-how was rated as the most important factor by the CEOs for business success. The strategic value of HR practices is proven by growing interest of researchers working on strategic HR from different perspective. For example: the relationship among strategy, HR practices and HR capital pool was explored by Wright and McMahan (1992); how HR system facilitates or inhibits the development and utilization of competencies was explained by Lado and Wilson (1994); and the impact of high performance work practices system on organizational performance was studied by kamoche, (1996), it is an ever growing list.

Cappelli and Singh (1992) provided an examination of the implications of the RBV on SHRM. Specifically, they noted that most models of SHRM are based on the assumption that a unique set

of behaviors and attitudes from employees are required to make organizations perform well. Thus, they proposed that the resource-based view might provide a theoretical explanation of the impact of high performance practices on employee's attitude and behavior.

This research proposes the HPWPS affects employee's attitude and behavior, in turn improving organizationa performance (see section 2.1, 2.2, and 2.3). However, HPWPS become a capability when they fulfill the requirement of RBV i.e. value they add, rare, inimitable and time bounded. Therefore following hypotheses are developed.

4(a) - H₁: Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. attitude.

4(b) - H₁: Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. behavior.

2.5. SUSTAINABLE COMPETITIVE ADVANTAGE

The concept of sustainable competitive advantage emerged in 1984 but Porter (1985) was the first to explaind and discussed these strategic typologies to gain strategic advantage. However, if a firm is creating value in such a way that it is not adoptable by any other competitor then the firm can sustain compatible advantage the same concept is explained by Hoffman (2000) after Barney (1991).

Theoretical perspective of resource base view (RBV) supports the argument that high performance work practices system helps the organizations to develop core competencies, which in turn create

sustained competitive advantage. Further, by using resources it creates implicit organizational knowledge (Barney, 1986b; Barney, 1997). Whereas the organization's resources that are possessed and controlled by the organization are consisted of all tangible and intangible resources (Amit and Schoemaker, 1993). But to acquire such resources organizations need capabilities (Dierickx and Cool, 1989). Which are defined as core competence (Prahalad and Hamel, 1990; Olsen et al, 1998) or distinctive competence (Reed and DeFillippi, 1990; Fiol, 1991) with a wide Variety of academic and research viewpoints. The basic assumption of RBV is that sustainable competitive advantage is based on heterogeneity and immobility of organizational competencies and it is also the ultimate goal of RBV and currently the competitive advantage can only come through people (Pfeffer, 1994) in this study adaptation of right bundles of HPWP gives competitive advantage though inimitable HRM outcome. Boxall (1996) proposes that HRM can be the base for sustainable competitive advantage from a RBV point of view and HRM can provide base to produce strategic competence as well as for the execution of a given competitive strategy (Barney, 1991).

2.5.1. RATIONALE OF SUSTAINABLE COMPETITIVE ADVANTAGE

Resources enable a firm to carry out its activities and perform its operations (Grant 1991). However, it's not possible for the resources to effect on productivity in isolation, so coordination of resources is an important factor to be considered. Managerial capabilities and property rights reflect isolating mechanism to create competitive edge as explained by Rumelt (1984).

According to King (2007), inter-firm causal ambiguity may derive a firm to sustainable competitive advantage that is based on the extent to which relationship of organizational input and

the decision makers understand output. As a result, the firm, which is performing at a superior level, enjoys the sustainable competitive advantage and the cause of this superior performance on the bases of causal ambiguity may be the social context of certain resources that might be creating isolating mechanism. This mechanism is based on causal ambiguity, which is the function of complexity, specificity, and tacitness of the organizational resources. These characteristics focus on resources inter relatedness, specifically assigned resource, and acquired skills by doing respectively.

Consequently, even if a competitor can resolve casual ambiguity still resources are inimitable.

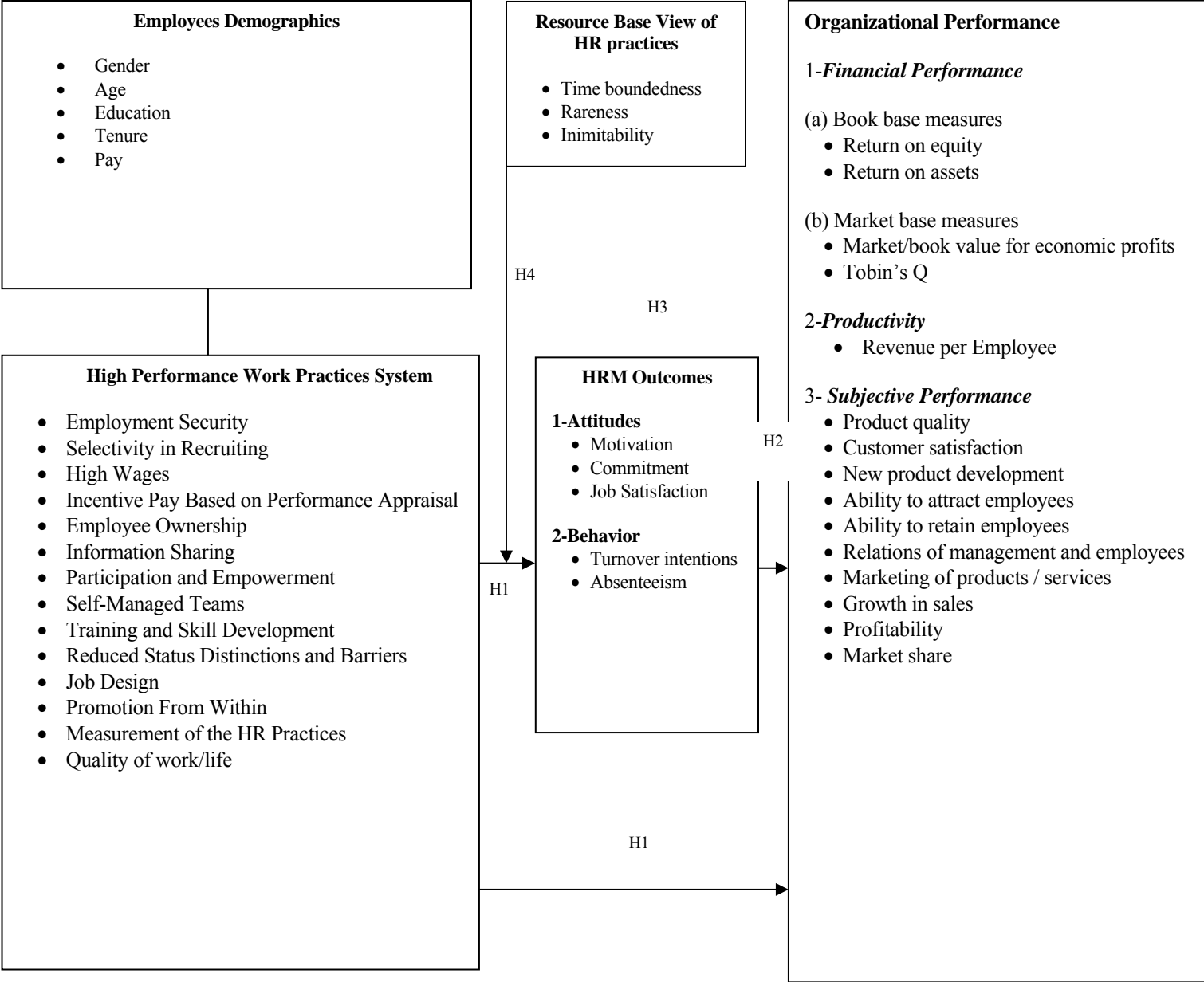
According to Mahoney (2001) a firm may not imitate even after recognizing the competitor's valuable resources due to the social context of these resources which are acquired over a period of time and are path dependent i.e. company reputation. As per the discussion mentioned above, it seems that RBV focuses the sustainability of advantage in light of firm's ability of not letting the other firms to compete at the same level such sustainable competitive advantage could exist only in the world of no competitive imitation (Barney 1991).

2.6. CONCEPTUAL FRAME WORK

Based on the literature review, a proposed conceptual framework is presented in Figure 1, which clarifies the relationships between the thirteen high performance work practices and firm performance. All the variables identified in the figure will be investigated in the discussion. Figure 1 shows components of a high performance work practices system which are high performance work practices and have been selected through intensive literature review by using universalistic perspective. Demographic variables such as gender, age, education, tenure and pay,

are taken as control variables. The high performance work practices are hypothesized to affect organizational performance i.e. financial performance, subjective performance and employee's productivity. The three components of organizational performance i.e. financial, subjective and productivity are also hypothesized to affect HRM outcomes. Both relationships are represented by H1 in figure 1. The HRM outcomes also affect organizational performance. This relationship is represented by H₂ in Figure 1. Further, these HRM outcomes are playing a mediator's role in between high performance work practices and organizational performance. This relationship is represented through H₃ in Figure 1. Resource base view is playing a moderator's role in the relationships between high performance work practices system and HRM outcomes. This relationship is mentioned through H₄ in the Figure. In this conceptual framework factors such HRM outcomes and resource base view are expected to act as facilitators to enhance organizational performance.

Figure 1: Conceptual Framework



2.7. RESEARCH HYPOTHESIS

This section presents all the hypotheses of this dissertation, which have already been presented throughout the literature review. The first set of hypotheses are highlighting the direct relationships between high performance work practices system and organizational performance. They are also focusing the direct relationships between high performance work practices system and attitude and behavior.

- 1(a) - H₀:** High performance work practices system is positively and significantly related to attitudinal outcome.
- 1(b) - H₁:** High performance work practices system is positively and significantly related to behavioral outcome.
- 1(c) - H₁:** High performance work practices system is positively and significantly related to organizational book base financial performance.
- 1(d) - H₁:** High performance work practices system is positively and significantly related to organizational market base financial performance.
- 1(e) - H₁:** High performance work practices system is positively and significantly related to employee's productivity.
- 1(f) - H₁:** High performance work practices system is positively and significantly related to organizational subjective performance.

The second set of hypotheses are highlighting the direct relationships between attitude and behavior and organizational performance and productivity.

2(a) - H₁: HRM outcome i.e. attitude is positively and significantly related to organizational book base financial performance.

2(b) - H₁: HRM outcome i.e. attitude is positively and significantly related to organizational market base financial performance.

2(c) - H₁: HRM outcomes i.e. attitude is positively and significantly related to employee's productivity.

2(d) - H₁: HRM outcomes i.e. attitude is positively and significantly related to organizational subjective performance.

2(e) - H₁: HRM outcome i.e. behavior is positively and significantly related to organizational book base financial performance.

2(f) - H₁: HRM outcome i.e. behavior is positively and significantly related to organizational market base financial performance.

2(g) - H₁: HRM outcomes i.e. behavior is positively and significantly related to employee's productivity.

2(h) - H₁: HRM outcomes i.e. behavior is positively and significantly related to organizational subjective performance.

The following hypotheses are highlighting the mediating role of attitude and behavior between high performance work practices system and organizational performance as well as productivity. It

is been hypothesized that mediation of attitude and behavior explains the impact of high performance work practices on organizational performance.

3(a) - H₁: HR outcomes i.e. attitude, mediate between HPWP and organizational book base financial performance.

3(b) - H₁: HR outcomes i.e. attitude, mediate between HPWP and organizational market base financial performance.

3(c) - H₁: HR outcomes i.e. behavior, mediate between HPWP and organizational book base financial performance.

3(d) - H₁: HR outcomes i.e. behavior, mediate between HPWP and organizational market base financial performance.

3(e) - H₁: HR outcomes mediate i.e. attitude, between HPWP and employee's productivity.

3(f) - H₁: HR outcomes mediate i.e. behavior, between HPWP and employee's productivity.

3(g) - H₁: HR outcomes i.e. attitude, mediate between HPWP and subjective organizational performance.

3(h) - H₁: HR outcomes i.e. behavior, mediate between HPWP and subjective organizational performance.

The following set of hypotheses are highlighting the moderating role of resource base view (RBV) in the relationships between high performance work practices system and attitude and behavior. It has been hypothesized that moderating role of resource base view (RBV) intensifies the impact of high performance work practices on attitude and behavior.

4(a) - H₁: Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. attitude.

4(b) - H₁: Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. behavior.

2.8. SUMMARY

This chapter has presented the literature review and hypotheses of the study. Overall, 13 high performance work practices were identified as components of high performance work practices system on the bases of literature review. The link between high performance work practices and performance was also discussed. In this part it has been identified that HRM outcomes are significantly related to organizational performance. The mediating role of attitude and behavior in between high performance work practices system and organizational performance has been highlighted along with the moderating role of resource base view (RBV). Finally, on the bases of discussed literature hypothesis for the study which have been tested in coming chapter.

CHAPTER 3

METHODOLOGY

This chapter presents the empirical methodology appropriate for this study and sets out our models for the necessary analyses. Research design and other methodological details like population, sample, variables, selected instruments, data collection, and analysis have been discussed. It further provides information about reliability and validity of the whole process of information collection sources, procedures, selection of variables, statistical analysis etc.

The main objective of this chapter is to outline the steps followed in carrying out the research. The researcher explains the methodology used to explore the impact of SHRM on organizational performance, giving specific attention to those human resource management activities that can be addressed in banking sector of Pakistan. In this way, the problems associated with lack of empirical information on SHRM in service sector, and any retrospective biases, are addressed. Brief justification is offered at times to extend the reasoning behind the choices, made by the researcher.

3.1. POPULATION, SAMPLE AND DATA COLLECTION

The current research probes, by questionnaires, into perceptions and opinions of the managers of senior and middle levels in Pakistan banking industry. This inquiry involves all KSE listed banks. This study departs from other human resource literature as the level of analysis is sector-level impact of SHRM, and the perspective is strategic rather than functional (Huselid, 1995).

A self-administered questionnaire was developed by combining three separate instruments. A section on demographics was added for gathering information about age, gender, tenure, education, and pay. The questionnaire was a pencil-and-paper instrument. The purpose of the study, general instructions, and importance of completing the questionnaire personally was explained to the potential respondent in the covering letter attached with each questionnaire.

In order not to confuse the respondents, the different instruments were separated into sections. The first section contains questions about HR practices and the related dimensions of RBV, the 2nd section contains questions about HR outcome and the 3rd section contains questions about organizational subjective performance.

3.1.1. POPULATION

The population for this study was the managers at senior and middle level in KSE listed commercial banks. The total number of all foreign, local, private and public sector commercial banks in Pakistan is 36 (Appendix B). All commercial banks have 9,087 branches all over the country (Appendix B). Currently 25 commercial banks are listed in Karachi stock exchange (KSE). All of the listed commercial banks have 8,296 branches all over the country (Appendix D). Most of the branches are in urban areas only those banks have branches in rural areas that have a history of nationalization. The number of managers in each branch depends upon the volume of the deposit that branch has. This fact encouraged the researche to focus on managers working in urban areas of all four provinces divided in three banking regions.

3.1.2. SAMPLE

It is not possible for a researcher to collect data from whole population, which makes sampling as the only option to collect data. The key objective of sampling is to select a representative part of the population. This part of a population (sample) must represent the characteristics of the population in all respect. Only then, analyses of the sample can be generalized for thr whole population. There are different sampling techniques available for collection of data. Broader categories of sampling include probability and non-probability sampling techniques. In probability sampling technique, each member of the population has an equal chance to be the member of sample. Whereas in non-probability sampling technique, members of population are not with equal chance to be included in sample. One of the popular forms of non-probability sampling technique is convenient sampling technique. Under such technique, data is collected from those members of the population who are conveniently available. In current study, convenient sampling technique is used to collect data from senior and middle level managers. Howeve, several measures were taken to ensure that the sample is reasonably representative of the managers of banking sector of Pakistan.

The banks have divided Pakistani territory in three regions (south, central, and north). Since it is very difficult to collect data of all of the senior and middle level managers working in the whole region and the main cities were focused of all four provinces. There are 25 KSE listed banks in all three key regions and their presence in noticeable in urban areas only. At random, 1000 questionnaires were sent to each banking region i.e. south, central and north, through post, email, fax, and reachable regions were visited personally. Every two weeks, an e-mail reminder was sent to the lead contact person who then reminded the respondents by telephone to complete and return

the questionnaires. The returned questionnaires were coded and the raw data entered into statistical software. 1744 responses were received, of which 40 responses were unusable. The responses used for analysis were 1704. The response rate was 56.8%. According to Frohlich (2002), moderate response rate is an indirect indication of relevance and rigor of a study in the eyes of the respondents. Respondents are more likely to return a questionnaire if they perceive that the study is important and warrants their cooperation.

3.2. INSTRUMENTS

The following instruments were used to measure the key variables of the study.

- High performance work practices system (Huselid, 1995; Huselid and Becker, 1995; Delery and Doty, 1996; Becker and Huselid, 1996; Hartog, 2004; Snell and Dean, 1992).
- HR Outcome (Dyer and Reeves, 1995; Guest, 1997; Paauwe and Richardson, 1997; Paauwe, 1998; Fey et al., 2000; Guest, 2001).
- Organizational subjective or non-financial performance (Delaney and Huselid, 1996; Kuldeep Singh, 2004).
- Demographic / Control Variables (Huselid, 1995).

These instruments are also mentioned in Table 3.1. The questionnaire detail for the study is attached as Appendix A and required discussion is present in the following section.

Table 3.1: Instruments for measuring key variables

Variable	Instrument Author	No. of Items
High performance work practices system	1-Huselid, 1995 2-Huselid and Becker, 1995 3-Delery and Doty, 1996 4-Becker and Huselid, 1996 5-Hartog, 2004 6- Snell and Dean, 1992	94
HRM outcome	1-Dyer and Reeves, 1995 2-Paauwe and Richardson, 1997 3-Tusi et al, 1997 4-Fey et al., 2000 5- Khilji and Wang, 2006 6-Katou and Budhwar, 2006	19
Organizational subjective or Non-financial performance	1-Delaney and Huselid, 1996 2-Kuldeep Singh, 2004	10
Control / Demographic Variables	Self items / Huselid 1995	04

3.3. MEASURES

The high performance work practices system is usually measured by combining single or multi-item measures of HR practices into a unitary measure. The high performance work practices system is represented by this unitary measure. This method is considered theoretically appropriate by most of the researchers (Becker and Huselid, 1998). While measuring the high performance work practices it is assumed that to improve the measurement's reliability, there must be inter correlation between selected items and that must be confirmed by statistical techniques i.e. factor analysis and correlational based statistical tests. This requires the use of multiple items to measure an underlying construct (Delery, 1998). In literature, the selection of HR practices is based on prior

research and most of the researchers have followed this approach (Becker and Huselid, 1998). Our research adopts the same strategy. Where as in literature there is some disagreement among researchers as to identify practices that can constitute such systems (Becker and Gerhart, 1996; Delery, 1998), normative approach were used in this study i.e. only those practices are being included that are commonly referred in the literature.

In current study, the measure of HPWS were based on the work of Huselid (1995), Huselid and Becker, (1995), Delery and Doty (1996), Becker and Huselid (1996), Hartog (2004), Snell and Dean (1992) and US Department of Labor (1993). Thirteen practices were utilized, in which respondents were asked to identify the extent to which these selected high performance work practices are implemented in their organization.

The survey provided a robust description of the bank's high performance work practices system which covers Employment Security, Selectivity in Recruiting, High Wages, Incentive Pay Based on Performance Appraisal, Employee Ownership, Information Sharing, Participation and Empowerment, Self-Managed Teams, Training and Skill Development, Reduced Status Distinctions and Barriers, Job Design, Promotion From Within, Measurement of the HR Practices and Quality of Work/Life.

The current study focused on senior and middle managers, because implementation of high performance work practices focuses on high involvement of such managers, which as a result increases the performance. It is consistent with Lawler (1992) views and empirically supported by

Guthrie (2001). It is also consistent with the aims of this study: Examining whether or not a high performance work practices system positively impacts banks financial and subjective performance.

The questionnaire was divided into three sections; all of the questions were measured on Likert scale of 1 to 7. Likert-scale of 07 is selected with direction from low to high intensity of response because the target audience of questionnaires is senior and middle level managers so it has been assumed that they know about the deployment of high performance work practices system.

The first section addresses the HR practices as listed below. The following section lists the 13 HR practices which were operationalized in the current research. These practices were also measured with a linked construct of RBV on the bases of three dimentions of timeboundedness, rareness and inimitabilty in the perception of senior and middle level managers i.e. timeboundedness is “for how long this practice is being adopted by the bank”, rareness is “very few competetors have adopted this practice” and inimitability is “it is difficult for competitors to adapt this practice as our bank has adopted it”. There were a number of reverse questions, which were reverse coded before entering data in SPSS. The complete questionnaire is attached as Appendix A.

3.3.1. EMPLOYMENT SECURITY

Employment security means an employee’s expectations to stay in job over a period of time. A 4-item scale from 1.1 to 1.4, as presented in Appendix A., measured it. These items have been used by Delery and Doty (1996; p834). High scores reflect a greater degree of employment security. An additional 3-item scale from 1.5 to 1.7 as presented in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.2. SELECTIVITY IN RECRUITING

Selectivity in recruiting was a 4-item scale measuring the extent to which a firm's selection process is rigorous. This vigor is reflected through the number of people involved in process and the time and money invested. These items have been used by Snell and Dean (1992; p502). Although Snell and Dean (1992; p502) used a 7-item likert scale but 4-items out of seven item were selected with highest loading, covering the dimensions of the variable from 2.1 to 2.4 as mentioned in Appendix A. The range of factor loading is from 0.62 to 0.75 (Snell and Dean, 1992; p482). Higher scores represented a greater degree of selectivity in recruiting. An additional 3-item scale from 2.5 to 2.7 as presented in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.3. HIGH WAGES

High wages was a 4-item scale from 3.1 to 3.4 as presented in Appendix A, measuring the extent to which wages were competitive in market and the extent to which an organization focuses to be a good pay master. These items have been used by Snell and Dean (1992; p502) covering various dimensions of the variable. The range of factor loading is from 0.67 to 0.79 (Snell and Dean, 1992; p482). Higher scores represented a greater degree of high wages. An additional 3-item scale from 3.5 to 3.7 as presented in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.4. INCENTIVE PAY BASED ON PERFORMANCE APPRAISAL

Incentive pay based on appraisal was a 3-item scale from 4.1 to 4.3 as presented in Appendix A, measuring whether performance appraisal is focused on output or results and hence pay is based on individual, group and organizational level performance. Higher values represented a greater reliance on pay based on performance. This three items scale have been used by Wright et al, (2003; p29) the aggregate alpha of the questionnaire was 0.89 (Wright et al, 2003; p30). An additional 3-item scale from 4.4 to 4.6 as presented in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.5. EMPLOYEE OWNERSHIP

Employee ownership was measured with a 2-item scale from 5.1 to 5.2 as presented in Appendix A. It asked respondents the extent to which employees has stock options, financial participation, gain sharing etc. The first item (5.1) has been used by Huselid (1995; p646) and Huselid and Becker (1995; p71). The second item (5.2) is a self-made item. Higher responses represented a greater degree of employee's ownership in a bank. An additional 3-item scale from 5.3 to 5.5 as presented in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.6. INFORMATION SHARING

Information sharing was measured with a 5-item scale from 6.1 to 6.5 as presented in Appendix A, It asked respondents the extent to which financial, performance, operational information is shared.

The first item (6.1) has been used by Marti'n-Tapi (2009; p651). The Cronbach's alpha for this scale was 0.83. Next four items (6.2 to 6.5) have been used by Guthrie et al, (2009; p117) with cronbach alpha score 0.76 (Guthrie et al, 2009; p116). Higher responses represented a greater level of information sharing in the bank. An additional 3-item scale from 6.6 to 6.8 as presented in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.7. PARTICIPATION AND EMPOWERMENT

Employee participation and empowerment was defined as the level of employee's input into their work and the extent to which this input is valued by organization for changes and decision makeup; it was measured by a 7-item scale from 7.1 to 7.7 as presented in Appendix A, with higher scores reflecting a greater amount of participation and empowerment. The first four items (7.1, to 7.4) have been used by Delery and Doty, (1996; p834) and next three items (7.5, to 7.7) have been used by Godard (2001; p27). The range of factor loading is from 0.76 to 0.82 with cronbach alpha 0.84. An additional 3-item scale from 7.8 to 7.10 as presented in Appendix A, were used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.8. SELF-MANAGED TEAMS

Self managed teams were measured with a 3-item scale items 8.1 to 8.3; Appendix A, these items asked the respondents about the extent to which they were capable of taking their own decisions or complete their own task while working in teams. Evans and Davis have used the first two items (8.1, 8.2) (2005; 760). The third item (8.3) has been used by Guthrie et al, (2009; p117). Higher

responses represented a greater level of self-completing task. An additional 3-item scale (8.4 to 8.6) was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.9. TRAINING AND SKILL DEVELOPMENT

Training and skill development was a 4-item scale from 9.1 to 9.4 as mentioned in Appendix A, this construct measures the intensity of training process and development opportunities through training budget, number and frequency of training and percentage of employees trained. These items have been used by Delery and Doty, (1996; p834). Higher scores reflected more extensive and formalized training programs for employees. An additional 3-item scale from 9.5 to 9.7 as mentioned in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.10. REDUCED STATUS DISTINCTIONS AND BARRIERS

Reduced status distinctions and barriers was a 4-item scale (items 10.1 to 10.4 Appendix A) it measured the extent to which status distinction and barriers existed. Higher scores reflected more extensive existence of formalized status and barriers among employees. The first two items (10.1, 10.2) have been used by Murphy (2006, p147) and next two items (10.3, 10.4) have been used by the Macky and Boxell, (2000; p547). An additional 3-item scale from 10.5 to 10.7 as mentioned in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.11. JOB DESIGN

Job design referred to the extent to which, jobs were clearly and precisely defined. It was a 4-item scale from 11.1 to 11.4 as mentioned in Appendix A. Higher values reflected a higher structure in job design. All four items have been used by Delery and Doty, (1996; p834). An additional 3-item scale from 11.5 to 11.7 as mentioned in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.12. PROMOTION FROM WITHIN

Promotion from within was a 4-item scale from 12.1 to 12.4 as mentioned in Appendix A. It measured the extent to which employees have career paths. Higher scores indicated the existence of a well-defined internal career and promotion system with greater opportunities. All four items have been used by Delery and Doty, (1996; p834). An additional 3-item scale from 12.5 to 12.7 as mentioned in Appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.13. MEASUREMENT OF THE HR PRACTICES

Measurement of the HR practices was a 4-item scale from 13.1 to 13.4 as mentioned in Appendix A. It measured the extent to which organization conduct attitude surveys and feedback of implementation of HR practices. The first item (13.1) has been used by Huselid and Becker (2000; p845). The second item (13.2) has been used by Guthrie et al, (2009; p117). The third and fourth items (13.3, 13.4) have been used by Martin et al, (2009; p651). Higher scores indicated the extinct

to which implementation of HR practices. An additional 3-item scale from 13.5 to 13.7 as mentioned in appendix A, was used to measure the rareness, inimitability, and time path dependence of this practice.

3.3.14. Quality of Work Life:

Quality of Work Life was a 1-item scale 14.1 as mentioned in Appendix A, measuring the extent to which organization provides quality of work life. This item (14.1) has been used by Huselid and Becker (2000; p845). Higher scores indicated the extent to which quality of work life is provided. An additional 3-item scale from 14.2 to 14.7 as mentioned in appendix A was used to measure the rareness, inimitability, and time path dependence of this practice.

3.4. HRM OUTCOMES

Mediating variables were measured under the philosophy of a perceived rating of the organization's HRM outcomes (Katou and Budhwar, 2006; p1231). HRM outcome were divided into two categories attitude and behavior. All of the outcomes were measured on a 7-point Likert scale from strongly disagree to strongly agree.

3.4.1. ATTITUDE

Attitude was measured through three components i.e. motivation, commitment, and job satisfaction. Katou and Budhwar, (2006), have used these three components of attitude and same items. Motivation was a 3-item scale from 15.1.1 to 15.3 as presented in Appendix A, measuring the extent to which managers were motivated and ready to help the organization. Higher scores

reflected higher level of motivation. Commitment was a 6-item scale from 15.4 to 15.9 as mentioned in Appendix A, measuring the extent to which employees are committed to work for the organization. Higher scores reflected higher level of commitment. Job Satisfaction was a 3-item scale from 15.10 to 15.12 as mentioned in appendix A, measuring the extent to which managers are satisfied with their job. Higher scores reflected higher level of job satisfaction. Katou and Budhwar, (2006) had a Cronbach alpha of 0.9104 for attitudes, motivation, commitment, satisfaction (p1231).

3.4.2. BEHAVIOR

Behavior was measured through two components; the first one was turnover and second one was absenteeism. Katou and Budhwar used these two constructs, (2006; p1231) to measure the behavior and the Cronbach alpha of Behavior: turnover, absenteeism is 0.8488. The Cronbach alpha of all HRM outcomes was 0.9517 in their study (Katou and Budhwar, 2006; p1231). However, based on the work of Cammann et al, (1979) and Zaman, Ali and Ali (2011) further items for turnover intentions were added in the current study. Cammann et al. (1979) used item 16.3 as reverse item (positive) but in current study it was converted it in to negative sentence. Overall, turnover intentions was 4-item scale from 16.1 to 16.4 as presented in Appendix A, measuring the extent to which manager's dissatisfaction from their current job, or disliking of current job. This reflects the extent to which managers intend to leave/quit from their current job. Higher scores reflected higher level of intention to leave the job. Absenteeism was a 3-item scale from 16.5 to 16.7 as presented in Appendix A, measuring the extent to which manager remained absent from the job. Higher scores reflected higher level of absenteeism.

3.5. DEPENDENT VARIABLES

3.5.1. ORGANIZATIONAL PERFORMANCE

Three proxies for organizational performance were taken in the current study

- 1- Organizational subjective performance
- 2- Organizational financial performance
- 3- Productivity (revenue per employee)

3.5.2. ORGANIZATIONAL SUBJECTIVE PERFORMANCE

The employed measures were relative in the sense that they assessed organizational performance relative to the performance of the competitors in the same industry. Such data is always with the limitations of measurement errors or mono method bias but still use of such data is precedential. In research, perceived organizational performance has been found to have moderate to strong correlation with objective measures of firm performance (Powell, 1992). It is evident in research that measures of subjective organizational performance are positively correlated from moderate to strong correlation with objective measures of firm performance (Dollinger and Golden, 1992; Powell, 1992).

Organizational subjective performance was a 10-item scale from 17.1 to 17.10 as presented in Appendix A, assessing respondents' perceptions of their bank's performance as compared to their competitors over the past three years with respect to satisfaction of customers or clients, ability to

retain employees, market share, profitability, relations between management and employees, quality of products or services, marketing of products or services, development of new products or services, growth in sales and ability to attract employees (organizational subjective performance, $\alpha = .85$; Delaney and Huselid, 1996). All of these items provide a broad assessment of organizational subjective performance. The subjective organizational performance covers important issues such as product quality, customer satisfaction, new product development, profitability, and market share.

3.5.3. ORGANIZATIONAL FINANCIAL PERFORMANCE

In order to capture the impact of financial performance two proxies have been used

- 1- Book base measures, that exhibit book base perspective
- 2- Market base measures that captures the external perspectives

BOOK BASE MEASURES

Four book base measures were selected that reflect organization's financial performance. The first book base measure was gross annual rate of return of the bank, which was measured, by average growth rate of operating profits for last three years. The second book base measure was operational cash flow, which was measured by net cash flows from operating activities. The third book base measure was return on equity that is measured by net profit divided by shareholder equity. The fourth book base measure was return on assets, which is measured by net profit divided by total assets. The data were collected from State Bank of Pakistan for the duration of 2007 to 2009.

MARKET BASE MEASURES

Three market base measures of organizational financial performance were selected. The first market base measure was market / book value for economic profits. The second measure was Tobin's Q that was calculated as market value of equity plus market value of debt divided by book value of equity plus book value of debt. The data were collected from State Bank of Pakistan for the duration of 2007 to 2009.

3.6. PRODUCTIVITY

The third proxy for organizational performance was productivity that is also known as revenue per employee and it was calculated as total profit divided by total number of employees. The data were collected from State Bank of Pakistan for the duration of 2007 to 2009.

3.7. AN OVERVIEW OF DATA ANALYSIS

This section of the dissertation gives overview of data analysis process and techniques used. After collecting and structuring the data, to test its normality, descriptive statistics of skewness and kurtosis were used. Once normality was established, variable inflation factor statistics was used to check the problem of multicollinearity problem. The items of instruments were tested for reliability by calculating cronbach alpha values. Further factor analyses were used to determine construct validity and to revalidate the structure and internal reliability of the instruments used. Multiple regression analysis was used to measure the direct impact of high performance work practices system on dependent variables. Mediation of HR outcomes between high performance

work practices and dependent variables were tested through a four steps technique used by Judd and Kenny (1981) and Baron and Kenny (1986). Finally hierarchical regression analysis technique was used to test moderation of resource base view in between high performance work practices system and HR outcomes.

3.7.1. DATA NORMALITY

Normality is the first condition for regression analysis but it is often commonly assumed and taken for granted while conducting statistical analysis. Violation of this assumption always results in misleading interpretations. As discussed, the researcher used skewness and kurtosis to establish the normality of a variables. Kurtosis refers to how "flat" a distribution is and is a measure of the extent to which observations cluster around a central point. Skewness refers to the "lean" of a distribution. Positive kurtosis indicates that the observations cluster more to the left and have a longer tail to the right than to the left. Negative kurtosis indicates the observations cluster less to the left and have longer tail to the left than to the right.

Table 3.2 presents the required statistics to examin the kurtosis and skewness of the data. In general, if kurtosis is not between -2 and +2, the data is too far away from a normal distribution and needs to be corrected before applying tests that have assumptions of normality. The values of -2 and +2 are just common rules of thumb; some statisticians prefer stricter or looser restrictions ranging (SPSS Handbook, 2010). As a rough guide, a skewness value more than twice its standard error is taken to indicate a departure from symmetry. All the kurtosis values rage from -.018 to -.739, which are far below -2 as shown in Table 3.2. The skewness value is not more than twice of its standard error as clearly shown in Table 3.2. It means that the data was normally distributed.

Table 3.2: Kurtosis for Normal Distribution

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ES	1704	1.00	7.00	4.5626	1.25690	-.119	.059	-.612	.119
SIR	1704	1.00	7.00	4.4120	1.22413	-.257	.059	-.338	.119
HW	1704	1.00	7.00	4.3011	1.18526	-.146	.059	-.482	.119
IPBPA	1704	1.00	7.00	4.5350	1.28467	-.140	.059	-.526	.119
EO	1703	1.00	7.00	4.0470	1.45582	-.089	.059	-.402	.119
IS	1704	1.00	7.00	4.4722	1.18803	-.226	.059	-.018	.119
PARTI	1704	1.00	7.00	4.5600	1.21592	-.313	.059	-.206	.119
EMPWR	1704	1.00	7.00	4.4871	1.28477	-.377	.059	-.252	.119
SMT	1704	1.00	7.00	4.7023	1.21480	-.301	.059	-.248	.119
TSD	1704	1.00	7.00	4.4275	1.19054	-.366	.059	-.047	.119
RSDB	1704	4.00	7.00	5.4437	.85299	.251	.059	-.739	.119
JD	1704	1.00	7.00	4.7038	1.30791	-.294	.059	-.253	.119
MHRP	1704	1.00	7.00	4.2862	1.29734	-.484	.059	-.190	.119
Attitude	1702	1.83	7.00	4.7891	.84538	-.150	.059	-.220	.119
Behavior	1703	1.00	7.00	3.7289	1.43587	.034	.059	-.855	.119
PERFOR	1702	1.30	7.00	4.7061	1.02099	-.235	.059	-.417	.119

3.7.2. MULTICOLLINEARITY DIAGNOSTICS

Variable Inflation Factors was used for multicollinearity diagnostics as presented in Table 3.3. If the value of Variable Inflation Factors (VIF): $VIF=1/(1-R^2_i)$ approaches 05, the correspondent variable should be considered for deletion. In the results, none of the value was even close to 05.

According to most of researchers, a tolerance of less than 0.2 is cause for concern, and a tolerance of less than 0.1 indicates a serious collinearity problem. This diagnostic is the reciprocal of the

more common Variance Inflation Factor (VIF), where a value greater than 05 is taken as signaling a collinearity problem (Emam, Benlarbi, and Goel, 1999). Table 3.3 presents the values, which are not even close to the mentioned criteria, so collinearity problem was not detected in our data.

3.7.3. SUMMARY

This chapter has discussed data collection, population and sample and measurement instruments of all the independent and dependent variables. An overview of data analysis was discussed and the data was tested for normality and multi-collinearity. It was found that the data was normally distributed and there was no multi-collinearity problem. The next chapter presents results of data analysis.

Table 3.3: Variable Inflation Factor

	ROE		ROA		MBVEP		TQ		Productivity		Sub Performance		Attitude		Behavior	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
Age	.525	1.906	.525	1.906	.525	1.906	.525	1.906	.525	1.906	.525	1.906	.525	1.906	.525	1.906
Tenure	.502	1.991	.502	1.991	.502	1.991	.502	1.991	.502	1.991	.502	1.993	.501	1.994	.502	1.994
EDU	.943	1.061	.943	1.061	.943	1.061	.943	1.061	.943	1.061	.943	1.061	.943	1.061	.943	1.061
PAY	.427	2.341	.427	2.341	.427	2.341	.427	2.341	.427	2.341	.427	2.344	.427	2.344	.427	2.344
ES	.899	1.113	.899	1.113	.899	1.113	.899	1.113	.899	1.113	.901	1.110	.899	1.112	.899	1.112
SIR	.773	1.294	.773	1.294	.773	1.294	.773	1.294	.773	1.294	.774	1.292	.774	1.292	.774	1.293
HW	.779	1.283	.779	1.283	.779	1.283	.779	1.283	.779	1.283	.781	1.280	.781	1.281	.780	1.282
IPBPA	.745	1.342	.745	1.342	.745	1.342	.745	1.342	.745	1.342	.746	1.340	.744	1.344	.745	1.343
EO	.891	1.123	.891	1.123	.891	1.123	.891	1.123	.891	1.123	.892	1.121	.891	1.122	.891	1.122
IS	.639	1.565	.639	1.565	.639	1.565	.639	1.565	.639	1.565	.641	1.559	.639	1.564	.639	1.565
PARTICEP	.663	1.507	.663	1.507	.663	1.507	.663	1.507	.663	1.507	.665	1.504	.664	1.505	.664	1.506
EMPWR	.796	1.256	.796	1.256	.796	1.256	.796	1.256	.796	1.256	.797	1.255	.796	1.257	.796	1.256
SMT	.704	1.420	.704	1.420	.704	1.420	.704	1.420	.704	1.420	.706	1.416	.705	1.419	.705	1.418
TSD	.701	1.427	.701	1.427	.701	1.427	.701	1.427	.701	1.427	.703	1.423	.702	1.425	.701	1.426
RSDB	.915	1.093	.915	1.093	.915	1.093	.915	1.093	.915	1.093	.914	1.094	.915	1.093	.915	1.093
JD	.728	1.373	.728	1.373	.728	1.373	.728	1.373	.728	1.373	.728	1.374	.728	1.374	.727	1.375
MHRP	.764	1.308	.764	1.308	.764	1.308	.764	1.308	.764	1.308	.763	1.311	.766	1.306	.766	1.306

CHAPTER 4

RESULTS AND DISCUSSION

The main aim of this chapter is to conduct analysis and explore relationships between high performance work practices system, HR outcomes, organizational performance and productivity. Further, researcher is determined to explore the mediating and moderating role of HR outcomes and resource base view respectively to enhance organizational performance and productivity. This chapter is committed to explore our basic research questions developed in Chapter 1 and mentioned as below.

- 1: What is the inter-relationship between HPWPS, HRM outcomes, organizational performance and employee' productivity?
- 2: Do HRM outcomes play a mediating role between HPWPS and organizational performance as well as employee' productivity?
- 3: Does RBV play a moderating role between HPWPS and HR outcomes?

This chapter presents the results in different sections. The first section is the descriptive analysis of the respondents, the attributes of the respondents and results of the reliability and validity of instruments used through cronbach alpha and factor analysis. The second section focuses on the direct relationships of the variables and the third section addresses mediation and moderation as per conceptual model.

4.1. RESPONDENT'S CHARACTERISTICS

The biographical characteristics of the sample of respondents are presented in order to get a clear picture of the sample. Demographic information of the respondents is given in tabular form.

Demographic variables that were measured from the respondents were as follows:

- °Area
- °Gender
- °Tenure
- °Education
- °Monthly Pay

As discussed in Chapter 3, 3000 questionnaires were sent, 1000 to each region (north, center and south). North was the region where most of the banks were within the reach of researcher as a result maximum responses were collected i.e. 642. South was far away and most of the times with hostile political environment as a result minimum responses were collected i.e. 486 (Table 4.1).

Table 4.1: Area wise sample

	Area	
	Frequency	Percent
North	642	37.7
Center	576	33.8
South	486	28.5
Total	1704	100.0

The sample was male dominant. The majority of the respondents are male (n=1704) representing 65.7 % of the sample. Females made up 34.3% of the sample. Table 4.2 clearly reflects the situation.

Table 4.2: Gender, age, tenure, education and pay wise sample

Gender	Frequency	Percent
Male	1119	65.7
Female	585	34.3
Age (years)		
25-30	390	22.9
30.1-35	788	46.2
35.1-40	338	19.8
40.1>	188	11.0
Tenure (years)		
<1	162	9.5
1.1-3	561	32.9
3.1-7	612	35.9
7.1>	369	21.7
Education		
14 years (BA / BSc)	181	10.6
16 years (BBA / MA)	221	13.0
17 years (MBA)	1068	62.7
19 years (MS / MPhil / PhD)	234	13.7
Pay (thousands Rs)		
<40	525	30.8
40.1-50	552	32.4
50.1-80	377	22.1
80.1-200	250	14.7

The respondents were classified into four age groups as shown in Table 4.2. Maximum respondents are between 30 years to 35 years age group. This constitutes 46.2% of the sample. Minimum respondents are above 40 years of age i.e. 11% of the sample. Young and fresh intake constitutes 22.9% of the sample. This age group is between 25 years to 30 years of age. Respondents between 35 years of age to 40 years of age are 19.8% of the sample and number of respondents fall in this group are 188. The situation is clearly reflected in the Table

Respondents were asked to report on the total number of years for which they have been working with the bank they are currently with. Tenure was classified into four groups as mentioned in Table 4.2. The respondents who recently joined the bank are 162 and 9.5% of the sample. The respondents who are with the bank for more than 7 years are 369 and 21.7% of the sample. Maximum number of respondents belongs to the 3 years to 7 years tenure group that constitutes 35% of the sample. Figures reported in months were rounded off to the nearest year.

Respondents were asked to indicate the level of education in term of number of schooling years. As per employment policy of the bank, minimum education of 14 years is required to be employed by the bank. The distribution of the respondent's level of education in terms of number of schooling years is shown in Table 4.2. 62.7% of respondent have an MBA degree. Respondents with doctoral /MS/MPhil degrees and BBA/MA degrees both make up 13.7% and 13% of the sample respectively. Respondents with 14 years of education were just 10% of the sample.

The respondents were classified into four pay groups as shown in Table 4.2. Maximum respondents were between 40 thousands rupees per month to 50 thousands rupees per month. This constitutes 32.4% of the sample. Minimum numbers of respondents are in the highest bracket of above 80,000 thousands rupees per month i.e. 14.7% of the sample.

The researcher used instruments that have been developed and validated with samples other than Pakistani setting. The researcher, therefore, checked the consistency of the instruments by Cronbach's alpha. Cronbach's alpha is not a statistical test. It is known as coefficient of reliability. It is used to measure how well a single one-dimensional latent construct is measured through set of

items or variables. It ranges from 0 to 1. Values close to 1 reflect greater consistency of the items or variables. Which creates evidence that all of the items and variables are measuring the same construct. Table 4.3 presents alphas of the key variables of the study.

Table 4.3: Cronbach Alpha of key variables

Variables	Cronbach's Alpha	No of Items
Employment security	.715	4
Selectivity in recruitment	.704	4
High wages	.720	4
Incentive pay based on performance appraisal	.795	3
Employee ownership	.601	2
Information sharing	.757	5
Participation and empowerment	.739	7
Self managed team	.727	3
Training and skill development	.706	4
Reduced status distinctions and barriers	.750	4
Job design	.653	4
Measurement of human resource practices	.790	4
Promotion from within	.480	4
Quality of work/life	.280	1
Motivation	.714	3
Commitment	.752	6
Job satisfaction	.768	3
Turn over intentions	.771	4
Absenteeism	.690	3
Performance	.792	10

Literature provides rule of thumb that if values of alpha are .9 and above then it means excellent. If values are .8 and above but below than .9 than it means good. Values .7 and above but lower than .8 are only acceptable. Values .6 and above but lower than .7 are questionable. Values .5 and above but lower than .6 are poor and below than .5 are simply not acceptable. The number of items in scale partially influence alpha. High alpha communicates high internal consistency but it cannot

guarantee uni-dimensionality of the scale. As a result the Cronbach's alpha of the multi dimensional data will be usually low. This requires use of factor analysis to identify item loadings regarding different dimensions of the scale (George and Mallery, 2003). Since some of alpha values in Table 4.3 are not in the acceptable range, factor analysis has been conducted.

4.2. FACTOR ANALYSIS

Factor analysis was found to be the most popular method in the literature for determining construct validity. Factor analysis was used to revalidate the structure and internal reliability of the instruments used. When used to determine construct validity, factor analysis is usually a two-step process, Exploratory Factor Analysis and Confirmatory Factor Analysis (O'Leary-Kelly and Vorkuka, 1998; Kerlinger and Lee, 2000). According to Kerlinger and Lee (2000), Exploratory Factor Analysis is used to determine the underlying factor structure of a set of data or a construct when one has obtained measures on a number of variables and wants to identify the number and nature of the underlying factors. It offers a means of examining the interrelationships among the items of a scale that are used to reveal the clusters of items that have sufficient common variation to justify their grouping together as a factor. This process condenses a group of items into a smaller set of composite factors with a minimum loss of information.

In this study, Principal Factor Analysis was done according to the number of determined factors. Principal Factor Analysis extracts variances from linear combination of variables with principal axis method. It focuses analysis on common and unique variances. Eigenvalue greater than 1 was used for factors extractions. This value measures variances of all of the variables regarding factor. However, it is the researcher's discretion to experiment with different rotation methods to identify

appropriate factor structure. In the current study, direct oblimin rotation was used for factors extraction. It is accepted as a standard method in literature to have non-orthogonal solution. In this rotation method, factors are allowed to be correlated, and HPWP are believed to be correlated.

4.2.1. FACTOR STRUCTURE OF THE HIGH PERFORMANCE WORK PRACTICES SYSTEM

Table 4.4 reflects the factor structure analysis with Eigen value >1 of the high performance work practices scale and Table 4.4(a) presents the values for HR outcome. Small coefficients were suppressed at 0.30 it means coefficient values equal and below 0.30 was not shown in Table 4.4. and Table 4.4(a).

In Table 4.4, twelve practices loaded successfully. One practice, promotion from within was eliminated because of cross loading. Practice of participation and empowerment was divided and loaded separately as two different practices i.e. participation and empowerment. Over all 46 items loaded successfully out of 48 items. One item of job design and one item of absenteeism were eliminated. As a result the high performance work practices emerged to be 13 in numbers presented in Table 4.4.

Table 4.4: Factors Extraction of high performance work practices.

Note: Values less than 0.3 have been suppressed

HPWP Extraction with Eigen>1														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	SMT	EO	MHRP	IS	SIR	ES	EMP	HW	TSD	RSDB	IBPPA	JD		PART
ES1						.568								
ES2						.734								
ES3						.841								
ES4						.745								
SIR1					.629									
SIR2					.748									
SIR3					.749									
SIR4					.626									
HW1								.667						
HW2								.760						
HW3								.575					.318	
HW4								.614					.332	
IBPPA1											-.734			
IBPPA2											-.735			
IBPPA3											-.523			
EO1		.570												
EO2		.547												
IS1				.652										
IS2				.738										
IS3				.722										
IS4				.596										
IS5				.589										
PE1														-.775
PE2														-.804
PE3													.344	-.582
PE4													.322	-.433
PE5									-.650					
PE6									-.856					
PE7									-.760					
SMT1	.679													
SMT2	.683													
SMT3	.660													
TSD1									.593					
TSD2									.708					

TSD3		.715	
TSD4		.584	.315
RSDB1		.782	
RSDB2		.764	
RSDB3(R)		.787	
RSDB4(R)		.788	
JD1			-.762
JD2			-.817
JD3			-.710
MHRP1	-.709		
MHRP2	-.781		
MHRP3	-.806		
MHRP4	-.780		

Table 4.4 (a): Factors Extraction of HR outcomes.

Note: Values less than 0.3 have been suppressed

	Component				
	1	2	3	4	5
MOT1		.778			
MOT2		.802			
MOT3		.749			
COM1		.623			
COM3			.735		
COM4			.787		
COM6			.583		
JS1				.806	
JS2(R)				.661	
JS3				.771	
TOI1	.657				
TOI2	.732				
TOI3	.736				
TOI4	.720				
ABS1					.731
ABS2					.704
ABS3(R)					

Table 4.5 presents cronbach alpha of all items after factor loading. All of the items are with acceptable alpha values. One practice, promotion from within was eliminated because of cross loading. One item of job design and one item of absenteeism were eliminated. It also reflects alphas for motivation, commitment, job satisfaction, and turnover intentions. Table 4.5 exhibits alpha values of attitude and behavior, which were calculated after factor analysis.

Table 4.5: Cronbach Alpha after Factor Loading

NEW Variables	Cronbach's Alpha	No of Items
Employment security	.715	4
Selectivity in recruitment	.704	4
High wages	.720	4
Incentive pay based on performance appraisal	.795	3
Employee ownership	.601	2
Information sharing	.757	5
Participation	.719	4
Empowerment	.706	3
Self managed team	.727	3
Training and skill development	.706	4
Reduced status distinctions and barriers	.750	4
Job design	.716	3
Measurement of human resource practices	.790	4
Promotion from within	Deleted	
Quality of work/life	Deleted	
Motivation	.714	3
Commitment	.752	6
Job satisfaction	.768	3
Turn over intentions	.771	4
Absenteeism	.749	2
Attitude	.756	12
Behavior	.768	6
Performance	.792	10

4.3. DESCRIPTIVE STATISTICS

Descriptive statistics such as means and standard deviations of variables provide an overview of the data. In this study, Likert scale questions were used which makes the presentation of means essential to have a feel of direction of answers. The average distance from mean is reflected through standard deviation. If maximum observations are clustered around means then standard deviation will be low and a high standard deviation reflects variations in answers. The minimum and maximum value tells us the range of answers given by our respondents.

Table 4.6 present the descriptive statistics. As one can see the means of all of the practices is above 4 on likert scale that reflects the perception of the middle and senior level managers about the importance of the high performance work practices, HR outcomes and rest of the measures of organizational performance. The range of mean is from 4.79 to 5.44 of all of the high performance work practices. The range of standard deviation is from .853 to 1.28 for all of the likert scale measures. Pearson correlation was used in the current study. It measures the extent to which variables are linearly related with each other, reflected through a straight line with upwards slopes or downwards slopes.

Table 4.6 also presents moderate level of correlation between entered variables, which decreases the probability of high level of multicollinearity. Most of the high performance work practices turned out to be insignificantly correlated with organizational financial performance measures i.e. ROE, ROA, TQ and MBVEP.

Table 4.6: Descriptive statistics

		Correlations																						
		Mean	Std. D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	ES	4.56	1.260	1																				
2	SIR	4.41	1.22	.093**	1																			
3	HW	4.30	1.185	.126**	.263**	1																		
4	IPBPA	4.53	1.285	.060*	.310**	.173**	1																	
5	EO	4.05	1.456	.163**	.067**	.154**	.042	1																
6	IS	4.47	1.188	.102**	.333**	.248**	.424**	.067**	1															
7	PARTI	4.56	1.216	.144**	.245**	.334**	.247**	.195**	.327**	1														
8	EMPWR	4.49	1.285	.166**	.278**	.219**	.240**	.098**	.281**	.338**	1													
9	SMT	4.70	1.215	.217**	.301**	.275**	.273**	.097**	.275**	.415**	.244**	1												
10	TSD	4.43	1.191	.126**	.262**	.330**	.278**	.212**	.317**	.359**	.218**	.202**	1											
11	RSDB	5.44	.853	.130**	.109**	.081**	.150**	-.020	.087**	.172**	.136**	.210**	.066**	1										
12	JD	4.70	1.308	.063**	.213**	.252**	.268**	.073**	.436**	.282**	.152**	.290**	.306**	.101**	1									
13	MHRP	4.29	1.297	.116**	.235**	.278**	.180**	.231**	.186**	.285**	.195**	.255**	.370**	.046	.254**	1								
14	ROE	.042	.3254	.024	.036	.021	.011	.012	-.005	.000	.103**	.030	-.027	-.003	-.016	.023	1							
15	ROA	.0066	.02077	-.041	.045	.052*	.018	-.063**	.065**	.020	.076**	.061*	-.003	.007	.044	.012	.832**	1						
16	MBVEP	1.36	.6732	-.071**	.045	.025	.033	-.039	.089**	.039	-.027	.052*	.079**	-.005	.085**	.071**	-.083**	.163**	1					
17	TQ	254.23	153.78	-.075**	.028	.022	-.020	-.062*	.036	.002	.006	.028	.006	.003	.044	.032	.162**	.270**	.437**	1				
18	Productivity	8.24	.3636	-.149**	-.011	.016	-.016	-.047	.009	-.028	-.056*	.019	-.024	.003	.017	-.059*	.225**	.486**	.188**	-.001	1			
19	Performance	4.71	1.0210	.140**	.220**	.286**	.302**	.073**	.432**	.271**	.229**	.213**	.327**	.064**	.383**	.259**	-.053*	-.003	.104**	.036	-.021	1		
20	Attitude	4.79	.8454	.268**	.298**	.303**	.331**	.103**	.445**	.402**	.323**	.356**	.429**	.164**	.408**	.331**	-.023	.025	.052*	.002	-.026	.552**	1	
21	Behavior	3.73	1.436	.149**	.008	.076**	.155**	.207**	-.088**	-.025	-.023	.050*	.076**	.030	-.093**	.125**	.142**	.041	-.104**	-.048*	-.003	-.197**	-.201**	1

4.4. DIRECT IMPACT OF HIGH PERFORMANCE WORK PRACTICES ON OUT COMES AND PERFORMANCE

Multiple regression analysis has been used to learn about the relationship between several independent or predictor variables and a dependent or criterion variable (Pearson, 1908). Ordinary least squares linear regression has been used to find the following relationships.

- Employee's Attitude = function (13 HPWPS)
- Employee's Behavior = function (13 HPWPS)
- Return on equity (ROE) = function (13 HPWPS)
- Return on asset (ROA) = function (13 HPWPS)
- Market to book value of economic profit (MBVEP) = function (13 HPWPS)
- Tobin Q (TQ) = function (13 HPWPS)
- Employee's productivity = function (13 HPWPS)
- Organizational subjective performance = function (13 HPWPS)

The hypothesized relationship between independent variable (13 HPWPS) and dependent variables [Employee's Attitude (Attitude), Employee's behavior (Behavior), Return on equity (ROE) , Return on asset (ROA), Market to book value of economic profit (MBVEP) , Tobin Q (TQ), Employee's productivity and Organizational subjective performance)] may be written in terms of regression equations as

- $Attitude = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$
- $Behavior = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$

- $ROE = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$
- $ROA = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$
- $MBVEP = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$
- $TQ = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$
- $Product = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$
- $Sub_Perform = \alpha + \beta (13 \text{ HPWPS}) + \varepsilon$

Where;

α = a constant;

β = the effect in independent variable on dependent variable, hypothesized to be positive; and

ε = the “noise” term reflecting other factors that influence dependent variable.

Table 4.7 presents eight models. Age, Tenure, Education and Pay were the demographic variables. These variables are with nil effect on TQ and on employee’s productivity. Age turned out to be insignificant with Behavior, ROA and Subjective organizational performance. Tenure was insignificant with Attitude, MBVEP, and TQ. Education turned out to be insignificant with Attitude, and TQ. Pay was insignificant with Attitude, Behavior, TQ, and Productivity.

In Table 4.7, Model 1, the dependent variable is Attitude. In this model, 13 high performance work practices are entered as independent variables along with demographic variables. Out of the 13 practices 11 practices emerged to be significantly affecting Attitude. Selectivity in recruiting (SIR) and high wages (HW) were highly insignificant. Overall the model explains 42.4% of the variance ($R^2 = .424$).

Table 4.7: Regression Analysis – Direct impact of high performance work practices

	Model 1 H0 (1a)		Model 2 H0 (1b)		Model 3 H0 (1c)		Model 4 H0 (1c)		Model 5 H0 (1d)		Model 6 H0 (1d)		Model 7 H0 (1e)		Model 8 H0 (1f)	
	Attitude		Behavior		ROE		ROA		MBVEP		TQ		Productivity		Subjective Performance	
	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta
Age	0.054*	.058*	-.055	-.035	0.026*	.073*	.001	.036	-0.052*	-.070*	-7.657	-.045	.010	.026	-.036	-.032
Tenure	.014	.015	0.1421**	.091**	0.041***	.116***	0.002**	.090**	.002	.003	3.107	.018	-.007	-.017	-0.080*	-.071*
Education	.020	.019	0.233***	.131***	0.044***	.108***	0.001*	.055*	-0.046*	-.055*	-4.572	-.024	.004	.008	-0.069**	-.055**
Pay	-.013	-.016	-.064	-.046	-0.066***	-.209***	-0.003***	-.154***	0.061*	.093*	-5.383	-.036	.004	.011	0.082**	.084**
ES	0.107***	.159***	0.133***	.116***	.001	.003	-0.001*	-.060	-0.042**	-.078**	-10.057***	-.082***	-0.045***	-.154***	0.059***	.072***
SIR	.020	.029	0.063*	.054*	.004	.016	.000	.007	.008	.015	2.182	.017	-.001	-.005	-.005	-.005
HW	.023	.032	-0.134***	-.110***	.002	.006	.001	.036	-.007	-.013	1.822	.014	.014	.046	0.094***	.107***
IPBPA	0.037**	.057**	-0.179***	-.160***	.000	-.002	-.001	-.031	-.010	-.020	-6.85*	-.057*	-.007	-.024	0.072***	.091***
EO	-0.028*	-.048*	0.184***	.186***	.000	.002	-0.001***	-.070***	-0.025*	-.054*	-6.729*	-.064*	-.004	-.014	-.019	-.027
IS	0.118***	.166***	.002	.002	-.002	-.006	0.001*	.062*	0.036*	.063*	5.406	.042	.008	.027	0.190***	.221***
PARTI	0.068***	.098***	-.032	-.027	-.010	-.036	.000	-.026	.003	.006	-2.037	-.016	-.008	-.027	.022	.026
EMPW	0.057***	.087***	-.031	-.028	0.026***	.102***	0.001*	.062*	-0.030*	-.058*	.375	.003	-.011	-.039	0.045*	.057*
SMT	0.049**	.070**	0.108***	.092***	.006	.021	0.001*	.054*	.023	.042	4.409	.035	0.020*	.067*	-.015	-.017
TSD	0.125***	.176***	-0.127***	-.106***	-.015	-.054	.000	-.029	0.036*	.063*	.271	.002	.000	.000	0.088***	.103***
RSDB	0.04*	.042*	-.039	-.023	-.004	-.011	.000	-.004	-.010	-.013	.669	.004	.008	.018	-0.027**	-.023**
JD	0.103***	.159***	-0.084**	-.076**	-.005	-.021	.000	.012	.020	.038	2.738	.023	.005	.020	0.136***	.174***
MHRP	0.065***	.100***	0.174***	.156***	.007	.028	.000	.007	.026	.050	4.282	.036	-0.015*	-.055*	0.057**	.073**
Constant	1.012***		2.904***		-.142		.000		1.341***		300.618***		8.365***		1.909***	
R2	.424		.154		.043		.033		.036		.021		.034		.300	
ΔR2	.420		.127		.043		.033		.036		.021		.034		.294	
Adj R2	.418		.146		.033		.023		.026		.012		.024		.293	
Model F	72.92***		18.055***		4.411***		4.389***		4.682***		5.168**		6.478***		42.363***	

* p<05

**p<.01

** p<.001

In Model 2, the employee's behavior was regressed with 13 high performance work practices. Nine high performance work practices emerged significant and four high performance work practices were highly insignificant i.e. information sharing (IS), participation (PART), empowerment (EMPWR) and reduced status distinctions and barriers (RSDB). Overall the model explains 15.4% of the variance ($R^2 = .154$).

In Model 3, return on equity (ROE) was regressed with 13 high performance work practices. Only one high performance work practice of empowerment (EMPWR) emerged significant and rests of the twelve high performance work practices were insignificant. Overall the model explains 04.3% of the variance ($R^2 = .043$).

In Model 4, return on assets (ROA) was regressed with 13 high performance work practices. Five high performance work practice of employment security (ES), employee ownership (EO) information sharing (IS) empowerment (EMPWR) and self-managed team (SMT) emerged significant and rest of the eight high performance work practices was insignificant. Overall the model explains 03.3% of the variance ($R^2 = .033$).

In Model 5, the market to book value of economic profit (MBVEP) was regressed with 13 high performance work practices. Five high performance work practice of employment security (ES), employee ownership (EO) information sharing (IS) empowerment (EMPWR), training, and skill development (TSD) emerged significant and rest of the eight high performance work practices was insignificant. Overall the model explains 03.6% of the variance ($R^2 = .036$).

In Model 6, Tobin Q (TQ) was regressed with 13 high performance work practices. Three high performance work practice of employment security (ES), employee ownership (EO) and incentive pay based on performance appraisal (IPBPA) emerged significant and rest of the ten high performance work practices was insignificant. Overall the model explains 02.1% of the variance ($R^2 = .021$).

In Model 7 employee's productivity (Productivity) was regressed with 13 high performance work practices. Three high performance work practice of employment security (ES), self managed team (SMT), measurement of human resource practices (MHRP) emerged significant, and rest of the ten high performance work practices was insignificant. Overall the model explains 03.4% of the variance ($R^2 = .034$).

In Model 8, the organizational subjective performance was regressed with 13 high performance work practices. Nine high performance work practices i.e. employment security (ES), high wages (HW), incentive pay based on performance appraisal (IPBPA), information sharing (IS), empowerment (EMPWR), training and skill development (TSD), reduced status distinctions and barriers (RSDB), job design (JD) and measurement of human resource practices (MHRP) emerged significant. Four high performance work practices were insignificant i.e. participation (PART), employee ownership (EO), selectivity in recruitment (SIR) and self managed team (SMT). Overall the model explains 30.0% of the variance ($R^2 = .300$).

Regarding Hypothesis 1 and its sub hypotheses, Table 4.7 presents the direct impact of thirteen high performance work practices. Thus, for Hypothesis 1(a), the high performance work practices

system that affect the employees' attitude consists of 11 practices that significantly emerged out of 13 practices. Regarding Hypothesis 1(b), the high performance work practices system that affects the employees' behavior consists of 09 practices that significantly emerged out of 13 practices. Regarding Hypothesis 1(c), the high performance work practices system that affects the organizational book base financial measures i.e. the return on equity (ROE), consisted of only 01 practice that significantly emerged out of 13 practices, and the high performance work practices system that affects the return on assets (ROA) consists of 05 practices that significantly emerged out of 13 practices. Regarding Hypothesis 1(d) the high performance work practices system that affects the organizational market base financial measures i.e. market to book value of economic profit (MBVEP) consists of 05 practices that significantly emerged out of 13 practices and the high performance work practices system that affects the Tobin Q (TQ) consists of 03 practices that significantly emerged out of 13 practices. Regarding Hypothesis 1(e) the high performance work practices system that affects the employees' productivity consists of 03 practices that significantly emerged out of 13 practices and finally for Hypothesis 1(f) the high performance work practices system that affects the organizational subjective performance consists of 09 practices that significantly emerged out of 13 practices.

In past research, the U.S. Department of Labor (1993) identified 08 high performance practices, Pfeffer (1994) identified 16 high performance practices, Pfeffer, Hatano, and Santalainen, (1995) identified 13 high performance practices, Delery and Doty (1996) reduced the number of selected high performance to seven, Pfeffer (1998) again reduced the number of high performance practices from sixteen to seven in numbers, and Kuldeep Singh (2000, 2004) used seven practices in his study. The outcomes of these researches developed a criterion that the minimum numbers of high

performance work practices to constitute a system is seven. As a result our Hypothesis 1(a), 1(b) and 1(f) are accepted whereas Hypothesis 1(c), 1(d) are partially accepted and 1(e) is rejected.

4.5. DIRECT IMPACT OF ATTITUDE ON PERFORMANCE

It was hypothesized that the employee's attitude i.e. motivation, commitment and job satisfaction has an impact on organizational performance. Below is the list of hypothesized relationship between dependent and independent variables.

- Return on equity (ROE) = function (Attitude)
- Return on asset (ROA) = function (Attitude)
- Market to book value of economic profit (MBVEP) = function (Attitude)
- Tobin Q (TQ) = function (Attitude)
- Employee's productivity = function (Attitude)
- Organizational subjective performance = function (Attitude)

The hypothesized relationship between independent variable (attitude) and dependent variable (Return on equity (ROE), Return on asset (ROA), Market to book value of economic profit (MBVEP), Tobin Q (TQ), Employee's productivity and Organizational subjective performance may be written in terms of regression equations as;

- $ROE = \alpha + \beta \text{ Attitude} + \varepsilon$
- $ROA = \alpha + \beta \text{ Attitude} + \varepsilon$
- $MBVEP = \alpha + \beta \text{ Attitude} + \varepsilon$
- $TQ = \alpha + \beta \text{ Attitude} + \varepsilon$

- $Product = \alpha + \beta \text{ Attitude} + \varepsilon$
- $Sub_Perform = \alpha + \beta \text{ Attitude} + \varepsilon$

Where: α = a constant;

β = the effect in independent variable on dependent variable, hypothesized to be positive; and

ε = the “noise” term reflecting other factors that influence dependent variable.

The variables of Age, Tenure, Education, and Pay were added to the eight models. Table 4.8 shows mostly these variables emerged to have limited impact. They have nil effect on TQ and on employee’s productivity. Age turned out to be insignificant with ROE. Education and Age were insignificant with ROA; Tenure were insignificant with TQ.

Table 4.8: Direct Impact of Employee’s Attitude on Performance

	Model 1 H0 (2a)		Model 2 H0 (2a)		Model 3 H0 (2b)		Model 4 H0 (2b)		Model 5 H0 (2c)		Model 6 H0 (2d)	
	ROE		ROA		MBVEP		TQ		Productivity		Subjective Performance	
	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta
Age	.026	.072	.001	.044	-0.049*	-.067*	-7.006	-.042	.017	.042	-0.069*	-.062*
Tenure	0.047***	.131***	0.002**	.093**	-.010	-.013	2.385	.014	-.008	-.020	-0.095**	-.085**
Education	0.045***	.111***	.001	.042	-0.057**	-.068**	-7.189	-.038	-.005	-.010	-0.083**	-.066**
Pay	-0.070***	-.224***	-0.003***	-.161***	0.068**	.105***	-5.047	-.034	.004	.012	0.090**	.092**
Attitude	-.012	-.031	.001	.021	0.045*	.057*	.956	.005	.071*	-.026*	0.672***	.558***
Constant	-0.053		.000		1.284***		289.813***		8.280***		1.929***	
R2	.031		.013		.011		.005		.002		.316	
ΔR2	.031		.013		.011		.005		.002		.316	
Adj. R2	.028		.010		.008		.002		.001		.313	
Model F	10.678***		4.446***		4.848**		1.729		4.818*		156.263***	

* p< .05 ** p< .01 *** p< .001

Table 4.8 reflects that employee's attitude have no impact on organizational book base financial measures i.e. ROE ($B = -.012$; $\text{Adj } R^2 = .028$, $\Delta R^2 = .031$) and ROA ($B = .001$; $\text{Adj } R^2 = .010$, $\Delta R^2 = .013$). Thus, hypothesis 2(a) is rejected. H2(a): HRM outcome i.e. attitude is positively and significantly related to organizational book base financial performance (ROE, ROA).

Employee's attitude is partially affecting organizational market base financial performance that is, it has no impact on TQ ($B = .956$; $\text{Adj } R^2 = .002$, $\Delta R^2 = .005$). However, employee's attitude has no effect on TQ but it is significantly affecting market to book value of economic profit i.e. MBVEP ($B = .045^*$; $p < .05$; $\text{Adj } R^2 = .008$, $\Delta R^2 = .011$). Thus, hypothesis 2(b) is partially accepted. H2(b): HRM outcome i.e. attitude is positively and significantly related to organizational market base financial performance.

Employee's attitude turned out to be significant and have weak impact on employee's productivity ($B = .071^*$; $\text{Adj } R^2 = .001$, $\Delta R^2 = .002$). Thus, hypothesis 2(c) is accepted. H2(c): HRM outcome i.e. attitude is positively and significantly related to employee's productivity.

Employee's attitude is significantly affecting organizational subjective performance ($B = .675^{***}$; $p < .001$; $\text{Adj } R^2 = .313$, $\Delta R^2 = .316$). Thus, hypothesis 2(d) is accepted. H2(d): HRM outcome i.e. attitude is positively and significantly related to organizational subjective performance.

4.6. DIRECT IMPACT OF EMPLOYEE'S BEHAVIOR ON PERFORMANCE MEASURES

It was hypothesized that employee's behavior will have an impact on performance. Below is the list of hypothesized relationship between dependent and independent variables.

- Return on equity (ROE) = function (Behavior)
- Return on asset (ROA) = function (Behavior)
- Market to book value of economic profit (MBVEP) = function (Behavior)
- Tobin Q (TQ) = function (Behavior)
- Employee's productivity = function (Behavior)
- Organizational subjective performance = function (Behavior)

The hypothesized relationship between independent variable (Behavior) and dependent variable (Return on equity (ROE), Return on asset (ROA), Market to book value of economic profit (MBVEP), Tobin Q (TQ), Employee's productivity and Organizational subjective performance) may be written in terms of regression equations as;

- $ROE = \alpha + \beta \text{ Behavior} + \varepsilon$
- $ROA = \alpha + \beta \text{ Behavior} + \varepsilon$
- $MBVEP = \alpha + \beta \text{ Behavior} + \varepsilon$
- $TQ = \alpha + \beta \text{ Behavior} + \varepsilon$
- $Product = \alpha + \beta \text{ Behavior} + \varepsilon$
- $Sub_Perform = \alpha + \beta \text{ Behavior} + \varepsilon$

Where;

α = a constant;

β = the effect in independent variable on dependent variable, hypothesized to be positive; and

ε = the "noise" term reflecting other factors that influence dependent variable.

The variables Age, Tenure, Education, and Pay were the demographic variables in the models; their addition to the regression model makes no difference. Table 4.9 shows mostly these demographic variables emerged to be insignificant. These variables have nil effect on TQ and on employee's productivity. Age turned out to be insignificant with ROE, ROA, TQ, Subjective performance and productivity. Tenure was insignificant with MBVEP, TQ, subjective performance, and productivity. Education was insignificant with ROA, TQ, subjective performance and productivity. Pay was insignificant with TQ, subjective performance and productivity.

Table 4.9: Direct Impact of Employee's Behavior on performance measures

	Model 1 H0 (2e)		Model 2 H0 (2e)		Model 3 H0 (2f)		Model 4 H0 (2f)		Model 5 H0 (2g)		Model 6 H0 (2h)	
	ROE		ROA		MBVEP		TQ		Productivity		Subjective Performance	
	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta
Age	.028	.079	.001	.047	-0.052*	-.070*	-7.462	-.044	.016	.040	-.049	-.044
Tenure	0.042***	.117***	0.002**	.090**	-.002	-.003	3.179	.019	-.008	-.020	-.069	-.061
Edu	0.037***	.091***	.001	.037	-0.042*	-.050*	-5.887	-.031	-.005	-.012	-.009	-.007
Pay	-	-.218***	-0.003***	-.161***	0.064**	.099**	-5.331	-.036	.004	.013	.062	.063
Behavior	0.069***	.128***	.001	.035	0.047***	-.100***	-4.920	-.046	.061*	.001*	0.139***	.196***
Constant	-											
	0.193***		.001		1.628***		308.572***		8.229***		5.407***	
R2	.046		.014		.018		.007		.002		.043	
ΔR2	.046		.014		.018		.007		.002		.043	
Adj. R2	.043		.011		.015		.004		.001		.040	
Model F	16.218**		4.699***		6.111***		2.424*		4.584*		15.206***	

* p<.05 ** p<.01

p<.001

Table 4.9 presents that employee's behavior is significantly influencing ROE (B= .029***; p<.001; Adj R²= .043, ΔR²= .046) and it has no impact on ROA (B= .001; Adj R²= .011, ΔR²=

.014). Thus, hypothesis 2(e) is partially accepted. H2(e): HRM outcome i.e. behavior is positively and significantly related to organizational book base financial performance (ROE, ROA).

Whereas employee's behavior is partially affecting organizational market base financial performance that is the employee's behavior has no effect on TQ ($B = -4.920$; $\text{Adj } R^2 = .004$, $\Delta R^2 = .007$) but it is significantly affecting market to book value of economic profit i.e. MBVEP ($B = -.047^{***}$; $p < .001$; $\text{Adj } R^2 = .015$, $\Delta R^2 = .018$). Thus, hypothesis 2(f) is partially accepted. H2(f): HRM outcome i.e. behavior is positively and significantly related to organizational market base financial performance.

Employee's behavior turned out to be significant and have weak impact on employee's productivity ($B = .061^*$; $\text{Adj } R^2 = .001$, $\Delta R^2 = .002$). Thus, hypothesis 2(g) is accepted. H2(g): HRM outcome i.e. behavior is positively and significantly related to employee's productivity.

Employee's behavior is significantly influencing organizational subjective performance ($B = .139^{***}$; $p < .001$; $\text{Adj } R^2 = .040$, $\Delta R^2 = .043$). Thus, hypothesis 2(h) is accepted. H2(h): HRM outcome i.e. behavior is positively and significantly related to organizational subjective performance.

4.7. MEDIATION: Attitude and Behavior as Mediators between HPWPS and Performance

The third set of hypothesis relates to the mediating role of attitude and behavior in between the relationship of high performance work practices system and performance measures. The key concept of mediation is explained in Figure 2. Mediation or an indirect effect occurs when the

causal effect of an independent variable (A) on a dependent variable (C) is transmitted by a mediator (B). In other words, A affects C because A affects B, and B, in turn, affects C. With publications by Judd and Kenny (1981) and Baron and Kenny (1986) mediation became popular in HRM research. The mediating role of employee's attitude is tested based on multiple regression which suggested by Baron and Kenny (1986). They suggest three conditions for mediation are as follow

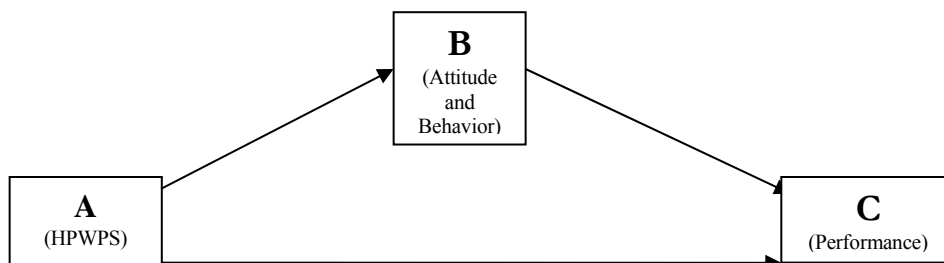
$$C = a_0 + a_1 A + e_1 \quad (1)$$

$$B = b_0 + b_1 A + e_2 \quad (2)$$

$$C = c_0 + c_1 A + b_2 B + e_3 \quad (3)$$

Where a_0 and b_0 and c_0 are intercepts, C is the dependent variable, A is the independent variable and B is the mediator a_1 is the coefficient relating the independent variable and the dependent variable, c_1 is the coefficient relating the independent variable to the dependent variable adjusted for the mediator, b_2 is the coefficient relating the mediator to the dependent variable adjusted for the independent variable, b_1 is the coefficient relating the independent variable to the mediator, and e_1 , e_2 , and e_3 are residuals.

Figure 2: Mediation Concept



This study aims to explore whether the relationship between HPWPS (A) and performance variables (C = ROE, ROA, MBVEP, TQ, Productivity and subjective performance) is mediated by attitude and behavior (B).

Baron and Kenny (1986) suggest that the relationship between independent and dependent variable (A and C) must be significant in order to proceed for step two to check mediation. Table 4.7 shows that all of the book base and market base organizational financial performance measures, and employee's productivity did not qualify first step of the mediation. Only Model 8 has qualified for second set for mediation as mentioned in Table 4.7 thus it is not possible to carryout further analysis for H3(a), H3(b), H3(c), H3(d), H3(e), and H3(f), and these hypotheses are rejected. The Model 1 and Model 2 in Table 4.7 reflect the 2nd criterion suggested by Baron and Kenny (1986) that is the relationship between independent variable and mediating variable (A and B) must be significant in order to proceed for step three to check mediation; this condition is fulfilled. The high performance work practices system is considered significantly influencing the dependent variables if at least seven practices out of 13 practices emerge as significant.

4.7.1. MEDIATION: Mediating Role of Attitude in between HPWPS and Performance

Table 4.10 presents the results of mediation of attitude. In step 1, high performance work practices were regressed with attitude, taken as mediator in conceptual model. Results reflect 11 practices emerged as significant out of 13 practices. In step 2, high performance work practices are regressed with subjective performance. Ten practices out of 13 practices emerged as significant. Therefore, the condition for mediation is met.

Table 4.10: Main effect and Mediated regression analysis of HPWPS, Attitude and subjective performance

Predictor variable	Mediator variable: Attitude			Dependent variable: Subjective performance		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Step 1						
Control Variables		.004				
Step 2						
Main Effect:		.424	.420***			
Employment security	0.107***					
Selectivity in recruitment	.020					
High wages	.023					
Incentive pay based on performance appraisal	0.037**					
Employee ownership	-0.028*					
Information sharing	0.118***					
Participation	0.068***					
Empowerment	0.057***					
Self managed team	0.049**					
Training and skill development	0.125***					
Reduced status distinctions and barriers	0.04*					
Job design	0.103***					
Measurement of human resource practices	0.065***					
Step 1						
Control Variables					.006	
Step 2						
Main Effect:					.300	.294***
Employment security				0.059***		
Selectivity in recruitment				-.005		
High wages				0.092***		
Incentive pay based on performance appraisal				0.072***		
Employee ownership				-.019		
Information sharing				0.190***		
Participation				0.022*		
Empowerment				0.045*		
Self managed team				-.015		
Training and skill development				0.088***		
Reduced status distinctions and barriers				-0.027**		
Job design				0.136***		
Measurement of human resource practices				0.057**		
Step 1						
Control Variables		107			.006	
Step 2						

Mediation: Attitude	.467***	.315	.309***
Step 3			
		.386	.071***
Employment security	.007		
Selectivity in recruitment	-.015		
High wages	0.081***		
Incentive pay based on performance appraisal	0.056***		
Employee ownership	-.006		
Information sharing	0.115***		
Participation	-.011		
Empowerment	.019		
Self managed team	-.037		
Training and skill development	.029		
Reduced status distinctions and barriers	-0.017*		
Job design	0.087***		
Measurement of human resource practices	.027		

* p< .05 **p<.01 ***p<.001

In step 3, these practices which emerged as significant in step 2 became insignificant that reflects full mediation i.e. the β value of employment security dropped from 0.059*** to .007, the β value of employee's participation dropped from 0.022* to -0.011, the β value of employee's empowerment dropped from 0.045* to 0.019, the β value of training and skill development dropped from 0.088*** to 0.029 and the β value of measurement of human resource practices dropped from 0.057** to 0.027 respectively. All of these practices increase organizational performance through enhancing commitment, job satisfaction, and motivation of the employees. Only committed, motivated, and satisfied employees are such organizational assets that positively influence organizational performance.

Our results show that if an organization can provide employment security, and allows its employees to participate in decision making and gets them involved by empowering them after

providing them with required skills and implements a feedback system, the result will be higher level of organizational performance. All of the five practices bring positive change in employee's attitude, which in turn furthers the level of performance.

Further employee's attitude is partially mediating between five of the high performance work practices and organizational subjective performance i.e high wages (HW), incentive pay based on performance appraisal (IPBPA), information sharing (IS), reduced status distinctions and barriers (RSDB) and job design (JD) out of 13 high performance work practices.

In step 3 all of these practices which emerged as significant in step 2, but a drop in their β values reflect partial mediation i.e. the β value of high wages dropped from 0.092*** to .081***, the β value of incentive pay based on performance appraisal dropped from 0.072*** to 0.056***, the β value of information sharing dropped from 0.190*** to 0.115***, the β value of reduced status distinctions and barriers dropped from -0.027** to -0.017* and the β value of job design dropped from 0.136*** to 0.087*** respectively. Offering comparatively high wages in market, pay to performance, sharing required organizational information, creating a culture of equal status when employees are interacting with each other and designing the job have limited impact not only on employees attitude but also directly on performance. Which means these practices can directly influence organizational performance to some extent.

The non-significant relationships between selectivity in recruitment (SIR), employee's ownership (EO) and self-managed team (SMT) and organizational subjective performance remained non-

significant. Thus, hypothesis 3(g) is accepted. H3(g): HRM outcome i.e. attitude, mediates between HPWP and organizational subjective performance.

4.7.2. MEDIATION: Mediating Role of Behavior in between HPWPS and Performance

Table 4.11 presents the results of mediation of behavior. In step 1 high performance work practices were regressed with behavior, taken as mediator in the conceptual model. Results reflect nine practices emerged as significant out of 13 practices. Therefore, the condition for mediation is met. In step 2, high performance work practices are regressed with subjective performance. Ten practices out of 13 practices were emerged as significant. Therefore, the conditions for mediation are met. In step 3 high performance work practices and behavior together regressed on subjective performance.

Comparing β value of step 2 and step 3, it is observed that there is full mediation between employment security (ES), employee's participation (PARTICP) and reduced status distinctions and barriers (RSDB) and organizational performance. In step 3, all of these three practices which were emerged as significant in step 2, became insignificant i.e. the β value of employment security dropped from 0.059*** to .074, the β value of employee's participation dropped from 0.022* to 0.018 and the β value of reduced status distinctions and barriers dropped from -0.027** to -0.032. The results reflect that full mediation between employment security (ES), employee's participation (PARTICP) and reduced status distinctions and barriers (RSDB) and organizational performance i.e. providing secured job directly reduces turnover intentions and intentions to remain absent from the job, which in turn positively impacts the organizational performance.

Table 4.11: Main effect and Mediated regression analysis of HPWPS, Behavior and subjective performance

Predictor variable	Mediator variable: Behavior			Dependent variable: Subjective performance		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Step 1						
Control Variables		.027				
Step 2						
Main Effect:		.154	.127***			
Employment security	0.133***					
Selectivity in recruitment	0.063*					
High wages	-0.134***					
Incentive pay based on performance appraisal	-0.179***					
Employee ownership	0.184***					
Information sharing	.002					
Participation	-.032					
Empowerment	-.031					
Self managed team	0.108***					
Training and skill development	-0.127***					
Reduced status distinctions and barriers	-.039					
Job design	-0.084**					
Measurement of human resource practices	0.174***					
Step 1						
Control Variables				.006		
Step 2						
Main Effect:				.300	.294***	
Employment security				0.059***		
Selectivity in recruitment				-.005		
High wages				0.092***		
Incentive pay based on performance appraisal				0.072***		
Employee ownership				-.019		
Information sharing				0.190***		
Participation				0.022*		
Empowerment				0.045*		
Self managed team				-.015		
Training and skill development				0.088***		
Reduced status distinctions and barriers				-0.027**		
Job design				0.136***		
Measurement of human resource practices				0.057**		
Step 1						
Control Variables					.006	
Step 2						
		111				

Mediation: Behavior	.115***	.044	.038***
Step 3			
HPWPS		.322	.278***
Employment security	.074		
Selectivity in recruitment	.003		
High wages	0.077***		
Incentive pay based on performance appraisal	0.051**		
Employee ownership	.003		
Information sharing	0.191***		
Participation	.018		
Empowerment	0.041*		
Self managed team	-.002		
Training and skill development	0.073***		
Reduced status distinctions and barriers	-.032		
Job design	0.026***		
Measurement of human resource practices	0.077***		

* p<.05 **p<.01 ***p<.001

Further behavior is partially mediating the role between five of the high performance work practices and organizational subjective performance i.e high wages (HW), incentive pay based on performance appraisal (IPBPA), empowerment (EMPWR) training and skill development (TSD) and job design (JD) out of 13 high performance work practices. In step 3 all of these practices which were emerged significant in step 2, remained significant but a drop in their β values reflects partial mediation i.e. the β value of high wages dropped from 0.092*** to .077***, the β value of incentive pay based on performance appraisal dropped from 0.072*** to 0.051**, the β value of empowerment dropped from 0.045* to 0.041*, the β value of training and skill development dropped from 0.088*** to 0.073*** and the β value of job design dropped from 0.136*** to 0.026*** respectively. It means these practices are affecting organization performance not only directly but also through employee's behavior. If employees are paid more they will stay and tend to be more present. If their contribution is recognized and they are

provided with training and opportunity to develop skills, if they are provided with better job design and organization maintains the process of getting feedback through attitudinal surveys then probably employees will exhibit a positive behavior.

The non significant relationships between selectivity in recruitment (SIR), employee's ownership (EO), employee's empowerment (EMPWR), information sharing (IS), reduced status distinctions and barriers (RSDB) and self managed team (SMT) and organizational subjective performance, remained non significant. Thus, hypothesis 3(h) is accepted. H3(h): HRM outcome i.e. behavior, mediates between HPWP and organizational subjective performance

4.8. MODERATION: RBV as Moderator between HPW Practices and HR outcomes

The fourth set of hypothesis relates to the moderating role of resource base view (RBV) between HPWPS and HR outcomes i.e. attitude and behavior. The aim of the study was to establish the fact that when high performance work practices are time-bounded, rare, and inimitable then these practices become source of competitive advantage through positive attitude and behaviors, and hence further the level of organizational performance. Only such internal resource helps the organization to excel in the market (Barney, 1991).

Three items in the questionnaire that were added with all of the thirteen practices to measure the RBV perspective as perceived by the senior and middle level bank managers. The first item measured the time-boundedness of the adopted practice in the perception of the senior and middle level bank managers. This item addressed the concept of time path history of the adopted practice. The second item measured the rareness of the adopted practice in the perception of the senior and

middle level bank managers. This item addressed the concept of rare adaptation of this practice by the competitors. The third item measured the inimitability of the adopted practice in the perception of the senior and middle level bank managers. This item addressed the concept of extreme difficulty in imitating the adopted practice by the competitors as it was implemented by the bank. A summated index was created of the three items for each of the thirteen practices.

Employment Security

An additional 3-item scale from 1.5 to 1.7 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Selectivity in Recruiting

An additional 3-item scale from 2.5 to 2.7 as mentioned in Appendix A, was used to measure the rareness, inimitability and time path dependence of this practice.

High Wages

An additional 3-item scale from 3.5 to 3.7 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Incentive Pay Based on Performance Appraisal

An additional 3-item scale from 4.4 to 4.6 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Employee Ownership

An additional 3-item scale from 5.3 to 5.5 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Information Sharing

An additional 3-item scale from 6.6 to 6.8 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Participation and Empowerment

An additional 3-item scale from 7.8 to 7.10 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Self-Managed Teams

An additional 3-item scale from 8.4 to 8.6 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Training and Skill Development

An additional 3-item scale from 9.5 to 9.7 as mentioned in Appendix A, was used to measure the rareness, inimitability and time path dependence of this practice.

Reduced Status Distinctions and Barriers

An additional 3-item scale from 10.5 to 10.10.7 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Job Design

An additional 3-item scale from 11.5 to 11.7 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Promotion from within

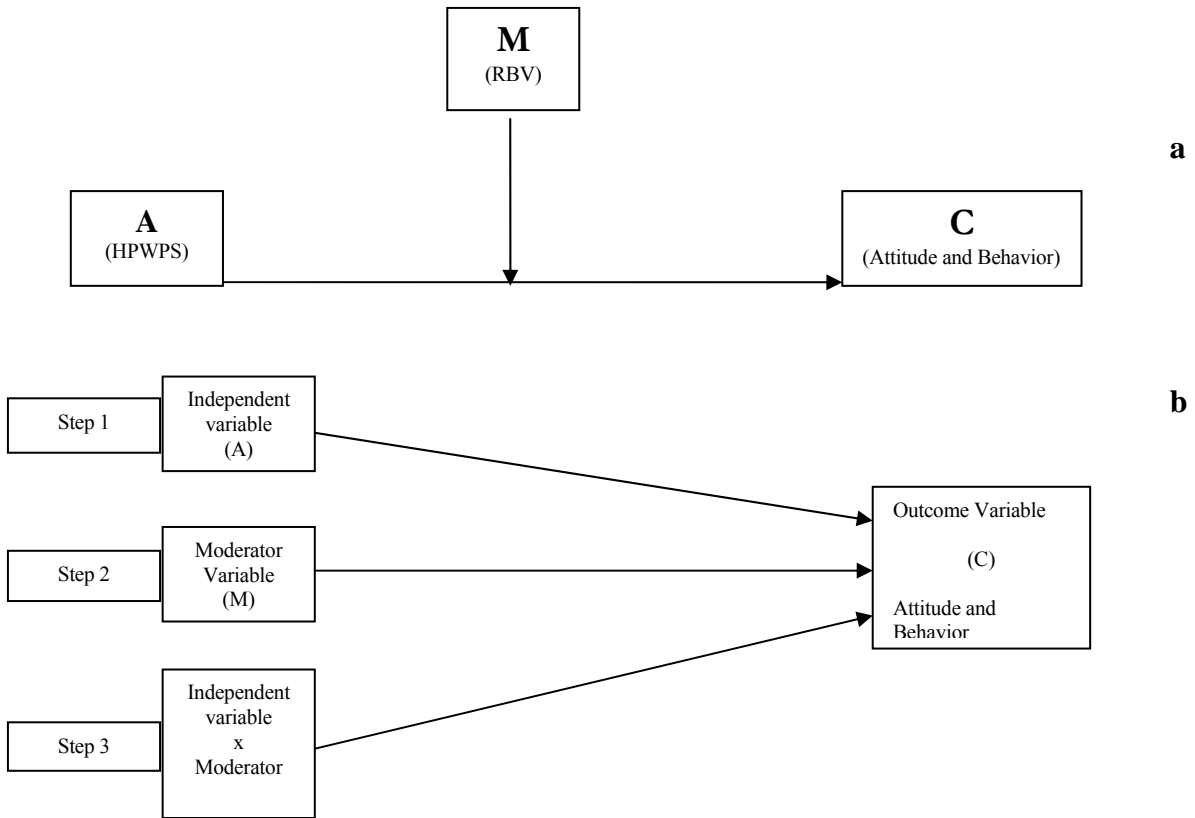
An additional 3-item scale from 12.5 to 12.7 as mentioned in Appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Measurement of the HR Practices

An additional 3-item scale from 13.5 to 13.7 as mentioned in appendix A was used to measure the rareness, inimitability and time path dependence of this practice.

Figure 3 illustrates a moderator effect. When the strength of the relationship between two variables is dependent on a third variable, moderation is said to be occurring. The third variable or moderator (M) interacts with (A) in predicting (C) if the regression weight of (C) on (A) varies as a function of (M). A moderator variable may initially be analyzed in a multiple regression model as one of the independent variables. The part b of the Figure 3, explains that the moderator interacts with the independent variable to strengthen or weaken the independent variable's association with the outcome variable. In step 1, only the independent variables are entered as block 1, then in step 2, moderator variable is entered as block 2. In step 3, the product of independent variable and moderator variable is entered as block 3. This is also known as the interaction term.

Figure 3: Moderation Concept



Moderation is typically assessed with the regression equation:

$$C = a_0 + a_1A + a_2M + a_3AM + e \quad (1)$$

Where M is considered to be the moderator

Equation 1 may be re expressed as

$$C = (a_0 + a_2M) + (a_1 + a_3M) A + e \quad (2)$$

Clarifying how the simple slope of C regressed on A, $(a_1 + a_3M)$, is a function of the moderator.

Hierarchical regression analysis was used to test hypotheses and verify the moderating effect of RBV. It is used to evaluate the relationship between a set of independent variables and the dependent variable, controlling for or taking into account the impact of a different set of independent variables on the dependent variable. The independent variables are entered into the analysis in a sequence of blocks as mentioned in Figure 3 i.e. the independent variables were entered in step one, moderator variable was entered in step two and interaction term were entered in step three. One can have as many predictor variables added in each block, as it is required. It results in the R-square change. The R-square change is tested with an F-test, which is referred to as the F-change. A significant F-change means that the variables added in that step significantly improved the prediction.

Moderation analyses through SPSS are followed by plotting moderation graphs for variables where moderation was significant to show how variables are interacting. Simple slope analysis were plotted by an excel macro developed by Dr. Jeremy Dawson (Dawson, 2011). The software takes β coefficients of independent variable, moderator variable, interaction term, and constant along with means and SD values of independent variable and moderator as inputs and plots the graph. The software plots two lines based on one plus and one minus standard deviation around the mean.

The results for moderating role of RBV between HPWPS and employee's attitude and behavior are presented in Table 4.12. In Model 1, 13 high performance work practices were entered with employee's attitude as dependent variable. Eleven practices emerged as significant predictor of employee's attitude. Model 2 is the second step to hierarchical regression where the concept of time boundedness, rareness, and inimitability based on resource base view of the firm is regressed

with 13 practices that show further increase in adjusted R². In Model 3, RBV concept of time boundedness, rareness and inimitability is incorporated with the high performance work practices system. As a result, five practices product terms emerge significant. These five practices positively enhance the employee's attitude to such a level where it further enhances organizational performance and becomes a source of competitive advantage. Thus, hypothesis 4(a) is accepted. H4(a): Resource based view positively moderates the relationship between HPWPS and HR outcomes i.e. attitude.

Table 4.12: Moderating role of RBV between HPWPS and employee's attitude and behavior

	Employee's Attitude			Employee's Behavior		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Constant	1.02***	0.946***	.246	2.90***	2.165***	4.793***
Age	0.054*	0.048*	.038	-.055	-.035	-.023
Tenure	.014	.015	.017	0.142**	0.143**	0.125**
Education	.020	.028	.030	0.233***	0.181***	.184
Pay	-.013	-.011	-.012	-.064	-.033	-.036
BLOCK 1						
	0.107***	0.114***	0.136**	0.133***	.035	-0.211*
ES						
SIR	.020	0.035*	-0.08*	0.063*	-.017	-.048
HW	.023	.028	-.033	-0.134***	-0.142***	-.096
IPBPA	0.037**	0.036*	.085	-0.179***	-0.147***	-.026
EO	-0.0277*	-.022	-.012	0.184***	0.119***	-.122
IS	0.118***	0.116***	0.276***	.002	-.010	-0.185*
PARTI	0.068***	0.068***	0.116**	-.032	-.067	.028
EMPWR	0.057***	0.042**	-.004	-.031	-0.128***	-.026
SMT	0.049*	0.054***	0.173***	0.108***	0.062*	-.135
TSD	0.125***	0.130***	.074	-0.127***	-0.142***	-.050
RSDB	0.041*	0.043*	0.154*	-.039	-.001	-.224
JD	0.103***	0.103***	0.105*	-0.084**	-0.099***	-.148
MHRP	0.065***	0.068***	-0.107*	0.174***	.041	0.192*
BLOCK 2						
		-.008	.016		0.135***	-.123
RBV_ES						
RBV_SIR		-0.029*	-0.154***		.050	.029

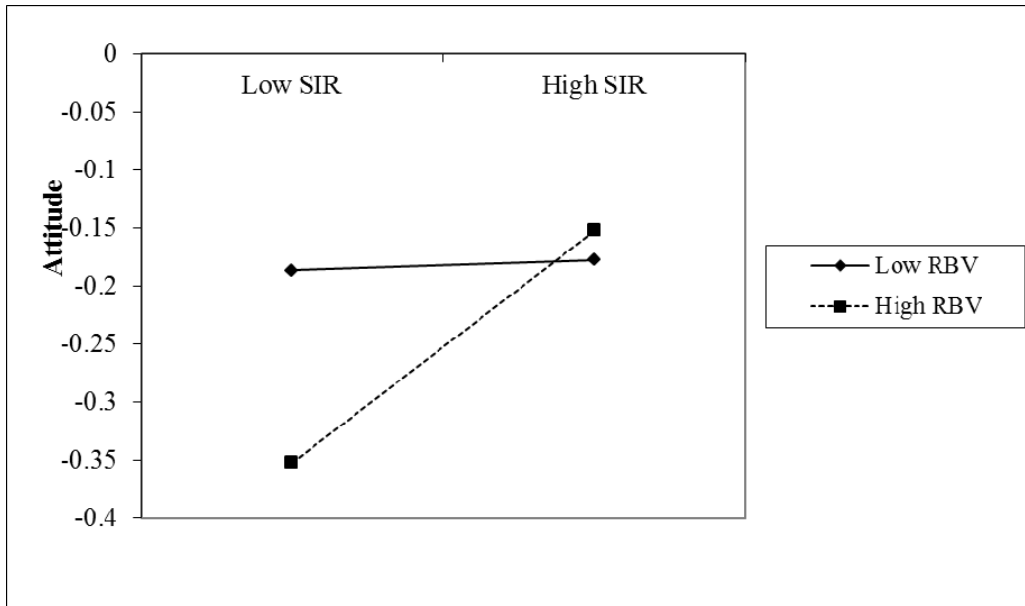
work practices. As a result, five products emerged as significant. These five products positively enhance the employee’s behavior to such a level where it further enhances organizational performance and becomes a source of competitive advantage. Thus, hypothesis 4(b) is accepted. H4(b): Resource based view positively moderates the relationship between HPWPS and HR outcomes i.e. behavior.

To investigate the moderating effect of RBV on the relationship between high performance work practices and attitude and behavior a series of graphs were plotted for all significant interaction terms in Table 4.12 (Figure 2 to Figure 17). The joint relationship of the selectivity in recruiting (SIR) and RBV on attitude was plotted first. Table 4.13 summarizes the key values which were used by the excel macro to plot Figure 4. In Table 4.13, SIR was significantly associated with attitude, the dependent variable, and with the moderator, RBV. This relationship was further enhanced by interaction term (SIR x RBV). Therefore, this study demonstrates the interaction between SIR and RBV had a positive relationship with attitude ($\beta = .029^{***}$). Thus, a moderating effect of RBV exists between SIR and attitude.

Table 4.13: Unstandardized regression coefficients for moderation of RBV between SIR and Attitude

Unstandardized Regression Coefficients:	β
Independent variable: SIR	-0.08*
Moderator: RBV	-0.154***
Interaction: SIR x RBV	0.029***
Intercept / Constant:	.246
Means / SDs of variables:	
Mean of independent variable: SIR	4.4120
SD of independent variable: SIR	1.22413
Mean of moderator: RBV	4.226
SD of moderator: RBV	1.343

Figure 4: RBV Moderation between Selectivity in Recruitment (SIR) and Attitude



To explain further, Figure 4 has two lines. The continuous line represents low RBV and has an extremely small slope which represents an almost nonexistent relationship between SIR and attitude in this sub group. Comparing this to the dotted line of high RBV, this second line has a sharp slope representing positive relationship between SIR and attitude. Therefore, the respondents who believe that the practices they have adopted in recruitment were time bounded, rare and inimitable had a positive impact on their attitude as compared to those who did not perceive time boundedness, rareness, and inimitability of these adopted practices in the same way.

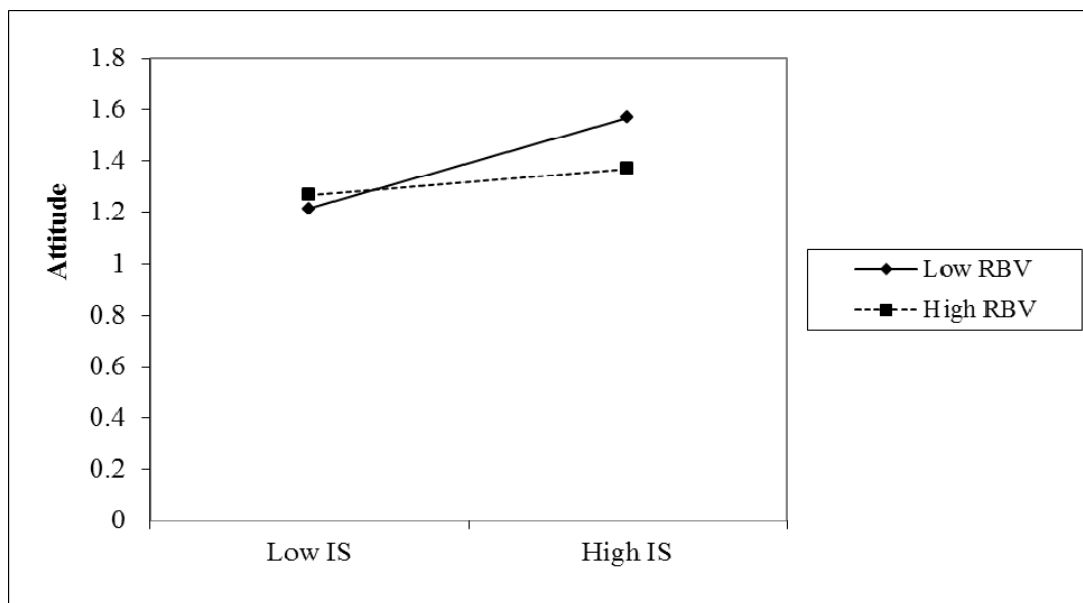
Table 4.14 summarizes the key values which were used by the excel macro to plot Figure 5. Figure 5 presents the form of the joint relationship of the information sharing (IS) and RBV on attitude. In Table 4.14, IS was significantly associated with attitude the dependent variable and with moderator. This relationship was further enhanced by interaction term (IS x RBV). Therefore, this

study demonstrates the interaction between IS and RBV had a negative relationship with attitude ($\beta = -0.041^{***}$). At low IS when RBV is low it results in more negative attitude as expected. However when IS is high, low RBV results in a more positive attitude than high RBV. This is contrary to our hypothesis.

Table 4.14: Unstandardized regression coefficients for moderation of RBV between IS and Attitude

Unstandardized Regression Coefficients:		β
Independent variable: IS		0.276***
Moderator: RBV		0.155***
Interaction: IS x RBV		-0.041***
Intercept / Constant:		.246
Means / SDs of variables:		
Mean of independent variable: IS		4.4722
SD of independent variable: IS		1.18803
Mean of moderator: RBV		4.392
SD of moderator: RBV		1.293

Figure 5: RBV Moderation between IS and Attitude



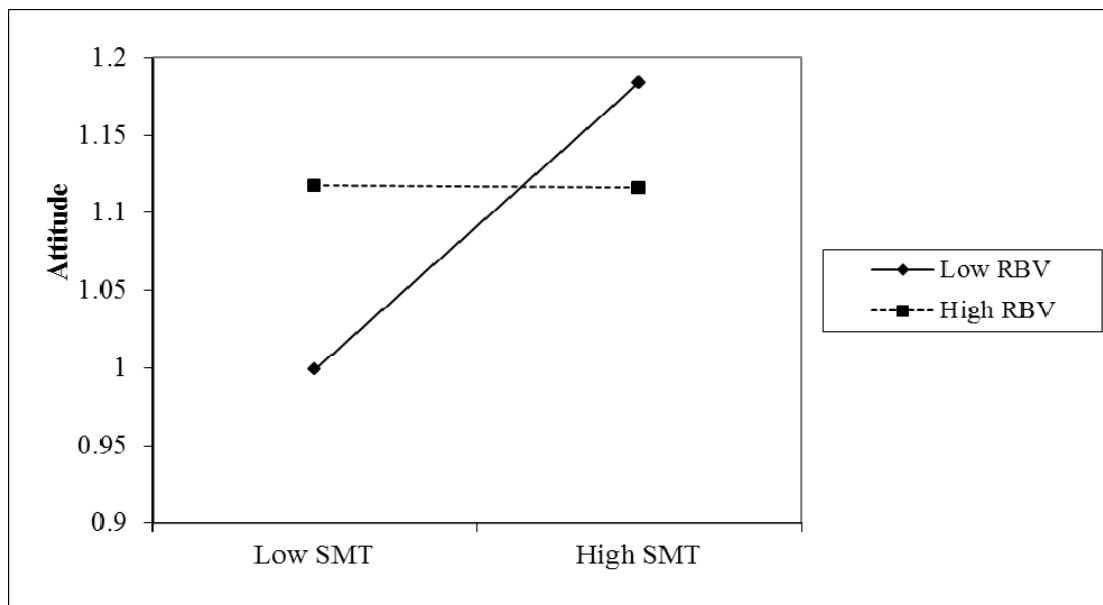
To explain further, Figure 5 has two lines, the continuous line represents low RBV with a relatively small slope which represents a positive relationship between IS and attitude in this sub group. Comparing this to the dotted line of high RBV, that is with a small slope representing positive but weak relationship between IS and attitude. Therefore, the respondents who believe that the practices they have adopted in information sharing were timebounded, rare and inimitable had a positive but weak impact on their attitude. Those respondents who did not perceive timeboundedness, rareness, and inimitability of these adopted practices had positive and strong impact on their attitude.

Table 4.15 summarizes the key values which were used by the excel macro to plot Figure 6. Figure 6 presents the form of the joint relationship of the self-managed teams (SMT) and RBV on attitude. In Table 4.15, SMT was significantly associated with attitude, the dependent variable, and with the moderator, RBV. This relationship was further enhanced by interaction term (SMT x RBV). Therefore, this study demonstrates the interaction between SMT and RBV had a negative relationship with attitude ($\beta = -0.031^{***}$). At low SMT when RBV is low it results in more negative attitude as expected. However, when SMT is high, low RBV results in a more positive attitude than high RBV. This is contrary to our hypothesis.

Table 4.15: Unstandardized regression coefficients for moderation of RBV between SMT and Attitude

Unstandardized Regression Coefficients:	β
Independent variable: SMT	0.173***
Moderator: RBV	0.156*
Interaction: SMT x RBV	-0.031***
Intercept / Constant:	.246
Means / SDs of variables:	
Mean of independent variable: SMT	4.7023
SD of independent variable: SMT	1.21480
Mean of moderator: RBV	4.362
SD of moderator: RBV	1.237

Figure 6: RBV Moderation between SMT and Attitude



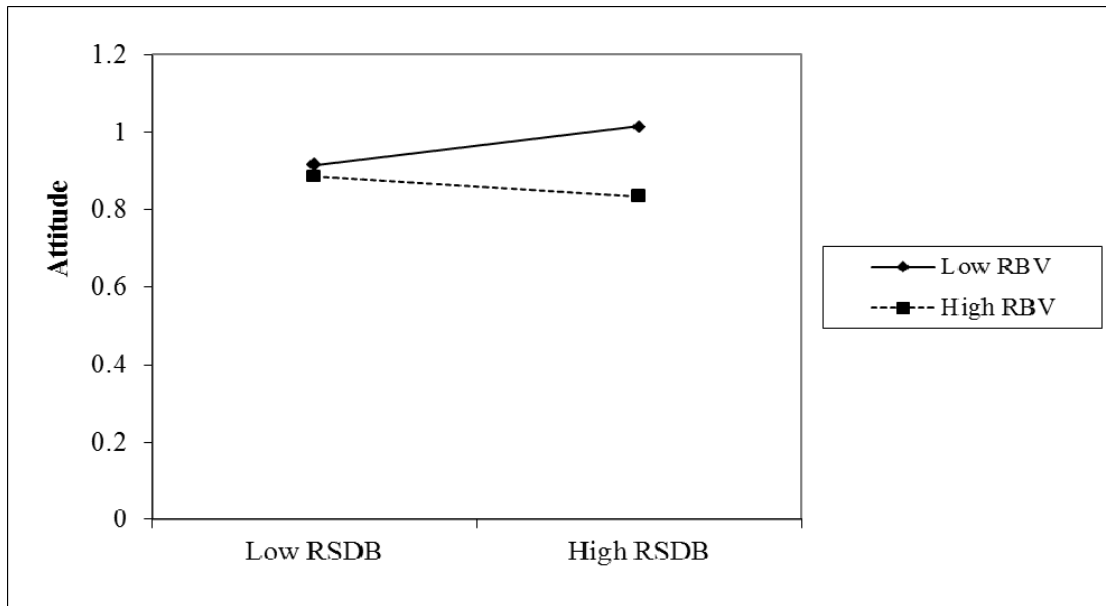
To explain further, Figure 6 has two lines, the continuous line represents low RBV with a very sharp slope which represents a strong relationship between SMT and attitude in this sub group. Comparing this to the dotted line of high RBV, that is with a small slope representing almost nonexistent relationship between SMT and attitude. Therefore, the respondents who believe that the practices they have adopted in self-managed teams were timebounded, rare and inimitable had no impact on their attitude. Those respondents who did not perceive timeboundedness, rareness, and inimitability of these adopted practices had positive impact on their attitude.

Table 4.16 summarizes the key values which were used by the excel macro to plot Figure 7. Figure 7 presents the form of the joint relationship of the reduced status distinctions and barriers (RSDB) and RBV on attitude. In Table 4.16, RSDB was significantly associated with attitude the dependent variable and with moderator, it was non-significant. This relationship was further enhanced by interaction term (RSDB x RBV). Therefore, this study demonstrates the interaction between RSDB and RBV had a negative relationship with attitude ($\beta = -0.032^*$). However, the effect of interaction term is in the opposite direction to what was initially hypothesized.

Table: 4.16 Unstandardized regression coefficients for moderation of RBV between RSDB and Attitude

Unstandardized Regression Coefficients:	β
Independent variable: RSDB	0.154*
Moderator: RBV	0.135 ns
Interaction: RSDB x RBV	-0.032*
Intercept / Constant:	.246
Means / SDs of variables:	
Mean of independent variable: RSDB	5.4437
SD of independent variable: RSDB	.85299
Mean of moderator: RBV	4.383
SD of moderator: RBV	1.346

Figure 7: RBV Moderation between RSDB and Attitude



To explain further, Figure 7 has two lines, the continuous line represents low RBV with a positive slope which represents a positive relationship between RSDB and attitude in this sub group. Comparing this to the dotted line of high RBV, that is with a small negative slope representing negative relationship between RSDB and attitude. Therefore, the respondents who believe that the practices they have adopted in reduced status distinctions and barriers were timebounded, rare and inimitable had negative impact on their attitude.

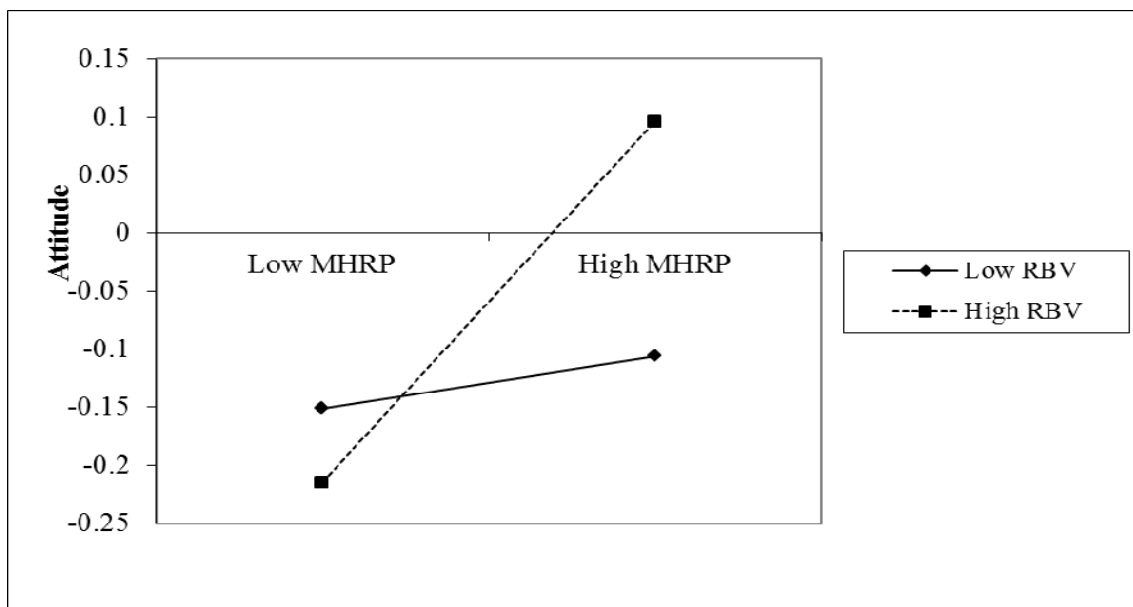
Table 4.17 summarizes the key values which were used by the excel macro to plot Figure 8. Figure 8 presents the form of the joint relationship of the measurement of human resource practices (MHRP) and RBV on attitude. In Table 4.17, MHRP was significantly associated with attitude, the dependent variable, and with the moderator, RBV. This relationship was further enhanced by interaction term (MHRP x RBV). Therefore, this study demonstrates the interaction between

MHRP and RBV had a positive relationship with attitude ($\beta = 0.041^{***}$). There was a positive relationship between low RBV and attitude when MHRP was low and comparatively stronger relationship when MHRP was high. However, as hypothesized, the relationship of low RBV was weak when MHRP was low and strong when MHRP was high. There was also a positive relationship between high RBV and attitude, the relationship was weak when there was low MHRP and it was very high when MHRP was high. The moderating effect of RBV between MHRP and attitude was strong.

Table: 4.17 Unstandardized regression coefficients for moderation of RBV between MHRP and Attitude

Unstandardized Regression Coefficients:	β
Independent variable: MHRP	-0.107*
Moderator: RBV	-0.148***
Interaction: MHRP x RBV	0.041***
Intercept / Constant:	.246
Means / SDs of variables:	
Mean of independent variable: MHRP	4.2862
SD of independent variable: MHRP	1.29734
Mean of moderator: RBV	4.287
SD of moderator: RBV	1.250

Figure 8: RBV Moderation between MHRP and Attitude



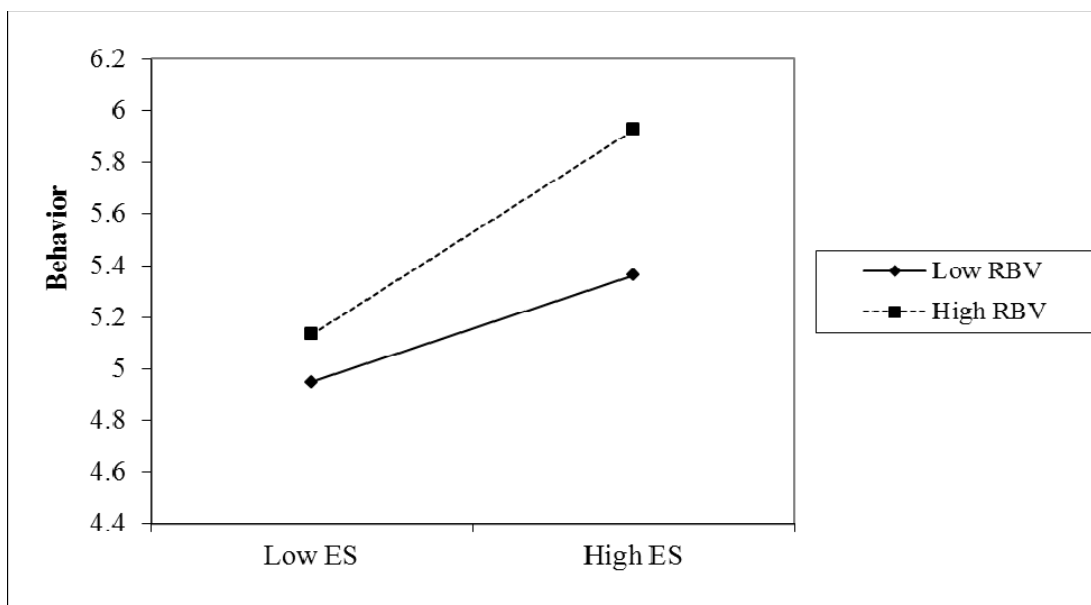
To explain further, Figure 8 has two lines, the continuous line represents low RBV with a sharp positive slope representing a positive relationship between RSDB and attitude in this sub group. Comparing this to the dotted line of high RBV, that is with a very sharp positive slope representing strong positive relationship between RSDB and attitude. Therefore, the respondents who believe that the practices they have adopted in measurement of human resource practices were timebounded, rare and inimitable had a very positive impact on their attitude.

To investigate role of RBV as moderator between high performance work practices and employee's behavior, hierarchical regression analysis were used. Table 4.18 summarizes the key values which were used by the excel macro to plot Figure 9. Figure 9 presents the form of the joint relationship of the employment security (ES) and RBV on behavior. In Table 4.18, ES was significantly associated with behavior, the dependent variable and with the moderator, RBV. This relationship was non-significant. This relationship was enhanced by interaction term (ES x RBV). Therefore, this study demonstrates the interaction between ES and RBV had a positive relationship with behavior ($\beta = 0.059^{**}$). There was a positive relationship between low RBV and behavior when ES was low and comparatively stronger relationship when ES was high. However, as hypothesized, the relationship of low RBV was weak when ES was low and strong when ES was high. There was also a positive and strong relationship between high RBV and behavior, the relationship was weak when there was low ES and it was very high when ES was high. The moderating effect of RBV between ES and behavior was weak.

Table: 4.18 Unstandardized regression coefficients for moderation of RBV between ES and Behavior

Unstandardized Regression Coefficients:	β
Independent variable: ES	-0.211*
Moderator: RBV	-0.123 ns
Interaction: ES x RBV	0.059**
Intercept / Constant:	4.793***
Means / SDs of variables:	
Mean of independent variable: ES	4.5626
SD of independent variable: ES	1.25690
Mean of moderator: RBV	4.424
SD of moderator: RBV	1.282

Figure 9: RBV Moderation between ES and Behavior



To explain further, Figure 9 has two lines, the continuous line represents low RBV with a sharp positive slope which represents a strong relationship between ES and behavior in this sub group.

Comparing this to the dotted line of high RBV, it is with a very sharp positive slope representing

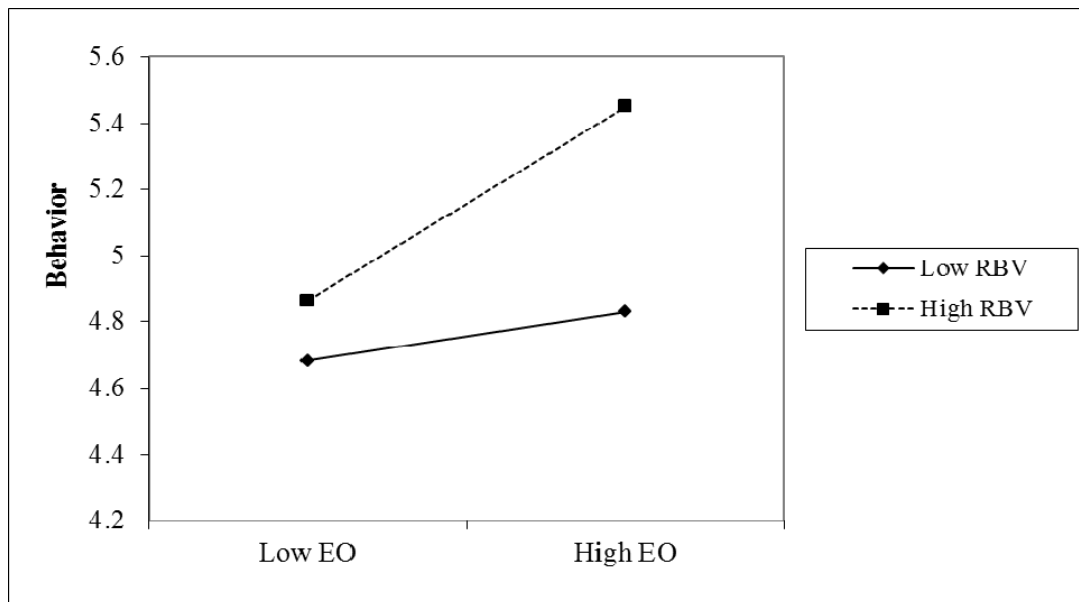
strong positive relationship between ES and behavior. Therefore, the respondents who believe that the practices they have adopted in employment security were timebounded, rare and inimitable had a very positive impact on their behavior. However, as hypothesized, those respondents who did not perceive timeboundedness, rareness and inimitability of these adopted practices had weak impact on their behavior. Overall perceptions of high RBV resulted in more positive attitude.

Table 4.19 summarizes the key values which were used by the excel macro to plot Figure 10. Figure 10 presents the form of the joint relationship of the employee ownership (EO) and RBV on behavior. In Table 4.19, EO was non-significantly associated with behavior, the dependent variable, and with the moderator, RBV. This relationship was also non-significant. This relationship was further enhanced by interaction term (EO x RBV). Therefore, this study demonstrates the interaction between EO and RBV had a positive relationship with behavior ($\beta = 0.059^{***}$). There was a positive relationship between low RBV and behavior when EO was low and comparatively stronger relationship when EO was high. However, as hypothesized, the relationship of low RBV was weak when EO was low and strong when EO was high. There was also a positive and strong relationship between high RBV and behavior, the relationship was weak when there was low EO and it was very high when EO was high. The moderating effect of RBV between EO and behavior was weak.

Table: 4.19 Unstandardized regression coefficients for moderation of RBV between EO and Behavior

Unstandardized Regression Coefficients:	β
Independent variable: EO	-0.122 ns
Moderator: RBV	-0.082 ns
Interaction: EO x RBV	0.059***
Intercept / Constant:	4.793***
Means / SDs of variables:	
Mean of independent variable: EO	4.0470
SD of independent variable: EO	1.45582
Mean of moderator: RBV	4.196
SD of moderator: RBV	1.278

Figure 10: RBV Moderation between EO and Behavior



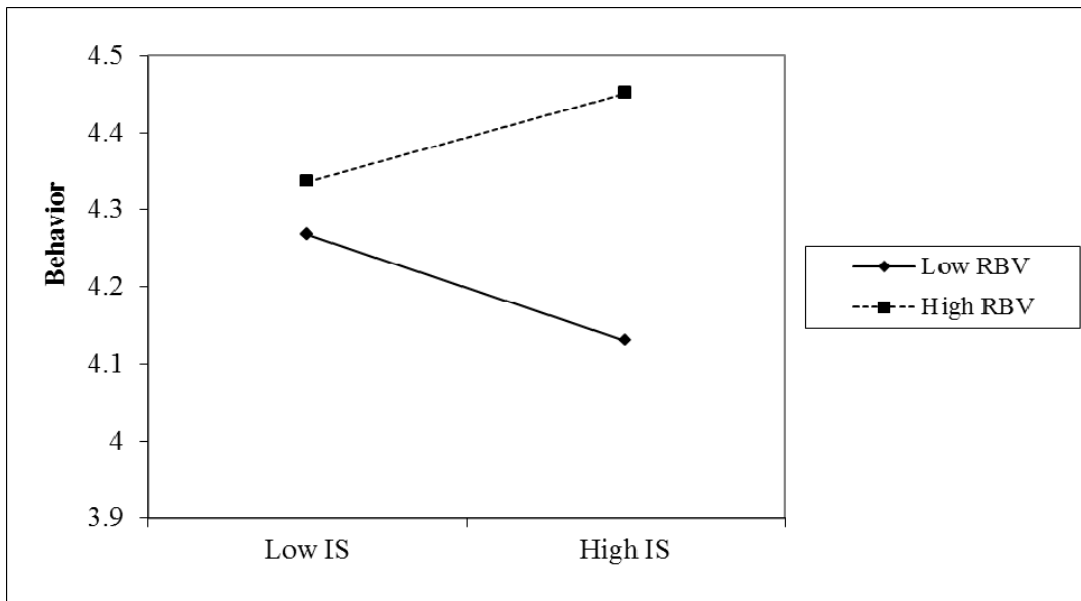
To explain further, Figure 10 has two lines, the continuous line represents low RBV with a positive slope which represents a positive relationship between EO and behavior in this sub group. Comparing this to the dotted line of high RBV, it is with a very sharp positive slope representing strong positive relationship between EO and behavior. Therefore, the respondents who believe that the practices they have adopted in employee ownership were timebounded, rare and inimitable had a very positive impact on their behavior. However, as hypothesized, those respondents who did not perceive timeboundedness, rareness and inimitability of these adopted practices had weak impact on their behavior. Overall, a high perception of RBV resulted in behavior that is more positive.

Table 4.20 summarizes the key values which were used by the excel macro to plot Figure 11. Figure 11 presents the form of the joint relationship of the information sharing (IS) and RBV on behavior. In Table 4.20, IS was significantly associated with behavior, the dependent variable, and with the moderator, RBV. This relationship was non-significant. This relationship was further enhanced by interaction term (IS x RBV). Therefore, this study demonstrates the interaction between IS and RBV had a positive relationship with behavior ($\beta = 0.041^*$). There was a negative relationship between low RBV and behavior when IS was low and very weak relationship when IS was high. However, as hypothesized, There was a positive and strong relationship between high RBV and behavior, the relationship was weak when there was low IS and it was strong when IS was high. The moderating effect of RBV between IS and behavior was strong.

Table: 4.20 Unstandardized regression coefficients for moderation of RBV between IS and Behavior

Unstandardized Regression Coefficients:	β
Independent variable: IS	-0.185*
Moderator: RBV	-0.108 ns
Interaction: IS x RBV	0.041*
Intercept / Constant:	4.793***
Means / SDs of variables:	
Mean of independent variable: IS	4.4722
SD of independent variable: IS	1.18803
Mean of moderator: RBV	4.392
SD of moderator: RBV	1.293

Figure 11: RBV Moderation between IS and Behavior



To explain further, Figure 11 has two lines, the continuous line represents low RBV with a negative slope which represents a negative relationship between IS and behavior in this sub group. Comparing this to the dotted line of high RBV, it is with a very sharp positive slope representing

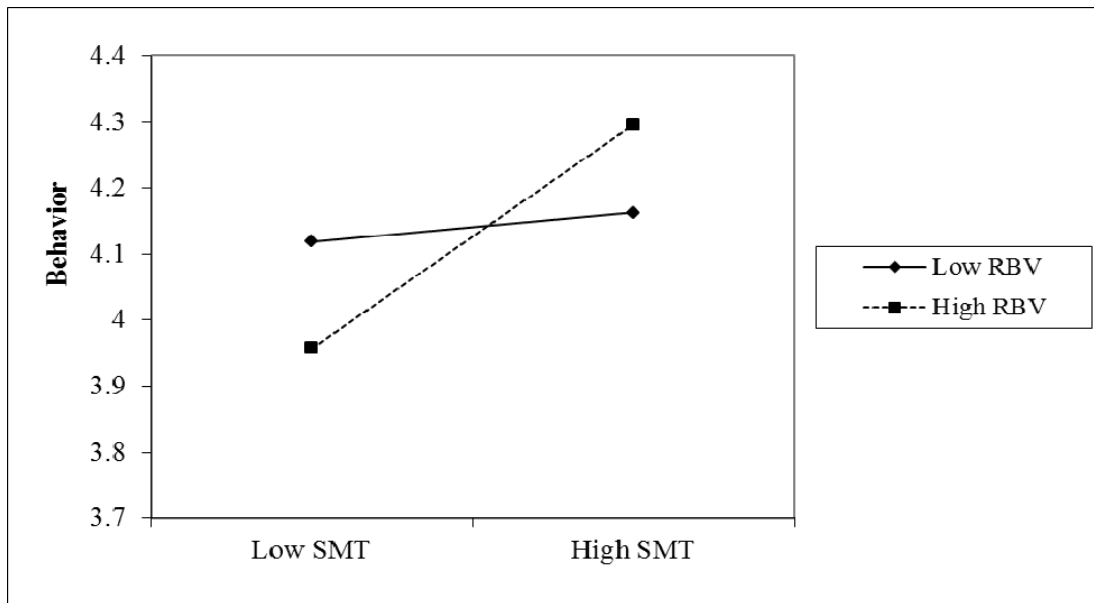
strong positive relationship between IS and behavior. Therefore, the respondents who believe that the practices they have adopted in information sharing were timebounded, rare and inimitable had a very positive impact on their behavior. However, as hypothesized, those respondents who did not perceive timeboundedness, rareness and inimitability of these adopted practices had weak impact on their behavior. Overall, a high perception of RBV resulted in behavior that is more positive.

Table 4.21 summarizes the key values which were used by the excel macro to plot Figure 12. Figure 12 presents the form of the joint relationship of the self-managed teams (SMT) and RBV on behavior. In Table 4.21, SMT was non-significantly associated with behavior, the dependent variable, and with the moderator, RBV. This relationship was significant. This relationship was further enhanced by interaction term (SMT x RBV). Therefore, this study demonstrates the interaction between SMT and RBV had a positive relationship with behavior ($\beta = 0.049^*$). There was almost a non-existent relationship between low RBV and behavior when SMT was low or high. However, as hypothesized, there was a positive and strong relationship between high RBV and behavior, the relationship was weak when there was low SMT and it was strong when SMT was high. The moderating effect of RBV between IS and behavior was very strong.

Table: 4.21 Unstandardized regression coefficients for moderation of RBV between SMT and Behavior

Unstandardized Regression Coefficients:	β
Independent variable: SMT	-0.135 ns
Moderator: RBV	-0.236*
Interaction: SMT x RBV	0.049*
Intercept / Constant:	4.793***
Means / SDs of variables:	
Mean of independent variable: SMT	4.7023
SD of independent variable: SMT	1.21480
Mean of moderator: RBV	4.362
SD of moderator: RBV	1.237

Figure 12: RBV Moderation between SMT and Behavior



To explain further, Figure 12 has two lines, the continuous line represents low RBV with a positive small slope, which represents a positive relationship between SMT and behavior in this sub group. Comparing this to the dotted line of high RBV, it is with a very sharp positive slope representing strong positive relationship between SMT and behavior.

Therefore, the respondents who believe that the practices they have adopted in self-managed teams were timebounded, rare and inimitable had a very positive impact on their behavior. However, as hypothesized, those respondents who did not perceive timeboundedness, rareness and inimitability of these adopted practices had weak or no impact on their behavior. Overall, a high perception of RBV resulted in behavior that is more positive.

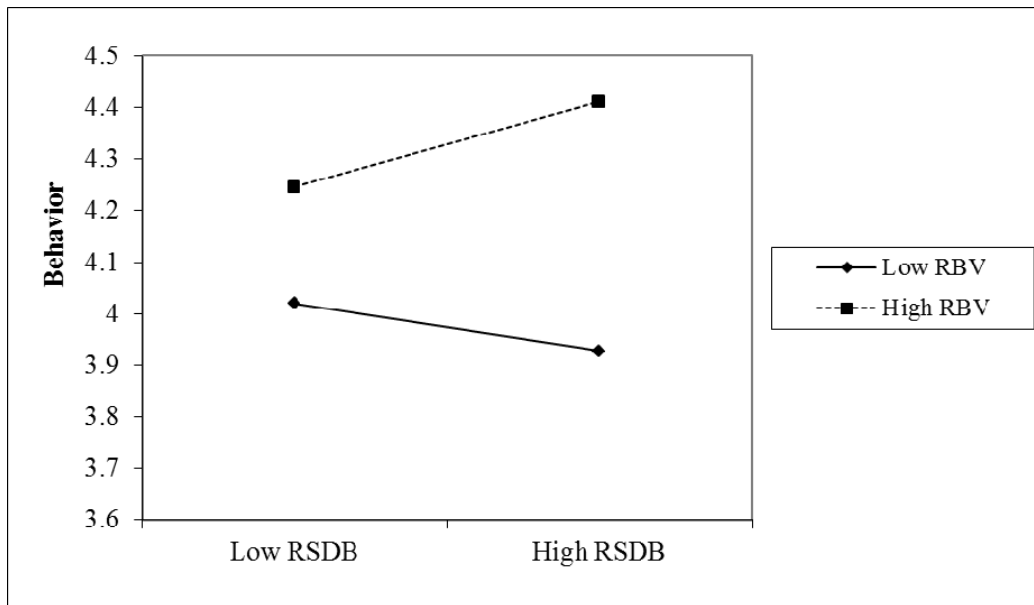
Table 4.22 summarizes the key values which were used by the excel macro to plot Figure 13. Figure 13 presents the form of the joint relationship of the reduced status distinctions and barriers (RSDB) and RBV on behavior. In Table 4.22, RSDB was non-significantly associated with behavior, the dependent variable, and with the moderator, RBV. This relationship was also non-significant. This relationship was further enhanced by interaction term (RSDB x RBV).

Therefore, this study demonstrates the interaction between RSDB and RBV had a positive relationship with behavior ($\beta = 0.056^*$). There was a negative relationship between low RBV and behavior when RSDB was low and very weak relationship when RSDB was high. However, as hypothesized, there was a positive and strong relationship between high RBV and behavior, the relationship was weak when there was low RSDB and it was strong when RSDB was high. The moderating effect of RBV between RSDB and behavior was strong.

Table 4.22 Unstandardized regression coefficients for moderation of RBV between RSDB and Behavior

Unstandardized Regression Coefficients:	β
Independent variable: RSDB	-0.224 ns
Moderator: RBV	-0.173 ns
Interaction: RSDB x RBV	0.056*
Intercept / Constant:	4.793***
Means / SDs of variables:	
Mean of independent variable: RSDB	5.4437
SD of independent variable: RSDB	.85299
Mean of moderator: RBV	4.383
SD of moderator: RBV	1.346

Figure 13: RBV Moderation between RSDB and Behavior



To explain further, Figure 13 has two lines, the continuous line represents low RBV with a negative slope which represents a negative relationship between RSDB and behavior in this sub group. Comparing this to the dotted line of high RBV, it is with a very sharp positive slope representing strong positive relationship between RSDB and behavior. Therefore, the respondents who believe that the practices they have adopted in reduced status distinctions and barriers were timebounded, rare and inimitable had a very positive impact on their behavior. However, as hypothesized, those respondents who did not perceive timeboundedness, rareness and inimitability of these adopted practices had weak impact on their behavior. Overall, a high perception of RBV resulted in behavior that is more positive.

4.9. IMPACT OF THE SUMMATED INDEX OF HPWPS

To explore the impact of the constructed high performance work practices system index based on selected high performance work practices through intensive literature review with universalistic perspective a composite HPWPS variable was constructed. This variable reflects the sum of all of the 13 high performance work practices. By using this high performance work practices system the researcher has tested its direct impact on organizational performance measures, mediation of employee's attitude and behavior between this high performance system and organizational performance measures and moderating role of resource base view between high performance system and HR outcome i.e. employee's attitude and behavior.

4.10. DESCRIPTIVE STATISTICS

Table 4.23 reflects descriptive statistics. The HPWPS is not correlated with organizational financial performance measures i.e. ROE ($r=.032$), ROA ($r=.041$), and TQ ($r=.051$). HPWPS has weak but significant correlation with MBVEP ($r=.054^*$), productivity ($r=.051^*$), behavior ($r=.596^{**}$) and attitude ($r=.614^{**}$).

Table 4.23: Descriptive statistics

		Mean	Std. Deviation	1	2	3	4	5	6	7	8	9
1	ROE	.041978	.3254221	1								
2	ROA	.006588	.0207683	.832**	1							
3	MBVEP	1.359	.6732319	-.083**	.163**	1						
4	TQ	254.233	153.7773	.162**	.270**	.437**	1					
5	Product	8.2377	.36359	.225**	.486**	.188**	.118**	1				
6	Performance	4.7061	1.02099	.053*	-.003	.104**	.036	-.021	1			
7	Behavior	3.7289	1.43587	.142**	.041	.104**	.048*	-.003	.197**	1		
8	Attitude	4.7891	.84538	-.023	.025	.052*	.002	-.026	.552**	.201**	1	
9	HPWPS	4.5341	.64069	.032	.041	.054*	.005	.051*	.476**	.596**	.614**	1

4.11. DIRECT IMPACT OF HPWPS ON PERFORMANCE MEASURES

Regression analysis was conducted to determine the significant impact of HPWPS on organizational subjective and financial performance and on employee's productivity, attitude, and behaviors. This is an alternative way to test hypotheses from H1(a) to H1(f).

The variables Employee's Attitude, Employee's Behavior, Return on equity (ROE), Return on asset (ROA), Market to book value of economic profit (MBVEP), Tobin Q (TQ), Employee's productivity and Organizational subjective performance are termed as "dependent" variables. HPWPS is termed as the "independent." It is hypothesized that HPWPS directly influence outcome variables without any mediation and moderation on these dependent variables. Below is the list of hypothesized relationship between dependent and independent variables.

- Employee's Attitude = function (HPWPS)
- Employee's Behavior = function (HPWPS)
- Return on equity (ROE) = function (HPWPS)
- Return on asset (ROA) = function (HPWPS)
- Market to book value of economic profit (MBVEP) = function (HPWPS)
- Tobin Q (TQ) = function (HPWPS)
- Employee's productivity = function (HPWPS)
- Organizational subjective performance = function (HPWPS)

The hypothesized relationship between independent variable (HPWPS) and dependent variable (Employee's attitude, Employee's behavior, Return on equity (ROE), Return on asset (ROA), Market to book value of economic profit (MBVEP), Tobin Q (TQ), Employee's productivity and Organizational subjective performance) may be written in terms of regression equations as:

- $Attitude = \alpha + \beta HPWPS + \varepsilon$
- $Behavior = \alpha + \beta HPWPS + \varepsilon$
- $ROE = \alpha + \beta HPWPS + \varepsilon$
- $ROA = \alpha + \beta HPWPS + \varepsilon$
- $MBVEP = \alpha + \beta HPWPS + \varepsilon$
- $TQ = \alpha + \beta HPWPS + \varepsilon$
- $Product = \alpha + \beta HPWPS + \varepsilon$
- $Sub_Perform = \alpha + \beta HPWPS + \varepsilon$

Where:

α = a constant;

β = the effect of independent variable on dependent variable, hypothesized to be positive; and

ε = the "noise" term reflecting other factors that influence dependent variable.

The variables i.e. Age, Tenure, Edu, and Pay were taken as demographic variables. Table 4.24 presents that HPWPS is significantly influencing employee's attitude ($B = .813^{***}$; $p < .001$; $Adj R^2 = .379$, $\Delta R^2 = .381$). Thus, hypothesis 1(a) is accepted. (H1(a): High performance work practices system is positively and significantly related to attitudinal outcome.)

HPWPS is significantly impacting employee's behavior ($B = .018^*$; $p < .05$; $\text{Adj } R^2 = .324$, $\Delta R^2 = .327$). Thus, hypothesis 1(b) is accepted (H1(b): High performance work practices system is positively and significantly related to behavioral outcome.)

As far as organizational financial performance is concerned HPWPS have no impact on organizational book base financial measures i.e. ROE ($B = .011$; $\text{Adj } R^2 = .027$, $\Delta R^2 = .030$) and ROA ($B = .001$; $\text{Adj } R^2 = .011$, $\Delta R^2 = .014$). Thus, hypothesis 1(c) is rejected. (H1(c): High performance work practices system is positively and significantly related to organizational book base financial performance.) Whereas HPWPS is partially affecting organizational market base financial performance that is while it has no effect on TQ ($B = 1.118$; $\text{Adj } R^2 = .002$, $\Delta R^2 = .005$), it is significantly affecting market to book value of economic profit i.e. MBVEP ($B = .064^*$; $p < .05$; $\text{Adj } R^2 = .009$, $\Delta R^2 = .012$). Thus, hypothesis 1(d) is partially accepted. (H1(d): High performance work practices system is positively and significantly related to organizational market base financial performance.)

Table 4.24: Direct Impact of HPWPS on performance measures

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	Attitude		Behavior		ROE		ROA		MBVEP		TQ		Productivity		Subjective Performance	
	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta	B	Beta
AGE	.059	.064	-.102	-.065	0.025*	.071*	.001	.045	-.046	-.062	-6.912	-.041	.016	.039	-.026	-.023
TENURE	-.010	-.011	0.162**	.103**	0.046***	.130***	0.002**	.094**	-.011	-.015	2.341	.014	-.007	-.017	-0.109***	-.098***
EDU	.013	.013	0.254***	.143**	0.044***	.108***	.001	.040	-0.057**	-.068**	-7.172	-.038	-.004	-.009	-0.084***	-.066***
PAY	.000	.000	-.055	-.040	-0.070***	-.222***	-0.003***	-.161***	0.069**	.107**	-5.061	-.034	.003	.009	0.099**	.101***
HPWPS	0.813***	.616***	0.018*	.008*	.011	.021	.001	.035	0.064*	.060*	1.118	.005	0.027*	-.048***	0.770***	.482***
Constant	0.962***		3.012***		-0.155*		-.002		1.209***		289.233***		8.351***		1.583***	
R2	.381		.027		.030		.014		.012		.005		.004		.236	
ΔR2	.377		.006		.030		.014		.004		.005		.002		.231	
Adj. R2	.379		.324		.027		.011		.009		.002		.001		.234	
Model F	208.698***		9.362***		10.523***		4.796***		5.9633***		4.729*		4.865**		104.847***	

* p<.05

** p<.01

***p<.001

HPWPS is significantly affecting organizational subjective performance ($B=.770^{***}$; $p<.001$; Adj $R^2=.234$, $\Delta R^2=.236$). Thus, hypothesis 1(f) is accepted. (H1(f): High performance work practices system is positively and significantly related to organizational subjective performance).

HPWPS is significantly influencing employee's productivity ($B=.027^{***}$; $p<.001$; Adj $R^2=.408$, $\Delta R^2=.419$). Thus, hypothesis 1(e) is accepted. H1(e): High performance work practices system is positively and significantly related to employee's productivity.

The results of the direct impact of 13 high performance work practices (section 4.4) and the direct impact of constructed high performance work practices index are similar to some extent with minor variations. The results of regression of high performance work practices show that all of the financial measures of performance turned out to be insignificant i.e. book base and market base measures (ROE, ROA, MBVEP, TQ) but when these financial measures were regressed with high performance work practices index out of these four book and market base financial measures market to book value of economic profit (MBVEP) proved to be significantly related.

Productivity was another variable that emerged differently in both regressions i.e. Productivity was insignificantly related to high performance work practice but when it was regressed with high performance work practices index the result it was proved to be significantly related. Results were significant in both of the analyses for attitude, behavior and subjective performance.

4.12. MEDIATION: Attitude and Behavior between HPWPS Index and Performance

The process to test mediation, which was followed in current study, has been explained in section 4.7. Table 4.24 presents information about the first criterion suggested by Baron and Kenny (1986) that is the relationship between independent and dependent variable (A and C) must be significant in order to proceed for step two to check mediation. Table 4.24 (Model 3 to Model 8) shows that return on equity (ROE) Model 3, return on assets (ROA) Model 4 and tobin Q (TQ) Model 6 did not qualify the first condition for mediation. Whereas The Model 5, Model 7 and Model 8 have qualified the first condition to test the mediation. The Model 1 and Model 2 in Table 4.24 reflect the 2nd criterion suggested by Baron and Kenny (1986) that is the relationship between independent variable and mediating variable (A and B) must be significant in order to proceed for step three to check mediation.

The mediating role of employee's attitude between high performance work practices system and market to book value of economic profit is tested based on a multiple regression. Table 4.25 contains the analyses necessary to examine the mediation. The mediated regression analysis indicates that the relationship between high performance work practices system and market to book value of economic profit is mediated by attitude (Beta= .042 ns, $\Delta R^2=.001$ ns). Thus, the hypothesis 3(b) is accepted that employee's attitude mediates the effect of HPWPS on MBVEP. (H3(b): HR outcomes i.e. attitude, mediate between HPWP and organizational market base financial performance.

Table 4.25: Main effect and Mediated regression analysis of HPWPS, Attitude and MBVEP

Predictor variable	Mediator variable: Attitude			Dependent variable: MBVEP		
	β	R ²	ΔR^2	B	R ²	ΔR^2
Step 1						
Control Variables		.004				
Step 2						
Main Effect: HPWPS	0.813***	.381	.377***			
Step 1						
Control Variables					.008	
Step 2						
Main Effect: HPWPS				0.064*	0.012	.004*
Step 1						
Control Variables					.008	
Step 2						
Mediation: Attitude				0.025	.011	.003
Step 3						
HPWPS				.042	.012	.001

* p< .05

**p<.01

***p<.001

N= 1704, HPWPS= High performance work practices system, Attitude= Employee's Attitude, MBVEP= Market to book value of economic profit

The mediating role of employee's behavior between high performance work practices system and market to book value of economic profit is tested based on a multiple regression. Table 4.26 contains the analyses necessary to examine the mediation.

The mediated regression analysis indicates that the high performance work practices system is having a significant impact on market to book value of economic profit with decreased beta value (Beta= .062*, $\Delta R^2=.003^*$) with employees Behavior as mediating variable. Thus, the hypothesis 3(d) is accepted that employee's behavior partially mediates the effect of HPWPS on MBVEP. H3(d): HR outcomes i.e. behavior, mediate between HPWP and organizational market base financial performance.

Table 4.26: Main effect and Mediated regression analysis of HPWPS, Behavior and MBVEP

Predictor variable	Mediator variable: Behavior			Dependent variable: MBVEP		
	β	R ²	ΔR^2	B	R ²	ΔR^2
Step 1						
Control Variables		.027				
Step 2						
Main Effect: HPWPS	.018*	.027	.006*			
Step 1						
Control Variables					.008	
Step 2						
Main Effect: HPWPS				.064*	0.012	.004*
Step 1						
Control Variables					.008	
Step 2						
Mediation: Behavior				.047***	.018	.010***
Step 3						
HPWPS				.062*	.021	.003*

* p< .05

** p<.01

***p<.001

N= 1704, HPWPS= High performance work practices system, Behavior = Employee's Behavior, MBVEP= Market to book value of economic profit

The mediating role of employee's attitude between high performance work practices system and employee productivity is tested based on a multiple regression which suggested by Baron and

Kenny (1986). Table 4.27 contains the analyses necessary to examine the mediation. The mediated regression analysis indicate the high performance work practices system is having an insignificant impact on Productivity (Beta= -.028 ns, $\Delta R^2=.002$ ns) with employees attitude as mediating variable. Thus, the hypothesis 3(e) is accepted that employee's attitude mediates the effect of HPWPS on Productivity. H3(e): HR outcomes i.e. attitude, mediate between HPWP and employee's productivity.

Table 4.27: Main effect and Mediated regression analysis of HPWPS, Attitude and Productivity

Predictor variable	Mediator variable: Attitude			Dependent variable: Productivity		
	β	R^2	ΔR^2	B	R^2	ΔR^2
Step 1						
Control Variables		.004				
Step 2						
Main Effect: HPWPS	0.813***	.381	.377***			
Step 1						
Control Variables					.002	
Step 2						
Main Effect: HPWPS				.027*	.004	.002*
Step 1						
Control Variables					.002	
Step 2						
Mediation: Attitude				.002	.002	.001
Step 3						
HPWPS				-.028	.004	.002

* p< .05

**p<.01

***p<.001

N= 1704, HPWPS= High performance work practices system, Attitude= Employee's Attitude, Productivity = Employee's productivity

The mediating role of employee's behavior between high performance work practices system and

employee productivity is tested based on a multiple regression which suggested by Baron and Kenny (1986). Table 4.28 contains the analyses necessary to examine the mediation. The mediated regression analysis indicate the high performance work practices system is having an insignificant impact on Productivity (Beta= -.027 ns, $\Delta R^2=.002$ ns) with employees Behavior as mediating variable. Thus, the hypothesis 3(f) is accepted that employee's behavior mediates the effect of HPWPS on Productivity. H3(f): HR outcomes i.e. behavior, mediate between HPWP and employee's productivity.

Table 4.28: Main effect and Mediated regression analysis of HPWPS, Behavior and Productivity

Predictor variable	Mediator variable: Behavior			Dependent variable: Productivity		
	β	R^2	ΔR^2	β	R^2	ΔR^2
Step 1						
Control Variables		.027				
Step 2						
Main Effect: HPWPS	.018*	.027	.006*			
Step 1						
Control Variables					.002	
Step 2						
Main Effect: HPWPS				.027*	.004	.002*
Step 1						
Control Variables					.002	
Step 2						
Mediation: Behavior				.005	.002	.000
Step 3						
HPWPS				-.027	.004	.002

* p<.05

** p<.01

***p<.001

N= 1704, HPWPS= High performance work practices system, Attitude= Employee's Behavior, Productivity = Employee's productivity

The mediating role of employee's attitude between high performance work practices system and subjective performance is tested based on a multiple regression which suggested by Baron and Kenny (1986). Table 4.29 contains the analyses necessary to examine the mediation.

Table 4.29: Main effect and Mediated regression analysis of HPWPS, Attitude and Subjective performance

Predictor variable	Mediator variable: Attitude			Dependent variable: Subjective performance		
	β	R ²	ΔR^2	B	R ²	ΔR^2
Step 1						
Control Variables		.004				
Step 2						
Main Effect: HPWPS	0.813***	.381	.377***			
Step 1						
Control Variables					.006	
Step 2						
Main Effect: HPWPS				.770***	.236	.231***
Step 1						
Control Variables					.006	
Step 2						
Mediation: Attitude				.507***	.315	.309***
Step 3						
HPWPS				.354***	.345	.031***

* p< .05

**p<.01

***p<.001

N= 1704, HPWPS= High performance work practices system, Attitude= Employee's Attitude, Subjective performance = Organizational Subjective performance

The mediated regression analysis indicate the high performance work practices system is having a significant impact on Subjective performance with decreased beta value (Beta= .354***, ΔR^2 =.031***) with employees attitude as mediating variable. Thus, the hypothesis 3(g) is accepted

that employee's attitude partially mediates the effect of HPWPS on Subjective performance.
H3(g): HR outcomes i.e. attitude, mediate between HPWP and organizational subjective performance.

The mediating role of employee's behavior between high performance work practices system and subjective performance is tested based on a multiple regression which suggested by Baron and Kenny (1986). Table 4.30 contains the analyses necessary to examine the mediation.

Table 4.30: Main effect and Mediated regression analysis of HPWPS, Behavior and Subjective performance

Predictor variable	Mediator variable: Behavior			Dependent variable: Subjective performance		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Step 1						
Control Variables		.027				
Step 2						
Main Effect: HPWPS	.018*	.027	.006*			
Step 1						
Control Variables					.006	
Step 2						
Main Effect: HPWPS				.770***	.236	.231***
Step 1						
Control Variables					.006	
Step 2						
Mediation: Behavior				-.139***	.044	.038***
Step 3						
HPWPS				.768***	.273	.230***

* p<.05

** p<.01

***p<.001

N= 1704, HPWPS= High performance work practices system, Attitude= Employee's Behavior, Subjective performance = Organizational Subjective performance

The mediated regression analysis indicate the high performance work practices system is having a significant impact on Subjective performance with decreased beta value (Beta= .768***, $\Delta R^2=.230***$) with employees Behavior as mediating variable. The hypothesis 3(h) is accepted that employee's behavior partially mediates the effect of HPWPS on Subjective performance. H3(h): HR outcomes i.e. behavior, mediate between HPWP and organizational subjective performance.

4.13. MODERATION: RBV as Moderator between HPWPS and HR Outcomes

As discussed in Section 4.8, when the strength of the relationship between two variables is dependent on a third variable, moderation is said to be occurring. The third variable or moderator (M) interacts with (A) in predicting (C) if the regression weight of (C) on (A) varies as a function of (M).

As in Section 4.8, moderation analyses through SPSS are followed by plotting moderation graphs for variables where moderation was significant to show how variables are interacting. Simple slope analysis were plotted by an excel macro developed by Dr. Jeremy Dawson (Dawson, 2011). The software takes β coefficients of independent variable, moderator variable, interaction term, and constant along with means and SD values of independent variable and moderator as inputs and plots the graph. All of the values are presented in Table 4.31. The software plots two lines based on one plus and one minus standard deviation around the mean. The results for the moderating role of RBV on the relationship between HPWPS and employee's attitude and behavior are presented in Table 4.31. Hierarchical regression analysis was used to test hypotheses and verify the moderating

effect of RBV. First half of Table 4.31 presents the result of the hierarchical regression analysis for the relationship between HPWPS, RBV, attitude and behavior.

In Model 1, summited index of 13 high performance work practices, HPWPS were entered with employee’s attitude as dependent variable. Model 2 is the 2nd step to hierarchical regression where the summited index of the concept of time boundedness, rareness and inimitability based on resource base view of the firm as RBV is regressed with HPWPS that show further increase in adjusted R². In Model 3, the interaction term of HPWPS x RBV is regressed, which is significant. Thus, the hypothesis 4(a) is accepted. H4(a)=Resource based view positively moderates the relationship between HPWPS and HR outcomes i.e. attitude.

Table: 4.31 RBV moderation on HR outcomes

Variables	Attitude				Behavior		
	Model 1	Model 2	Model 3		Model 1	Model 2	Model 3
Constant	1.112***	1.183***	0.0099*		3.77***	2.876***	5.785***
HPWPS	0.811***	0.865***	1.126***		0.007**	-0.6218***	1.257***
RBV		-0.072*	0.211**			0.840***	0.150**
HPWPS x RBV			0.0609**				0.148*
R2	.378	.380	.381		.285	.346	.356
Adjusted R2	.377	.379	.380		.281	.316	.348
Model F	1030.734***	519.650***	347.814***		12.015**	91.558***	62.548***
* p< .05	** p<.01	*** p<.001			* p< .05	** p<.01	*** p<.001

The same pattern of entering variables is repeated for employee’s behavior in 2nd half of the Table 4.21. In Model 1, summited index of 13 high performance practices as HPWPS was entered. In Model 2, the RBV concept of time boundedness, rareness, and inimitability was regressed with HPWPS. In Model 3, the interaction term of HPWPS x RBV was regressed with behavior. The value of R² increased in each step and the interaction term is significant. Thus, the hypothesis 4(b) is

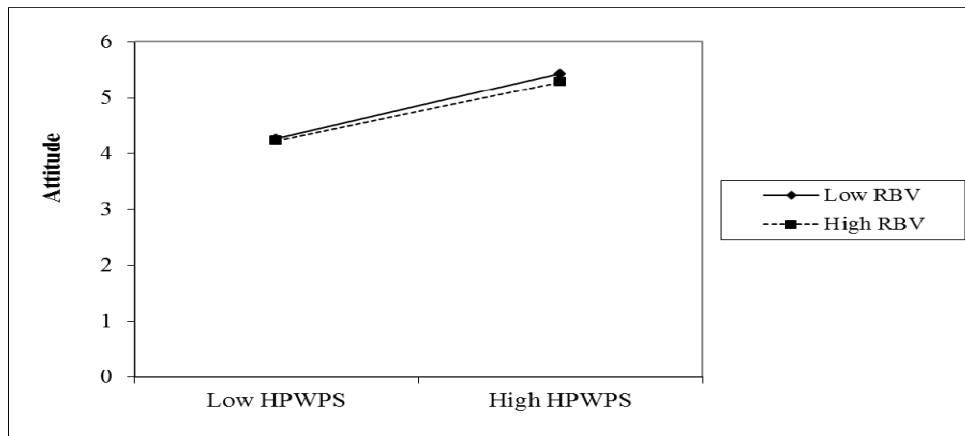
accepted. H4(b)=Resource based view positively moderates the relationship between HPWPS and HR outcomes i.e. behavior.

Table 4.32 summarizes the key values which were used by the excel macro to plot Figure 14. Figure 14 presents the form of the joint relationship of the high performance work practices system (HPWPS) and RBV on attitude. In Table 4.32, HPWPS was significantly associated with attitude, the dependent variable, and with the moderator, RBV. This relationship was further enhanced by interaction term (HPWPS x RBV). Therefore, this study demonstrates the interaction between HPWPS and RBV had a negative relationship with attitude ($\beta = 0.0609^{**}$).

Table: 4.32 Unstandardized regression coefficients for moderation of RBV between HPWPS and Attitude

Unstandardized Regression Coefficients:	β
Independent variable: HPWPS	1.126***
Moderator: RBV	0.211**
Interaction: HPWPS x RBV	-0.0609**
Intercept / Constant:	-0.0099*
Means / SDs of variables:	
Mean of independent variable: HPWPS	4.5352
SD of independent variable: HPWPS	.64025
Mean of moderator: RBV	4.3734
SD of moderator: RBV	.71652

Figure 14: RBV Moderation between HPWPS and Attitude



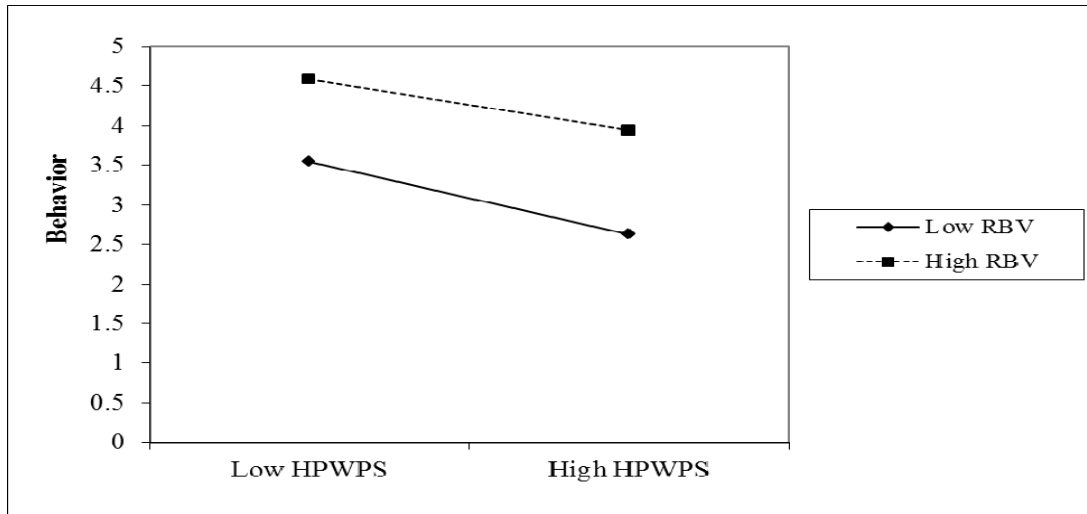
To explain further, Figure 14 has two lines, the continuous line represents low RBV with a positive slope which represents a positive relationship between HPWPS and attitude in this sub group. Comparing this to the dotted line of high RBV, it is a less steep positive slope representing a positive relationship between HPWPS and attitude. Therefore, the respondents who believe that the practices they have adopted in high performance work practices systems were timebounded, rare and inimitable had a weak but positive impact on their attitude. However, contrary to what was hypothesized, those respondents who did not perceive timeboundedness, rareness, and inimitability of this adopted high performance work practices system had comparatively strong impact on their behavior. However, the moderating effect of RBV on the HPWPS and attitude relationship is weak.

Table 4.33 summarizes the key values which were used by the excel macro to plot Figure 15. Figure 15 presents the form of the joint relationship of the high performance work practices system (HPWPS) and RBV on behavior. In Table 4.33, HPWPS was significantly associated with behavior, the dependent variable, and with the moderator, RBV. This relationship was further enhanced by interaction term (RSDB x RBV). Therefore, this study demonstrates the interaction between RSDB and RBV had a positive relationship with behavior ($\beta = 0.148^*$).

Table: 4.33 Unstandardized regression coefficients for moderation of RBV between HPWPS and Behavior

Unstandardized Regression Coefficients:	β
Independent variable: HPWPS	-1.257***
Moderator: RBV	0.150**
Interaction: HPWPS x RBV	0.148*
Intercept / Constant:	5.785***
Means / SDs of variables:	
Mean of independent variable: HPWPS	4.5347
SD of independent variable: HPWPS	.64033
Mean of moderator: RBV	4.3729
SD of moderator: RBV	.71657

Figure 15: RBV Moderation between HPWPS and Behavior



To explain further, Figure 15 has two lines, the continuous line represents low RBV with a negative slope which represents a negative relationship between HPWPS and behavior in this sub group. The dotted line of high RBV is also with a negative slope representing negative relationship between HPWPS and behavior. Therefore, the respondents who believe that the practices they have adopted in high performance work practices system were timebounded, rare and inimitable had a negative and weak impact on their behavior. Those respondents who did not perceive timeboundedness, rareness and inimitability of these adopted HPWPS also had negative and weak impact on their behavior. Overall, a high perception of RBV resulted in behavior that is more positive.

4.14. DISCUSSION

Strategic human resource management researchers such as Wright and McMahan (1992), Pfeffer (1994), Lado and Wison (1995), Huselid (1995), Jackson and Schuler (1995), Becker and Gerhart (1996), Delany and Huselid (1996), Boxall (1996), Hartog and Verburg (2004), Kim and Wright, (2010) and many others have tried to measure the effects of single or multiple human resource management practices on firm performance to support the relationship between HRM practices, sustainable competitive advantage (SCA) and firm performance. As a result, there is an incremental development in the methods used to manage human resources that can have a substantial impact on organizational outcomes (Fabling and Grimes, 2010).

The objective of this research was to find out whether high performance work practices system lead to high organizational performance and employee's productivity with and without mediation of HR outcomes and moderating role of RBV with a focus to enhance the performance of banking sector of a developing country like Pakistan. This study suggests that high performance work practices significantly affect organizational performance and employee's productivity with and without the mediation of attitude and behavior. The significance of the predictor's value can be enhanced if scope of the study is increased to take into account the economic conditions, ownership structure, size and share in the market of the KSE listed commercial banks because these factors are directly associated with financial performance.

Our research serves as a medium to integrate findings about the dimensions of high performance work practices and organizational performance and employee's productivity. The outcome dimensions of organizational performance and employees' productivity can be utilized to

determine the effectiveness of HPWPS with pertinent dimensions for the banking industry. Based on prior empirical work this study started with 13 high performance work practices and two dependent variables i.e. organizational performance and employee's productivity as mentioned in Figure 1. Our argument was that to affect performance and employee's productivity the practices must emerge significantly to impact directly on organizational performance and employee's productivity or through mediating role of employee's attitude and behavior. Further resource base perspective serves as moderator to positively enhance employee's attitude and behavior that further helps the organization to enhance performance and employee's productivity.

Several renowned researchers have pointed out that the employee's attitude and behavior play an important role to enhance organizational performance (e.g., Arthur, 1992, 1994; MacDuffie, 1995; Tsui et al., 1995; Wright et al., 1995; Lepak, et al, 2007; Guthrie et al, 2009; Li et al, 2011) or tried to provide empirical evidence of the mediating role of employee's attitude and behavior but its exploration through high performance work practices system is a recent phenomenon (e.g., Guchait, and Cho, 2010; Batt, 2002; Burtons and O'Reilly, 2000; Chadwick, 2000; Wright, Gardner, Moynihan, and Park, 2000). The research so far conducted is unable to empirically explain the mediating role of employee's attitude and behavior to explain the relationship between high performance work practices system and organizational performance (Batt, 2002). The Applebaum et al. (2000) also identify this gap in the literature. That is where this research stepped in and tried to fill this gap in literature.

Out of the practices stated in current study, Delery and Doty (1996), Huselid (1995) also used four high performance HR practices i.e. incentive pay based on performance appraisal,

employment security, training and skill development and job design. In their work, employment security and incentive pay based on performance appraisal turned out to be significant. Training and skill development and job design proved to be insignificant when regressed with organizational performance in their study. In current research, training and skill development and job design are as significant as the other two high performance practices with different performance measures.

High wages and training and skill development were two practices that are common between this research and the work of Snell and Dean (1995) and both of the practices turned out to have a significant impact on organizational performance. Marti'n et al (2009) and Guthrie et al (2009) both have used information sharing as component of high performance work practices system and it turned out to have significant impact on the organizational performance and HR outcomes. Marti'n et al (2009), Guthrie et al (2009), Huselid (1995) and Becker and Huselid (1998) have used measurement of HR practices in their study and it emerged as an important component of high performance work practices system that significantly impacts the organizational performance.

The practice of reduced status distinctions and barriers was used by Macky and Boxell (2007), Pil and MacDuffie (1996), Guest (1999) and Murphy (2006) in their study as a component of high performance work practices. All of these studies proved that it is an important component of high performance work practices system that significantly influenced organizational and employee's productivity. The practice of self-managed teams, emerged significant in its impact on HR outcomes i.e. attitude and behavior, not only in the current study but also studies conducted by Guthrie (2001), Evans and Davis (2005) Guthrie et al (2009) and Jiang et al, (2009) Our results are

consistent with all of these studies. However, in this research employment security and measurement of HR practices emerged as the strongest predictor of organizational performance. The current research has highlighted that the above mentioned high performance practices belong to a high performance work practice system for commercial banking sector in Pakistan

All the direct relationship between high performance work practices system turn out to be significant i.e. with employee's productivity, subjective organizational performance and HR outcomes i.e. employee's attitude and behavior along with one market base financial performance measure i.e. market to book value of economic profit (MBVEP) turned to be significant. Their relationship turned out to be highly insignificant with book base financial measures i.e. ROE, ROA and to one market base financial measure i.e TQ. Also, the impact of HR outcome i.e. employee's attitude and employee's behavior turned out to be highly insignificant on organizational financial measures when it comes to direct relationship.

The findings also highlighted the fact that resource-based view can play a moderating role between high performance work practices system and organizational performance, employee's productivity and HR outcomes i.e. employee's attitude and behavior to further their level if the this bundle of practices is rare, inimitable and time-bounded (Barney, 1991). According to resources base view any firm can have competitive advantage and can sustain it, if the process of value creation is time bounded, rare and complex for competitors to imitate (e.g. Barney, 1991, 1995; Grant, 1991; Peteraf, 1993; Teece et al., 1997; Colbert, 2004; Li et al, 2011). Organization's capacities to deploy practices, creating combinations, which are firm specific, are developed over time (Amit and Schoemaker, 1993; Lockett et al, 2009). If high performance work practices are carefully

developed, implemented in way that competitors are unable to imitate, then it results in competitive advantage (Peteraf, 1993). Therefore, a properly developed high performance work system can be an important source of sustained competitive advantage (Zhang and Li, 2009; Wright et al, 2005; Lado and Wilson, 1994; Pfeffer, 1994; Wright *et al.*, 1994) because such system is considered as an ‘invisible asset’ (Itam, 1987). Even if a competitor is capable of understanding the complexity of high performance work practices system, it cannot be immediately imitated because of time boundedness (Lockett, 2005; Saá-Pérez and García-Falcón, 2009).

The RBV dimensions - time boundedness, rareness, and inimitability- are integrated in the HPWPS models as moderators for employee’s attitude and behavior. The results reflect that one of the reasons why commercial banks in Pakistan enjoy competitive advantage is between the moderating role of resource base perspective helps the high performance work practices to take HR outcomes i.e. employee’s attitude and behavior to a further level. That in turn enhances not only organizational performance but also employee’s productivity. Further it has established the fact that HR outcomes i.e. employees’ attitudes and behaviors are playing a mediating role to help High Performance Work practices System to impact organizational performance (Schuler and Jackson, 1987; Jackson et al., 1989; Colbert, 2004).

This research is very first in the area of human resource management that supports the previous use of RBV perspective and HR outcome by the researchers i.e. McMahan et al., (1999); Wright and McMahan, (1992) and Li et al., (2011) through empirical evidence by testing mediation of HR outcomes and moderation of RBV perspective. It is revealed by this study that HR outcomes i.e. employee’s attitude and behavior partially mediate between high performance work practices and

organizational subjective performance and employee's productivity. It does not mediate between high performance work practices and organizational book base financial measures i.e. ROE and ROA. It also does not mediate between high performance work practices system and market base financial measure of Tobin Q (TQ) but it mediates between market base financial measure of market to book value of economic profit (MBVEP) and high performance work practices system.

Our results are not consistent with Huselid (1995) who found that HR outcome has mediated the relationship between High Performance Work System and indicator of firm financial performance. The cause might be that Huselid (1995) had used manufacturing industry whereas in current study the researcher is exploring service industry. Wright and Snell (1991) have explored that behavioral management is the result of such management practices, which are used to control employee's attitude and behavior such as incentives for selection and recruitment, training and development, performance management etc. On the other hand, Huselid (1995) focused motivation to manage employee's attitude and behavior. All of these practices are included in high performance work practices system used in current research. This led us to establish positive relationships. The direct or mediated relationship between high performance work practices system and organizational financial performance were not found except some relationship with market to book value of economic profit (MBVEP), although certain other relationship exist in literature.

All of the hypotheses that addressed the relationship between high performance work practices and organization's financial performance measured through book based financial measures i.e. ROA, and ROE, and market based financial measures i.e. MBVEP and TQ have been predominantly rejected in the current study. One of the possible reasons of rejection could be that the number of

firm specific macroeconomic, behavioral, and organizational factors influence the financial performance. As in the current study only the impact of high performance work practices is considered so it may not be able to explain the variations in financial performance.

The relationship between high performance work practices system and organizational financial performance could have been enhanced if variables such as the economic conditions, ownership structure, size and share in the market of the KSE listed commercial banks were taken into account. Hameed and Bashir, (1999) stated that the size of the bank influences banks' performances which is in line with the intermediation theory. Some authors have used capital market information from the stock or bond markets to predict bank performance (Gropp et al., 2005; Clare and Priestley, 2002). Other authors have included macroeconomic variables because bank performance is assumed to be related to business cycle conditions. Jordan and Rosengren (2002) found that economic variables are relevant predictors during troubled economic periods of bank performance and so forth.

4.15. SUMMARY

In this chapter, the researcher has used different analytical techniques to establish statistical relationships. The next chapter contains conclusions, limitations and suggestions on the bases of the results and discussion of current chapter.

CHAPTER 5

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

In this final chapter, the major findings of the study have been discussed and related to previous findings of other studies. The implications of the findings, contributions of the current study, and the limitations of the present study have also been discussed.

5.1. CONCLUSION

The basic objective of this study had been served. The results have clearly indicated that Pakistan's banking industry must focus on its human resource management practices as reflected through the perceptions of middle and senior level managers. The purpose of this study was to explore the impact of high performance work practices on performance and the probability of competitive advantage through RBV in the cutthroat competition of Pakistani banking sector. The objective was to prove that adaptation of high performance work practices can lead to better performance and higher level of motivation. If this adaptation and implementation of practices is based on resource base view of the firm then organizational performance and motivation can be enhanced to further level.

In conclusion, only those banks would excel in the market regarding performance, which will develop high performance work practices system in the due course of time with uniqueness or rareness because of cutthroat competition in market, as reflected in State Bank of Pakistan's reports. Such banks will operationalize their intangible assets to gain competitive advantage. The system that such banks develop must be characterized by practices, which emerged significantly in

the current study like employment security, high wages, incentive pay based on performance appraisal, information sharing, training, and skill development, job design, and measurement of human resource management practices. The banks who intend to gain competitive advantage through positive employee's attitude and behavior must focus on the mentioned practices. Such high performance work practices system provide the base for competitive advantage because it is difficult to imitate.

Out of thirteen high performance practices, measurement of HR practices has emerged consistently as the most significant high performance work practices in banking sector. All of the results reflect the significant contribution of this practice in not only positive employee's attitude and behavior but also affecting organizational performance. It is empirically evident that firms cannot perform well if they cannot measure what they have implemented when it comes to their HR (SHRM survey, 2006). This highlighted practice helps the managers to improve or to re-design the HR function or measure its contribution to organizational performance. It further helps the managers to face the challenge of economic justification of their activities and transform them accordingly. This means using numbers and figures describing HRM activities (DTT-EIT survey, 2007). It requires further intensive research to explore this dimension of HR audit or HR accounting.

Our study finds that there are different set of high performance work practices that affect significantly organizational subjective performance, financial performance, and employee's productivity directly or through mediating role of employee's attitude and behavior. Since all of these sets of practices can easily be introduced into organizations, the researcher suggests that by properly selecting and implementing such high performance work practices the organizations can

perform better. These high performance work practices help the organizations to develop such skills and capabilities that lead to competitive advantage (Barney, 1991).

Further, employment security and self-managed team repeatedly turned out to be most significant high performance work practices. These practices are not only impacting organizational subjective performance and employee's productivity but these are also significantly and positively impacting employee's attitude and behavior. It shows that investing in HPW practices makes employees a valuable assets to the organization. Our findings also provide support for the universalistic perspective of SHRM, as most of the best practices selected are significantly influencing firm performances (Delery and Dotty, 1996). These high performance work practices help the manager to create capabilities and skills through employees and such capabilities are difficult to imitate as per resource base view of the firm (Lado and Wilson, 1994).

5.2. LIMITATIONS AND FUTURE DIRECTIONS

Although the researcher believes that this study has provided enough evidence regarding relationship between high performance practices and organizational performance but there are certain limitations. First, employee's attitude and behavior is a complex phenomenon that required deeper treatment. In future, researchers must establish deeper roots of these variables in their research. Second possible limitation is that only three dimensions of RBV has been used, while other dimensions identified in literature includes such as i.e. non-substitutability, strategic factors, strategic assets; there can be included in the future.

Third, although the results of the current study are consistent with its theoretical framework but still a longitudinal design is required for deeper exploration to understand relationships between variables (Bollen, 1989). This study could not establish causality because this study was based on a cross-sectional set of data and to establish causality longitudinal set of data was required which was not possible to collect under the circumstances. In future researchers must consider this point to establish causality. The fourth limitation is the use of self-report measures in some parts of the study that lead to common method bias due to which the relationships reported are usually inflated (Podsakoff and Organ, 1986). Although both positive and negative wordings were used in questionnaire to some extent to reduce this inflation (Gordon and Ladd, 1990) but in future researchers are required to use multisource data to handle this issue completely.

The fifth limitation is that the response rate was modest, which could bias the findings and its interpretations (Magnusson and Bergman, 1990) because of the reluctance of the respondents to answer such questions that discuss their job or the organization. Such surveys are not much appreciated and entertained by the organizations all over the globe and as well as in Pakistan. Consequently, in future researchers are required to expand respondent's base.

The sixth limitation is that the research has focused on only the senior and middle level managers in Pakistani banking sector. The scope and sample size may have been increased by including the employees of the banking sector at all levels. In future, this issue requires to be addressed by the researchers.

The seventh limitation is the linked construct of RBV, the RBV construct used is linked to each high performance work practice. Future researcher may develop an independent construct to measure RBV. Such a construct can cover all of the dimensions of resource base view to gain competitive advantage. Finally, the long-term impact of the changes in high performance work practices has not been explored so change in behavior over time cannot be commented upon.

5.3. CONTRIBUTION OF THE STUDY

Since the last two decades, Strategic HRM has used resource base view (RBV) to establish competitive advantage. Most of the renowned researchers have highlighted and explored the linkage between RBV and SHRM to gain competitive advantage (Lado and Wilson, 1994; Boxall, 1996; Kamoche, 1996; Ferris et. al., 1999; Wright, Dunford and Snell, 2001) and advocated the rational of using human resource practices to provide competitive advantage. In their opinion, HRM is more suited to gain sustained competitive advantage than any other method (Ferris et. al., 1999; Penrose, 1959; Wernerfelt, 1984; Barney, 1991; 1995). The only missing detail in these studies is that they have been more theoretical in nature rather than focusing on empirical linkage between SHRM and RBV. Moreover, they have paid little attention to develop the understanding of whether integration of RBV perspective improves performance or not.

This gap in literature identifies contribution of current study in five folds. First, one of the purposes of this study was the identification of the components of a successful HPWP system for commercial banks. This objective is successfully achieved and the study has identified different set of high performance work practices that emerged significant affecting different measures of performance. Second, the study has explored the direct impact of high performance work practices

on a complete set of performance measures identified in literature i.e. financial performance, non-financial performance, productivity and employee's attitude and behavior. Third, the study has explained mediation of employee's attitude and behavior between high performance work practices, organizational subjective and financial performance, and employee's productivity. Fourth, the study has explored the moderating role of resource base view from the perception of middle and senior level managers in improving the relationship between high performance work practices and HR outcomes. The construct of RBV is developed as linked construct with all of the 13 high performance work practices. It measures the perception of the middle and senior level managers about adopted high performance work practices on three dimensions i.e. time boundedness, rareness, and inimitability. This variable helped the researcher to explore how perception of the senior and middle level manager on above-mentioned dimension affects the employee's attitude and behavior. Finally, the available literature shows that previously different researchers have used different performance measures, one or two at a time only. The current study presents an integrated, comprehensive research model that encompasses not only financial and non-financial measures along with productivity but also explores mediation of attitude and behavior along with moderation of RBV for competitive advantage.

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Appendix A

Bank: Branch: City: Rank:							
Mohammad Ali Jinnah University Islamabad Campus							
Ph.D. Research Questionnaire							
<p>Dear Sir/ Madam, I hope that by the grace of Almighty Allah this questionnaire finds you in sound health. I am a PhD scholar conducting research on the topic “Impact of high performance work practices on Organizational Performance”. The information that you provide will help us to understand this relationship. We recognize that the success of this study depends on receiving frank and honest input from respondents. We have adopted the following policies with respect to the confidentiality of submitted information:</p> <ul style="list-style-type: none"> • All information submitted to this study will be treated as confidential. • We will treat all organizational data as highly confidential. • Respondents will not be identified in any published reports or papers. <p>You are requested to return filled questionnaire as soon as possible. If you have any questions or comments about this study, please feel free to contact me through Email: razanaqvi@jinnah.edu.pk cell: 03215127992</p>							
	The range of answers is from						
	(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)						
S. No.	PART 1						S. Disagree— to — S. Agree
1.0	Employment Security						1 2 3 4 5 6 7
1.1	Manager in this job can expect to stay in the organizations for as long as they wish.						
1.2	It is very difficult to dismiss a Manager in this job.						
1.3	Job security is almost guaranteed to managers in this job.						
1.4	If the bank were facing economic problems, managers in this organization would be the last to get cut.						
1.5	It’s been quite some time since the bank has adopted this practice of employment security.						
1.6	Very few competitors have adopted this practice of employment security.						
1.7	It’s very difficult for the competitors to imitate this practice as our bank has implemented						
2.0	Selectivity in Recruiting						1 2 3 4 5 6 7
2.1	The selection process for a job is very extensive in this bank.						
2.2	In general quite a long process is adopted to select a person for a job in this bank.						
2.3	Several individuals are involved in the selection decision in this bank.						
2.4	A substantial amount of money is spent on selecting the person for a job.						
							S. Disagree— to — S. Agree
2.5	It’s been quite some time since the bank has adopted this practice of selectivity in recruiting.						
2.6	Very few competitors have adopted this practice of selectivity in recruiting.						
2.7	It’s very difficult for the competitors to imitate this practice as our						

	bank has implemented							
3.0	High Wages	1	2	3	4	5	6	7
3.1	The wage level in this bank is relatively high as compared to other banks.							
3.2	The wage level is increased relative to past years in this bank.							
3.3	The wages in this bank are not very competitive.							
3.4	The management puts great emphasis on paying managers in this bank what they would be paid on similar jobs in other banks.							
3.5	It's been quite some time since the bank has adopted this practice of high wages.							
3.6	Very few competitors have adopted this practice of high wages.							
3.7	It's very difficult for the competitors to imitate this practice as our bank has implemented							
4.0	Incentive Pay Based on Performance Appraisal	1	2	3	4	5	6	7
4.1	Managers in this bank regularly (at least once a year) receive a formal evaluation of their performance.							
4.2	Pay raise for managers in this bank is based on job performance.							
4.3	Managers in this bank have the opportunity to earn individual bonuses (or commission) for productivity, performance or other individual performance outcomes.							
4.4	It's been quite some time since the bank has adopted this practice of incentive pay based on performance appraisal.							
4.5	Very few competitors have adopted this practice of incentive pay based on performance appraisal.							
4.6	It's very difficult for the competitors to imitate this practice as our bank has implemented							
5.0	Employee Ownership	1	2	3	4	5	6	7
5.1	Managers have access to company's stock options, profit sharing plans and managers partnerships.							
5.2	Employee's financial participation determines employee's ownership.							
5.3	It's been quite some time since the bank has adopted this practice of employee ownership.							
5.4	Very few competitors have adopted this practice of employee ownership.							
5.5	It's very difficult for the competitors to imitate this practice as our bank has implemented							
6.0	Information Sharing	1	2	3	4	5	6	7
6.1	The managers receive formal information about a wide range of issues relevant for the bank and its operations (e.g., a newsletter, Billiton or regular meeting).							
		S. Disagree— to — S. Agree						
6.2	The managers are provided with relevant operating performance information (e.g. quality, productivity, etc.).							
6.3	The managers are provided with relevant financial performance information.							
6.4	The managers are provided with relevant strategic information (e.g. strategic mission, goals, tactics, competitor information, etc.).							
6.5	The managers have access to formal grievance/complaint							

	resolution procedure information.							
6.6	It's been quite some time since the bank has adopted this practice of information sharing.							
6.7	Very few competitors have adopted this practice of information sharing.							
6.8	It's very difficult for the competitors to imitate this practice as our bank has implemented							
7.0	Participation and Empowerment	1	2	3	4	5	6	7
7.1	Managers in this bank are allowed to make many decisions.							
7.2	Managers in this job are often asked by their seniors to participate in decisions.							
7.3	Managers are provided with the opportunity to suggest improvements in the way things are done in the branch.							
7.4	Managers keep open communications with employees in this bank.							
7.5	There is little point trying to affect the way things are done in this bank.							
7.6	You have little choice but to go along with things at work, even if you disagree with them.							
7.7	You have little choice but to do what you are told at work, whether they like it or not.							
7.8	It's been quite some time since the bank has adopted this practice of participation and empowerment.							
7.9	Very few competitors have adopted this practice of participation and empowerment.							
7.10	It's very difficult for the competitors to imitate this practice as our bank has implemented							
8.0	Self-Managed Teams	1	2	3	4	5	6	7
8.1	There are teams with task and decision making authority in this bank.							
8.2	There is extensive use of teams throughout this bank.							
8.3	Management is organized in self managed teams in performing the major part of their work roles.							
8.4	It's been quite some time since the bank has adopted this practice of self- managed teams.							
		S. Disagree— to — S. Agree						
8.5	Very few competitors have adopted this practice of self- managed teams.							
8.6	It's very difficult for the competitors to imitate this practice as our bank has implemented							
9.0	Training and Skill Development	1	2	3	4	5	6	7
9.1	Extensive training programs are provided for managers in this bank.							
9.2	Managers normally go through training programs every few years.							
9.3	There are formal training programs to teach new hires the skills they need to perform their jobs.							
9.4	Formal training programs are offered to managers in order to increase their promotability in this organization.							
9.5	It's been quite some time since the bank has adopted this practice of training and skills development.							
9.6	Very few competitors have adopted this practice of training and							

	skills development.								
9.7	It's very difficult for the competitors to imitate this practice as our bank has implemented								
10.0	Reduced Status Distinctions and Barriers	1	2	3	4	5	6	7	
10.1	Managers dress differently than other employees.								
10.2	Managers have "special perks" (e.g. parking, lunch rooms, and offices).								
10.3	There are few status differences in my organization between managers and the rest of the employees.(R)								
10.4	All of the employees are on the same level.(R)								
10.5	It's been quite some time since the bank has adopted this practice of reduced status distinctions and barriers.								
10.6	Very few competitors have adopted this practice of reduced status distinctions and barriers.								
10.7	It's very difficult for the competitors to imitate this practice as our bank has implemented								
11.0	Job Design	1	2	3	4	5	6	7	
11.1	The duties of this job are clearly defined								
11.2	This job has an up-to-date job description.								
11.3	The job description contains all of the duties performed by individual managers.								
11.4	The actual job duties are shaped more by the managers than by a specific job description (R).								
11.5	It's been quite some time since the bank has adopted this practice of job design.								
11.6	Very few competitors have adopted this practice of job design.								
11.7	It's very difficult for the competitors to imitate this practice as our bank has implemented								
12.0	Promotion From Within	1	2	3	4	5	6	7	
12.1	Managers in this bank have clear career paths with the bank.								
		S. Disagree — to — S. Agree							
12.2	Managers in this job have very little future within this bank (R).								
12.3	Managers' career aspirations within the bank are known by their immediate supervisors.								
12.4	Managers who desire promotion have more than one potential position they could be promoted to within this bank.								
12.5	It's been quite some time since the bank has adopted this practice of promotion from within.								
12.6	Very few competitors have adopted this practice of promotion from within.								
12.7	It's very difficult for the competitors to imitate this practice as our bank has implemented								
13.0	Measurement of the HR Practices								
13.1	Managers are regularly administering attitude surveys.								
13.2	There are routinely administered attitude surveys to identify and correct employee morale problems.								
13.3	The managers have to answer a questionnaire about implementation of HR practices and satisfaction level of the employees.								

13.4	Manager's job is subject to the outcomes of the feedback of implementation of HR practices.								
13.5	It's been quite some time since the bank has adopted this practice of measurement of the HR practices.								
13.6	Very few competitors have adopted this practice of measurement of the HR practices.								
13.7	It's very difficult for the competitors to imitate this practice as our bank has implemented								
14.0	Quality of Work Life	1	2	3	4	5	6	7	
14.1	Managers participate in Quality of Work Life (QWL) teams.								
14.2	It's been quite some time since the bank has adopted this practice of quality of work life.								
14.3	Very few competitors have adopted this practice of quality of work life.								
14.4	It's very difficult for the competitors to imitate the application of this practice as our bank has implemented.								
	Part 2								
15.0	1-Attitudes:								
	(a)Motivation	1	2	3	4	5	6	7	
15.1	I always behave in a way that helps our Company's performance.								
15.2	I am always contributing in positive ways to The Company's performance.								
15.3	As compared to our competitors my organization has a highly motivated group of employees.								
	(b)Commitment	1	2	3	4	5	6	7	
15.4	I am willing to work harder than I have to help this organization.								
15.5	I feel very little loyalty for this organization(R).								
		S. Disagree— to — S. Agree							
15.6	I would take any job to keep working for this organization.								
15.7	I find that my values and organizational values are the same.								
15.8	I am proud to be working for this organization.								
15.9	I would turn down another job for more pay in order to stay with this organization.								
	(c) Job Satisfaction	1	2	3	4	5	6	7	
15.10	All in all, I am satisfied with my job.								
15.11	In general I do not like my job. (R)								
15.12	In general, I like working here.								
16.0	2-Behavior:								
	(a)Turnover intentions	1	2	3	4	5	6	7	
16.1	I intend to look for a new job in next year.								
16.2	I do not like the career/profession currently I have adopted. I will look for a new job.								
16.3	I am not happy to work for this organization. I will quit.								
16.4	I intend to look for a new job in near future.								
	(b)Absenteeism	1	2	3	4	5	6	7	
16.5	I often remain absent from the job.								
16.6	Remaining absent from the job will be the first option if something important comes up.								
16.7	It's difficult for me to remain absent from my job (R).								

		Part III						
17.0	Subjective Performance	S. Disagree— to — S. Agree						
	1. How would you compare your bank's performance over the past three years to that of other banks in relation to..	1	2	3	4	5	6	7
17.1	a) Quality of products or services.							
17.2	b) Development of new products or services.							
17.3	c) Ability to attract employees.							
17.4	d) Ability to retain employees.							
17.5	e) Satisfaction of customers or clients.							
17.6	f) Relations between management and employees.							
	2. How would you compare your bank's performance over the past three years to that of other banks in relation to...	1	2	3	4	5	6	7
17.7	a) Marketing of products or services?							
17.8	b) Growth in sales?							
17.9	c) Profitability?							
17.10	d) Market Share?							

		Part IV						
18.0	Please indicate the option that gives accurate information?							
18.1	Gender							
	Male	Female						
18.2	My Age (years)							
	25 - 30	30.1 - 35	35.1 - 40	40.1 - 45	45.1 - 50	50.1 - 55		
18.3	My Tenure (years)							
	<01	1.1 - 3	3.1 - 7	7.1 - 10	10.1 - 13	13.1 - 15		
18.4	My Education							
	B.A		B.COM	BBA	BCS/BS		M.A	
	MBA		MS	MS-CS	M.PHILL		PHD	
18.5	My Monthly Pay – Please ENCIRCLE the monthly pay range							
	Less than 30,000		30,001-40,000	40001-50,000		50,001-60000		
	60,001-70,000		70,001-80,000	80,001-90,000		90,001- 100,000		
	100,001-110,000		110,001-120,000	120,001-130,000		130,001-140,000		
	140,001-150,000		150,001-160,000	160,001-170,000		170,001-180,000		
	180,001-190,000		190,001-200,000	200,001-210,000		210,001-220,000		
	220,001-230,000		230,001-240,000	240,001-250,000		Above 250,000		

Appendix B

	Bank Name	Branches	Web Address
A.	Public Sector Commercial Banks	1,621	
1	First Women Bank Ltd.	39	www.fwbl.com.pk
2	National Bank of Pakistan	1,267	www.nbp.com.pk
3	The Bank of Khyber	42	www.bok.com.pk
4	The Bank of Punjab	273	www.bop.com.pk
B.	Local Private Banks	6,850	
1	Allied Bank Ltd.	786	www.abl.com.pk
2	Arif Habib Bank Ltd.*	36	www.summitbank.com.pk
3	Askari Bank Ltd.	204	www.askaribank.com.pk
4	Atlas Bank Ltd.*	40	www.atlasbank.com.pk
5	Bank Al-Falah Ltd.	309	www.bankalfalah.com
6	Bank Al-Habib Ltd.	267	www.bankalhabib.com
7	BankIslami Pakistan Ltd	70	www.bankislami.com.pk
8	Dawood Islamic Bank Ltd.	42	www.dawoodislamic.com
9	Dubai Islamic Bank Pakistan Ltd	36	www.dibpak.com
10	Emirates Global Islamic Bank Ltd.	58	www.egibl.com
11	Faysal Bank Ltd.	136	www.faysalbank.com.pk
12	Habib Bank Ltd.	1,457	www.habibbankltd.com
13	Habib Metropolitan Bank Ltd	120	www.hmb.com.pk
14	JS Bank Ltd.	40	www.jsbl.com
15	KASB Bank Ltd.	70	www.kasbbank.com
16	MCB Bank Ltd.	1,085	www.mcb.com.pk
17	Meezan Bank Ltd.	180	www.meezanbank.com
18	mybank Ltd.	80	www.mybankltd.com
19	NIB Bank Ltd.	204	www.nibpk.com
20	Samba Bank Ltd.	28	www.samba.com.pk
21	Silk Bank Ltd.	85	www.silkbank.com.pk
22	Soneri Bank Ltd.	156	www.soneri.com
23	Standard Chartered Bank (Pakistan) Ltd.	162	www.standardchartered.com
24	The Royal Bank of Scotland Ltd.	79	pwkww.rbs.com.pk
25	United Bank Ltd.	1,120	www.ubl.com.pk
C.	Foreign Banks	80	
1	Al- Baraka Islamic Bank B.S.C (E.C)	29	www.albaraka.com.pk
2	Barclays Bank PLC	15	www.barclays.pk
3	Citibank N.A	17	www.citibank.com.pk
4	Deutsche Bank AG	3	www.db.com
5	HSBC Bank Middle East Ltd.	12	www.hsbc.com.pk
6	Oman International Bank S.A.O.G	3	www.oiboman.com
7	The Bank of Tokyo-Mitsubishi UFJ, Ltd.	1	www.btm.co.jp
D.	Specialized Banks	536	
1	Industrial Development Bank of Pakistan	15	www.idbp.com.pk
2	Punjab Provincial Cooperative Bank Ltd.	159	www.ppcbl.punjab.gov.pk
3	SME Bank Ltd.	13	www.smebank.org
4	Zarai Traqiati Bank Ltd.	349	www.ztbl.com.pk
Commercial Banks (A+B+C)= 8,551			All Banks (A+B+C+D)= 9,087

Appendix C

Top ten banks in Pakistan by their size of assets:

End December 2009, in thousand Rs.

Ranking	Name of Bank	Assets
1	National Bank of Pakistan	944,232,762
2	Habib Bank Limited	820,981,347
3	United Bank Limited	619,744,051
4	MCB Bank Limited	509,223,058
5	Allied Bank Limited	418,374,331
6	Bank Alfalah Limited	389,070,055
7	Standard Chartered Bank (Pakistan) Limited	312,874,212
8	Askari Bank Limited	254,327,466
9	Bank Al-Habib Limited	249,806,600
10	Habib Metropolitan Bank Limited	237,412,230

Appendix D

25 KSE Listed Banks: At the time of data collection

Code	Symbol	Name	Branches
1	SILK Bank	Silk Bank Ltd	85
2	HBL	Habib Bank Ltd.	1,457
3	ABL	Alied Bank Ltd.	786
4	MCB	Muslim Commercial Bank Ltd.	1,085
5	NBP	National Bank of Pakistan	1,267
6	Kasab Bank	KASAB Ltd.	70
7	Faysal Bank	Faysal Bank Ltd.	136
8	Bankislami	Bank Islami Ltd.	70
9	Meezan	Meezan Bank Ltd.	180
10	SCB	Standard Chartered Bank Ltd	162
11	NIB	National Investment Bank Ltd.	204
12	Bank Al-Falah	Bank Al-Falah Ltd.	309
13	JS Bank	JS Bank Ltd	40
14	Bank AL-Habib	Bank AL-Habib Ltd	267
15	Soneri Bank	Soneri Bank Ltd.	156
16	Arif Habib Bank	Arif Habib Bank Ltd.	36
17	Bank Of Khyber	Bank Of Khyber Ltd.	42
18	Habib Metro Bank	Habib Metro Bank Ltd	120
19	Samba Bank	Samba Bank Ltd.	28
20	B.O.P	Bank of Punjab Ltd.	273
21	UBL	United Bank Ltd.	1,120
22	My Bank	My Bank Ltd.	80
23	Atlas Bank	Atlas Bank Ltd.	40
24	Askari Bank	Askari Bank Ltd.	204
25	Royal Bank	Royal Bank Ltd.	79
			Total= 8,296

Appendix E

RESEARCH HYPOTHESIS STATUS

	Hypothesis	Status
1(a)	High performance work practices system is positively and significantly related to attitudinal outcome.	ACCEPTED
1(b)	High performance work practices system is positively and significantly related to behavioral outcome.	ACCEPTED
1(c)	High performance work practices system is positively and significantly related to organizational book base financial performance.	Partially Accepted-ROA
1(d)	High performance work practices system is positively and significantly related to organizational market base financial performance.	Partially Accepted-MBVEP
1(e)	High performance work practices system is positively and significantly related to employee's productivity.	Rejected
1(f)	High performance work practices system is positively and significantly related to organizational subjective performance.	ACCEPTED
	HR Outcomes	
2(a)	HRM outcome i.e. attitude is positively and significantly related to organizational book base financial performance.	Rejected
2(b)	HRM outcome i.e. attitude is positively and significantly related to organizational market base financial performance.	Partially Accepted-MBVEP
2(c)	HRM outcomes i.e. i.e. attitude is positively and significantly related to employee's productivity.	ACCEPTED
2(d)	HRM outcomes i.e. i.e. attitude is positively and significantly related to organizational subjective performance.	ACCEPTED
2(e)	HRM outcome i.e. behavior is positively and significantly related to organizational book base financial performance.	Partially Accepted-ROE
2(f)	HRM outcome i.e. behavior is positively and significantly related to organizational market base financial performance.	Partially Accepted-MBVEP
2(g)	HRM outcome i.e. behavior is positively and significantly related to employee's productivity.	ACCEPTED
2(h)	HRM outcome i.e. behavior is positively and significantly related to organizational subjective performance.	ACCEPTED
	Mediation	
3(a)	HR outcomes i.e. attitude, mediate between HPWP and organizational book base financial performance.	Rejected
3(b)	HR outcomes i.e. attitude, mediate between HPWP and organizational market base financial performance.	Rejected
3(c)	HR outcomes i.e. behavior, mediate between HPWP and organizational book base financial performance.	Rejected
3(d)	HR outcomes i.e. behavior, mediate between HPWP and organizational market base financial performance.	Rejected
3(e)	HR outcomes i.e. attitude, mediates between HPWP and employee's productivity.	Rejected
3(f)	HR outcomes i.e. behavior, mediates between HPWP and employee's productivity.	Rejected
3(g)	HR outcomes i.e. attitude, mediates between HPWP and subjective organizational performance.	ACCEPTED
3(h)	HR outcomes i.e. behavior, mediates between HPWP and subjective organizational performance.	ACCEPTED
	Moderation	
4(a)	Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. attitude.	ACCEPTED
4(b)	Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. behavior.	ACCEPTED
	HPWPS (Composite)	
1(a)	High performance work practices system is positively and significantly related to attitudinal outcome.	ACCEPTED
1(b)	High performance work practices system is positively and significantly related to behavioral outcome.	ACCEPTED
1©	High performance work practices system is positively and significantly related to organizational book base financial performance.	Rejected
1(d)	High performance work practices system is positively and significantly related to organizational market base financial performance.	Partially Accepted-MBVEP
1(e)	High performance work practices system is positively and significantly related to employee's productivity.	ACCEPTED
1(f)	High performance work practices system is positively and significantly related to organizational subjective performance.	ACCEPTED
	Mediation	
3(a)	HR outcomes i.e. attitude, mediate between HPWP and organizational book base financial performance.	Rejected
3(b)	HR outcomes i.e. attitude, mediate between HPWP and organizational market base financial performance.	Partially ACCEPTED-MBVEP
3(c)	HR outcomes i.e. behavior, mediate between HPWP and organizational book base financial performance.	Rejected
3(d)	HR outcomes i.e. behavior, mediate between HPWP and organizational market base financial performance.	Partially ACCEPTED-MBVEP
3(e)	HR outcomes i.e. attitude, mediates between HPWP and employee's productivity.	ACCEPTED
3(f)	HR outcomes i.e. behavior, mediates between HPWP and employee's productivity.	ACCEPTED
3(g)	HR outcomes i.e. attitude, mediates between HPWP and subjective organizational performance.	ACCEPTED
3(h)	HR outcomes i.e. behavior, mediates between HPWP and subjective organizational performance.	ACCEPTED
	Moderation	
4(a)	Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. attitude.	ACCEPTED
4(b)	Resource base view positively moderates the relationship between HPWPS and HR outcomes i.e. behavior.	ACCEPTED