

High Performance Work Practices to Support Relational Coordination: Evidence from Pakistan

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Abstract

A key aspect of work processes in service sector firms is the interconnection between tasks and performance. Relational coordination can play an important role in addressing the issues of coordinating organizational activities due to high level of interdependence complexity in service sector firms. Research has primarily supported the aspect that well devised high performance work systems (HPWS) can intensify organizational performance. There is a growing debate, however, with regard to understanding the “mechanism” linking HPWS and performance outcomes. Using relational coordination theory, this study examines a model that examine the effects of subsets of HPWS, such as motivation, skills and opportunity enhancing HR practices on relational coordination among employees working in reciprocal interdependent job settings. Data were gathered from multiple sources including managers and employees at individual, functional and unit levels to know their understanding in relation to HPWS and relational coordination (RC) in 218 bank branches in Pakistan. Data analysis via structural equation modelling, results suggest that HPWS predicted RC among officers at the unit level. The findings of the study have contributions to both, theory and practice.

Keywords: HPWS, HR practices, relational coordination, skills, motivation, opportunity, banking sector, Pakistan

1. Introduction

The focus of strategic HRM is on expanding the strategic aspect of human resource in improving firm’s effectiveness and its importance to individuals as the unit of analysis (Delery & Shaw, 2001). The last three decades have seen a growing trend towards the effects of individual HR practices on employee outcomes, turnover (Griffeth, Hom & Gaertner, 2000) and task performance (e.g. Lock & Letham, 1990). Research has advanced to macro-level target on the systems approach to understanding

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the positive effects of HRM on performance outcomes (Huselid, 1995; Wright, 1998; Lepak, Liao, Chung, & Harden, 2006).

Previous research findings have provided profound evidence linking HR practices and performance (Huselid, 1995; Chuang & Liao, 2010). Despite the immense evidence presented, many researchers (e.g. Guest, 1999; Fleetwood & Hesketh, 2006; Gerhart, 2012) are still critical of the HRM and performance links. These researchers highlighted the need to develop theoretical explanations about HRM practices, outcomes and the linkages between HRM, and performance. Although researchers are of the view that individuals' sense of HRM practices are essential in recognising the links between HRM practices and outcomes (Liao, Toya, Lepak, & Hong, 2009; Jiang, Takeuchi, & Lepak, 2013). However, actual experiences of employees with these HRM practices have been mostly ignored, thus limiting understanding of the process through which practices affect outcomes (Lepak et al., 2006). Previous research in the field of HPWS and firm performance has adopted a macro-level approach by focusing on organizational level outcomes (Liao et al., 2009). The actual perceptions of employees are not considered to explore the effects of HR practices on group or unit performance. Employee behaviour is an important element that affects the process of relationship between HR practices and its outcomes. Researchers have paid little attention to examine the impact of HR practices on the behaviour of employees (Gardner, Moynihan, Park, & Wright et al., 2001).

In addition, studies have mostly used a macro approach and focused on organization level outcomes rather than using a multi-level path to explore HRM and different levels of outcomes (Snape & Redman, 2010; Ostroff & Bowen, 2000). Researchers have suggested several types of outcomes, including HR, organizational, financial and market outcomes etc. that might apply to research relating to HRM (Dyer & Reeves, 1995; Jiang, Lepak, Hu, & Baer, 2012). These studies have concluded that better understanding of HRM-performance linkages is crucial for drawing logical conclusions with regard to HRM-performance link (Bing, Guimei, Xiaolang, & Lassleben, 2020). Therefore, one of the most significant current discussions in HRM-performance is to adopt a multi-level way to analyse the effects of HRM at the employees' and organizational levels (Meuer, 2017; Murphy, Torres, Ingram, & Hutchinson, 2018; Liu & Lin, 2019). Furthermore, numerous studies have been administered in manufacturing sector-mostly in developed countries overlooking the substantial presence of service sector firms (Boselie, Paauwe, & Jansen, 2001; Han, Bartol, & Kim, 2015).

Several theories on HRM-performance link have been proposed. These include resource-based view (Barney, 1991), abilities, motivation and opportunities (AMO) framework (Appelbaum, Bailey, Berg, & Kalleberg, 2000) and human capital theory, as an interpretation for the links between HRM practices and unit level performance

outcomes. Theories on HRM practice and its link to performance have advanced over the past 20 years whereby more technical means of formulating and modelling those relationships are now used as strong predicting indicators (Boxall, 2012; Jiang et al., 2013). Essential to these sophisticated approaches is the idea that HRM practices at the firm level influence the attitudes and behaviours of employees at the individual level, which, consequently, influence the accumulated outcomes such as productivity, or turn over which, afterwards, influence organizational level performance outcomes.

This approach includes multi-level forms of theorising in which it clearly seeks to associate the phenomena across various level of analysis. Following the same approach, this study suggests that high performance work systems can positively influence performance by strengthening relationships between employees who perform secluded functions in settings characterised by high levels of interdependence, uncertainty and time constraints (Gittell, Seidner & Wimbush, 2010; Siddique, Procter & Gittell, 2019). This study recommends a model of HPWS in which each HRM practice influences across various functions to engage employees in a more coordinated work. It assumes that coordination that develops through frequent, high quality communication supported by relationships of shared knowledge, shared goals, and mutual respect facilitates organizations to accomplish their desired performance (Gittell, 2006).

Existing literature prevails a gap in understanding the mechanism that underpin the causal link are not fully understood (Murphy et al., 2018). Therefore, using relational coordination theory, this study aims to explore the linkages and mechanisms in which HPWS predicts relational coordination in an interdependent work setting. The study specifically aims at answering the research question as to what degree HPWS can predict relational coordination between employees at various levels. Using the foundation of RC theory, the study seeks an answer to the effect of HWPS on individual level relational coordination, taking into consideration the employees' perception working in the banking sector. The premise of banking sector is based on the fact that compared with manufacturing firms, most service settings are marked by high levels of uncertainty, interdependence and time constraints (Gittell, 2000). Work processes in service settings often require reciprocal and repetitive interactions among employees relative to sequential and pooled interactions performed by employees in manufacturing settings. In service settings, employees working in groups interact with fellow members, share information and resources, and largely depend upon others to accomplish their objectives (Campion, Medsker, & Higgs, 1993). The flow of work from one member to another team member is linked in such a way that result in reciprocal interdependence (Kiggundu, 1983).

Management scholars consider coordination as the basis of management that

affects all functions of management. For instance, Parker Follett (1918) suggested that because of good coordination among members, the total group achievement would be more than the total particular achievement. Galbraith (1994) considers coordination work well on cross border issues such as teamwork and interdependent work settings. Compared with people in manufacturing sector, people in service sector organizations require more coordination to integrate the work of all members whether related to a particular process, or to a specific customer (Davenport & Nohria, 1994). In these organizations, the top, middle, and lower levels of managers coordinate the overall activities of the firm and develop good relations with each other's.

van der Vegt, Emans, and van de Vliert (1998) and Hackman, (1990) who argues that the work processes in service sector firms are characterized by interconnection between tasks and performance in such a way that the performance of one task is interdependent on the successful completion of other tasks. Having a high level of interdependence, relational coordination is more likely to have relevance for the service sector (Gittell, 2000) therefore, the banking sector is considered an appropriate setting characterised by conditions of uncertainty, reciprocal interdependence, and time constraints.

More particularly, this was done through: 1) taking the managers and employees of the bank branches working in operations, credit and cash function as the main informant of HPWS; 2) choosing core employees who are involved in the focal work process of branch banking; 3) examining the relationship between HPWS and RC in a single organization with a nationwide branch network across Pakistan.-

2. High-Performance Work Systems and Relational Coordination

Literature has reported various terminologies for HPWS, such as highcommitment (Walton, 1985; McClean & Collins, 2011) and high-performance work system (Delaney & Huselid, 1996; Appelbaum et al., 2000; Way, 2002). However, HWPS have received most of the attention (Lepak et al., 2006; Kehoe & Collins, 2017). According to Huselid (1995), HWPS possess the capability to improve employees' skills, knowledge, and abilities, evolve motivation, and strengthen employee retention. These HRM practices focus on competitive advantages through proper treatment of the employees, investment in their development, creating and fostering trust and commitment in employees for the accomplishment of the organizational goals. Pfeffer (1998) seminal work suggested that HRM practices enhance firm performance. A large volume of published studies, for instance, Zacharatos, Barling, and Iverson, (2005), Bamberger and Meshoulam (2000), Camps and Luna, (2009); and McClean and Collins, (2011), which have included practices from Pfeffer's seven influential HR practices in studying the influence of HPWS on performance. Practices like

incentives, training, selective hiring, teams, information sharing, and employee involvement have received greater attention from scholars (Zacharatos et al., 2005; Ogbonnaya & Valizade, 2018), because of their ability to enhance employees' skills, knowledge, abilities, and motivation that can be beneficial in the retention of talent in organizations.

Coordination is a term refers in literature to understand a function in which various activities of a job are accordingly regulated and interlinked (e.g. Weick & Roberts, 1993; Faraj & Xiao, 2006). Traditionally, coordination has been considered as an information-processing issue by theorists (e.g. Galbraith, 1977; Tushman & Nadler, 1978). Overtime, however, the term coordination emerged to be a relational process also, including shared perceptions of the work and its context.

Relational coordination is considered an emerging theory for distinguishing the relational dynamics of coordination work. Several theorists such as Malone and Crowston (1994, p. 90) and Romanow, Rai, and Keil, (2018) have advocated the importance of relationships for jobs that require coordination and based their argument on the premise that "coordination is the management of task interdependence". In organizations, interdependence arises from the collaborative conduction of work among team members. The collaboration among team members also varies despite performing tasks with similar structural properties. Interdependence may be classified into various groups. In his classic book of *Organizations in action*, Thompson's (1967) classified interdependence into three broad types and argued that it may varies across different organizations. For Thompson (1967), interdependence is of three kinds: (1) pooled interdependence in which every part of the organization contributes a particular portion to output, without the performance of which the completion of whole process is at risk in organization; (2) sequential interdependence in which the output of one part is the input for another part of the organization; and (3) reciprocal interdependence in which the output of each part of the organization become inputs for other parts of the organization. These forms of interdependence carry an ascending level of complexity with sequential interdependence includes the features of pooled interdependence while reciprocal contains the features of both pooled and sequential.

Gittell (2001) undertakes preliminary work on relational coordination. RC is studied as a developing theory for differentiating relational gestures of work coordination. Relational coordination can be defined as a systematic process that comprises two components: (1) communication and (2) relationships. Communication dimension includes frequent, accurate, problem-solving, and timely flow of communication among the various functions of the organization, while relationship encompasses three dimensions, including shared knowledge, shared goals, showing mutual respect to group members involved in the performance of interdependent work.

3. Relational Coordination and Its Relevance to Banking Industry as Service Sector

Compared with manufacturing firms, most service settings have high levels of uncertainty, reciprocal interdependence and time constraints (Gittell, 2000). Service sector firms are characterised by reciprocal and repetitive interactions between employees, relative to sequential and pooled interactions performed by employees in manufacturing settings. In service settings, employees working in groups interact with fellow members, share information and resources, and largely depend upon others to accomplish their objectives (Campion et al., 1993). Havens, Gittell and Vasey (2018) suggested that firms operating in settings having uncertainty, interdependence, and time bound are most effective when there is an immense level of RC between employees. Since 2000, Gittell has conducted several studies in which she provided in-depth analysis of relational coordination in various service settings such as airline industry, medical care, surgical care, health care, and criminal justice system, showing its relevance to service sector firms. Having high level of interdependence, relational coordination is more likely to have relevance for banking industry for several reasons. First, the mode of interdependence in banks is different in complexity level to that prevailing in other settings. Branch banking services often have high reciprocal interdependence requiring constant interactions among employees as compared to sequential and in some cases pooled interactions among officers working in operations, credit and cash functions. Second, banks have a high level of uncertainty due to complications of intermediary services from the external environment. Finally, branch banking is designed to administer a service to clients in a real time, in accordance to the demand, and with no extra times on customers making it, time bound. Therefore, banks design work processes in such a way to provide services to its customers in the best manner and up to the expectations of customers without any delay. Based on these reasons, Gittell (2000) suggested that firms operating under conditions of uncertainty, reciprocal interdependence, and time constraints are mostly effective when there is high level of relational coordination among employees.

HPWS as predictors of RC: The theory of Relational coordination expects that HR practices are regenerated to improve the relationships between employees through which job is adequately coordinated. HPWS can provide support to alter the bureaucratic system of working in isolation by associating employees precisely with each other to facilitate them to coordinate their jobs (Leana & Van Buren, 1999). Previous studies have identified HR practices including selection, training, flexible job design, open communication, self-managed teams, performance appraisal, performance-based compensation, and decentralised decision making that affect the relationships among employees (Gittell, 2000; Gant, Ichniowski, & Shaw, 2002;

Vogus, 2006; Evans & Davis, 2005).

Previous research findings have concluded that firm's high-performance work practices can set up and help employee-based competencies (Wright, Dunford, & Snell, 2001; Wright & Ulrich, 2017). Therefore, in order to promote relationships, high performance work practices are the principal means through which organizations can conduct relationships among employees (Leana & Van Buren, 1999). Collins and Clark (2003) suggested that system approach could only be effective when it supports those competencies that are aimed to provide value to an organization (Wright et al., 2001). For instance, to obtain the desired behavior, organizations must provide incentives and feedback through compensation and performance appraisal HR practices to reinforce appropriate behaviors (Locke & Latham, 1990). Compensation and rewards tied to individual outcomes are associated with less integration across functions; whereas, compensation designed for an interdependent work has been reported to support better coordination commitment among employees (Guthrie & Hollensbe, 2004). Similarly, HR practices adopted for the flow of information, including both programmed and non-programmed are expected to strengthen relational coordination and influence the efficiency and quality of focal work processes (Gittell, 2000).

In organizations, HPWS are devised to influence the behaviors of employees at different levels. To extract desired behaviors from employees, organizations must provide appropriate HR practices into HPWS that reinforce the desired behaviors. In view of Vogus (2006), high-performance practices, including recruitment, training & development, incentives, job security, and performance appraisal add to better quality interactions and consciousness by communicating the significance of relationships, which ultimately add to higher firm performance.

The design of HR practices can also affect the status of relational coordination by either undermining or supporting relational coordination. It largely depends upon the nature of the job and its degree of specialization. Few jobs are broadly devised to encompass a vast array of activities, whereas others are narrowly designed to cover only specific tasks (Morgeson & Campion, 2002). Together, these HR practices influence the quality of interactions between employees, and may therefore, have significant implication for coordination (Gittell, 2002). Since, coordination is considered a relational process (Methot, Rosado, & Allen, 2018) that takes place through a relationships network between employees completing interdependent jobs (Faraj & Xiao, 2006; Gittell, 2002). Therefore, HPWS is more likely to support the information processing capacity and enable employees to have communication that is more consistent across different functions leading to higher performance outcomes.

For this study, based on Abilities, motivation and opportunities (AMO) model,

HR practices were categorised. Employee training is considered as an ability-enhancing practice; employment security, contingent compensation and performance appraisal are grouped as motivation-enhancing practices; and employee participation, job description and information sharing are grouped as opportunity-enhancing practices.

H1: Skill enhancing HRM practices positively predicts RC among employees.

H2: Motivation enhancing HRM practices positively predicts RC among employees.

H3: Opportunity enhancing HRM practices positively predicts RC among employees.

H4: Overall HPWS practices positively predicts RC among employees.

4. Theoretical Perspectives on HRM-Outcomes Link

4.1. Relational coordination theory and its relevance to HPWS-Performance

Researchers have adopted various theories for studying the links between HRM practices with outcomes. Barney's (1991) resource based view; a widely used theory suggests that resources featuring value, rarity, inimitable and non-substitutability can provide competitive advantage to firms (Wright, 1998). The main weakness with this theory is that it fails to explain the particular nature of HRM practices and performance relationship (Paauwe, Wright, & Guest, 2012; Methot, Milwani, & Rothman, 2017). The review by Boselie et al. (2001) identified that most of the studies have used contingency, RBV and AMO in HRM and performance research. According to Paauwe (2009), the RBV focuses on firm level outcomes, while AMO concentrates on the significance of considering employee-level factors.

To date, a number of studies have suggested that HRM and performance outcomes are closely linked. Firstly, HRM practices directly affect performance ability through enhancing employees' skills, knowledge, and abilities. Secondly, HRM practices affect employees' motivation level to perform by providing rewards, thus enabling employees to assume different work roles. This provides direction about what types of behaviors are anticipated and rewarded in organizations (Becker & Huselid, 1998; Huselid, 1995; Delery & Shaw, 2001). So far, a number of attempts have been formed to develop a theory of how HRM and performance outcomes are associated (Paauwe et al., 2012; Boxall, 2012). The current study intends to further these efforts, by examining different kinds of HRM practices in that constitute HPWS.

A large number of studies have based AMO framework in studying the HRM-performance link (Lee, Pak, Kim, & Li, 2019). The argument put forward is that every HRM system works by influencing abilities, skills, and knowledge, motivation, and providing opportunities to articulate their capabilities in the job. The variety of abilities, motivation, and opportunities framework are considered essential mediators over which the firms endeavor to enhance employees' individual performance (Boxall, 2012). AMO framework covers multiple arrays of characteristics and behavioral aspects that can be analysed via a range of theoretical perspectives (Boxall, 2012; Malhotra & Singh, 2016).

The emerging theory of relational coordination has also provided insights from studies conducted in the health sector (Gittell, 2008; Noel, Lanham, Palmer, Leykhum, & Parchman, 2013). In these studies, researchers have studied the relations among employees such as physicians, nurses, therapists, and social workers in different functions required to provide care for patients who went under specific surgery in hospitals. The findings showed positive relationships between RC and the level of care (Gittell, 2000). Therefore, suggesting that the strength of relational coordination as a process of recognising relations both within and between functions, specifically in work settings that are characterised by high degree of interdependence, uncertainty and time constraints in the work process.

4.2. Theoretical Framework

Various theoretical perspectives exist which underlies the HRM-performance link using RBV, AMO framework and contingency theory (Boselie et al., 2001; Jiang & Messersmith, (2018). Therefore, this study aims to examine relationships among employees as a viable link between HPWS and performance. This research introduces that HPWS devised to promote communication and relationships among employees will result in enhanced degrees of relational coordination. Figure 1 represents a model linking high performance work practices to RC. In the given-model, it is recommended that HPWS firmly predicts relational coordination at both individual, functional and branch levels.

5. Methodology

5.1. Data collection

The study has been carried out in the banking sector. The chosen bank for this purpose is a large and a pioneer bank in the country, having a nationwide branch network of more than 1200 branches. The bank functions in all cities and business centres across the main regions and provinces of Pakistan (State bank of Pakistan, 2012).

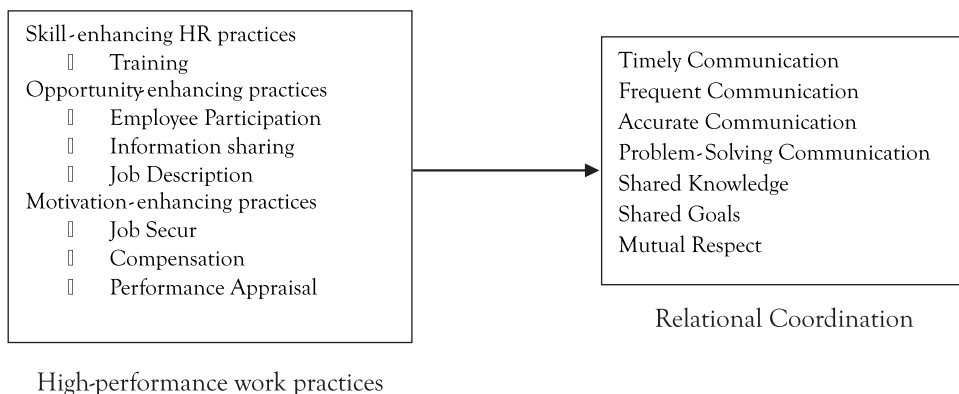


Figure 1: Conceptual Framework

Since, Pakistan is a large country by area and reaching all branches throughout the country was not feasible. The study included 755 branches comprising the areas of Punjab, Islamabad, and KPK. Table 1 presents information about the number of branches included in the study. Using 45% proportionate sampling, this study draws a sample of three hundred and forty branches in Islamabad, KPK and Punjab. HPWS and relational coordination surveys were administered to all employees falling in four categories of managers, staff working in operations, cash and advances departments.

Table 1: A Sampling of the Bank Branches

Areas	Central Punjab	Federal Areas	KPK	Total
Number of Branches in Region	355	185	215	755
Surveyed Branches	160	83	97	340
Received HPWS and RC Branches	61	71	86	218
% of Surveyed Branches in Region	38	85	89	64

Prior approvals were solicited from the Bank head office, and concerned regional offices regarding the study. The survey was conducted with the help of Bank's central and regional HR departments. The Institute of Bankers' Pakistan-a leading provider of technical training services was also involved in the survey. The present study focuses on employees' perspectives in the banking sector of Pakistan. For this purpose, information about the extent of HPWS and relational coordination were obtained from managers and officers working in operations, credit and cash functions at the branch level. Employees working at the branch level are directly involved in the use of high performance work practices and in a better position to provide accurate information about the extent of HPWS. Additionally, to cater for the criticism of small sample size and low response rate which has led to inconclusive results (Macky & Boxall, 2007;

Gerhart, 2012), this study utilises a large sample of 340 branches.

As one of the largest branch network across Pakistan, the study include bank branches from central Punjab, federal areas Islamabad, and Khyber Pakhtunkhwa for the survey. In terms of the area coverage and population density, these areas make 40% and 70% of the Pakistan's geographical area and population respectively. The total number of bank branches in these areas constitutes 57 percent of the total branch network (see Table1). Second, from the total number of 755 branches in areas of central Punjab, federal areas Islamabad, and KPK, a random sample of 45% branches was drawn from each area to represent proportionate participation of branches from all over the country. Selecting branches from various regions over the country has certain major advantages. The bank offers identical products and services to its customers throughout the country; it will be interesting to find managerial and employees perspectives of HPWS and relational coordination among employees in these branches. In addition, a large sample of branches and respondents enables the study to analyse the responses through strong statistical techniques and tools. It also provides defence against the criticism of personal biasness and exaggeration in cases where information is obtained from a limited sample in a specific geographical area.

Upon approval, the survey was administered to employees in four categories of manager and officers in operations, credit, and cash functions at each branch. Branch managers were personally contacted and prior appointments were booked with each branch manager for administering the survey. At the start of survey, employees were given short briefings about the study and instructions on how to fill-in the survey. A covering letter was attached to the survey explaining the objectives of the study and assurance to respondents about confidentiality of their responses. Respondents were asked to answer each item of the HPWS and relational coordination survey on a five point likert scale from 1 (strongly disagree) to 5 (strongly agree).

In total, 3500 questionnaires were distributed among employees in 340 sample branches. The filled-in questionnaires were collected in the same hours of appointment or in some cases on the following days where respondents wanted to fill-in at home. Completed questionnaires were checked for any missing information on spot and packed in each branch envelop. In total, 2280 questionnaires were returned, of which only 1563 questionnaires were usable. Completed surveys were received from 218 branches with a response rate of 38% in central Punjab, 85% in federal areas Islamabad including Azad Kashmir, and 89% in the regions of KPK areas. The remaining was discarded due to large extent of missing information. Since, survey was administered to all manger(s), and officers in operations, credit, and cash function, criteria was set to consider HPWS and relational coordination data from only those branches with at least one respondent in each function. Data gathered from less

than four employees including manager were discarded and not included in further analysis. In this way, usable HPWS and relational coordination data were obtained from 218 branches, making a response rate of 64%.

5.2. Measurement of variables

5.2.1. HPWS and HR practices:

Several systems of high performance work have been proposed in the field of HRM (Lepak et al., 2006). For this study, previous studies from 1996 to date were reviewed for selection and inclusion of HR practices. Security, employment training, participation and the job description was measured using four items from Delery and Doty's (1996). Information sharing and compensation were adopted from Zacharatos et al. (2005). Performance appraisal was measured through items from Snell and Dean (1992), and Delery and Doty (1996).

In accordance with the regular process adopted by the HPWS literature, this study aggregated measures of individual HRM practices into a specific index that measures HPWS (Guest, 1999; Lepak et al., 2006; Macky & Boxall, 2007; Way, 2002). In the first instance, an average for all items of each HR practices were calculated for subscale scores (e.g., job security). Following subscales aggregation, an average was calculated across all practices to derive an indices for HPWS. The study used subscale aggregation method in which respective items were averaged to calculate an index of abilities, motivation and opportunity enhancing HR practices for each respondents. These indices were also justified by their high value of internal consistency (See Tables 2 and 2a).

5.2.2 Relational Coordination

RC was computed using Gittell (2001) survey. The RC survey comprises seven items that measure both communication and relationship ties with respect to branch work process. Subscale method of aggregation was used to compute relational coordination indices scores.

5.2.3 Control Variables

To eliminate alternative explanations of the findings, the study controlled for age, qualification, experience, gender, department, and length of service in bank branch. It is essential to examine internal and external organization characteristics to develop better understanding about the HR-performance relationship (Harel & Tzafrir, 1999). At the branch level of analysis, the study controlled for age, qualification, experience, gender, department, and length of service in bank branch. For instance, to control for the effects of age on the extent of HPWS and the degree of relational coordination,

respondents were divided into four groups according to their age in the branches. Dummy variables were computed for control variables and similar procedure was adopted for the effects of qualification, experience, gender, function and length of service in the current branch.

5.3. Reliability and validity analysis

5.3.1 Reliability analysis

In this study, exploratory factor analysis (EFA) was initially conducted on all individual items measuring HPWS and RC. The KMO test value was 0.906, surpassing suggested score of 0.60 and Barlett measure (Bartlett, 1954) showed statistical significance, approving sample adequacy. The results of FA about the number of components were consistent with previous findings on the HR practices scale (Gittell et al., 2010).

Reliability Analysis: Cronbach alpha reliability coefficient was used to evaluate the internal consistency of each measure of HPWS and relational coordination. Alpha values for HPWS and RC were 0.894 and 0.851, respectively. Table 2 provides alpha values for HPWS and RC.

Table 2: Intra Class Correlations for HPWS and Relational Coordination

Variables	Items	Alpha	ICC1	ICC2
Skill-enhancing	4	0.738	0.414	0.738
Motivation-enhancing	13	0.811	0.248	0.811
Opportunity-enhancing	12	0.824	0.281	0.824
RC	21	0.911	0.327	0.911
	HPWS		Relational Coordination	
Manager	0.265	0.904	0.464	0.859
Operations	0.260	0.901	0.451	0.832
Credit	0.238	0.890	0.427	0.859
Cash	0.185	0.855	0.408	0.828
Individual Level	0.237	0.890	0.437	0.844
Unit Level	0.245	0.894	0.450	0.851

Table 2a: Interrater Agreement for HPWS and Relational Coordination (IRA)

Functions	Rwgj HPWS	rwgj RC
Manager	0.93	0.91
Operations	0.91	0.88
Credit	0.92	0.87
Cash	0.89	0.87
Individual Level	0.91	0.88
Unit Level	0.91	0.88

Interrater Reliability (IRR): IRR refers to the relative consistency in ratings provided by various judges of multiple items (Bliese, 2000; LeBreton, Burgess, Kaiser, Atchley & James, 2003). It is commonly used to justify aggregation of data (LeBreton & Senter, 2008). In this study, similar to other studies of this nature (Schneider, 1990), individual perceptions were aggregated to the branch level so correlations among dimensions could be determined (Liao et al., 2009). In this research, bank branches are operating in their specific markets and largely are relatively independent despite the fact that branches are expected to pursue common bank policy. Therefore, branch was considered as a focal work process in survey items. In this study intra-class correlation coefficients (ICC), the most commonly measure of IRR, were computed to assure that aggregation of perceptions was empirically appropriate. The ICCs is interpreted as the proportion of the total variance within the data that is explained by the variance between judges. Two measures of intra class correlation coefficient ICC (1) and ICC (2) were computed for this study. ICC (1) is the proportion of total variance explained by group membership. The ICC (1) values may be interpreted as the level of consistency and consensus if a judge was randomly selected from the population of judges and his score was compared to the mean score of sample (Bliese, 2000; LeBreton & Senter, 2008). Therefore, ICC (1) is being used to estimate the reliability of a randomly selected single judge and its comparison to the mean score of sample judges.

In multilevel modelling, researchers are generally concerned in understanding the degree to which the mean rating assigned by a group of judges is reliable. In cases when each item is rated by a different set of judges on measurement scale, the index ICC (2) can be estimated using one way random effect (Bliese, 2000). ICC (2) measures the extent to which units can be reliably differentiated in terms of individual dimensions scores. This index provides an overall estimate of the reliability of group mean ratings, with values equal to or above 0.7 being most satisfactory (Gittell et al., 2010). It can also be interpreted as the correlations between the mean scores across

the units and any other group drawn from the same population (James, Demaree, & Wolf, 1984). In general, values from 0.70 to 0.85 are being considered acceptable to justify aggregation (LeBreton & Senter, 2008). In this study, the values of ICC (1) were well above the recommended level of 0.05 to 0.3 and ICC (2) also exceeds the recommended level of 0.70 and above. These results suggest that both the extent of HPWS and the degree of relational coordination performed well on both forms of intra class correlations. Together, these results provide justification for aggregation and treating HPWS and the degree of relational coordination as a unit-level construct.

5.3.2. Validity analysis

Interrater Agreement (IRA): It refers to the absolute agreement in scores provided by multiple judges for one or two items (LeBreton et al., 2003; Bliese, 2000; James, Demaree, & Wolf, 1993). Measures of IRA are used to determine whether scores provided by judges are identical in terms of their absolute value. IRA asserts the absolute agreement between judges and is generally indexed by some measure of within-group assessment dispersion. IRA was estimated for each dimension score using indices developed by James et al. (1984). The most prominent estimates of IRA are single-item r_{wg} and multi-items $r_{wg(i)}$ indices. The values of IRA indices ranges from 0 to 1 with values of 0.70 have been considered as the traditional cut point (LeBreton et al., 2003; Lance, Butts & Michels, 2006). IRA values from 0.00 to 0.30 is interpreted as lack of agreement, 0.31 to 0.50 as weak agreement, 0.51 to 0.70 as moderate agreement, 0.71 to 0.90 as strong agreement, and 0.91 to 1.00 as very strong agreement (LeBreton & Senter, 2008). The average $r_{wg(i)}$ of HPWS for managers, employees in operations, credit, and cash functions were 0.93, 0.91, 0.92, and 0.89 respectively (see Table 2a). With regard to relational coordination, the average $r_{wg(i)}$ were 0.91, 0.88, 0.87, and 0.87 respectively. These values also exceed the recommended value of 0.70 suggesting justification for aggregating individual level scores to the branch level for the HPWS and relational coordination.

6. Results

Data obtained from 218 branches were analysed to examine HPWS positively predicts relational coordination at a unit level. Table 3 provides the means, S.D, and intercorrelations for the high performance work system and relational coordination. The mean value of branch weighted HPWS and relational coordination was 3.54 and 3.58 respectively, suggesting an immense level of HPWS and RC at the unit level.

Table 3: Descriptive Statistics and Inter-Correlation of HR Practices

HR Practices	M	SD	1	2	3	4	5	6	7
Employment Security	3.52	.73	-						
Training	3.89	.70	.380**	-					
Employee Participation	3.35	.84	.329**	.340**	-				
Job Description	3.64	.87	.272**	.344**	.439**	-			
Information Sharing	3.72	.70	.302**	.341**	.438**	.514**	-		
Compensation	3.14	.82	.317**	.293**	.316**	.260**	.268**	-	
Perf Appraisal	3.45	.83	.290**	.388**	.489**	.503**	.467**	.402**	-

** . Correlation is significant at the 0.01 level (2-tailed).

6.1.Hypothesis testing

The link between HPWS, HR practices and relational coordination measures were further analyzed through structural equation modelling (SEM) analysis. For this purpose, using SEM, the hypotheses regarding the relationships between individual HR practices; subsets of HPWS including skill, motivation and opportunity enhancing practices in predicting relational coordination were tested.

The first hypothesis was related to individual HR practices and its influence on relational coordination. Table 4 shows the results of unstandardized regression coefficient of the hypothesized model. The results revealed that 12% increase in RC is due to training and p-value ($P < 0.000$) shows a significant effect. Moreover, RC and Training fit indices (Table 5) show a good model fit such as CMIN= 1225.975, Df= 215, CMIN/DF=5.702, GFI=.906, AGFI=.858, NFI=.896, TLI=.877, CFI=.912, RMR= .087, and RMSEA=.073.

The relationship between Employment security and RC shows that 22% increase in RC is because of ES. Beta coefficient also significant at 0.000. Fit indices of RC and Employment security also shows a good model fit, CMIN= 825.180, Df=193, CMIN/DF=4.276, GFI=.933, AGFI= .88, NFI= .928, TLI=.911, CFI= .943, RMR= .062, and RMSEA= .061

The unstandardized regression coefficient for contingent compensation and RC shows the hypothesized model. The results revealed that a 13% increase in RC caused due to contingent compensation beta coefficient also at 0.000 levels. Fit indices results for RC and contingent compensation revealed good model fit, CMIN= 933.764, Df=

199, CMIN/Df= 4.692, GFI= .928, AGFI= .883, NFI= .918, TLI=.900, CFI= .934, RMR= .070, and RMSEA=.065

The regression model of PA to RC shows that 24% increase in RC is because of performance appraisal. Moreover, P-value also shows at significant level i.e. $p < 0.05$. The regression fit indices for the RC and performance appraisal also revealed good model fit; CMIN= 1012.513, DF= 218, CMIN/DF= 4.645, GFI=.922, AGFI=.874, NFI, .922, TLI=.906, CFI=.937, RMSEA=.064, and RMR=.064

The unstandardized regression coefficient model shows that 32% increase in the value of the RC is due to employee participation. While beta coefficient significant at 0.000. The fit indices of the employee participation and RC relationship show good model fit such as; CMIN= 1108.596, DF=218, CMIN/DF=5.085, GFI=.920, AGFI=.881, NFI=.910, TLI=.898, CFI=.926, RMR=.071, and RMSEA=.068

The relationship between job description and the RC results revealed that the unstandardized regression coefficient shows insignificant relationship and beta coefficient also insignificant. Confirmatory fit indices of a job description and the RC shows good model fit such as; CMIN=1027.513, DF=200, CMIN/DF=5.138, GFI=.915, AGFI=.862, NFI=.916, TLI=.896, CFI=.931, RMR=.066, and RMSEA=.068

The unstandardized regression coefficient for information sharing and RC results revealed that 24% increase in the RC is due to information sharing. The beta coefficient also at significant level i.e. $p < 0.000$. The regression analysis between information sharing and RC also shows that data fit the model such as; CMIN=882.567, DF=185, CMIN/DF=4.771, GFI=.929 AGFI=.875, NFI=.925, TLI=.925, TLI=.901, CFI=.939, RMR=.066, and RMSEA=.065. These results present support for H1 suggesting that high performance work practices positively predicts RC.

Table 4: High-Performance Work Practices and Relational Coordination

	Estimate	S.E.	C.R.	P-value
RC \leftarrow Training	.122	.029	4.257	***
RC \leftarrow Employment Security	.222	.045	4.918	***
RC \leftarrow Contingent Compensation	.132	.032	4.183	***
RC \leftarrow Performance Appraisal	.236	.032	7.301	***
RC \leftarrow Employee Participation	.325	.036	8.916	***
RC \leftarrow Job Description	14.037	48.828	.287	.774
RC \leftarrow Information Sharing	.239	.034	6.951	***

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5: Model Validity Standards (Goodness of Model Fit)

	CMIN	DF	CMIN/DF	GFI	AGFI	NFI	TLI	CFI	RMR	RMSEA
Training-RC	1225.97	215	5.702	.906	.858	.896	.877	.912	.087	.073
Employment security-RC	825.18	193	4.276	.933	.888	.928	.911	.943	.062	.061
Compensation-RC	933.76	199	4.692	.928	.883	.918	.900	.934	.070	.065
Performance appraisal-RC	1012.51	218	4.645	.922	.874	.922	.906	.937	.064	.064
Employee participation-RC	1108.59	218	5.085	.920	.881	.910	.898	.926	.071	.068
Job description-RC	1027.51	200	5.138	.915	.862	.916	.896	.931	.066	.068
Information sharing-RC	882.56	185	4.771	.929	.875	.925	.901	.939	.066	.065

** . Correlation is significant at the 0.01 level (2-tailed).

Results regarding hypotheses 2, 3 and 4 are shown in Tables 6 and 7. Training is aimed at improving the skills of employees and is, therefore, considered as skill-enhancing HR practice. Similarly, employment security, contingent compensation, and performance appraisal are considered as motivation-enhancing HR practices, while employee participation, information sharing and job description are grouped as opportunity enhancing practices.

The structural model shows the unstandardized regression coefficient of the hypothesized model. The results revealed that 12% increase in RC is due to training and p-value ($P < 0.000$) shows a significant effect. Moreover, RC and T fit indices show good model fit such as CMIN= 1225.975, DF= 215, CMIN/DF=5.702, GFI=.906, AGFI=.858, NFI= .896, TLI=.877, CFI=.912, RMR= .087, and RMSEA=.073. These results provide support for H2, suggesting that skill enhancing practices positively predicts relational coordination. Some researchers allow values as high as 5 to consider a model adequate fit (Schumacker & Lomax, 2004) while others insist relative chi-square should be 2 or less. Less than 1.0 is poor model fit. Paswan (2009) suggests a value below 2 is preferred but between 2 and 5 is considered acceptable.

The unstandardized regression analysis, among motivations factors and RC revealed that unstandardized regression coefficient shows that 17% increase in the value of the RC is due to Employment security and beta coefficient is also significant at level < 0.000 , while the 1 % increase in RC is due to contingent compensation, but it has an insignificant level at 0.05, and performance appraisal also lead 19% increase in RC at level of significant i.e. < 0.000 . Moreover, confirmatory fit indices show good model fit such as; CMIN= 1449.598, DF=428, CMIN/DF= 3.387, GFI=.912, AGFI=.878, NFI=.900, TLI=.904, CFI=.927, RMR=.095, AND RMSEA=.052. These results bring support for the hypothesis, indicating that motivation enhancing practices support relational coordination.

The results of the structural model in terms of direct effects of opportunity-enhancing practices on relational coordination depict that structural path from employee participation to RC shows significant effect, i.e. 25% increase in RC is due to employee participation and p-value also corroborate the acceptability of the hypothesized model at the level of significance $p < 0.000$. The structural path from the job description to the RC shows insignificant effects while the structural path from information sharing to RC shows that 7% increase in the RC is due to information sharing and p-value also at a level of significant $p < 0.008$. The direct effect model satisfactorily fit the data i.e.; CMIN=1351.038, DF=365, CMIN/DF=3.701, GFI=.912, AGFI=.865, NFI=.911, TLI=.903, CFI=.933, RMR=.104, & RMSEA=0.55. These results maintain support for hypothesis, suggesting that opportunity-enhancing practices positively predicts relational coordination among employees.

Table 6: Skill-Enhancing and Relational Coordination

		Estimate	S.E.	C.R.	P-value
RC↔Skill enhancing	RC ↔ T	.122	.029	4.257	***
	RC ↔ ES	.170	.045	3.823	***
RC↔Motivation enhancing	RC ↔ CC	.011	.031	.365	.715
	RC ↔ PA	.188	.027	6.971	***
	RC ↔ EP	.247	.030	8.227	***
RC ↔ Opportunity enhancing	RC ↔ JD	6.201	22.446	.276	.782
	RC ↔ I	.078	.029	2.669	.008

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7: Model Validity Standards (Goodness of Model Fit)

	CMIN	DF	CMIN/DF	GFI	AGFI	NFI	TLI	CFI	RMR	RM-SEA
Skill-RC	1225.97	215	5.702	.906	.858	.896	.877	.912	.087	.073
Motivation-RC	1449.59	428	3.387	.912	.878	.900	.904	.927	.095	.052
Opportunity-RC	1351.03	365	3.701	.912	.865	.911	.903	.933	.104	.055

** . Correlation is significant at the 0.01 level (2-tailed).

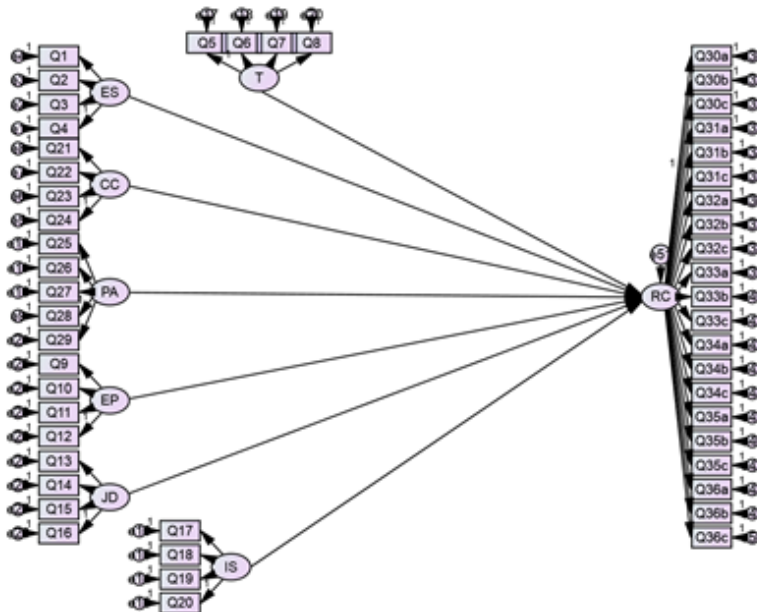


Figure 2: SEM Model

7. Discussion

There is a growing debate in the field of HRM in relation to understand the effects of HPWS practices on performance (Boxall, 2012). Therefore, this study examines the effects of HR practices in predicting the RC using employees' perspectives in bank branches.

Earlier research has studied various HR outcomes in analysing the effects of HR practices (for instance, Snape & Redman, 2010). This research provides further support to these prior studies by presenting relational coordination acts as an outcome of high-performance work practices. Most importantly, this study provides empirical evidence in terms of the predictors and outcomes of the RC in the financial sector. Earlier studies have tested the RC in airline, municipality and health sector (Gittell, 2000, 2010). The findings of this study, exhibit an array of relationships between high performance work practices and RC at individual, functional and branch levels. In this study, HPWS practices have presented significant effects on relational coordination. Results obtained from the study are consistent with those of previous seminal studies in the field of HRM suggesting that organizations having a relevant set of practices have better performance levels (see Arthur, 1994; Delery & Doty, 1996; Bae & Lawler, 2000; Boxall & Macky, 2009; Guthrie, 2001). A significant element of this research is the examination of linkages between HPWS and relational coordination from the employees' perspective. Previous studies have generally measured the extent of HPWS at the management level by interviewing senior HR managers within an organization. Critics contend that such studies have validity and reliability concerns (Guest, Michie, Conway, & Sheehan, 2003). Therefore, in this study, the information on HPWS and relational coordination were collected from managerial employees and staff working in branch banking, advances and cash departments within bank branches. Being the first study to test relational coordination theory in the banking sector, the current study has found support for the research questions that HPWS practices predicts the RC at a unit level.

The results of this study show that the extent of HPWS predicted the degree of relational coordination among employees at individual, functional, and branch levels. At an individual level, HPWS predicted a significant level of relational coordination among employees suggesting that regardless of functional identity, employees perceived higher level of relational coordination as a result of HPWS within the organization (see Table 2). At functional level, officers in managerial functions perceived relatively higher degree of relational coordination as compared to officers in operations and credit functions. One of the explanation could be prior experience of managers in operations. Similarly, the nature and scope of managerial positions are identical to the working of operations function. It is interesting to note that the extent of HPWS

predicted higher degree of relational coordination among employees in credit function. Since credit function is the most vital function in branch operations, therefore it requires greater coordination among employees. This result suggests that HPWS is positively affecting the degree of relational coordination among employees in credit function.

Among all functions, HPWS predicted relatively lesser extent of relational coordination among officers in cash function. It is somewhat surprising that despite the fact that all employees at the branches have an identical set of HPWS, yet the extent of these practices varies across different functions. This result may be explained by a number of different factors. Firstly, the ratio of officers in cash function is mostly lower than officers in other functions of the branch. It is evident from the survey that mean value of staff in cash function is lower than all other functions. Due to fewer officers in cash function, these employees are mostly engaged in routine cash deposit and withdrawal activities during the normal banking hours. For instance, officers in cash function receive lesser training programs in terms of training duration. Secondly, jobs in cash function are considered as entry-level jobs with restricted career development, therefore officers in cash function receive relatively lesser attention in relation to participation in various HR practices. Thirdly, in terms of job nature, officers in cash function are mostly independent and solely responsible for the cash deposit and withdrawal activities. Similar to other functions, coordination is much needed in cash function however, these factors play crucial role in restricting interactions among employees in cash and other functions.

The role of the managers as the promoter of HPWS in developing relational coordination among employees was also examined. In the current study, comparing branch managers with officers in other functions indicated significant variation in the degree of relational coordination. Results shows that officers in managerial position reported greater extent of HPWS in predicting the degree of relational coordination among employees. At the branch level, the results of this study indicated that the overall influence of HPWS on the degree of relational coordination is higher than the impact on functional level. These findings suggest that the overall impact of HPWS on the degree of relational coordination among employees has a significant variance across different functions. There are several explanations for the variation in the impact of HPWS on the degree of relational coordination across various functions. A possible explanation for this variation might be that due to the nature of job function, certain employees have additional exposure to the HR practices in place. For instance, officers in credit function are provided with frequent and extensive training programs than officers in other functions. Since training has a profound impact on productivity (e.g. Owens, 2006; Collings, Demirbag, Mellahi, & Tatoglu, 2010), therefore it can be

suggested that the skills gained through training programs can be useful for officers to develop higher degree of relational coordination among employees. Officers in these functions are actively involved in decision-making and therefore frequently share relevant information regarding credit approvals while processing lending proposals.

The findings showed explicit links between individual practices and skill, motivation, and opportunity enhancing practices in predicting relational coordination at a various levels, therefore, suggesting that the essential effect of HR practices is shown through improved communication and relational ties among employees in their functions (Gittell, 2006; Han et al., 2015). Further, the presence of a link between HPWS practices and RC in the branch banking reinforces the assertion that an effective HRM system positively influences employee attitude (Guest, 1999; Appelbaum et al., 2000; Sun, Xing, Yin, & Yang, 2018; Fu, Bosak, Flood, & Ma, 2019). Together, such findings present that high-performance work practices facilitate officers in developing skills that can result in strengthening the RC among employees.

7.1. Implications

The findings of this research showed support for the causal linkages in the proposed theoretical model linking high performance work practice and RC among employees. These findings have important implications for HPWS and performance outcomes in several ways. Previous studies in HRM research placed huge insistence on the content of an HRM system and how it was associated with performance (Combs, Yongmei, Hall, & Ketchen, 2006). In conformity with recent studies (Havens, Gittell, & Vasey, 2018; Boon, Den Hartog, & Lepak, 2019), this study extends HPWS and performance literature by examining the perspectives of managerial and officer cadre employees about HPWS in predicting the RC and analysing how the role of relational coordination relates to performance. The results contribute to HRM-performance literature. First, empirical findings in this research provide new insight of the linkages among HPWS and performance. It was shown that HPWS predicts the higher level of the RC in an interdependent work setting. The findings of this study provide support to Gittell et al. (2010) suggesting relational coordination as a relational pathway linking HPWS to organizational performance.

7.2. Study Limitations and Future Research

In this study, data was collected at single point making it cross-sectional in nature. Although one of the strengths is the use of separate sources of data for HPWS and the RC, nevertheless, the study suffered from significant thinning as data was collected and matched from several sources. Future recommendations include different aspects of HPWS in examining the process through which HPWS affect performance

outcomes. For instance, further research in service organizations exploring the design of HPWS in promoting employees' commitment would be also helpful to recognise the role of RC in HPWS-performance link.

8. Conclusion

The present study was designed to determine the effect of HPWS in predicting relational coordination. This research uses the role of the RC among managerial and officer cadre staff as an outcome of well-designed HRM practices using employees' perspectives in a large commercial bank in Pakistan. The sampling frame comprises managers and all officer cadre employees of the bank. Survey design was used to collect data from managerial and officer rank employees regarding the HPWS and relational coordination. The results presented significant support for the extent of HPWS in predicting the RC at a unit level. Using relational coordination theory, this research adds to existing literature on HPWS and performance outcomes by presenting a theoretical explanation with respect to the process through which the extent of HPWS can influence relationships among employees affecting performance. The study adds to the HRM-performance literature through significant insights in understanding the relationships between HPWS and performance outcomes in service sector context.

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