

Linkage of Organizational Justice and Employees Cognitive Work Engagement: Power Distance Orientation Matters

Dr. Abdul Qayyum

Associate Professor, Riphah School of Leadership (RSL), Riphah International University,
Islamabad, Pakistan
abdul.qayyum@riphah.edu.pk

Muhammad Qaiser Shafi

Lecturer, RSL, Riphah International University, Islamabad, Pakistan
qaiser.shafi@riphah.edu.pk

Dr. Iram Naz

Assistant Professor, RSL, Riphah International University, Islamabad, Pakistan
iram.naz@riphah.edu.pk

&

Zarish Gul

MS Scholar, RSL, Riphah International University, Islamabad, Pakistan

Abstract

This study aims to examine the impact of four dimensions of organizational justice on employees' cognitive work engagement with the moderating role of power distance. Using convenience sampling technique, a survey of 307 employees in the telecom sector of Pakistan was carried out in the cities of Rawalpindi and Islamabad. Data were gathered using self-administered questionnaires. SPSS and Smart PLS have been used for data analysis. The findings reveal that procedural, distributive, and informational justice are effective in determining cognitive work engagement of employees whereas interactional justice does not influence cognitive work engagement. Moreover, power distance moderates the relationship between procedural and interactional justice and cognitive work engagement but it does not moderate the relationship between distributive and informational justice and cognitive work engagement of employees in the telecom sector of Pakistan. The study implication, limitations, and suggestions for future research have also been discussed.

Keywords: Procedural Justice, Distributive Justice, Interactional Justice, Informational Justice, Power Distance, Employee Cognitive Work Engagement.

Introduction

Employment is an essential exchange amid workers as well as a firm within which both parties possess the opportunity to get something from their association. During the 1980s, this exchange relationship was based on the notion that employers provided employees with job safety as well as promotion. In return, employees would repay via working sixty to seventy hours per week and whatever job was demanded by organizations. This working scenario has altered quite dramatically in recent times. Now employees are more aware of their rights and have a preference for different types of rewards in form of involvement in decision making as well as organizational equity. The idea of organizational justice is important since it is the key driving factor that enables the employees to stay dedicated and loyal to the organization for long (Agarwal, 2014; Nazir et al., 2018; Mushtaq, Elahi & Khan, 2019).

The last decade has been marked by extensive globalization as well as foreign competition. With the advent of these changes, the significance of hiring, sustaining as well as handling resources that may assist in enhancing and improving the firm's competitiveness has been vital for the success of any firm (Nadiri & Tanova, 2010). As per Strom, Sears, and Kelly (2014), one of the important characteristics of successful and prolific industries is that they comprise important workers that engage themselves in their work mentally, emotionally as well as physically. Nurturing as well as maintaining this level and kind of workforce may spare organizations approximately \$350 billion annually. Hence firms must try to establish participative job surroundings to enhance worker engagement (Osborne & Hammoud, 2017). Through elements of corporate fairness, provision of managed as well as reasonable job surroundings, firms can increase the levels of worker engagement among their staff that will improve the overall performance of organizations (Bakotic & Babic, 2013).

Corporate fairness describes a situation whereby workers hold beliefs about fair and ethical treatment from their bosses and their responses to fair or unfair behaviors (Suliman & Al Kathairi, 2012). According to Moazzam et al. (2018) employees feel motivated when they are dealt with fairly in an organization. Organizational justice has four main components i.e. procedural justice, distributive justice, interactional justice, and finally informational justice. Distributive justice is used to describe a situation of employees' outlook of the fairness of results of their efforts whereas procedural fairness is used to depict situations whereby the ethicality of systems and procedures are assessed in deciding upon those results. Interactional justice states to the type and nature of social conduct employees receive at their workplace and informational justice means the degree to which employees receive an explanation for the decisions made by the organization and its agents (Al-Zu'bi, 2010).

The distributive justice concept emerged from 1950 to 1970 and has its foundation on the equity theory presented by Adams (1965). It sheds light on the fair allocation of assets. The procedural justice concept emerged between 1970 to 1990 and centered upon fair processes in place of allocation of assets. Interactional and informational fairness concepts emerged after the 1980s and focus on interpersonal characteristics related to fairness. Nowadays, researchers are concentrating on a different domain, named "Integrative Wave" that involves using all types of justice into the overall category of "organizational justice".

Culture is one of the most significant elements that affect organizational fairness. Among all the five cultural dimensions specified by Hofstede (1980), power distance (authority remoteness) is of the utmost importance when it comes to determining organizational justice. Hofstede (1980) concluded that differences exist in the degree of workers' reception of authority remoteness within various civilizations. Several cultures like Pakistani culture have more authority remoteness than various civilizations within the West, where the reception of level of authority remoteness is lesser and unacceptable. So the research on authority remoteness differences within cultures marked by more authority remoteness at the private level is appealing.

A significant area of research on corporate fairness delineates the notion that workers depict intense cognitive and affective responses in a situation of injustice as compared to a situation marked by just decision-making. 'Voice' is a salient feature of corporate fairness representing the situation of worker involvement in the corporate planning process. Culture is one of the salient aspects which influence how workers respond to the level of voice given in organizational settings. In cultures marked by more authority remoteness, workers accept authority remoteness and show less intense reactions when given unfair treatment lower opportunity to participate within corporate planning (Yuan & Zamantili, 2009).

'Social Exchange Theory' by Blau (1964) is useful in this regard (Cook, Cheshire, Rice & Nakagawa, 2013). It states that human beings, by nature tend to respond and equate the level of job contentment they receive at the workplace. A positive and fair treatment by bosses fosters job contentment and encourages employees to respond by depicting corporate citizenship conduct, innovative problem resolving as well as higher cognitive work engagement and vice versa.

Different variables have been used by researchers between organizational justice and its outcomes. For instance, Strom, Sears, and Kelly (2014) investigated the influence of organizational justice on work engagement in the presence of transactional leadership as a moderator. According to their results, procedural and distributive justice has a significant and positive effect on work engagement and low transactional leadership would strengthen this relationship. Deconinck (2010) explored the effect of organizational justice on organizational and supervisory trust in the presence of perceived organizational support as a mediator. The results reveal that distributive justice positively affects organizational and supervisory trust through perceived organizational support. Loi, Lam, Chan (2012) tested the rapport between job insecurity and organizational justice, and the role of ethical leadership is studied as a moderator. It was found that the effect of organizational justice on job insecurity is negative whereas ethical leadership acts as a moderator between organizational justice and job insecurity.

The research on organizational justice is significant because those employees who perceive fairness are reported to have a higher level of organizational commitment, trust in the boss, and hence cognitive work engagement (Cheung, 2013). Nowadays, organizations face many challenges like restructuring, layoffs, technological advancement (Aslam et al., 2016; Mujtaba & Senathip, 2020). These changes resulted in unemployment and injustice practices in organizations especially in developing countries

(Aslam et al., 2015; Pan, Yan & Hao, 2018). In this context, this study aims to examine the impact of all four measurements of organizational justice, namely, distributive, procedural, informational, and interactional justice, on the cognitive work engagement of employees with the moderating role of power distance in Pakistan. Cognitive work engagement is relatively a new construct and there are very few published articles on it (Saks, 2006; Baumruk, 2004). As suggested by He, Zhu and Zheng, (2018), the relationship between interactional and informational justice has not been tested earlier with cognitive work engagement. Furthermore, Faruk and Van (2016) carried out a study on the impact of organizational justice on employee performance. They suggested examining the cultural differences as these may affect employee's justice perceptions. So to address this gap, this study aims to explore the moderating role of power distance between organizational justice and employee cognitive work engagement.

Hypotheses Development

In the following section, the relationships between various variables of the study have been discussed and hypotheses have been developed.

Cognitive Work Engagement

Job engagement is one of the important notions of HR for researchers as well as policymakers as it helps generate employee dedication, contentment as well as better performance. To get a competitive edge for organizations, firms are in growing need of hiring workers that are mentally as well as physically engrossed within work. Much of the previous literature on job engagement has neglected the cognitive aspect of job engagement that is crucial for the other two types of job engagement to exist as well (Agarwal, 2014; Pham-thai et al., 2018).

As suggested by Babcock, Robberson, and Strickland (2010), there persists a massive variety within employees regarding the extent by which they exercise energies, devotion as well as put forth their interest in their job. There are 3 elements of job engagement consisting of emotional element, physical element as well as the cognitive element. The physical element involves the effort exerted to carry out the task, the emotional element involves being passionate and 'putting one's heart into one's job' and finally the cognitive element involves being mentally and intellectually engaged in work to the extent that everything else is overlooked. The 'vigor' or mental energy element describes the situation of the extensive degree of mental flexibility meanwhile task performance as well as enduring obstructions. Loyalty or 'dedication' component involves possessing a feeling of essentialness, motivation, conceit, and test on the job. Assimilation of the 'absorption' element involves full fixation, satisfaction, as well as immersion on an individuals' task, such that there is speedy time surpassing as well as individual experiences issues in separating himself/herself from a task (Babcock, Robberson & Strickland 2010). The researchers further suggested that cognitive work engagement is dissimilar from workaholism.

Individual assets "(such as optimism, self-efficacy, self-esteem)" involves people's feeling related to their capacity about how much they can effectively manage as well as cast influence on their

surroundings. These encouraging self-assessments anticipate objectives fixation, inspiration, task execution, and task as well as life fulfillment along with other positive consequences.

The researcher suggested that three different work situations foster cognitive work engagement: meaningful work, the security of work as well as being more cognitively available/ present at work. These will tend to increase the cognitive work engagement of employees that will ultimately lead to emotional and physical work engagement as well (Agrawal, 2013). Cognitive work engagement will lead to better performance of workers as they will lead to favorable emotions and favorable fitness of employees that lead to better overall performance (Bakker & Demerouti, 2008).

Distributive Justice and Cognitive Work Engagement

Distributive fairness is the next element of corporate fairness. It means the degree to which employees believe that the consequences of employee's efforts are fair, just, and impartial.

Skarlicki and Folger (1997) exhibited that distributive fairness represents the fairness of the boss whereas procedural fairness is representative of the fairness of structures and systems within the organization. Fair allocation of results generates corporate trust. This leads to cognitive work engagement and job contentment as well as lesser organizational quitting and hence, improved corporate results.

Colquitt and Rodell (2011) narrated that "equity theory by Adams (1965)" is useful in this regard. It states that workers are motivated by justice. They compare their contribution to an organization with the yield they are getting from the organization and then compare this proportion of contribution/yield with fellow workers. If they believe that their ratio of contribution and yield is lesser than fellow workers then injustice persists and employees feel distressed.

Colquitt et al., (2012) in another study suggested that organizational management should distribute important outcomes via equity principle in which rewards should be distributed based on employee contribution to the organization. By taking just decisions regarding performance assessments, wages increment, bonus payouts, and other job-related tasks would foster management better capability, loyalty to employees, dependability as well as official behavior. This will generate cognitive trust among employees which will consequently lead to cognitive work engagement among employees.

'Expectancy theory of motivation suggests inspiration is impacted via conviction that exertion would generate better task execution '(expectancy)' and better task execution would generate higher recompense '(instrumentality)' which would be appreciated '(valence)' by workers. Since distributive equity tends to be more concerned with equity of consequences of effort, this category of justice possesses a sturdy relationship with 'instrumentality'. Along these lines, we can suggest that the distributive equity impression of workers would tend to influence the commitment of workers. Within every organization, workers possess a set of convictions and notions regarding the mechanism by which a firm would craft organizational choices. If workers feel that the choice-making mechanism is

varied from their convictions, they will suffer from 'cognitive dissonance. Hence as a consequence, workers would be uneasy and would undergo task dissatisfaction and lesser cognitive work engagement (Nadiri & Tanova 2010). So the second hypothesis of the study is as follows:

H₂: Distributive justice affects the cognitive work engagement of employees positively and significantly.

Procedural Justice and Cognitive Work Engagement

McFarlin and Sweeney (1992) expressed that "procedural justice refers to the perceived fairness of the means used to determine the amounts of compensation employees receive".

Procedural equity involves justice related to choice-making procedures. There are six features of just procedures comprising of "consistency, bias suppression, accuracy, correctability, ethicality, and the degree to which they allow voice" (Colquitt & Rodell, 2011). As suggested by Deconinck (2010), procedural equity has a higher connection with employee satisfaction with the organization in contrast with distributive justice that has a higher connection with worker satisfaction with the boss.

Colquitt, Lepine, Piccolo, Zapata, and Rich, (2012) in another study suggested that due to procedural equity, a predictable, as well as reliable environment, will be created in organizations.

Procedural fairness alludes towards worker view of the fact that whether higher sanctioning authority or firm gives them just dealing. Procedural fairness includes impartial, legitimate choice-making laws as well as an open door for workers' participation within choice-making procedures. Procedural equity is renowned as a crucial firm equity element that can have a significant effect on worker accommodating attitude as well as job execution (He, Zhu & Weing, 2014).

Skarlicki and Folger (1997) presented the view that the response to unjust procedures depends on the situation of workers. If an employee is in a powerful position, he will adopt the direct approach of taking vengeance like theft as well as vandalism. If he is in a weaker position, he will resort to indirect measures like mental removal of loyalty and dedication with organization, etc, and vice versa. Hence the first hypothesis is suggested.

H₁: Procedural justice affects the cognitive work engagement of employees positively and significantly.

Interactional Justice and Cognitive Work Engagement

Nadiri and Tanova (2010) claimed that employees' outlook regarding justice at the workplace is an important determinant affecting employees' cognitive patterns as well as behavior.

Interactional equity refers to the nature of conduct workers get at the workplace amid institutional activities. Two classifications of interactional equity exist according to previous researchers comprising of interpersonal equity as well as informational equity. These classifications have many aspects in common, yet few researchers clearly distinguish them as unique and varied from each other since both generate a varying impact on workers' equity outlook within the organization. It incorporates different activities that show communal compassion, like whether workers are being handled with esteem and respect by their bosses.

Deconinck (2010) claimed that interpersonal equity involves authorities' conduct with employees in terms of "honesty, sensitivity, and respect".Loi, Lam, and Chan (2012) added that interactional equity may have a higher connection with workers' relationship towards boss in contrast to worker relationship with the organization.

Colquitt et al., (2012) explained that interpersonal equity would lead to cognitive trust as a sense of professionalism as well as an image of official behavior of organization will be promoted if management sticks to the principles of dignity as well as politeness with employees. This will foster cognitive trust among employees that will be effective in generating cognitive work engagement among employees.

'Expectancy theory of motivation suggests inspiration is impacted via conviction that exertion would generate better task execution '(expectancy)' and better task execution would generate higher recompense '(instrumentality)' which would be appreciated '(valence)' by workers (Al-Zu'bi, 2010).

As satisfaction is directly linked to enhancing employee work engagement (cognitive, physical, and emotional) as suggested by Nadri and Tanova (2010), we can say that interactional justice will be positively associated with cognitive work engagement. Hence the third hypothesis is:

H₃: Interactional justice affects cognitive work engagement positively and significantly.

Informational Justice and Cognitive Work Engagement

Informational equity alludes to the fact regarding how much workers are given justification of choices devised by the firm as well as its operators.

Colquitt and Rodell (2011) claimed that informational equity involves giving an appropriate justification as well as truth presented within organizational decisions. Justifications must be sufficient (lucid, rational as well as sufficiently exhibited) as well as given within appropriate timeframe to ensure workers' outlook of equity within organizations as these would tend to help affectees understand the reason for their dilemmas. In addition, they can be a valuable source of ensuring that employees sense that they are valued and have respect as well as reverence by their employers.

Similarly, Zapata, Olsen, & Martins, (2013) proposed informational equity may be significant for workers as it tells them about their footing as well as position in front of their bosses. If bosses adhere to interpersonal as well as informational equity, it positively justifies an employee's individuality as well as a feeling of self-significance e.g. if, in an organization, a boss keeps adequate, sincere well as a lucid information exchange with workers and approaches a worker with deference and authenticity, it suggests worker would be esteemed by the boss. Hence the fourth hypothesis is:

H4: Informational justice affects cognitive work engagement positively and significantly.

Power Distance and Cognitive Work Engagement

According to Wang et al. (2012) individual-level power distance refers to "the extent to which an individual accepts the unequal distribution of power in institutions and organizations". Hofstede (1980) stated that the six aspects of civilization he identified through his researches are relevant only at the organizational level. However, many other scholars have generated consensus on the notion that these aspects of civilizations are well applicable to the private stage as well as influencing the motivation, trust, and cognitive work engagement among workers (Kirk-man & Shapiro, 2001). It has been discovered that workers with more authority remoteness values are less likely to respond more strongly with the use of deviant behaviors to situations of injustice within organizations in contrast to lesser authority remoteness cultures. This is mainly due to the fact that among workers with lesser authority remoteness values, workers establish customized or close connections with their bosses. This is contrasted among workers with high authority remoteness values where communal remoteness is preferred with little involvement of employees in choice-making procedures (Farh, Hacket & Liang, 2007).

Begley, Lee, Fang & Li (2002) narrated that even though Hofstede's five cultural elements have been devised at a national level but management researchers also commonly make use of them at individual and organizational levels as well. They suggested that because employees in high power distance accept and place trust in the authorities' decisions hence their loyalty to the organization and work will remain intact or will improve with the policies/ procedures of the organization. On the other hand, employees with lesser authority remoteness beliefs tend to develop closer social relations with bosses

since they call for employee participation in choice-making procedures so their work engagement also improves. So fifth hypothesis of the study is:

H₅: High power distance affects cognitive work engagement positively and significantly.

Moderating Role of Power Distance Between Distributive, Procedural, Interactional, Informational Justice and Employee Cognitive Work Engagement

Gomez et al. (1999) suggested that authority remoteness can be an effective moderator influencing the relationship between corporate fairness and organizational related activities of employees and managers. Employees within more authority remoteness norms have more respect for authority and have clearly defined pecking order relationships. They expect little involvement within choice making procedures of organizations. On the other hand, with lesser authority remoteness values, requires paying little attention to pecking order relationships, disseminate knowledge relevant to organizational circumstance delegate authority and encourage employees to take initiative and contribute ideas to corporate planning process (Loi, Lam & Chan, 2012; Reddy & Scheepers, 2019)

Although among both employees with high and lower power distance orientations, there is the negative impact of organizational injustice on job contentment and cognitive work engagement of employees, the intensity of these reactions is different. Workers with more authority remoteness orientation accept authority remoteness and show less intense reactions when given lower opportunity to participate within corporate planning. Conversely, workers with low power distance orientation show higher emotional reactions when given lower opportunities to participate within the corporate choice-making process (Yuan & Zamantili, 2009).

Previous literature alludes that interpersonal equity has a favorable impact on worker dedication as well as cognitive work engagement (Davidescu et al., 2020). However, workers who believe that they have suffered emotional damage due to interpersonal inequity will tend to respond via unfavorable responses as per the notion of 'social exchange' (Sprecher, 1986). In addition, workers also tend to respond negatively to their damage to reputation as well as contravention of their faith in supervisor and organization. Researchers claim that interpersonal inequity may lead workers into a state of unfavorable self-identity, which makes them feeling feeble as well as incompetent. To regain their distinctiveness, workers tend to respond by taking revenge from their bosses by involving in abnormal or 'deviant' activities to keep up with their 'faces and uphold their respect. These vicious activities would tend to be more extraordinary within employees with lesser authority remoteness nations since these would go against the communal customs.

Similarly, on the contrary, note, just as well as reverential interactional conduct with employees will make them feel fulfilled as well as esteemed by the organization. It will entail employee faith in the institution as well as its agents, leading to favorable task-connected consequences in form of organizational citizenship behavior, job contentment as well as cognitive work engagement. Hence, in the same way, the positive behaviors will be more experienced among employees with high power distance orientation as it will be seen as distinct from the norms (Wang, Mao, Wu & Liu, 2012). Patient

and Skarlicki (2010) insisted that individuals feel hesitant in conveying negative information. This is true even for circumstances in which the sender of information is kept confidential, he/she undergoes little monetary or non-monetary charges and not accountable for information delivered. This is because the delivery of negative information may generate social expenses as well as unfavorable assessment by conversationalists. If the element of high interpersonal equity is present within sending messages (in contrast to lesser interpersonal equity) and communication involves reasonable and adequate justification for unfavorable news, unfavorable communication will possess more chances of getting acknowledged by the receiver, organizational powers would be evaluated as just and workers will have higher contentment with regard to consequences they receive.

At the point where pioneer decently takes care of workers interpersonally, workers build up positive conviction that their pioneer follows regard as well as respectability tenet. Following the principle of exchange or ‘reciprocity,’ workers reimburse pioneer via the presentation of OCBI to satisfy boss that focuses on better task performance, as well as OCBO to safeguard goodwill associated with the firm (Cheung, 2013). Informational justice is likely to lead to cognitive work engagement but the response will be positive and less intense between employees with low authority remoteness values than between employees with high authority remoteness values and vice versa. Hence the following hypotheses are proposed:

- H6: Power distance moderates the relationship between procedural justice and cognitive work engagement in such a way that the relationship gets stronger when power distance is high.
- H7: Power distance moderates the relationship between distributive justice and cognitive work engagement in such a way that the relationship gets stronger when power distance is high.
- H8: Power distance moderates the relationship between interactional justice and cognitive work engagement in such a way that the relationship gets stronger when power distance is high.
- H9: Power distance moderates the relationship between informational justice and cognitive work engagement in such a way that the relationship gets stronger when power distance is high.

Research Framework

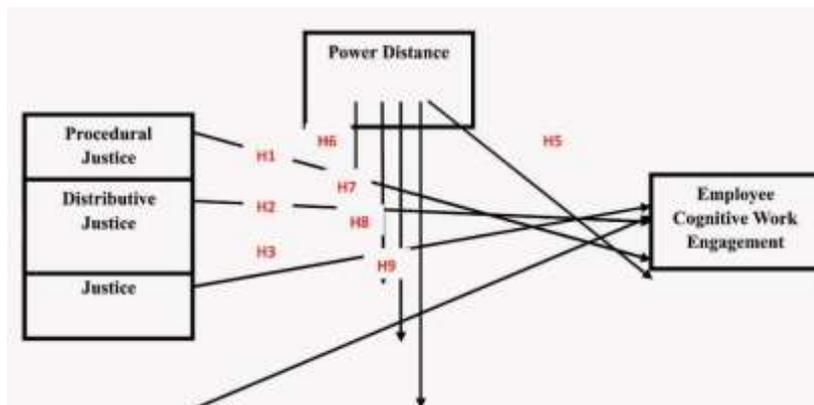


Figure I: Theoretical Framework

Research Methodology

Research Design

This is explanatory research where the effects of all components of organizational justice on employee's cognitive work engagement with the moderating role of power distance were investigated. Using convenience sampling, 450 questionnaires were distributed to the employees of the telecom sector of Islamabad and Rawalpindi. Out of 450, 358 filled questionnaires were received back, thus giving a response rate of 79.55%. Among them, 307 questionnaires were found to be accurate and filled and thus were utilized for further analysis. All variables were measured on a 5 point Likert scale ranging from Strongly Disagreed=1 to strongly agree=5.

Procedural justice was measured using a 7-item scale developed by Colquitt (2001). Distributive justice was measured using a 4-item scale developed by Colquitt (2001). Interactional justice was measured using a 4-item version by Colquitt (2001). Informational justice was measured using 5-items scales developed by Colquitt (2001). Power distance was measured using a 6 items scale developed by Dorfman, and Howell (1988). Employee cognitive work engagement was measured using a 3 items scale developed by He, Zhu, and Zheng (2014).

Confirmatory Factor Analysis

The Average Variance Extracted (AVE) shows the adequate convergent validity of all dimensions. For adequate convergent validity of the scale, a minimum threshold of AVE is 0.50. Convergent validity will be sufficient to measure any concept if the value of AVE is < 0.50 however composite reliability (CR) is > 0.60 (Fornell & Larcker, 1981; Abid & Ahmed 2020). For testing construct validity, a further mark i.e. construct reliability is also utilized for verification of dimensions. A value of CR ≥ 0.70 is considered as the minimum standard range of validity. The values of reliability between 0.6 and 0.7 are considered adequate if the remaining measures of validity are fine. Figure 2 indicates the results of Confirmatory Factor Analysis (CFA) levels 1 and 2 by utilizing SmartPLS 3.2.0 software.

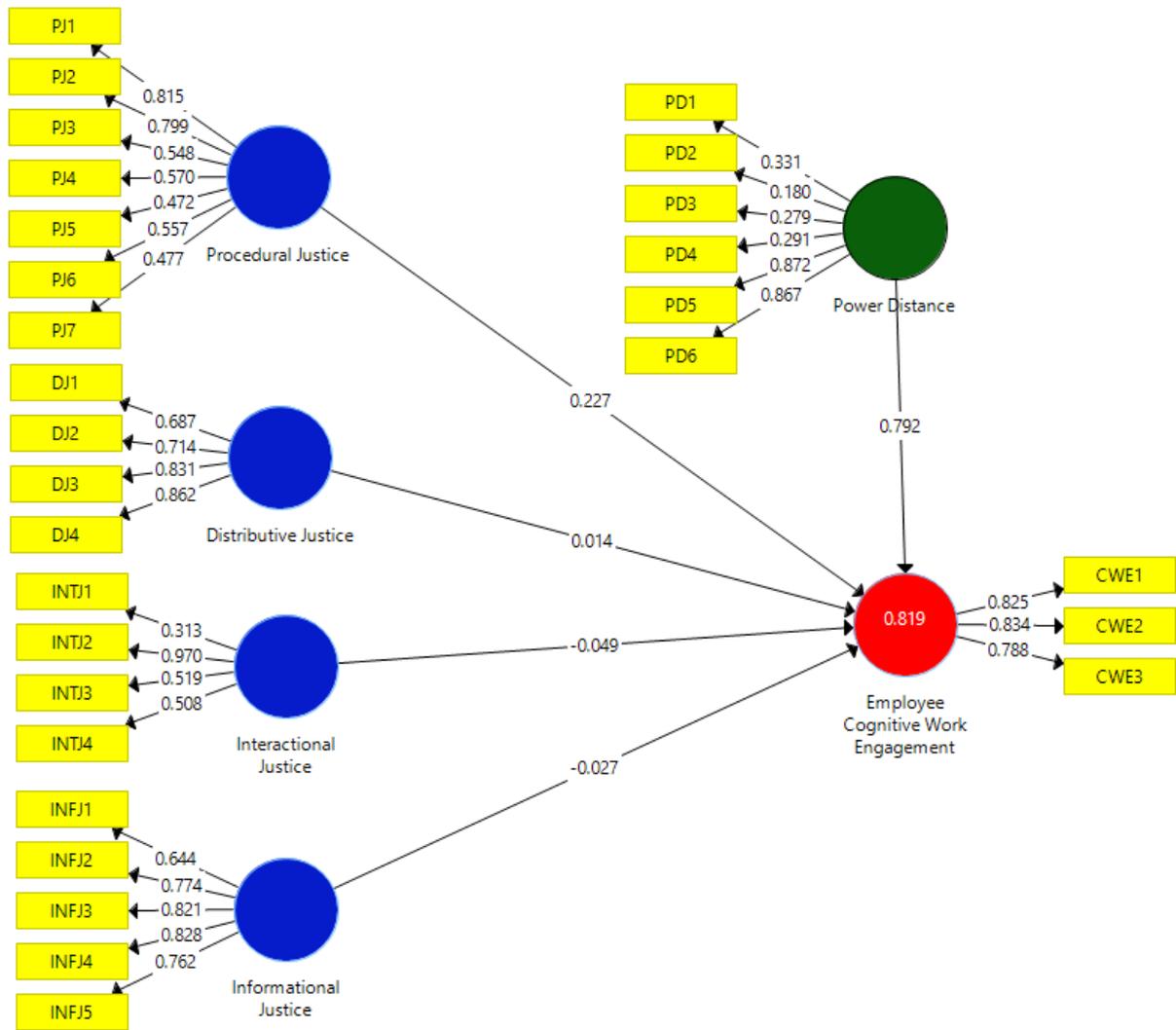


Figure II.CFA Level 1

The results found that loading for each item is above >0.5 except for 07 items. These items were PJ5, PJ7, INTJ1, PD1, PD2, PD3 and PD4. So, these items were omitted in the next analyses. The factor item loadings of every item & convergent validity are shown in Table I.

Table I: Factor Item Loadings and Convergent Validity

| Construct | Items | Loadings | A | CR | AVE |
|-----------------------|-------|----------|-------|-------|-------|
| Procedural Justice | PJ1 | 0.815 | 0.712 | 0.791 | 0.445 |
| | PJ2 | 0.799 | | | |
| | PJ3 | 0.548 | | | |
| | PJ4 | 0.570 | | | |
| | PJ5 | 0.472 | | | |
| | PJ6 | 0.557 | | | |
| | PJ7 | 0.477 | | | |
| Distributive Justice | DJ1 | 0.688 | 0.795 | 0.858 | 0.604 |
| | DJ2 | 0.714 | | | |
| | DJ3 | 0.831 | | | |
| | DJ4 | 0.862 | | | |
| Interactional Justice | INTJ1 | 0.313 | 0.731 | 0.776 | 0.552 |
| | INTJ2 | 0.970 | | | |
| | INTJ3 | 0.519 | | | |
| | INTJ4 | 0.508 | | | |
| | INFJ1 | 0.644 | | | |
| Informational Justice | INFJ2 | 0.774 | 0.826 | 0.878 | 0.591 |
| | INFJ3 | 0.821 | | | |
| | INFJ4 | 0.829 | | | |
| | INFJ5 | 0.762 | | | |
| Power Distance | PD1 | 0.331 | 0.696 | 0.868 | 0.767 |
| | PD2 | 0.180 | | | |
| | PD3 | 0.279 | | | |
| | PD4 | 0.291 | | | |

| | | | | | |
|--------------------------|------|-------|-------|-------|-------|
| | PD5 | 0.873 | | | |
| | PD6 | 0.879 | | | |
| Creative Work Engagement | CWE1 | 0.822 | 0.749 | 0.857 | 0.666 |
| | CWE2 | 0.837 | | | |
| | CWE3 | 0.788 | | | |

The results indicate alpha reliability, composite reliability, and AVE were in an acceptable range

Table II: Discriminant Validity

| | DJ | CWE | INFJ | INTJ | PD | PJ |
|------------------------------------|--------|-------|--------|--------|-------|-------|
| Distributive Justice | 0.777 | | | | | |
| Employee Cognitive Work Engagement | 0.223 | 0.816 | | | | |
| Informational Justice | -0.074 | 0.078 | 0.769 | | | |
| Interactional Justice | 0.036 | 0.104 | 0.41 | 0.743 | | |
| Power Distance | 0.158 | 0.837 | 0.133 | 0.195 | 0.836 | |
| Procedural Justice | 0.357 | 0.605 | -0.047 | -0.095 | 0.474 | 0.667 |

Table II indicates that all values of obtained correlation are < 0.85; a minimum predefined threshold value, reflecting an acceptable level of HTMT as a standard to assess discriminant validity.

Results

Frequency Distribution

For analysis of demographics, descriptive statistics were used. Bartlett, Kotrlik, and Higgins (2001) states that the sample size should be above 100 respondents to conduct research. The first part of the questionnaire included the demographic features relating to the respondents including their gender, age, income as well as education. Results depict that 130 respondents were male and the remaining 177 were females. The percentage of male respondents was 42.3% and that of females was 57.7%. The responses also depict that 130 (42.3%) of employees belonged to 25-30 years of age group, 74 (24.1%) of respondents were 30-35 years old, 38 (12.4%) respondents were 35-40 years old and 65 (21.2%) respondents were above 40 years old. Moreover, 53 (17.3%) employees had household earning less than Rs. 20000, 93 (30.3%) had household earnings within the range of Rs. 20000-30000, 82 (26.7%) had household income in between the range of Rs. 30000-40000 and the remaining 79 (25.7%) respondents had a household income above 40000. In addition, 16 (5.2%) employees had done matric, 112 (36.5%) employees had done intermediate, 116 (37.5%) employees had done bachelors and the remaining 63 (20.5%) employees have the qualification of Masters and above.

Correlation

This table summarizes the value of mean, standard deviation as well as the correlation among the different study variables.

Descriptive Statistics & Correlation

Table III: Means, Standard Deviations and Correlation

| | Mean | Std. Deviation | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------------|------|----------------|---------|--------|--------|--------|--------|-------|
| 1 Procedural Justice | 3.56 | 0.90 | 1.000 | | | | | |
| 2 Distributive Justice | 3.55 | 1.06 | 0.397 | 1.000 | | | | |
| 3 Interactional Justice | 3.86 | 0.76 | -0.094 | -0.009 | 1.000 | | | |
| 4 Informational Justice | 4.22 | 0.61 | -0.069 | -0.070 | 0.478* | 1.000 | | |
| 5 Power Distance | 3.82 | 1.07 | 0.375** | 0.139* | 0.143* | 0.130* | 1.000 | |
| 6 Cognitive Work Engagement | 3.86 | 0.97 | 0.498** | 0.202* | 0.060 | 0.076* | 0.888* | 1.000 |

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

*Correlation is significant at the 0.05 level (2-tailed).

Total Sample Size $n=307$

Correlation Analysis

Results from the correlation analysis are presented in Table III. It shows that there is a significant positive correlation between procedural justice and cognitive work engagement ($r=.498$ at a value of $p \leq .01^{**}$). This provided initial support to hypothesis 1. Distributive justice has also a significant positive correlation with cognitive work engagement ($r=.202$ at value of $p \leq .01^{**}$). On the other hand, an insignificant correlation is found between interactional justice and cognitive work engagement ($r=.060$). Informational justice has a significant relationship with cognitive work engagement ($r=.076$, $p \leq .05^*$). Power distance is significantly and positively correlated with cognitive work engagement ($r=.888$ at a value of $p \leq .01^{**}$) which provided initial support to hypothesis 5.

Regression

Regression Analysis

Regression analysis is used to predict the forecast value of one variable based on one or two other variables. The following table shows beta values, R², and ΔR² values as well as moderating regression analysis done for this study. There was no control variable causing variation in the dependent variable so demographics were not controlled in step 1 of regression analysis.

Moderating Regression Analysis

Table IV: Moderated Regression Analysis

| Predictor(s) | Cognitive Work Engagement | | |
|-----------------------|---------------------------|----------------|-----------------|
| | B | R ² | ΔR ² |
| Step-I | | | |
| Procedural Justice | .192** | | |
| Distributive Justice | .015** | | |
| Interactional Justice | -.053 | | |
| Informational Justice | .003** | | |
| Power Distance | .750** | .822 | .820 |
| Step-II | | | |
| PJ*PD | .055** | | |
| DJ* PD | -.035 | | |
| INTJ*PD | .085** | | |
| INFJ*PD | .010 | .839 | .017 |

*P<0.05, **P<0.01, ***p<.000, ns= none-significant
n=307

Moderated Regression Analysis

The model of the study also consisted of moderating variables i.e. power distance. The results are presented in Table IV. According to the results, hypothesis 1 “Procedural justice positively affects Cognitive Work Engagement of the Employees” is supported at β=.192** at a significant level of p ≤.05. Hypothesis 2 “Distributive Justice positively affects Cognitive Work Engagement of the

Employees” is supported at $\beta=.015$, $p < .05$. Hypothesis 3 “Interactional justice positively affects Cognitive Work Engagement of the Employees” is not supported at $\beta=-.053$, $p > .05$. Hypothesis 4 “Informational justice positively affects Cognitive Work Engagement of the Employees” is supported at $\beta=.003$, $p < .05$. Hypothesis 5 “Power Distance positively affects Cognitive Work Engagement of the Employees” is supported at $\beta=.750^{**}$, $p \leq .05$. Hypothesis 6 which was “Power Distance moderate the positive relationship between Procedural Justice and Cognitive Work Engagement, in a way that High Power Distance will strengthen the positive relationship Between Procedural Justice and Cognitive Work Engagement” is supported at $\beta= .055^{**}$ at a significant level of $p \leq .05$. Hypothesis 7 which was “Power Distance moderate the positive relationship between Distributive Justice and Cognitive Work Engagement, in a way that High Power Distance will strengthen the positive relationship Between Distributive Justice and Cognitive Work Engagement” is not supported. Hypothesis 8 which was “Power Distance moderate the positive relationship between Interactional Justice and Cognitive Work Engagement, in a way that High Power Distance will strengthen the positive relationship Between Interactional Justice and Cognitive Work Engagement” is supported at $\beta=.085^{**}$ significant level of $p \leq .05$. Hypothesis 9 which was “Power Distance moderate the positive relationship between Informational Justice and Cognitive Work Engagement, in a way that High Power Distance will strengthen the positive relationship Between Informational Justice and Cognitive Work Engagement” is not supported.

Discussion and Conclusion

The study focused on the impact of four types of organizational justice on employees' cognitive work engagement in Pakistan with moderating role of power distance. According to the results, the first hypothesis “Procedural Justice has a positive impact on cognitive work engagement of employees’ is supported. This finding is consistent with the findings of previous studies conducted by He et al., (2014), Strom et al. (2014), Khan, Chishti, and Safdar (2019). The second hypothesis that distributive justice has a positive impact on the cognitive work engagement of employees is also supported which is aligned with the previous study conducted by Agarwal (2013). The results do not support the third hypothesis i.e. interactional justice has a positive impact on the cognitive work engagement of employees. This finding is not consistent with the findings of previous studies. As suggested by Aquino, Lewis, and Bradfield (1999), individual personality is an important determinant of how employees perceive levels of justice present in an organization. So even though interactional justice might be present in the organization, if every action of a boss is perceived as negative, the presence of interactional justice would lead to a decrease in cognitive work engagement of employees.

The fourth hypothesis “Informational justice has a positive impact on cognitive work engagement of employees” is also supported by the finding of the study. This is consistent with the findings of the study carried out by Patient and Skarlicki (2010) and Kalay and Turkey (2016). The fifth hypothesis “Power Distance justice has a positive impact on cognitive work engagement of employees” is supported which is consistent with the findings of earlier studies like Begley et al. (2002), Farh, Hackett, and Liang (2007), etc.

The results support the sixth hypothesis i.e. power distance moderates the positive relationship between procedural justice and cognitive work engagement, in a way that high power distance strengthens the positive relationship between procedural justice and cognitive work engagement. This finding is consistent with the findings of Begley et al (2002). Cognitive work engagement will increase among employees with high power distance values with less intensity compared with employees with low power distance values. This may be because in high power distance countries workers accept the unequal distribution of power and require that bosses keep authority to make most decisions to them only. They are complacent with the unequal distribution of power so justice will lead to an increase in cognitive work engagement but with less intensity compared to employees' low power distance values. The seventh hypothesis "Power distance moderate the positive relationship between distributive justice and cognitive work engagement, in such a way that high power distance strengthens the positive relationship between distributive justice and cognitive work engagement" is not supported. As suggested by moderation, cognitive work engagement will reduce among employees with high power distance orientation. This may be due to the reason that generally corruption is common in high power distance countries and among employees with high power distance values (Kimbro, 2002), which suggests that if rewards were distributed fairly many employees will tend to leave, if not all, a major portion of the rewards that they get. Hence with the presence of distributive justice, the cognitive work engagement of employees will decrease among employees with more authority remoteness values and vice versa.

The hypothesis that power distance moderates the positive relationship between interactional justice and cognitive work engagement, in a way that high power distance will strengthen the positive relationship between interactional justice and cognitive work engagement is supported. As per moderation results, cognitive work engagement will increase among employees with high power distance values when interactional justice is present. This is consistent with the results of previous studies like Agarwal (2013), Moliner et al. (2008), etc. Finally, the last hypothesis which describes that power distance moderates the positive relationship between informational justice and cognitive work engagement, in a way that high power distance will strengthen the positive relationship between informational justice and cognitive work engagement is not supported. This finding is not consistent with the findings of previous studies. As suggested by Farh et al., (2007) in high power distance countries workers accept the unequal distribution of power and require that bosses keep authority and information to themselves only. So an increase in informational justice will have no impact on the cognitive work engagement of employees. Another reason may be that corruption (Husted, 1999) is a common norm among employees in the telecom sector so an increase in distributive justice does not lead to an increase in cognitive work engagement of employees. Moreover personality of an important determinant of whether employees perceive interactional justice is present in the organization or not. Hence even if interactional justice is present, employees perceive the boss as negative, an increase in interactional justice will lead to a decrease in cognitive work engagement as employees will suspect every act of the boss. In addition, if negative information is continuously passed on to employees (Patient and Skarlicki, 2008), even if appropriate justification is given to employees, this will lead to a decrease in cognitive work engagement of employees. Moreover, employees with more authority

remoteness values are complacent with the unequal distribution of power so justice does not generate much satisfaction and work engagement for them.

Managers should understand the type of working environment they need to establish to ensure employee cognitive engagement in their work, resulting in better employee performance and hence organizational performance. Managers may need to change the existing procedures and systems of reward distribution, employee interactions, and disseminating information to employees in a way that enhances their effectiveness and efficiency and hence pave way for the smooth functioning of organizations. Managers should give particular emphasis to procedural justice and interactional justice at the workplace in Pakistani organizations. They can do this by formulating procedures that are “consistent, ethical, enable bias suppression, accurate, correctable and allow employee voice”. They can also promote interactional justice via treating employees with respect, dignity, politeness without using improper remarks or comments.

Managers should also identify whether employees possess high or low power distance orientation in their organizations. By identifying these two groups, managers can motivate employees with high power distance orientation through procedural and interactional justice and can motivate employees with low power distance orientation through procedural distributive and interactional justice. In this way, they will be able to enhance the cognitive work engagement of employees and ultimately overall organizational performance.

The research incorporates the relationship of organizational justice with work engagement along with the moderating role of power distance in Pakistan. Other variables like moderating role of Islamic work ethics, abusive supervision, employee personality traits, etc. remain largely unexplored in Pakistan. Future researches may focus on these variables in the context of employee work engagement. Moreover, current research caters to the telecom sector. Finally, future researches may be carried out in other sectors like fertilizer, cement, hoteling, etc. with a larger sample size.

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