

**Original article**

A Study of the Relationship Between Job Crafting and the Job Performance of Employees in Pakistan

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Abstract

Job crafting is an important concept in the field of management. Employees often look for altering their tasks to achieve the desired results. Therefore, the purpose of this study is to examine the relationship between job crafting and the job performance of employees through an explanatory role of work engagement. An employee dedicated to his job is open to practicing job crafting, and ultimately develops the task and contextual performance of the employee. This study is cross-sectional in nature and data was collected from IT sector specifically software houses employees from Pakistan using standard questionnaires. A total of 350 questionnaires was distributed electronically, and 300 valid questionnaire responses are used for data analysis purposes. A random sampling technique is adopted to collect data from software house employees. SPSS version 20 software was used for preliminary data analysis and Smart PLS 3 was used to test the hypotheses of the study. Results revealed that the relationship between job crafting and job performance is significant and work engagement partially mediates their relationship. A significant implication for practitioners here is that improvement in job performance of employees requires a bottom-up approach of JC in the organizations. Job Demands-Resources (JD-R) serves as a torch bearer in this study.

Keywords: Job Crafting, Work Engagement, Job Performance, Job Demands-Resources, IT Sector, PLS SEM

SCSTI: 06.77.71

JEL Code: J3, J5, L2, M5

1. INTRODUCTION

Organizations need to rethink their job designs in order to stay ahead of the competition. Job redesign is related to the activities of employees, their obligations, the assignments required to be completed, and how those undertakings and obligations are organized and performed (Morgeson & Humphrey, 2008; Parker & Ohly, 2008). JC (job crafting) is the method through which employment attributes can be changed to improve work quality. JC can have 'top-down' components (for example, driven by administrators) or 'bottom-up' components (for example, started by employees) (Grant & Parker, 2009). Organizations need to have people who are more engaged and committed in their jobs (Khan et al., 2016) and perform well in order to accomplish organizational goals (Khan et al., 2021). Without the much-needed efforts and improved performance of employees. Employees should strive for job redesigning with motivating potential, employees additionally need to assume responsibility for their very own work-related prosperity. Wrzesniewski & Dutton (2001) have contended that employees can do shape the limits of their employments and make a workplace that fits their inclinations, abilities, and capabilities. This procedure of proactively influencing one's activity is called JC.

A purpose behind the significance of a person's inclusion in redesigning a job is that once employees know how they can make their work ideal and creative, they can screen their job characteristics and mediate when necessary to anticipate aggressive results like demotivation and weakened performance (Tims et al., 2014). In order to use the JD-R model to guide JC research, this study frame JC in terms of this model. More specifically, we feel that employees may change their levels of job demands and job resources in order to align them with their own abilities and preferences. An employee may craft these aspects of the job in three ways according to this model: (1) the employee may increase the level of job resources available at work, (2) the employee may increase the level of job demands at work and (3) the employee may decrease the level of job demands at work. The second and third dimensions might seem contradictory, but, as LePine & Podsakoff (2005) point out, some demands can be hindering and therefore stressful (e.g. working with the wrong materials), while other demands can be challenging for the employee (e.g. high task complexity). This study take both into account, because decreasing the hindrance demands and increasing the challenge demands may both lead to positive outcomes for the employee (e.g. enhanced JP of employee).

From the organizational context, JC would be an element of the job activities of its individual employee. An employee performing his assigned tasks and activities to achieve his job goals is called his task performance. Employees also performs some activities which are not defined in their job description like helping their co-worker in his work to achieve his job goals are called contextual performance. Task and contextual performance both lie under the umbrella of JP (Bowen et al., 2000; Griffin et al., 2000). In this study, the causal relationship between JC and JP, along with the mediating effect of WE will be examined. Lastly, Job Demands Resources theory and social exchange theory explained the relationships as summarized in table 1.

Problem Statement. Enormous growth is visualized in JC of IT sector employees in the current era but only few studies have been conducted to identify the factors that are affected by JC of IT sector employees. Employees have been involved in crafting their

jobs working in software houses, its extent may vary, but its existence is unchallenged. This research is going to address the comprehensive theoretical and empirical gap by examining the impact of JC of employees on their JP while WE serve as a mediator in their relationship. Number of studies has used JD-R in this context (Tims et al., 2015; Petrou et al., 2015) but this study has utilized social exchange theory perspective as well in domain of IT sector which is quite rare in this context as per the best knowledge of the researchers.

TABLE 1. Theoretical linkages

Theory	Explanation	Reference
Job Demands Resources theory (JD-R)	The relationship between job resources and workplace challenges and the fact that motivated workers mobilize their own job resources and challenges may help to sustain engagement over time.	(Bakker, 2011)
Social Exchange Theory	Exchange of resources from and individual to organization. It is expected that employees with resources are willing to invest these resources in performing their tasks	(Saks, 2006)
<i>Note:</i> Compiled by Authors		

All of these variables and their relationships mentioned above are explained in relation to Job Demands-Resources Theory so this theory will serve as a torch bearer for present study.

Research Questions:

1. Does JC predict JP of employees working in software houses of Pakistan?
2. Does JC predict WE of employees working in software houses of Pakistan?
3. Does WE predict JP of employees working in software houses of Pakistan?
4. Does WE mediate the relationship between JC and JP of employees working in software houses of Pakistan?

Research Objectives:

1. To examine the relationship of JC and JP of software houses employees.
2. To examine the relationship of JC and WE of software houses employees.
3. To examine the relationship of WE and JP of software houses employees.
4. To examine WE as a mediator between the relationship of JC and JP of software houses employees.

Significance of Study. In the present, IT sector, the requirement for employees to be preventive, is expanding quickly (Parker et al, 2006). Organizations need employees to be adaptable and self-starting so as to effectively adjust to rearrangements and changing work activities (Belschak & Hartog, 2010). These various advantageous impacts make proactive conduct a captivating theme to ponder more with regard to profundity. A promising idea of proactive conduct at work is JC. Job crafters are individuals who effectively form both what their activity is physical, by changing a job's assignment limits, what their activity is intellectual, by changing the manner in which they think about the connections among job activities, and what their activity is social, by changing the association and connections they have with others at work (Wrzesniewski & Dutton,

2001), with the objective of winding up progressively drew in, satisfied, resilient, versatile and flourishing at work (Berg et al., 2008; Tims et al., 2014).

2. LITERATURE REVIEW

Previous studies have demonstrated a beneficial relationship between job crafting activities and employees' job performance, particularly those aimed at extending one's employment boundaries (Demerouti et al., 2015; Kooij, Tims, & Akkermans, 2017) and conducted in Turkey (Maden-Eyiusta & Alten, 2021) and China (Zhang & Liu, 2021). However very limited evidence is available on examining the influence of job crafting behavior on job performance and no study has been conducted on this line by examining the mediatory role of work engagement within IT sector. Hence, this study is unique in nature in this regard. Researchers will have more evidence and direction to form hypotheses regarding the motivating results of job crafting and, more broadly, the employee engagement process with further investigation of these systems. Examining the psychological mechanisms that relate work crafting behaviors to performance is crucial from a practical standpoint in order to assess the motivating potential of various job crafting behaviors.

The obtained structural and social resources of JC at work, namely expanded number of resources, more noteworthy independence, better development opportunities, functional exposure, and transfer of skill from employers can be anticipated to prompt higher work commitment that might enhance personal satisfaction in non-work domains and further develop the general JP of representative (Tims et al., 2015; Siddiqi, 2015).

When representatives are given the opportunity to craft their positions according to preference, they feel a sense of authority over their work. This sort of feeling is a positive inclination for further developing the work execution of service sector (IT area) representatives (Bakker et al., 2012; Brown et al., 2002; Heejeung et al., 2011).

Moreover, both the JC, and subsequent work commitment cause representatives to feel that their positions are more beneficial, significant, or something they should heavily invest in. Researchers like Loscocco (1989) and Tims et al. (2004) have long been advocating these good sentiments as critical for positive work execution. At last, on enjoying the scope of making modifications in their positions and the resulting execution, job crafters, thus, are expected to find ways of returning and benefit from their associations (Petrou et al., 2015).

Consequently, the following assumption likewise seems to be reasonable:

H1: JC has a positive and significant relationship with JP.

JC and WE. Utilizing JD-R theory, we have contended and shown that JC can appear as proactively expanding job resources, expanding challenging job demands, or lessening hindering job demands. JC behaviors might appear as further developing job demands and resources and are positively identified with WE or commitment, work fulfillment, and different ratings of in-job work execution. Furthermore, ongoing scientific assessments of JC involvements in The Netherlands have shown that representatives can figure out how to craft their positions, resulting in more work and individual resources, elevated levels of work commitment, and improved performance. This implies that JC is

an effective bottom-up strategy to enhance work commitment since it expands the fit between the individual and the association (Bakker et al., 2012).

In recent decades, the role that representatives play in initiating change as a bottom-up process has acquired increasing attention (Chen et al., 2014; Petrou & Demerouti, 2018). In brief, the hypothesis recommends that job resources are positively identified with work commitment; challenging job demands can reinforce the positive connection between job resources and commitment; reducing hindering job demands can strengthen the positive connection between job resources and commitment; work commitment is positively identified with execution; representatives can utilize JC to expand their degrees of work commitment (Demerouti, 2014). Therefore, the following assumption additionally seems to be reasonable:

H2: JC has a positive and significant relationship with WE.

WE and JP. WE/commitment has been identified with numerous positive results both for the singular worker and for the association; work commitment has even in some cases been identified with better psychosomatic and physical wellbeing and ultimately influences the work execution of representative (Xanthopoulou & Bakker, 2009; Bakker et al., 2011). One reason why work commitment is such a well-known idea is that it is an excellent indicator of significant worker, individual and organizational results. In view of their solid commitment to and focus on their work activities, committed workers show better JP (Demerouti et al., 2010).

Prior literature has shown that representatives who are not locked in with their work have low work execution. Work commitment can be a sensitive indicator of JP since people with a significant degree of energy, assimilation, and devotion had found to have positive JP (Rich et al., 2010). At the point when a representative is committed, they serve clients better which builds their JP and thus offers more to the association's continuous benefit (Crawford et al., 2010). Subsequently, the accompanying assumption likewise seems to be reasonable:

H3: WE have a positive and significant relationship with JP.

WE as a Mediator between JC and JP. JC impacts the work commitment of representatives that, in turn, is identified with the work execution of representatives. In such conditions, work commitment turns out to be both reliant and free factors between JC and JP of representatives. Furthermore, JC is likewise assumed as an immediate indicator of the work execution of IT sector representatives. In such circumstances, there appears an ample scope for testing the mediation effects of WE, an expected intermediating factor in the connections.

Therefore, the objective of this study was to grow the extent of research by adding work commitment as an arbiter between the relationship of JC and work commitment. Thus, the accompanying assumption also seems to be reasonable:

H4: WE significantly mediate the association of JC and JP.

3. METHODOLOGY

This research is quantitative, and its purpose is hypothesis testing as this research tests assumptions regarding a population parameter that is employees of software houses in Pakistan. Emphasis on measurement and analysis of the correlation between variables

(JC and JP) within a framework that is logical, deterministic, and reductionist (Hoskins & Stoltz, 2005), based on prior theories which in this case is job demands-resources theory. This study is cross-sectional and aims at the individual unit of analysis.

Data Collection. Pre-structured standardized instrument (questionnaire) was used to collect data. All the employees working in software houses in Pakistan comprised the population of this study. From the whole IT sector of Pakistan four software houses are selected as samples for this study and the google form questionnaire link is shared with 350 randomly selected employees of software houses. Notably, those software houses were selected for the data collection whose turnover was highest. These software houses are part of IT sector since they focus on selling IT related services such as website creation, application development and other technological related tasks.

According to the Minimum R-squared Method, the minimum sample size should be 110 (Kock & Hadaya, 2016). Furthermore, to calculate sample size G Power software (Erdfelder et al., 2009) is also used, it calculates a sample size of 98. Although 98 was the required sample size in order to achieve the statistical power of 0.80 in this research, the sample size is set to 350 as the larger the sample size, the better will be the results accuracy.

Data Collection Strategy & Response Rate. This study will use a simple random sampling technique which is a type of probability sampling. For the purpose of data collection, a cross-sectional survey design was adopted and Google forms sharing survey was carried out. Google form questionnaires were shared with 350 IT sector employees from which 300 were returned back, the response rate was 86% which was sufficient for the analysis of data. For sake of distribution of questionnaires, Google form link was provided to those participants who were randomly selected from the sampling frame.

Research Instrument. Accordingly, the concerned questionnaire comprises two parts, the first part is demographics (Organization Name, Gender, Age, Highest level of Education, Job Status, Nature of Employment and Job Experience) and the second part is for JC, WE and JP respectively. JC questionnaires contain total 21 items, developed by Tims, Bakker & Derks (2011). Cronbach's alpha (internal reliability) of each dimension of scale is as: increasing structural job resources have Cronbach's alpha value of 0.82, increasing social job resources have Cronbach's alpha value of 0.77, increasing challenging job demand have Cronbach's alpha value of 0.75 and decreasing hindering job demands have Cronbach's alpha value of 0.79.

WE questionnaire contain a total of three items with dimensions vigor, dedication, and absorption, developed by Schaufeli et al., (2017). Cronbach's alpha (internal reliability) of the scale is 0.95. JP questionnaire contains total of 11 items from which 5 are for task performance and 6 are for contextual performance. Task performance, in this study, was measured with a scale developed by Goodman & Svyantek, (1999). Contextual performance is measured by a self-reported six-item uni-factorial citizenship performance scale developed by Poropat and Jones (2009). Cronbach's alpha (internal reliability) of the JP scale is 0.78. All items were measured with an adopted 5-point Likert scale.

4. FINDINGS AND DISCUSSION

Demographic Analysis. IBM SPSS Statistics version 20 (IBM, 2011) software is used to analyze the demographics of the study, and frequencies in the percentage of each demographic characteristic of software houses employees are shown in below Table 2. As this study focus on employees of software houses following categories of employees are taken under study that included Software Developer, Project Manager, Database Administrator, Quality Assurance Engineer, and Business Analyst. Table 2 shows that middle level managers were on the highest side i.e. 57%. It is seen that level of engagement and job crafting changes with the increase or decrease of the cadre (Tan, 2022). Therefore, highest number falling in the middle level manager shows that this factor might not disturb the overall effects of the study. Another worth mentioning point is that 62% of the employees were contractual since less number of employees gets permanent in software houses due to the volatile nature of the job.

TABLE 2. Demographic Characteristics of the sample under study

Demographics						
Gender	Male	Female			Total	
	72%	28%			300	
Age	21-30	31-40	41-50	Above 50 (Years)	300	
	63%	23%	9%	5%		
Highest Level of Education	Matriculation	Intermediate	Bachelor's	Master's	300	
	5%	10%	49%	25%		
	MS/MPhil	PHD				
	10%	1%				
Job Status	Top Management	Middle Management	Lower Management		300	
	19%	57%	13%			
	Non Managerial					
	11%					
Nature of Employment	Permanent	Contractual	Temporary		300	
	24%	62%	14%			
Job Experience	1-5	6-10	11-15	16-20	21-25 (Years)	300
	54%	22%	14%	7%	3%	

Note: Compiled by authors

Assessment of Measurement Model. The better way to report PLS-SEM analysis is by using two stage approach (Vinzi et al., 2010). In the first stage, the focus is on the outcome of the scaling or outer model also known as the measurement model, and in the second stage focus is on the inner model or structural model. In the first stage, the measurement model should be assessed with respect to the variable's reliability and validity.

Firstly, internal reliability is checked, there is a certain criterion to assess internal consistency such as Cronbach's alphas (Cronbach, 1951; Nunnally, 1978; Santos, 1999), this approach estimates reliability based on inter correlation between indicators, whereas PLS prioritizes indicators as per their reliability which results more in composite

reliability, therefore it is recommended to use composite reliability while assessing reliability. It does not matter which specific reliability coefficient is used, an internal consistency reliability value above 0.7 in the initial stages of research and values above 0.8 or 0.9 in lateral stages of research are considered acceptable, while a value below 0.6 shows a lack of reliability (Cronbach, 1951; Nunnally, 1978; Santos, 1999). It is recommended to eliminate the values of the outer loading below 0.4 from the measurement model. It should be noted that one should be very cautious while eliminating indicators as if the indicators' low reliability gets eliminated it should result in the increase of composite reliability, then and only then it is justified to eliminate indicators with lower loadings (Henseler et al., 2009).

For this study collected data is analyzed using Smart-PLS Version 3.0 software (Ringle et al., 2015). The reliability is tested in the measurement model (Figure 1).

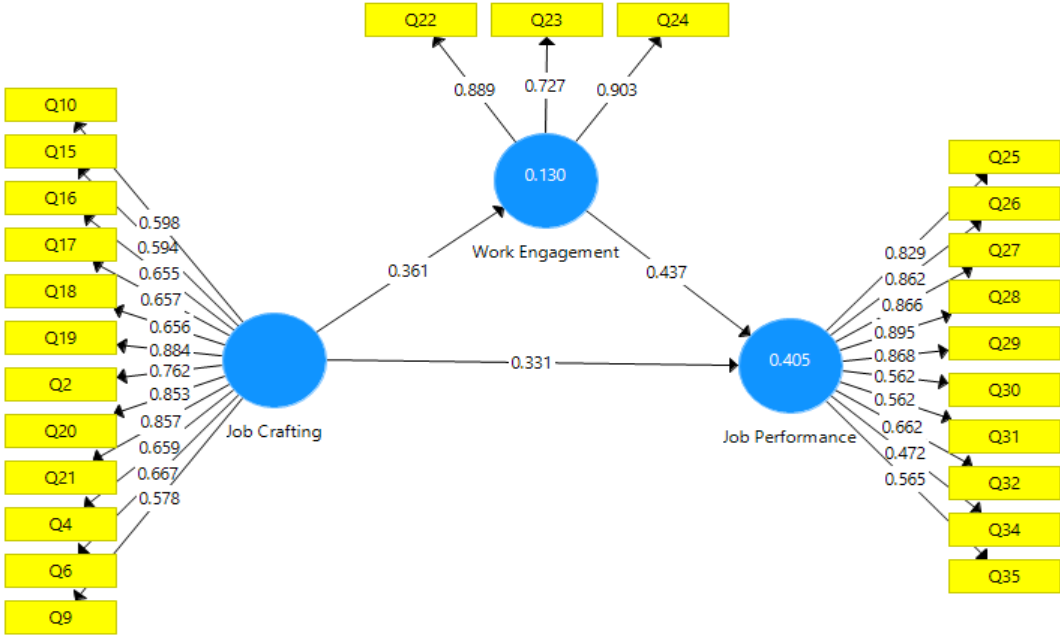


FIGURE 1. PLS-Measurement Model Output

Source: Compiled by the author using the PLC Algorithm

In this research, reliability is assessed through composite reliability for all constructs as JC, WE and JP are found to be at par or above the threshold or standard values. Threshold values for reliability should be equal to or greater than 0.7 at the initial stage of data analysis (Cronbach, 1951; Nunnally, 1978; Santos, 1999) which can be seen in table 3. Validity can also be evaluated through convergent validity and discriminant validity. Convergent validity signifies that indicators represent one and same construct, Fornell & Larcker (1981) recommended using Average Variance extracted (AVE) for analyzing convergent validity, and value of a minimum of 0.5 shows sufficient convergent validity. Figure 1 presents the measurement model as shown above.

TABLE 3. Demographic characteristics of a sample under study

Characteristics	Cronbach's Alpha	Composite Reliability (C.R)	Average Variance Extracted (A.V.E)
JC	0.909	0.922	0.503
JP	0.894	0.916	0.535
WE	0.792	0.880	0.711

Note: Compiled by authors

Composite reliability is presented in Figure 2.



FIGURE 2. Composite Reliability

Note: Compiled by the author

Discriminant Validity. Discriminant validity can be evaluated by examining the cross-loadings of the indicators it is suggested that the outer loading of an indicator with its own construct should be more than all of its loadings with other constructs. If the loadings of an indicator with its own construct are less than loadings with other constructs, it represents a discriminant validity problem. Cross-loading criteria to assess discriminant validity are considered liberal criteria to establish discriminant validity (Hair et al., 2011). Following are the cross-loadings of constructs and result in a summary of the reflective measurement model used in this study as shown in Table 4.

TABLE 4. Cross Loadings

	Job Crafting	Job Performance	Work Engagement
1	2	3	4
Q10	0.598	0.267	0.194
Q15	0.594	0.3	0.298

1	2	3	4
Q16	0.655	0.222	0.217
Q17	0.657	0.22	0.199
Q18	0.656	0.23	0.227
Q19	0.884	0.419	0.268
Q2	0.762	0.402	0.241
Q20	0.853	0.413	0.315
Q21	0.857	0.437	0.321
Q22	0.262	0.46	0.889
Q23	0.384	0.474	0.727
Q24	0.243	0.456	0.903
Q25	0.402	0.829	0.452
Q26	0.355	0.862	0.463
Q27	0.383	0.866	0.43
Q28	0.388	0.895	0.411
Q29	0.365	0.868	0.393
Q30	0.301	0.562	0.385
Q31	0.325	0.562	0.391
Q32	0.341	0.662	0.384
Q34	0.301	0.472	0.373
Q35	0.367	0.565	0.329
Q4	0.659	0.423	0.229
Q6	0.667	0.322	0.215
Q9	0.578	0.355	0.292

Note: Q2 to Q21 belongs to JC, Q22, 23, 24 belongs to work engagement and Q25 to Q35 belongs to job performance.

Table 5 shows the discriminant validity exists in the model.

TABLE 5. Result Summary of Reflective Measurement Model

	Composite Reliability (C.R)	Average Variance Extracted (A.V.E)	Discriminant Validity
JC	0.922	0.503	Valid
JP	0.916	0.535	Valid
WE	0.880	0.711	Valid

Note: Compiled by authors

Assessment of Structural Model. As the outer model has been assessed with respect to validity and reliability next step is the evaluation of the inner path model that is called a structural model. A structural model has only one direction of the relationship and does not contain a direction of loop feedback (Latan & Ramli, 2013). The structural model for this study consists of an independent variable i.e. JC, one dependent variable i.e. JP for direct model estimation, and taking WE as a mediator for mediation analysis.

Estimates for the structural model are obtained by running the PLS-SEM algorithm which gives path coefficients; these path coefficients represent the hypothetical relationships between constructs. The standardized values of path coefficients range from -1 to +1, wherein values closer to +1 represent strong positive relationships and values closer to -1 represents strong negative relationship values closer to +1/-1 considered as statistically significant relationships are checked by P values. Whereas, a value closer to '0' indicates a weak relationship (Tenenhaus et al., 2005; Kock, 2015).

In order to assess the significance of path coefficients the bootstrapping procedure is performed, as the significance of relationships depends on the standard error. Standard error leads to the calculation of empirical t-values, it allows examining the significance of path coefficients as if t-values are greater than the critical value, and we infer that the coefficient is significant at a certain error probability called as the significance level. Commonly used critical values for two-tailed tests are 1.65 (significance level= 10%), 1.96 (significance level = 5%), and 2.57 (Significance level = 1 %) (Hair et al., 2011). For the purpose of this study values of path coefficient have been taken into account for testing relationships and for the significance of relationships t-values > 2.57 at significance level 1% (< 0.01) have been considered and the results of path coefficients of direct relationships as hypothesized are as under:

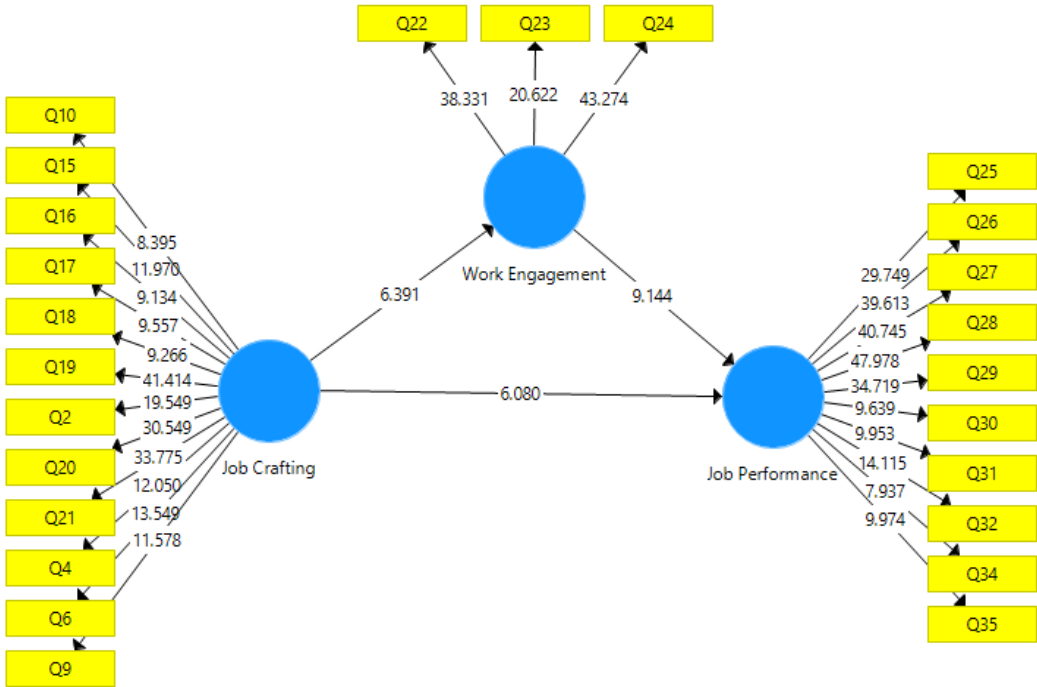


FIGURE 3. PLS-Structural Model Output (Using PLS Bootstrapping)

Note: Compiled by the author

Table 6 shows that there exist direct significant relationship between JC and JP. It can also be seen that there exist direct significant relationship between JC and WE. In addition, results reveal that direct significant positive relationship exists between WE and JP.

TABLE 6. Path Coefficients Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Values	Supported/Non-supported
H1	0.331	0.335	0.053	6.199	0.000	Supported
H2	0.361	0.366	0.058	6.226	0.000	Supported
H3	0.437	0.436	0.049	8.973	0.000	Supported
<i>Note:</i> Compiled by the author						

Mediation Analysis. The main attribute of mediation is intervening third variable that is involved in it. In relation of independent variable i.e. JC and dependent variable i.e. JP, mediator i.e. WE played a role of intermediary variable. As per Baron & Kenny's process of mediation, when hypothesis of mediation is formulated, the consideration is that how an intervening variable affect association of independent and dependent variable.

In modern era, relationship between two variables is step by step procedure of Baron and Kenny's has by challenged by many researchers like Shrout & Bolger (2002), Preacher & Hayes (2004), Preacher & Hayes (2008), and Zhao et al., (2010). They have reconsidered the method of Baron & Kenny. According to Preacher & Hayes, (2008), mediation here is applied through bootstrapping, by taking resampling of 5000, in 2 steps:

In first step, direct mediation is judged through path coefficients, value of T statistics should be greater than 2.57 and value of P should be less than 0.01. As shown in table 4.4 all hypotheses for direct relations are supporting this criterion which means there exists direct relationship between independent and dependent variable. In second step, indirect effect is computed and table 4.5 is showing that partial mediation exists for WE in the relationship between JC and JP.

TABLE 7. Indirect Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (O/STDEV)	P-value	Supported/Non-supported	Mediation
H4	0.158	0.160	0.032	4.870	0.000	Supported	Competitive Partial Mediation
<i>Note:</i> Compiled by the author							

Table 7 shows that that there exists partial mediation of WE between JC and JP of IT sector employees since p-value=0.000 which is significant.

Table 8 shows that JC of employee's significantly affects JP of the employees, ensuring a positive role of WE. In crux, the more the employees involved in JC, the more

adaptable they become with respect to positive JP and this effect is better explained if we introduce WE as a mediator because JC itself means employees are more concerned and engaged in their jobs which leads to improved JP eventually.

TABLE 8. Total Effect Results

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Values	Supported/Non-supported
H1	0.489	0.493	0.055	8.931	0.000	Supported
H2	0.361	0.365	0.058	6.255	0.000	Supported
H3	0.437	0.436	0.049	8.911	0.000	Supported

Note: Compiled by the author

Coefficient of determination is one of the most essential criterion for assessment of structural model, i.e. R square of the dependent variables (Sinkovics et al., 2009). R square values of 0.75, 0.50 and 0.25 for dependent variables can as a rule of thumb describe substantial, moderated and weak (Hair et al., 2011). R square is used to measure predictive accuracy of the Structural Model. For this study two endogenous latent variable such as WE has R square of 0.130 and JP has R square value of 0.405 as shown in table 9 and figure 4 and 5.

TABLE 9. R Square and Adjusted R Square

	R Square	R Square Adjusted
WE	0.130 (weak)	0.127
JP	0.405 (moderate)	0.401

Note: Compiled by the author

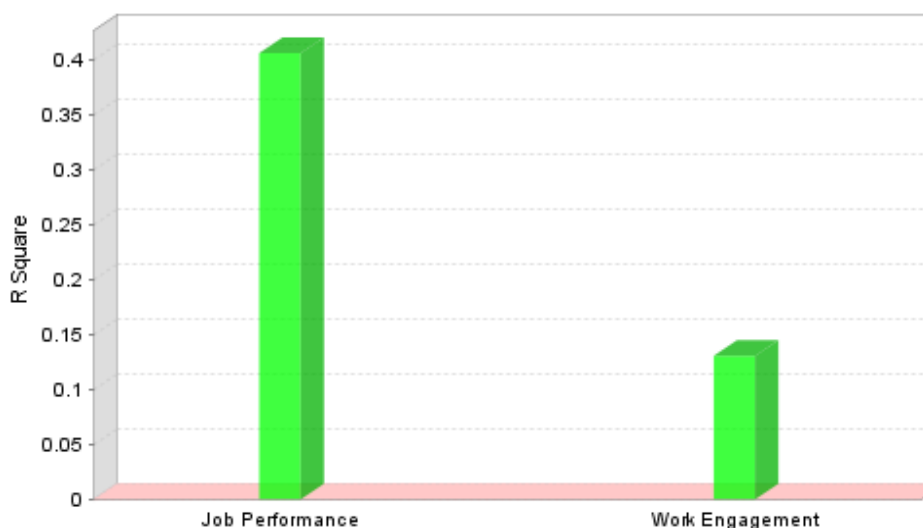


FIGURE 4. R Square

Note: Compiled by the author

Effect Size (f Square). Apart from evaluating the R square values of all dependent variables, the effect size f square in structural model should also be measured; f square values of 0.02, 0.15 and 0.35 represent small, medium and large effect size of dependent variable (Hair et al., 2011).

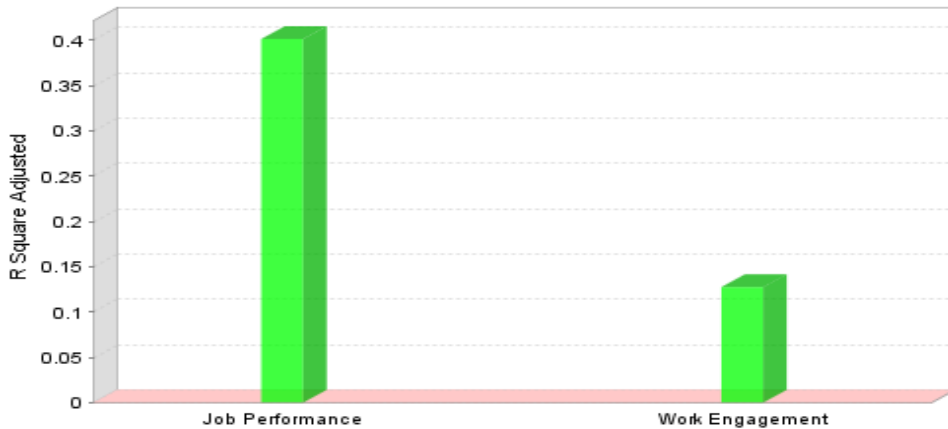


FIGURE 5. R Square Adjusted

Note: Compiled by the author

Table 10 exhibits the corresponding effect size of independent variable on dependent variable, where less than 0.02 have no effect, 0.02 to 0.15 have small effect and values greater than 0.15 to 0.34 have medium effect and 0.35 and above have large effect size. Further t-values of respective path coefficients have been exhibited which show significance and non-significance of relationship, the effect size (f square) has been cross validated with t-values and here effect size is ensuring significance of relationship. Thus this has been cross validated the effect of independent variables on dependent variables

TABLE 10. Effect Size (f Square)

Hypothesis	f Square	Effect Size	t-value	Significance	Cross Validated
H1	0.161	Medium	6.199	Significant	Yes
H2	0.150	Small	6.226	Significant	Yes
H3	0.279	Medium	8.973	Significant	Yes

Note: Compiled by the author

Structural models can also be assessed for prediction relevance and to assess model's capacity to predict. For said purpose the Stone-Geiseer's Q square measure is considered which can be measured through blind folding procedure. Blind folding procedure is just applied to dependent variables in reflective measurement model and the value of greater than Zero confirms predictive relevance. Values of 0.02, 0.15 and 0.35 have small, medium and large predictive relevance of a specific dependent variable (Sinkovics et al., 2009). Q square is assessed to measure predictive relevance of structural model. For this

study value of Q square for dependent variables i.e. WE has 0.078 (Small Predictive Relevance) and JP has 0.193 (Medium Predictive relevance), as shown in table 11.

TABLE 11. Q Square Predictive Relevance Construct Cross Validated Redundancy

	SSO	SSE	Q Square (1-SSE/SSO)
WE	900	829.404	0.078
JP	3000	2422.095	0.193
<i>Note:</i> Compiled by the author			

Table 12 summarizes the details of all the hypotheses and shows that all the hypotheses are accepted.

TABLE 12. Summary for all Hypothesis Results

Hypothesis	Paths	Results
Hypothesis 1	JC → JP	Supported
Hypothesis 2	JC → WE	Supported
Hypothesis 3	WE → JP	Supported
Hypothesis 4	JC → WE → JP	Supported
<i>Note:</i> Compiled by the author		

5. CONCLUSIONS

JC is found to positively influence JP and WE, similarly, WE also showed a positive relation with JP. The mediating role of WE was tested through bootstrapping in Smart PLS 3. Results showed that partial mediation of WE exist in JC and JP relationship. Overall, this study has four hypotheses and all of these hypotheses H1, H2, H3, and H4 are accepted.

A significant pathway to improve JP is JC by increasing structural and social job resources, increasing challenging job demands, and decreasing hindering job demands. An organization that can figure out the means for increasing the presence of JC opportunities for employees will generate benefit for employees' WE and improve the JP of employees.

In order to help the employees in crafting their job, software houses must take appropriate steps to develop positive attributes in employees like WE. Employees who are vigorous, dedicated and are absorbed in their work are fond to be moving towards improving their performance at work which in turn leads to better organizational performance as well. This is a growing concern regarding the positive JC of employees in this critical environment. The issue can be properly addressed by successfully feeding positive attributes to employees like WE which is, resultantly beneficial for employees' JP.

Theoretical Implications. The result of this study adds to existing Organizational Behavior research in many ways. More concretely, the first strength of this study is related to the analytical and predictive (hypothesis testing) research on each element of JC (Tims et al., 2012). This study enhances current knowledge by investigating the

influence of JC on JP of employees. The second strength refers to the examination of critical outcomes of JC. These outcomes are improvement of JP of employees through engaged employees. Predicting the factors influencing JP of employees within the software houses is relevant and significant. The third strength refers to the underlying mechanism through which WE are linked to the aforementioned consequences (Wingerden et al., 2017). Overall, this study enhances the current knowledge base by gauging the mediation effect of WE in the relationship of JC and JP, by data analysis collected from software houses employees through google form questionnaires.

Practical Implications. The result of this study has certain practical implications for the quality of the workforce employed in software houses as results implicate that in order to gain engaged employees in software houses, management must train employees to have attributes of JC. Proper workshops can be conducted in this regard or having them to engage in JC learning activities can be a good option, so that they can craft their own jobs and, resultantly, employee performance improves. Secondly, the results clearly suggest that there is a need for establishing and maintaining an environment that support JC. JC is an important source of a positive environment where employees engage themselves in their work and have intentions to positively increase their JP. Therefore, the management of software houses should be committed to the philosophy of JC. Another implication of this study is that employees who are engaged with their work are better able to perform their work and give benefit to organization as compared to employees who are less engaged with their work (Bakker & Bal, 2010; Christian et al., 2011). Lastly, managers need to focus more on work engagement practices of the employees so that their performance can be increased. This is very important since software houses work in a volatile and fast environment and need swift response for better performance level.

Research Limitations & Future Research Directions. Nevertheless, findings of this study are fruitful for managerial implications yet there are certain limitations to this study. First and foremost limitation of this study is that the results this study cannot be generalized to other countries using the same research model may give substantially different results as this study involves the study of JC in Job Demand Resource perspective (JD-R). Second, due to logical reasoning, the target population included in this study was limited to employees of IT sector of Pakistan and specifically four software houses, the limited geographical population hinders the validity of the results. It is therefore directed here some future research on said topic to include more cities, to validate the results of our study in Pakistan. It is also recommended to potential researchers of the field to do some cross-country studies using this research model while taking countries' culture and attributes of employees as moderated and significant differences in results can elaborate the role of culture and attributes in improving JP. Additional research is needed to test further whether JC can be developed via the training model as well as to determine its impact on organizational performance.

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