

The Job Complexity Effect on Job Outcomes: The Role of Positive Core Self-Evaluation as Moderator

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Abstract

This paper examines the moderating effect of positive core self-evaluation (CSE) in the job complexity and job outcomes (job satisfaction, job performance and job creativity) relationship, using a sample of 295 workers from various public and private sector organizations in Pakistan. The results show that a positive relationship is found between job complexity with job satisfaction, job performance and job creativity. Positive CSE moderates the job complexity and job outcomes (job satisfaction and job creativity) relationship and strengthens the positive relationship between job complexity and these outcomes. However, it does not moderate the job complexity and job performance relationship. The results suggest that individuals with elevated CSE due to positive self-evaluations respond more positively to the challenge stressor of JC and tend to become not only more satisfied with their jobs, but also more creative.

Keywords: Job complexity, positive CSE, job satisfaction, job performance, job creativity.

JEL classification: D23, J28, M12.

1. Introduction

The concept of job complexity (JC) and positive core self-evaluation (CSE) has received much attention in the literature on organizational behavior. JC is described as the level to which the demands of a job become difficult to handle (Fried et al., 2002). JC has gained a lot of importance as the bulk of jobs pose greater cognitive challenges for employees (Morrison et al., 2005). The nature of work has changed over time with shifts in workforce composition, more intense competition and technological changes (Morgeson & Campion, 2003; Parker & Wall, 2001; Parker et al., 2001). With improved technology, augmented skills variety and the

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transformation to knowledge-based work, work has become more complex and cognitively challenging (Parker & Wall, 2001).

The cognitive demands of complex jobs are higher, which makes them mentally challenging (Humphrey et al., 2007) and requires workers to have high levels of competency. Examples of complex jobs include the role of managers and professionals (Kinnie et al., 2005). Many organizations strive to increase the number of experts with skilled jobs, which are associated with multifaceted cognitive needs (David, 2015). Complex, enriching jobs are considered valuable for organizations as they are more likely to satisfy individual needs and cause higher job satisfaction (JS), motivation, quality job performance (JP) and job creativity (JCr), as highlighted in the seminal works of Maslow (1943), Herzberg (1968), and Hackman and Oldham (1976, 1980).

The main purpose of this study is to assess the unexplained variance in the relationship between JC and job outcomes (JO). Empirical studies examining the JC-JO relationship (Fried & Ferris, 1987; Johns et al., 1992; Kopelman, 1985; Loher et al., 1985; Oldham, 1996; Parker & Wall, 1998; Parker et al., 2001) report low to moderate correlation, which clearly indicates the possibility of moderators. Recognizing the importance and influence of job design, researchers have highlighted the need for more theory building and empirical research in this area (Humphrey et al., 2007; Morgeson & Campion, 2003). Recently, researchers have stressed the need to examine the role of individual difference variables in the relationship between job characteristics and attitudinal and behavioral outcomes (Grant et al., 2010).

This study is based on the interactionist approach (Diener et al., 1984; Endler & Edwards, 1985, 1986; Mischel, 1977), which recognizes that multifaceted human behavior is an outcome of the interaction between personality and situational variables. Several studies have investigated the interaction between individual job characteristics and personality traits such as growth need strength, the need for achievement, general self-efficacy – among the ‘big five’ traits of job attitudes and behaviors (Barrick & Mount, 1993; Brief & Aldag, 1975; Fried & Ferris, 1987; Hackman and Lawler, 1971; Le et al., 2011; Steers & Spencer, 1977; Sims & Szilagyi, 1976; Sluss et al., 2012; Raja & Johns, 2010; Wanous, 1974). However, to the best of our knowledge, no other study has exclusively examined CSE as a moderator between JC and JO, although studies such as Lemelle and Scielzo (2012) recognize the possible interaction between JC and CSE.

According to Magnusson (1990), 'An individual's view of himself or herself... with respect to self-evaluation (overall approval and acceptance of himself or herself), plays a central role in the process of interaction with the environment' (p. 201). The theory of 'core self-evaluations' was proposed by Judge et al. (1997) in their continual theoretical development in the field of personality. Although relatively new, the construct of CSE is becoming a dominant focus of research in industrial organizational psychology (Chang et al., 2012; Judge et al., 1997). While the mainstream research on CSE focuses on its direct influence on job attitudes and behaviors (Erez & Judge, 2001; Judge & Bono, 2001; Judge et al., 2003; Song & Chathoth, 2013), a limited number of studies have recognized the broad construct of CSE as a moderator (Bowling et al., 2012; Harris et al., 2009; Judge & Hurst, 2007; Karatepe, 2011; Lim & Tai, 2014; Rosopa & Schroeder, 2009; McNall et al., 2011).

The reason for choosing CSE as a personality trait above others is that it consists of fundamental traits and has its origin in more specific traits (Judge et al., 1997). We propose that CSE interacts with JC in influencing job outcomes. People with positive CSE are more likely to appreciate the positive aspects of JC by strengthening the positive association of JC with JO, whereas for people with low positive or negative CSE, this effect will be negative or neutral (Judge et al., 1997). Another reason for choosing CSE is that studies have shown that it explains more variance in job attitudes and behaviors than the 'big five' personality traits or individual CSE traits (Erez & Judge, 2001; Dormann et al., 2006; Judge et al., 2003; Judge et al., 2008; Lemelle, & Scielzo, 2012; Rode et al., 2012).

This study is based on one of the most important and widely examined job attitudes, that is, JS, and job behaviors, that is, JP and JCr, in industrial and organizational psychology (Abu Al Rub, 2004; Crawford et al., 2010; Eatough et al., 2011). JS results from an evaluation of job characteristics (Weiss, 2002). JP is defined as the sum of activities in which employees involve themselves positively and negatively, directly and indirectly, both to achieve organizational objectives (Borman & Motowidlo, 1993; Campbell et al., 1990). JP comprises behaviors that are specified in the job description, such as mandatory duties (Williams & Anderson, 1991). JCr is the creation of fresh, new and valuable ideas (Amabile, 1988). It drives useful ideas and customized solutions (Amabile 1996; Oldham & Cummings, 1996). Moreover, JCr can be an element of an employee's regular job duties or go beyond these (Unsworth, 2001).

This study analyzes two facets of job behavior: in-role JP and JCr. Consistent JP and an employee's involvement in innovative or creative activities are indispensable for the sustained vitality of an organization (Griffin et al., 2007; Katz, 1964; Pulakos et al., 2000) and it is not necessary that all people are equally good at performing all job behaviors (Raja & Johns, 2010). Moreover, the effect of dispositional variables such as CSE can be highlighted using more than one dependent variable (Johns, 2006). The importance of these three JOs emerges in numerous studies examining job characteristics/JC or personality traits or both as an outcome (Barrick & Mount, 1993; Le et al., 2011; Raja & Johns, 2010; Sims & Szilagyi, 1976; Truxillo et al., 2012).

We aim to address the gap in the literature by examining the role of positive CSE as a moderator in the JC–JO relationship, using a unique sample of Pakistani organizations. Section 2 discusses the literature and proposes a hypothesis. Section 3 highlights the methodology and discusses the measures used for data collection. Section 4 presents the analysis technique and results. Section 5 discusses the results, study limitations and directions for future research.

2. Literature Review and Hypothesis

2.1. Job Complexity and Job Outcomes Relationship

According to Hackman and Oldham (1980), JC is the level to which a job is demanding, stimulating, exciting, inspiring and involves diversity. The job characteristics model (JCM) has its roots in Maslow's (1954) individual needs theory and is well acknowledged as a theory of job enrichment (Fried & Ferris, 1987; Hackman & Oldham, 1976; Hackman & Lawler, 1971; Xie & Johns, 1995). It comprises five attributes: identity, variety, autonomy, feedback and significance (Hackman & Oldham, 1980; Oldham & Cummings, 1996). An additive index of the five essential job characteristics – JC or job scope – is considered an efficient estimator of job attitudes and behaviors in comparison with any single job characteristic (see Fried & Ferris, 1987; Boonzaier et al., 2001). To further understand the model, Morgeson and Campion (2003) review the literature on work design and note that JC consists of JCM dimensions as well as other aspects such as job responsibility, job control and specialization. In the interest of parsimony, we focus on a single JC facet.

JC provides employees the opportunity and independence to use various skills and the prospect of accomplishing an indispensable piece of

work and obtain performance feedback (Baer et al., 2003). Similarly, highly complex jobs require individuals to apply their knowledge, skills and abilities (KSA) with extreme diligence and to regularly update their knowledge of new methods and technologies (Kozlowski & Hults, 1986) and exchange their KSA with their peers (Man & Lam, 2003). Instead, jobs with a low difficulty profile involve monotonous and boring tasks that may not require problematic planning activities and judgements and can be taught relatively faster (Fay & Kamps, 2006).

Research shows that JC and JO are related: when employees find their jobs intrinsically meaningful, their reactions toward their jobs are more positive (Fried & Ferris, 1987; Griffin, 1987). Similarly, in their seminal work, Hackman and Oldham (1980) stress that highly complex jobs may motivate the affective functioning of an employee, specifically in jobs that are developed to be demanding and challenging. According to the challenge-hindrance model of occupational stress, JC is characterized as a challenge stressor (Cavanaugh et al., 2000) – a demand that causes strain, but can also create high performance predictions and a strong realization of accomplishment if one overcomes its inherent difficulties. Challenge stressors also have a promising relationship with JS (Podsakoff et al., 2007), loyalty (Boswell et al., 2004) and JP (Pearsall et al., 2009).

Several studies recommend that job design is an important element that affects employees' attitudes toward their jobs, intrinsic motivation and JCr (Amabile, 1988; Hackman & Oldham, 1980; Kanter, 1988; Shalley et al., 2004; West & Farr, 1990). Abundant empirical research shows that core job characteristics are associated with workers' outcomes such as JS, commitment to the organization, job engagement, cooperation, intention to leave and actual turnover, anxiety, frustration and psychological strain (see, for instance, Champoux, 1991; Fortunato & Stone-Romero, 2001; Fried & Ferris, 1987; Gerhart, 1987; Griffin, 1991; Hackman & Oldham, 1980; Hochwarter et al., 1999; Humphrey et al., 2007; Judge et al., 2000; Loher et al., 1985; Mathieu & Zajac, 1990; Oprea, 1979; Saavedra & Kwun, 2000; Saks, 2006; Spector & Jex, 1991). Although the literature has extensively examined JC and JOs, studies have stressed the need for future research to examine the relationship between JC and JOs (Humphrey et al., 2007).

2.2. Job Complexity-Job Satisfaction Relationship

According to the JCM, JS is one of the most important consequences of intrinsically enhanced jobs. The job characteristics theory hypothesizes a positive relationship between JC and JS on the premise that complex,

challenging and engaging jobs allow employees to experience stimulation, which in turn leads to job satisfaction (Morgeson & Campion, 2002, 2003). Several studies in management also show that JC is an important factor in increasing the JS of employees (Noe et al., 2006). Numerous studies observe that increasing JC is the best way to increase the JS of job incumbents (Fried & Ferris, 1987; Judge, 2000; Morgeson & Campion, 2003). Humphrey et al. (2007) conduct a meta-analysis and report that JC has a positive relationship with JS. Therefore, we propose that JC has a positive relationship with JS **(H1)**.

2.3. Job Complexity-Job Performance Relationship

Specific job characteristics enable employees to feel positive and experience self-stimulation, which in turn induces persistent excellent performance (Hackman and Oldham, 1980). When jobs are developed to have Tayloristic designs, individuals end up with limited role orientation, which can lead to lack of interest and ultimately cause performance and innovation to deteriorate (Karasek & Theorell, 1990; Klein, 1976; Parker et al., 2006; Parker et al., 1997). Hackman and Oldham (1980) argue that jobs that are high in complexity invoke the affective and motivational working of an employee. Specifically, jobs that are devised to be difficult and challenging – those high in complexity and autonomy – are anticipated to cultivate higher levels of intrinsic motivation compared to routine or simple jobs (Amabile, 1988; Hackman & Oldham, 1980). As a result, employees' performance is more likely to be good.

Individuals are more likely to feel enthusiastic about their tasks and more involved in finishing these, even without the presence of external checks and controls (Hackman & Oldham, 1980; Oldham & Cummings, 1996). Empirical studies report a positive association between motivating job characteristics and JP (Fried & Ferris, 1987; Kopelman, 1985; Oldham, 1996; Parker et al., 2001). A meta-analysis also notes that motivational work design characteristics explains 25 percent of subjective performance (Humphrey et al., 2007). Thus, we expect a positive relationship between JC and JP **(H2)**.

2.4. Job Complexity-Job Creativity Relationship

Theories in the domain of employee creativity emphasize the implications of workplace contextual factors among other factors that influence creativity (Amabile, 1988; Woodman et al., 1993). Oldham and Cummings (1996) report that employees' creative performance tends to be higher if they have creativity-related personal characteristics, perform

challenging and complex jobs and work in an environment that is supportive and non-controlling. Work-related challenges foster creativity (Amabile et al., 1996). In addition, high-technology stimulants increase the sense of challenge, in turn enhancing creativity (Amabile & Conti, 1999).

Harrison et al. (2006) show that work characteristics are important elements that impact creativity at work. According to a meta-analysis by Hammond et al. (2011), JC results in individual innovation. Perceptions of a complex job cause employees to become more innovative and execute new ideas (Ohly et al., 2006; Hammond et al., 2011; Scott & Bruce, 1994). In complex jobs, employees have more discretion to solve the issues at hand and are less confined in typical organizational settings (Amabile, 1983). Research in the area suggests that employee productivity and creativity achieves maximum levels not due to extrinsic rewards or stressors, but because of the job's challenge, passion, satisfaction, interest and enjoyment, which motivates employees intrinsically (Amabile, 1996; Amabile & Kramer, 2007). In addition, task-based intrinsic motivation causes job engagement, which fosters job creativity (Parker et al., 2001). Therefore, we propose that JC has a positive relationship with JCr (**H3**).

2.5. Moderating Role of CSE in JC-JO Relationship

CSE is recognized as individuals' opinion of themselves and their self-worth (Judge et al., 1997). It is a comprehensive personality variable that includes four necessary, extensive and self-evaluative dispositional traits: an internal locus of control, low neuroticism, high self-esteem and self-efficacy. These traits signify a distinct higher-order factor that becomes the basis for other, more exact assessments (Judge et al., 1997). The reliability and validity of the CSE concept is well proven through empirical research (Bono & Judge, 2003; Erez, 1997; Erez & Judge, 2001; Heller et al., 2002; Judge, 2009; Judge & Bono, 2001; Judge et al., 2002, 2003; Judge, Erez et al., 1998; Judge et al., 2000; Judge, Locke et al., 1998).

People with positive CSE are highly content with their job and life (Judge & Bono, 2001; Judge et al., 1998, 2000). Several studies reveal that CSE has a positive impact on motivation, goal-directed behavior, leadership, JS and JP (Bipp, 2010; Eisenberg, 2000; Erez & Judge, 2001; Judge & Bono, 2001; Judge et al., 2003; Lemelle, & Scielzo, 2012) and negatively influences stress (Best, 2003). We assume that the personality variable of CSE is likely to affect the JC-JO relationship. As pointed out by Judge et al. (1998): 'People who consider themselves worthy and able to cope with life's exigencies bring a "positive frame" to the events and situations they encounter' (p. 31).

Individuals with a high CSE perceive fewer stressors, experience less strain and are more involved in effective coping strategies (Kammeyer-Mueller et al., 2009; Luria & Torjman, 2009).

The theory of self-regulation by Bandura (1997) plays an important role in explaining how CSE moderates the JC–JO relationship. According to this theory, individuals' self-confidence, related to their task competence, will affect their level of motivation in pursuing or refraining from the given task. Bandura also argues: 'People avoid activities and environments they believe exceed their capabilities, but they readily undertake activities and pick social environments they judge themselves capable of handling. The higher the perceived self-efficacy, the more challenging the activities they select' (p. 160). Therefore, we propose that individuals with a high, positive CSE are likely to believe that they are capable of dealing with the difficulties associated with the job and respond positively by strengthening the positive association between JC and JO.

Empirical studies that have examined specific CSE traits have also highlighted the importance of these traits and the role they play collectively in the JC–JO relationship. Individuals with a high level of self-efficacy believe in their ability to manage and implement a plan or strategy (Bandura, 1997). Individuals with a high level of self-esteem opt for more difficult goals (Levy & Baumgardner, 1991) and are more involved in their tasks (Hall & Foster, 1977). Individuals with an internal locus of control tend to perceive stressors as under control: they exert more effort to accomplish the goal and persevere in times of failure (Spector, 1982). In addition, studies show that a person's locus of control and self-efficacy affects their determination and coping regardless of obstacles (Anderson, 1977; Bandura, 1997). When jobs are complex, people with high levels of anxiety (an essential element of neuroticism) decrease their job performance, but not for routine tasks (Spector, 1982).

The personality construct of CSE plays an important role in how an individual assesses a given circumstance as beneficial. Employees with high levels of positive CSE are predicted to tolerate the bad and generate the maximum benefit from favorable conditions at the workplace (Judge & Hurst, 2007). Employees with high levels of positive CSE are likely to assess a difficult task as a prospect that the individual can conquer and benefit from. In contrast, people with a negative CSE might perceive it as a threat to avoid (Bandura, 1997; Locke et al., 1996).

We assume that employees with positive CSE are strongly likely to respond with higher JS, JP and JCr. People with a high level of CSE consistently evaluate themselves positively as valuable and proficient and view their life as controllable (Judge et al., 2004). As pointed out by Judge et al. (2000), individuals with positive CSE – because of their goal-setting behavior – trust in their competencies, have higher involvement in tasks, are more likely to expend effort and less likely to withdraw from difficult jobs when they face obstacles. In complex jobs, employees with positive CSE are liable to perform better due to their greater coping abilities (Judge et al., 2000). The research also suggests that individuals with positive CSE feel enthusiastic and energetic about their jobs (Karatepe et al., 2010). Therefore, we propose the following hypotheses:

- H4: Positive CSE moderates the JC–JS relationship such that the relationship is strengthened for people with a high level of positive CSE.
- H5: Positive CSE moderates the JC–JP relationship such that the relationship is strengthened for people with a high level of positive CSE.
- H6: Positive CSE moderates the JC–JCr relationship such that the relationship is strengthened for people with a high level of positive CSE.

3. Research Methodology

This study utilizes the survey method for obtaining responses, as it is grounded in the perceptions, dispositions, attitudes and behaviors of individual employees. This requires a meticulously designed survey for the targeted sample and is a common method in such studies (see Jamal, 2010; Jamil et al., 2013; Raja et al., 2004).

3.1. Sample and Data Collection

The population for this study comprises employees from diverse sectors in Pakistan. We have targeted public and private sector organizations in Islamabad and Lahore. Almost all these organizations belong to the banking, telecom and software development industries. The data collection is based on nonprobability random sampling or convenience sampling. We have included a variety of public and private sector organizations to increase the generalizability of our results. The sample includes permanent employees working at different levels, from first-level management to middle and senior management.

Although we faced several constraints during data collection – such as resource and time constraints, access to organizations, extensive dispersion of the selected organizations and industries – we managed to collect responses from 295 employees from 13 different organizations, including two private sector banks, two from the telecom sector, two from the software development industry, two from the chemicals industry, three public sector organizations, one call center and one technical consulting and outsourcing company.

The data was collected through self-administered questionnaires with the help of contact persons at each organization. Participation was voluntary and a cover letter accompanied each questionnaire, explaining the importance and scope of the research and ensuring confidentiality. Since the study was cross-sectional, the data was collected over two to three months. We circulated 400 questionnaires in person among our focus organizations and received 295 complete and usable responses (74 percent response rate).

About 81 percent of the respondents were male, of a total sample of 295 respondents. Respondents' age varied from 18 to 57 years, with a mean age of 28.44 years ($SD = 5.83$). Almost 62 percent of the respondents were single and 36 percent were married. Moreover, 32 percent had a Bachelor's degree, 54 percent had a Master's degree and 7 percent had an MPhil/MS degree. Respondents had a mean tenure of 3.09 years ($SD = 3.35$) with their present organization.

3.2. Measures

The variables are acquired through a 'self-report' questionnaire, which assumed an appropriate method for these constructs. Except where specified otherwise, all variables were anchored to a Likert scale (five-point) from 1 (strongly disagree) to 5 (strongly agree). We used the following scales when collecting the data.

- A four-item scale developed by Glick et al. (1986) is used to evaluate JC. A sample item states: 'The job is mentally demanding'. For this scale, Cronbach's alpha value is 0.71.
- The 12-item CSE scale developed by Judge et al. (2003) is used for measuring the personality concept of CSE. One sample item states: 'I am confident I get the success I deserve in life'. This scale is reported to have high validity and reliability (Judge et al., 2003). We obtain a Cronbach's alpha reliability coefficient of 0.71 for this scale.

- JS is evaluated using six items from the Michigan Organizational Assessment Questionnaire established by Cammann et al. (1983). A sample item states: ‘All in all, I am satisfied with my job’. The literature reports respectable reliability for this measure (Webster et al., 2011). A Cronbach’s alpha reliability coefficient of 0.82 is acquired for this scale.
- William and Anderson’s (1991) seven-item scale is used to assess JP (with 1 = ‘never’ and 7 = ‘always’). This scale has the best reliability and validity (William & Anderson, 1991). A sample item states ‘meets formal performance requirement of the job’. For JP, we obtain a Cronbach’s alpha reliability coefficient of 0.83.
- The three-item scale developed by Oldham and Cummings (1996) is used to assess JCr (with 1 = very little and 7 = very much). A sample item states: ‘How creative is this person’s work? (creativity refers to the extent to which the employee develops ideas, methods or products that are both original and useful to the organization)’. We obtain a Cronbach’s alpha reliability coefficient of 0.75 for this scale.

3.3. Control Variables

The results of the variance analysis confirm vital differences among the organizations in our sample for JS ($F = 2.84, p < 0.01$), JP ($F = 5.96, p < 0.001$) and job creativity ($F = 1.74, p < 0.05$). A post-hoc Tukey’s test signifies that these differences are distinct for the three telecom sector organizations. Hence, we create three dummy coded variables O4, O9 and O13 to control for the effect of these organizations in the analysis.

4. Results and Analysis

Table 1 gives the reliability, zero-order correlation, mean and standard deviation of all the variables. Cronbach’s alpha reliability coefficient for all five constructs is above the acceptable value of 0.7, suggesting that all five study variables are highly reliable and consistent. JC attains a significant correlation with JS ($r = 0.21, p < 0.01$), JP ($r = 0.19, p < 0.01$) and job creativity ($r = 0.34, p < 0.01$). CSE has a significant correlation with JS ($r = 0.14, p < 0.05$) and JP ($r = 0.29, p < 0.01$).

Table 1: Means, standard deviations, correlations and reliabilities

	Mean	SD	1	2	3	4	5	6	7
1. Age	28.44	5.83	--						
2. Tenure	3.09	3.35	.63**	--					
3. Job complexity	3.59	.69	.09	-.02	(.71)				

4. Core self-evaluation	3.13	.75	-.01	-.02	-.10	(.77)		
5. Job satisfaction	3.74	.67	.00	-.07	.21**	.14*	(.82)	
6. Job performance	5.44	1.02	.07	.01	.19**	.29**	.37**	(.83)
7. Job creativity	4.85	1.09	.04	-.09	.34**	.05	.38**	.25** (.75)

Note: N = 295. Cronbach's alphas presented in parenthesis. * $p < .05$ ** $p < .01$.

A CFA is performed to ascertain if the five study elements (JC, CSE, JS, JP and job creativity) are theoretically different constructs in our sample. The findings reveal that a five-factor model gives the best data fit while a one-factor model (combining all five constructs) produces an acceptable model fit (see Table 2). This validates the reasoning that all five variables are separate constructs.

Table 2: Confirmatory factor analysis model fit results

	X ²	dF	X ² /df	CFI	NFI	GFI	AGFI	IFI	RMSEA
Five factor model	439.30	276	1.59	.94	.86	.89	.87	.94	.04
One factor model	1405.7	288	4.88	.60	.55	.69	.63	.61	.11

According to hypotheses 1, 2 and 3, JC is positively correlated with JS, JP and JCr, respectively. As depicted in Table 3, JC has a strong positive relationship with JS ($\beta = 0.19$, $p < 0.001$), JP ($\beta = 0.33$, $p < 0.001$) and JCr ($\beta = 0.57$, $p < 0.001$), thus supporting hypotheses 1, 2 and 3. Table 3 also gives the results of CSE as a moderator between JC and JO. The JC x CSE interaction is reported to be significant for the outcomes of JS ($\beta = 0.19$, $p < 0.01$) and JCr ($\beta = 0.33$, $p < 0.01$). However, the JC x CSE interaction is reported to be insignificant for JP ($\beta = -0.03$, $p > 0.05$).

Table 3: Direct and moderation effects

	Job satisfaction (H4)				Job performance (H5)				Job creativity (H6)			
	B	SE	LLCI	ULCI	β	SE	LLCI	ULCI	B	SE	LLCI	ULCI
Constant	3.78***	.03	3.71	3.86	5.60***	.05	5.49	5.72	4.83***	.06	4.71	4.95
JC	.19***	.05	.09	.30	.33***	.07	.18	.48	.57***	.08	.40	.74
CSE	.12*	.04	.02	.22	.32***	.07	.18	.47	.10 n.s.	.07	-.05	.26
JC x CSE	.19**	.07	.05	.34	-.03	.10	-.23	.17	.33**	.11	.10	.55
					n.s.							
ΔR^2 due to interaction	.02**				.00 n.s.				.02**			
F	7.35				.07				8.12			
Conditional effects of moderator between JC and outcomes (slope test)												
Moderator = CSE	Job satisfaction				Job performance				Job creativity			
-.75	.05 n.s.	.07	-.09	.19	.35**	.10	.14	.56	.32**	.11	.09	.55
.00	.19***	.05	.09	.30	.33***	.07	.18	.48	.57***	.08	.40	.74

+0.75	.34***	.07	.19	.49	.31**	.11	.09	.53	.82***	.12	.57	1.07
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N = 295. Unstandardized regression coefficients are reported. * p < .05, ** p < .01. Bootstrap sample size = 5,000. LL = lower limit. CI = confidence interval. UL = upper limit.

The results of the slope test further indicate that, when the value of the moderator (CSE) increases from 0 to 0.75, the positive effect of JC also increases for JS (from $\beta = 0.19$, $p < 0.001$ to $\beta = 0.34$, $p < 0.001$) and JCr (from $\beta = 0.57$, $p < 0.001$ to $\beta = 0.82$, $p < 0.01$). The interaction plots as shown in Figures 1 and 2 show that the positive relationship between JC and JO (JS and JCr) is stronger for individuals with a high level of CSE. Hence, hypotheses 4 and 6 are supported and hypothesis 5 is rejected.

Figure 1: CSE as a moderator between JC and job satisfaction

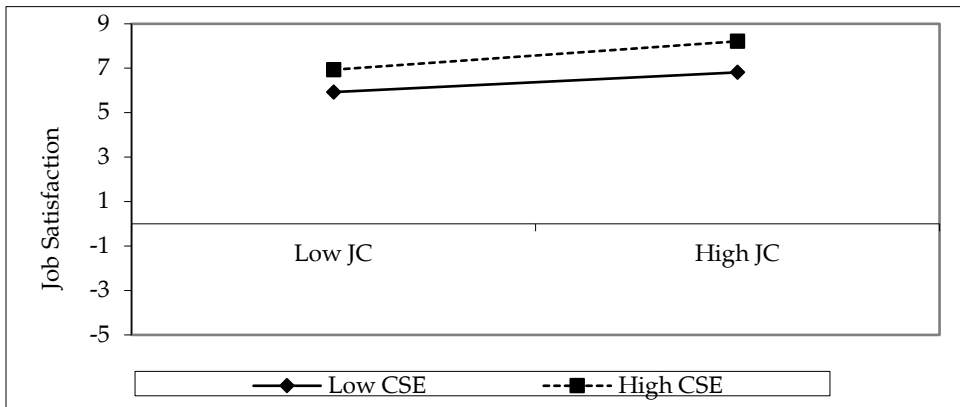
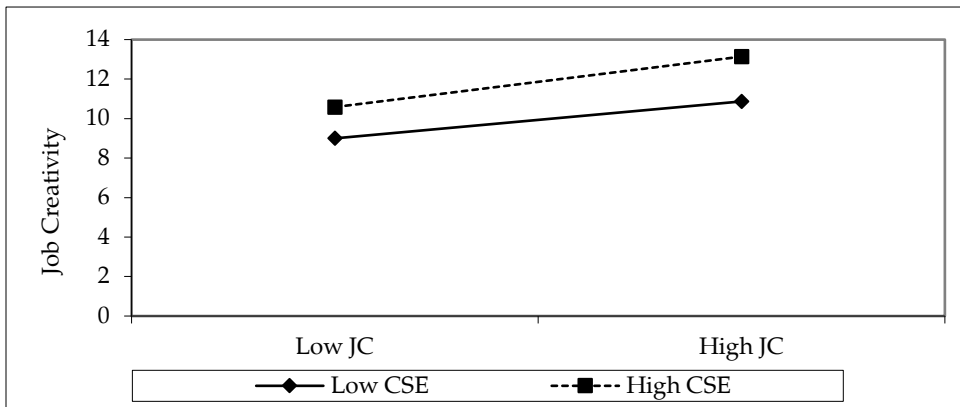


Figure 2: CSE as a moderator between JC and job creativity



5. Discussion

This study contributes both theoretically and empirically to the literature on job characteristics and personality. Our results indicate that JC positively influences JS, JP and JCr, hence supporting hypotheses 1, 2 and 3, respectively. This finding is in accordance with other empirical studies that also report a positive association between job complexity and these outcomes (see Fried & Ferris, 1987; Hackman & Oldham, 1980; Hammond et al., 2011; Harrison et al., 2006; Humphrey et al., 2007; Judge, 2000; Morgeson & Campion, 2002, 2003; Oldham, 1996; Oldham & Cummings, 1996; Parker et al., 2001). The most important contribution of this study is the finding that CSE is an important broad personality construct that moderates the JC and JS and JCr relationship, supporting hypotheses 4 and 6, respectively. This reveals that people with an elevated CSE due to positive self-evaluations respond more positively to the challenge stressor of JC and become not only more satisfied with their jobs, but also more creative.

Hypothesis 5 is not supported as CSE is found to be an insignificant moderator in the relationship between JC and JP. Since JP consists of routine job duties specified in the job description, the JP of individuals would remain the same despite their personality differences. Our findings indicate that CSE is not a significant moderator of the JC–JP relationship, indicating that, in highly complex jobs, the performance of individuals remains the same whether they have a high or low CSE. This implies that, while CSE is a positive personality construct, even these individuals perform their job duties normally without putting in extra effort.

Our findings indicate that CSE moderates the JC–JCr relationship, such that individuals with a high CSE put in extra effort to be more creative. Therefore, the results support the notion that it is not necessary that all people are equally good at performing all job behaviors (Raja & Johns, 2010). Moreover, the effect of the dispositional variable (CSE) is highlighted since we take more than one dependent variable (Johns, 2006). The literature shows that it is very important for organizations to identify individual differences and match them to jobs that are compatible with their distinct needs, personality, skills and competences (Lawler, 1974). The construct of personality has received a lot of research attention because of its role in selection and placement decisions (Raja & Johns, 2010).

The findings of this study have important implications for managers, particularly for human resource managers, in selection and placement. The results highlight that human resource managers should try to design jobs in

a way that they are complex, challenging and stimulating. Such jobs increase job satisfaction, job performance and job creativity. Moreover, they should try to develop their selection practices to attract, recruit, select and retain employees with a high level of CSE because such employees – due to their positive traits – gain the maximum benefit of complex jobs. People with low positive CSE can be matched to less complex jobs to facilitate their natural inclination toward such jobs.

When organizations are in the process of selection, particularly personnel testing, they can ensure this by including a measure of CSE (Judge & Kammeyer-Mueller, 2011). Human resource managers should not only try to select individuals with high CSE, but also use techniques such as role modeling, pep talks and constructive feedback to enhance employees' sense of achievement, confidence, success, individual and professional development – the main elements of CSE (Bandura, 1997; Judge & Kammeyer-Mueller, 2011).

Since this study was conducted in a developing country, it also has valuable insights for professionals and researchers. As the number of multinational firms continues to increase in Pakistan (Jadoon et al., 2016; Colakoglu et al., 2016; Ghani, 2013), these companies often either transfer managers from developed countries or hire locals who have acquired their terminal degrees or professional experience in advanced countries. Although this study has not tested the specific propositions of the JCM, its findings show that the model can be generalized to a developing country such as Pakistan in terms of the relationship between job complexity and important job attitudes and behaviors.

It is possible that the results of this study could have been affected by CMV as this is a cross-sectional study, based on self-reported questionnaires (see Podsakoff et al., 2003). Although data collection using self-reported questionnaires is useful and one of the most common methods used to capture respondents' attitudes, behavior, perceptions and other related personality dimensions (see Schmitt, 1994; Wallbott & Scherer, 1989), respondents may exaggerate and create unwanted bias, which can affect results. To confirm that our results are not significantly affected by CMV, we perform Harman's one-factor test (Podsakoff et al., 2003) and rule out the possibility of self-reported measures influencing our results.

The literature shows that findings with interaction/moderation effects should not be critiqued for CMV (Harris & Kacmar 2005; Siemsen et al., 2010; Wall et al., 1996). As pointed out by Siemsen et al. (2010), 'finding

significant interaction effects despite of CMV in the data set should be taken as strong evidence that an interaction effect exists' (p. 470). We suggest that the findings of this study are not affected by CMV for three reasons. First, the study with moderation/interaction effects diminishes the CMV. Second, the survey enumeration with multiple items for measuring a single construct lessens the CMV. Third, the survey was administered in such a way that maintained the anonymity of respondents, which further reduced the chances of bias.

Future research could examine the same research model with longitudinal and supervisor-reported data for the outcomes of JP and JCr. This study examines only one personality construct – CSE – as a moderator. Future studies could examine other constructs such as leader member exchange and psychological capital.

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