Organisational Encouragement and Obstacles for Creativity: The Mediating Role of Creative Self-Efficacy and the Moderating Role of Job Autonomy

1Sajeela Rabbani; 2Muhammad Qaiser Shafi; 3Seema Gul; 4Nida Kamal; 5Mubashir Ahmad; 1,2Riphah International University Rawalpindi, Pakistan, 3Prince Sultan University, Riyadh, Saudi Arabia, 4Bahria Business School, Bahria University, Islamabad, Pakistan, 5 Northern University, Nowshera, Pakistan

Email: rabbani_210@hotmail.com1, qaiser.shafi@riphah.edu.pk2, sgul@psu.edu.sa3, nidakamal.buic@bahria.edu.pk4, mubashir@northern.edu.pk5

The present study aims at examining the mediating impact of creative self-efficacy between the organisational factors as encouragement and obstacles in enhancing the creativity of employees in the presence of job autonomy, as a moderating element. A time-lag study has been undertaken to assess the dyadic relationship between the boss, and subordinates. A total sample size of 408 respondents was taken from research and development (R&D) employees within the information technology (IT) sector of Pakistan. The data was gathered through adapted structured questionnaires and was analysed through the Partial Least Squares, Structural Equation Modelling (SEM) by using the SMART PLS 3.2 software. The findings reflect the positive role of organisational encouragement and job autonomy, while self-efficacy also positively mediates the relationship between the variables to enhance employees’ creativity, except for the organisational obstacles. The implications and future areas of research have been proposed for researchers and managers, particularly those associated with the IT sector.

Keywords: Employee creativity, Self-efficacy, Job autonomy, Organisational encouragement, Organisational obstacles.
Introduction

In the dynamic world of fast-paced technological changes and ever-increasing complexity and competition in the business environment, employee creativity is one of the significant drivers of success (Liu, Gong, Zhou & Huang, 2017; Ramalingam, Karim, Piaralal & Singh, 2015). Employee creativity is considered as a significantly valuable resource due to its role in enhancing innovation in organisations (Hu, Zhao & Chen, 2019). Creativity fosters innovation by strengthening performance and helping organisations to succeed (Rabbani, Imran & Kamal, 2014; Samdani, Ali & Kamal, 2019) and sustain amidst the competitive market conditions (Alzghoul et al., 2018). Although, this significance is undeniable, researchers have advocated that the enablers of creativity exist at two levels: the organisation level, and the individual level (Peng, Zhang, Fu & Tan, 2014; Matsuo, 2018). Creativity fuels all innovation, and personal level creativity is particularly instrumental in determining innovation in products (Rabbani, Sarmad, Khattak & Khan, 2020).

Researchers have studied the antecedents of creativity in detail (Anderson, Potocnik & Zhou, 2014; Rabbani, Imran & Kamal, 2014; Rabbani & Sarmad, 2019). These antecedents are the essential factors that enable employee creativity in organisations (Zhou & Hoever, 2014; Shalley, Zhou & Oldham, 2004). The support and encouragement (Atitumpong & Badir, 2018), a positive work environment (Hober, Schaarschmidt & Korflesch, 2019), creative self-efficacy (CSE) (Rabbani & Sarmad, 2019; Tierney & Farmer, 2011), motivation (Wang, Tsai & Tsai, 2014), and job autonomy (Orth & Volmer, 2017) are known as the key drivers of creativity.

The work environment includes both positive and negative elements. It can be shown that organisational encouragement is taken as a positive, and organisational impediments or obstacles are considered as negative factors the former increase and the latter decrease creativity (Amabile et al., 1996). Organisational encouragement is commonly referred to as part of the culture of an organisation, which enhances creativity by promoting fair, impartial, and positive judgement, and provides rewards and recognition that invokes creativity (Amabile, 1997). Researchers have advocated that by increasing the positive aspects and reducing the impediments, organisations are able to reinforce the CSE of employees in the organisations (Montani et al., 2018; Newman et al., 2018). The CSE, according to Jaiswal and Dhar (2016), is known to enhance the creative performance of individuals in the organisation. The relationship of CSE and creative performance, as observed by researchers, significantly affects one another (Wang et al., 2014). The negative feelings and aspects, when eliminated, can enhance the creative behaviour (Azim et al., 2019), and by providing encouragement, the organisations foster creativity and new product development (Dunne et al., 2016).
While the culture that invokes creativity is being advocated (Hober, et al., 2019), job autonomy is seen as an important part of the culture that is related to the creative and innovative behaviour of employees (De Spiegelaere, Van Gyes, De Witte, Niesen & Van Hootegem, 2014; Orth & Volmer, 2017) and cannot be overlooked. It is considered that greater autonomy within the workplace allows individuals to have more congruence with one’s personal values (Vecchione et al., 2019) and competencies, which helps the individuals to undertake the innovative behaviour (Kamal, Ali & Samdani, 2020; Liu, Chen & Yao, 2011).

This study aims at focussing on the underlying psychographic factors that enable an individual to reflect performance that is creative through self-efficacy. This research investigates the individuals in research and development (R&D) firms of the information technology (IT) sector in Pakistan. As the construct of creativity has been majorly addressed in the context of manufacturing firms (Nybakk, Crespell & Hansen, 2011), researchers consider it an area of concern that creativity must be examined in various disciplines (Kaufman & Glaveanu, 2019), a need exists to examine this concept in the IT sector. This study investigates the impact of organisational encouragement and organisational obstacles upon employee creativity through the mediating role of self-efficacy, and the moderating role of job autonomy in the IT sector of Pakistan.

**Literature Review**

**Organisational Encouragement and Employee Creativity**

As per the organisational support theory, top management support and encouragement obligates employees to help them fulfil their aims and goals (Eisenberger, Huntington, Hutchison, & Sowa, 1986), which leads them towards creativity and innovation. The term creativity is essentially a Latin word which means to create or to form (Slahova et al., 2007). The production of novel ideas is known as creativity, while carrying out those ideas is called innovation (Amabile et al., 1996; Sarooghi, Burkemper & Libaers, 2015). According to Durnegan et al. (1992), top managements’ behaviours for instance, encouragement is amongst the essential climatic conditions for creativity and innovation that can enhance knowledge sharing between low level employees. Carbonell and Rodríguez (2009) have a similar view, that both support and encouragement from top management have appositive impact on creativity and modernisation speed, particularly in industries which require technology. Research also suggests that top management can boost people’s morale to discover the latest methods and take risk of defeat by adopting an empowering approach (Lin & Tsai, 2020).

The componential creativity theory recognised three organisational factors that influence creativity and innovation (Amabile, 1983). Firstly, management practice involves challenging tasks for an individual, group coordination, top management support, and free will or autonomy to decide how to carry out one’s job. Secondly, the resources of the firm are
significant which can be beneficial for an employee to accomplish the work. To a certain extent, this is a broad category because it involves adequate time, as well as sufficient proficiency and skills or monetary resources. Thirdly, organisational encouragement towards innovation, which is made up by the organisational value that it places on the creativity and innovation. Scholars argue that if employees have a perception of top management support and encouragement, they exhibit behaviours appreciated by the organisation to give in return the compassionate conduct by the organisation (Lambert, 2000; Rabbani & Sarmad, 2019). Thus, we hypothesise a positive effect of encouragement on creativity, based upon the above mentioned arguments, and propose that:

**H1:** Organisational encouragement positively affects employee creativity.

**Organisational Obstacles and Employee Creativity**

Obstacles are created because of the individual’s interactions with the environment. Environmental conditions and excessive work demands are the organisational constraints or issues that strain individuals (Sun, Hu & Ding, 2019). According to Pourkiani, Farahabadi and Komak (2013), a lack of sufficient follow up, flow of financial and humanistic resources and facilities, environmental constraints, over-bureaucracy, and fewer training and development opportunities affect the employee creativity and innovation. Amabile et al. (1996) also stressed that organisational hindrances, known as obstacles, tend to decrease one’s potential for creativity. This phenomenon was also endorsed in the study conducted by Rabbani and Sarmad (2019). Hence, obstacles become important organisational aspects to gauge one’s creativity. In such ways, we tend to argue that obstacles will negatively affect creativity, as depicted in the following hypothesis:

**H2:** Organisational obstacles negatively affect employee creativity.

**CSE as a Mediator between Organisational Encouragement and Employee Creativity**

According to Tierney and Farmer (2011), CSE refers to an individual’s belief of the knowledge and expertise possessed by the individual to carry out innovative tasks. The CSE of a person itself is an outcome of various persuading factors. Slatten (2014) categorised the antecedents of CSE into three characteristics: work related, leadership, and the individual. According to Tierney and Farmer (2002), the duration of the job, top management conduct, and job complexity serve as the main antecedents of CSE. Contextual antecedents also involve job authority, learning orientation, association with the organisation (Mathisen & Bronnick, 2009), inventive task recognition, and creative expectations by the top managers, which is also based on a high level of CSE (Tierney & Farmer, 2010). Free will and authority within the workplace is worthy to increasing one’s CSE (Jaiswal & Dhar, 2016), as it builds a person who is rationally established, flexible, and convinced in what he or she likes. In the
same way, support from the top management and enterprise also makes an employee capable to perform tasks. Consequently, job authority, free will, and encouragement are significant antecedents of CSE (Mathisen, 2011).

H3: Creative self-efficacy positively affects employee creativity.

H4: Creative self-efficacy acts as a mediator between the relationship of organisational encouragement and employee creativity.

CSE as a Mediator between Organisational Obstacles and Creativity

Self-efficacy is basically an individual’s self-belief that he or she is capable of performing certain tasks and attaining desired outcomes, which may be enhanced or polished via enactive mastery, vicarious modelling, verbal persuasion, and arousal (Bandura, 2001). The occurrence of barriers is an outcome of the interactions between situational stimuli and a person’s responses. The mental assessment of environmental stimuli by an individual is the means to the creation of obstacles, barriers, and strain (Lazarus, 1989). Challenging obstacles represent an individual’s view of the workload and requirements, as per their own capacity, and it impacts the self-efficacy of an employee via verbal persuasion and emotional arousal. After all, the demanding perception of pressure increases the optimistic feelings of individuals, boosting individuals’ morale to meet job demands and enhance their self-efficacy (Walumbwa, Christensen-Salem, Hsu, Misati, 2018). Lepine and Jackson (2004) stated that challenging obstacles can arouse employees’ optimistic feelings and motivate them to be proactive rather than reactive, and adopt problem solving strategies. For instance, greater efforts, meaning that challenging pressure can play a vital part in fervor and excitation. Furthermore, an enterprise’s high job performance anticipations show that an enterprise regards their skills and capability, and this will stimulate the employees’ self-efficacy.

Consequently, it is our belief that challenging obstacles increase an individuals’ self-efficacy. Challenging obstacles are the perception of an individuals’ match between situational and job demands, and their own capabilities. In an organisational setting, individuals perceive these job demands more as an opportunity and challenge that results in fervor or excitation and provides constructive direction. Their self-belief in attaining their vision and objectives boosts their self-efficacy. Consequently, individuals with high self-efficacy will increase their creativity via creative thinking abilities and inherent inspiration (Pan, Sun & Lam, 2020). Therefore, we propose that:

H5: Creative self-efficacy acts as a mediator between the relationship of organisational obstacles and employee creativity.
Moderating Role of Job Autonomy upon the Relationship of Organisational Encouragement and Creativity

The current study hypothesizes that the organisational support will have a positive impact on employee creativity. Though, it is also supposed that relationships between organisational encouragement and creativity will be more distinct if individuals have a high level of job authority, as compared to when they have lower job authority. Job autonomy is known as the extent to which an individual has freedom in his job, independence in terms of planning and scheduling, and most importantly, identifying the process of how the work will be carried out. It is one of the characteristics that are taken from the job characteristics model developed by Hackman and Oldham (1975), which directs to a mental state of skilled accountability for end results of the work, and in succession, guides towards outcomes like creativity. Kauffeld (2006) found that job autonomy positively impacts employee creativeness. According to Hennessey and Amabile (2010), this may be because job autonomy offers individuals mental resources like entitlement and encouragement to experiment novel ideas which promote creativity.

However, few researchers have the opinion that enterprises must administer and advance inner organisational working environment and support that facilitates the innovative work behaviour among employees (Alpkan et al., 2010; Dobni, 2010). Creativity demands them entailed emotional safety, daring actions and courage, hope, and authority and response which an employee receives from their boss (George & Zhou, 2007; Zhou, 1998). Amabile et al. (2004), and Cummings (1996) found that organisational encouragement has a significant positive impact on employee’s creative behaviour.

H6: Job autonomy acts as a moderator between the relationship of organisational encouragement and employee creativity, and in such a way that the relationship gets stronger when job autonomy is high compared to when it is low.

Moderating Role of Job Autonomy on the Relationship of Organisational Obstacles and Creativity

As per the literature, there are numerous research studies which have proven the association among job autonomy and organisational obstacles (Agarwal, 1993; Ruyter, Wetzels, &Kleijnen, 2001), and job autonomy and creativity (Coelho, Augusto &Lages, 2011; Grawitch et al., 2003; Wong & Pang, 2003). This includes, according to De Ruyter et al. (2001), that organisational obstacles reduce the impact of job authority. Researchers consider that there are less organisational obstacles reported for top management with higher job autonomy, and for those who assume that they have power over the job related procedures (Crank et al., 1993). Grawitch et al. (2003) found that job autonomy was positively associated with employees’ creativity and employees’ performance in troubleshooting groups. In recent
times, Coelho et al. (2011) found the association among job autonomy, work obstacles, and the creativity of frontline employees. Such research studies and findings highlight that the above factors need to be considered in a holistic approach.

**H7**: Job autonomy acts as a moderator between the relationship of organisational obstacles and employee creativity, and in such a way that their negative relationship becomes weaker when the autonomy is high.

**Figure 1.** Theoretical Framework

---

**Research Methodology**

**Data Collection and Sampling Technique**

The current study targets IT firms in Pakistan as a study population. All IT firms which are registered with the Pakistan Software Export Board have been included in this research. A non-probability purposive sampling technique was utilised. The respondents were contacted through the proper and appropriate permission channels of the relevant departments of the IT firms studied. They were briefed about the objective of the research study and advised their responses would be used for research, only with confidentiality. The creativity of the employees was rated by the respective bosses to avoid common method bias (Podsakoff & MacKenzie, 2003). Each boss corresponds to four subordinates. A sum of 640 survey forms had been circulated in the respective firms, and 408 completed surveys were received providing a response rate of 64 per cent.
Instruments

All the instruments used for the measuring variables employed a five-point Likert-type scale ranging from ‘1’ or 'strongly disagree’ to ‘5’ or 'strongly agree'. Employee creativity was measured with the scale comprising of 13 items, which was developed by Zhou and George (2001). The CSE scale was adopted from Tierney and Farmer (2002). It included 3 items. The organisational encouragement (6 items), organisational obstacles (5 items), and job autonomy (3 items) was adopted from the ‘KEYS: Assessing the climate for creativity scale ‘developed by Amabile et al. (1996).

Demographics

The demographics include the gender, age, qualifications, and experience of employees. The data revealed that the respondents were comprised by males at rate of 84 per cent, and females at a rate of 16 per cent. Fifty-seven per cent of the respondents were aged between 21–30 years old, 36 per cent were between 31–40 years old, and seven per cent were between 41–50 years old. Sixty-six per cent of employee’s possessed experience of one to five years, 20 per cent had six to ten years, 11 per cent had 11–15 years, and three per cent had experience of 16 years and above. In relation to qualifications, 11 per cent of respondents had attained a degree in Master of Philosophy or above, 26 per cent had a Master’s degree, 49 per cent had a Bachelor's degree, and 13 per cent of respondents had a higher secondary education.

The control variable tests were conducted by using a one-way Analysis of Variance (ANOVA) test for two of the criterion variables and with reference to the demographics of the respondents. The results of the ANOVA depicted that CSE and creativity was insignificantly different based on gender, age, qualifications, and experience. Hence, these demographics should not be treated as controls.

Results and Analyses

To empirically justify the hypothesized relationships, this study used the partial least squares structural equation modelling (PLS-SEM) statistical technique. It works on the multivariate analysis of the path models by using a latent construct with a variance-based approach (Hair, Hult, Ringle, & Sarstedt, 2016). The software used was Smart PLS 3 (Ringle, Wende & Becker, 2015). The PLS-SEM was employed as the data was time lagged with a sample of 408, and there was the involvement of a mediation and moderation mechanism at the same time in the path model (Bari et al., 2019). The PLS-SEM investigates the hypothesized model in two steps. The first step involved an investigation of the measurement model that contains latent constructs and their indicators to achieve model fitness. The second step hypothesized that relationships among the latent constructs are examined to establish associations.
Measurement Modelling

Step one of the PLS-SEM involved a confirmatory factor analysis (CFA). The CFA includes the factor loadings of individual items as its reliability, convergent validity, and discriminant validity. The criteria for the acceptability of the factor loading was >0.6, alpha reliability was >0.7, composite reliability was >0.7, average variance extracted (AVE) was >0.5, and discriminant validity should exceed the AVE value (Fornell & Larcker, 1981). The Dijkstra and Henseler’s rho indicator (rho A), and its criteria is 0.7, as a minimum threshold (Dijkstra & Henseler, 2015).

**Figure 2.** Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Factor Loadings</th>
<th>Convergent Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rho A</td>
<td>Cronbach’s Alpha α</td>
</tr>
<tr>
<td>Organisational Encouragement</td>
<td>OrgEnc1</td>
<td>0.736</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OrgEnc2</td>
<td>0.807</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OrgEnc3</td>
<td>0.748</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OrgEnc4</td>
<td>0.753</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OrgEnc5</td>
<td>0.668</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OrgEnc6</td>
<td>0.618</td>
<td>0.817</td>
</tr>
<tr>
<td>Organisational Obstacles</td>
<td>OBS3</td>
<td>0.858</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBS4</td>
<td>0.771</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 above explains that all the values of the factor loadings were above the required standards. Items such as OBS1, OBS2, Cr1, and Cr10 had values below 0.6, and therefore, were excluded in the analysis. All values of the AVE, alpha, and composite reliability were within the acceptable criteria.

**Table 2: Discriminant Validity and Correlations**

<table>
<thead>
<tr>
<th></th>
<th>CSE</th>
<th>Creativity</th>
<th>Job Autonomy</th>
<th>Organizational Encouragement</th>
<th>Organizational Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE</td>
<td>(0.765)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creativity</td>
<td>0.282</td>
<td>(0.812)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Autonomy</td>
<td>0.086</td>
<td>0.046</td>
<td>(0.793)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org Enc</td>
<td>0.456</td>
<td>0.239</td>
<td>0.073</td>
<td>(0.724)</td>
<td></td>
</tr>
<tr>
<td>OBS</td>
<td>-0.108</td>
<td>0.120</td>
<td>0.006</td>
<td>-0.209</td>
<td>(0.769)</td>
</tr>
</tbody>
</table>

*Parenthesis show discriminant validity values*
Direct Effects

**Figure 3.** Effect of Organisational Encouragement and Organisational Obstacles on Creativity

**Figure 4.** Effect of Creative Self-Efficacy on Creativity

<table>
<thead>
<tr>
<th>Table 3: Path Coefficients of Direct Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Organisational Encouragement</td>
</tr>
<tr>
<td>Organisational Obstacles</td>
</tr>
<tr>
<td>Creative Self-Efficacy</td>
</tr>
</tbody>
</table>
The direct effects of organisational encouragement and organisational obstacles upon creativity are shown in Figure 3. The results were realised by the PLS-SEM technique. A path analysis, as a direct relation (Hair et al., 2014), was conducted to attain the coefficient of regression as beta value, and bootstrapping provided a significance level for the relationship. It is evident that the relationship between organisational encouragement and creativity has become significant and positive with a beta coefficient of 0.195, and P=0.000. The organisational obstacles were found to be significantly positive with a 0.286 beta coefficient, and P=0.009. These two relationships have been the reflection of hypotheses one, and two. The H1 was found to be true, while H2 could not be supported by this study. The relationship between CSE and creativity was hypothesized in H3. The results revealed that CSE has a significant and positive impact upon creativity with a beta value of 0.280, and R square of 0.080. This relationship is depicted in Figure 4, and Table 3.

Mediation Analysis

**Figure 5.** Creative Self-Efficacy as a mediator between Organisational Encouragement and Creativity

![Figure 5](image)

**Figure 6.** Creative Self-Efficacy as a mediator between Organisational Obstacles and Creativity

![Figure 6](image)
Table 4: Indirect Effects of Organisational Encouragement and Organisational Obstacles upon Creativity

<table>
<thead>
<tr>
<th></th>
<th>Original Sample</th>
<th>Sample Mean</th>
<th>Standard Deviation</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE → Cr</td>
<td>0.214</td>
<td>0.219</td>
<td>0.060</td>
<td>3.576</td>
<td>0.000</td>
</tr>
<tr>
<td>OrgEnc → CSE</td>
<td>0.456</td>
<td>0.461</td>
<td>0.048</td>
<td>9.483</td>
<td>0.000</td>
</tr>
<tr>
<td>OrgEnc → Cr</td>
<td>0.148</td>
<td>0.156</td>
<td>0.051</td>
<td>2.921</td>
<td>0.004</td>
</tr>
<tr>
<td>CSE → Cr</td>
<td>0.297</td>
<td>0.303</td>
<td>0.056</td>
<td>5.275</td>
<td>0.000</td>
</tr>
<tr>
<td>OBS → CSE</td>
<td>-0.101</td>
<td>-0.106</td>
<td>0.060</td>
<td>1.699</td>
<td>0.090</td>
</tr>
<tr>
<td>OBS → Cr</td>
<td>0.171</td>
<td>0.180</td>
<td>0.047</td>
<td>3.611</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*P value at < 0.01 significance level

The Figures 5, 6, and Table 4 show the indirect effects of organisational encouragement, and organisational obstacles upon creativity through the mediator of CSE. It was found that the beta is reduced for organisational encouragement and creativity when there is CSE as a mediator between the two, as 0.286 to 0.148, and it remained significant (P=0.004). Thus, H4 is supported and CSE acts as a mediator between organisational encouragement and creativity. Similarly, the beta coefficient for the direct relationship of organisational obstacles and creativity was 0.195 and reduced to 0.171 (P=0.000) when CSE is placed as a mediating mechanism between the two. Although there is a reduction in beta weights, the relationship still remains significant and depicts a partial mediation of CSE between organisational obstacles and creativity.

Moderation Effects

Figure 7. Moderation of Job Autonomy on the relationship between Organisational Encouragement and Creativity
Figure 8. The moderation of Job Autonomy on the relationship between Organisational Obstacles and Creativity

Table 5: Moderation Effects of Job Autonomy

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>JA → Cr</td>
<td>0.066</td>
<td>0.052</td>
<td>0.087</td>
<td>0.759</td>
<td>0.448</td>
</tr>
<tr>
<td>OrgEnc → Cr</td>
<td>0.264</td>
<td>0.280</td>
<td>0.043</td>
<td>6.152</td>
<td>0.000</td>
</tr>
<tr>
<td>OrgEnc*JA → Cr</td>
<td>0.002</td>
<td>-0.023</td>
<td>0.063</td>
<td>0.034</td>
<td>0.973</td>
</tr>
<tr>
<td>JA → Cr</td>
<td>0.049</td>
<td>0.028</td>
<td>0.096</td>
<td>0.505</td>
<td>0.614</td>
</tr>
<tr>
<td>OBS → Cr</td>
<td>0.154</td>
<td>0.171</td>
<td>0.043</td>
<td>3.610</td>
<td>0.000</td>
</tr>
<tr>
<td>JA*OBS → Cr</td>
<td>-0.161</td>
<td>-0.128</td>
<td>0.085</td>
<td>1.901</td>
<td>0.050</td>
</tr>
</tbody>
</table>

*P value at < 0.01 significance level

The Figure 7 and 8 show the PLS-SEM results of the moderation analysis. Job autonomy has a moderating effect on organisational encouragement and creativity, and organisational obstacles and creativity. The beta value was 0.002, however, the relationship lost significance at P>0.05. It has been revealed that job autonomy is least effective as a moderator between organisational encouragement and creativity. To the degree, that when there is organisational encouragement, there will be creativity, regardless of the presence of freedom of the job at work. The beta value depicts that job autonomy significantly decreases the effect of obstacles upon employee creativity. It is disclosed that when the job autonomy is higher rather than low, then the negative effect of organisational obstacles upon creativity decreases. Hence, employees still undergo creativity, even if there are obstacles when they have freedom at work.
Discussion and Conclusion

The results depict that preliminary hypotheses have been accepted after the analysis; such as H1 defines that organisational encouragement positively affects the creativity of employees. This is also supported by researchers such as Atitumpong and Badir (2018). The literature also reveals that encouragement from the organisation energises employees and catalyses the process of achieving creative outcomes. Organisational encouragement enables employees to acknowledge risk in the way of target attainment, while also considering failures as part of the creativity generation process (Dunne et al., 2016). Organizational support theory (Eisenberger et al., 1986) also enlightens that with support from supervisors, employees tend to recognise goals explicitly and find motivation to individually contribute to achieving them. Not only does organisational encouragement bolster an environment for group exercises inculcating trust and encouraging criticism to grow, but it also promotes teamwork initiatives that foster peer assistance, creative idea generation, and cooperation (Verbeke et al., 2008).

In contrast to what is expected of them, it has been seen that employees in the R&D departments of the IT sector do not partake in organisational impediments. These employees are seen engaging in routine tasks while only focussing on their research endeavours and not considering impediments that can affect their work activities. This implies that there is no significance held by organisational impediments in employee creativity, hence the H2, that “organisational obstacles negatively affect employee creativity”. The notion that impediments within the organisation have a negative relationship with employee creativity is therefore not supported, as also advocated by Sun, Hu and Ding (2019). In fact, it is the impact of CSE which plays an inherent bridge role in both internal, as well as external factors that boost individual creativity. Creativity is, nonetheless, an outcome of intrinsic motivation and the drive to perform a task creatively, which comes from within an individual.

Likewise, in H3, it can be said that CSE is also an individual’s internal drive, inclination or intent which determines one’s personal choice or behaviour towards taking the creative route to achieving goals (Jaiswal & Dhar, 2006). The hypothesis is accepted because the research findings suggest that CSE plays a pivotal role in achieving creative outcomes (Jaiswal & Dhar, 2016), as it undoubtedly is an intrinsic and potential motivator pushing employees to thrive. It additionally encourages employees to stabilise their intellectual desires, while also showing flexibility and confidence (Mathisen & Bronnick, 2009).

Analysing the results associated with hypothesis H4, regarding the role of organisational encouragement in cultivating creativity, CSE was investigated and found to act as a mediator. Thus, H4 was accepted in light of the studies by Montani et al. (2018), Chong and Ma (2010), Mathisen (2011), Tierney and Farmer (2010), and Tierney and Farmer (2011). These authors, in their respective studies, demonstrated that CSE enables employees to broaden their psychological faculties by encouraging flexibility, stability, and convincing power in their
thought process. However, this CSE of employees is a result of organisational encouragement.

Tierney and Farmer (2002) were of the view that the complexity of a job — in terms of the new skills to be acquired, managing time, and methodology adaptation — places an additional burden on employees. The burden comes with growing challenges at work, which eventually lower the employees’ efficacy in target achievement. This proves that CSE does not, in any way, interfere with the relationship between creativity and obstacles at work. Nonetheless, it has been seen that impediments within the organisation hinder the process of creativity (Cook, 1998), suggesting creativity is influenced by external factors, even under circumstances favouring CSE. This forms the basis of support for H5.

Hypothesis H6 could not be supported, as shown in the results. The moderating effect of autonomy between organisational encouragement and creativity remains an insignificant aspect of the workplace. Unlike this finding, the literature supported that job characteristics develop the responsibility of employees, which is a factor that leads to developing and enhancing work outcomes, such as creativity (Hackman & Oldham, 1975; Orth & Volmer, 2017). Kauffeld (2006) also advocated that job autonomy positively impacts employee creativity. The finding of this study may be attributed to the fact that autonomy is known to facilitate individuals and substantiate their empowerment and encouragement, as also stated by Hennessey and Amabile (2010). This, in turn, expedites creative behaviour. Considering these facts, organisational constraints are environmental circumstances and demands at work that burden individuals (Sun, Hu & Ding, 2019). According to Pourkiani et al. (2013), and Azim et al. (2019), a lack of sufficient follow up, resources and facilities, environmental constraints, red tape culture, and fewer training and development opportunities tape culture, and fewer training and development opportunities are some of the negative aspects in an organization that impede the overall creativity and innovation of an employee in an organization.

Acknowledgement: All authors are thankful to the Prince Sultan University, Riyadh, Saudi Arabia; for the financial support towards the publication of this paper.

Conflict of Interest: The authors declare no conflicts of interest.
References


