# **Nexus Between Psychological Empowerment and Creative Process Engagement in A Moderated Mediation** Mechanism

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#### Abstract

Using the lens of multi-theory and multi-level perspective based in an Asian emerging economy, the present study investigates the influence of psychological empowerment (PE) on creative process engagement (CPE) in a moderated mediation mechanism. The study collected cross-sectional data using the convenience sampling method from small and medium enterprises and used partial-least square based structural equation modelling (PLS-SEM) for engendering the statistical estimates. The deductive reasoning approach was followed to frame the research design. The results revealed that psychological empowerment influences creative self-efficacy (CSE), and CSE affects CPE. However, the moderated mediation effect on CPE was not found supported. The study attests to roadmaps how the results contribute theoretically, academically, and empirically. Finally, the current research concludes by noting a few shortcomings to contribute and advance the knowledge in the future.

**Keywords:** Creative self-efficacy; creative process engagement; small and medium enterprise; psychological empowerment; perceived creative climate

### 1. Introduction

The present business world is characterised by rapid change due to the sudden breakthrough in information and communication technology, and creativity and innovation have become ancillary concepts and the whole business idea to sustainably compete in this ever-changing world (Souto, 2020, Saatci and Ovaci, 2020, Shubbak, 2018). In a way, employees' creative behaviour stemming from corporate creativity and innovation initiative becomes a key for realising cutting-edge advantage out-running the arch-rivals (Galvin, 2010, Praveen, 2011). Thus, it is inevitable to build a nexus between employees and their creative outcome for the sake of organisational excellence. Scholarly works on creativity are exponentially rising, and, however, studies on employees' engagement in creativity are relatively few (Raihan and Uddin, 2021, Seenaiah and Rath, 2017).

Creative process engagement (CPE) refers to the involvement of employees in creative-related processes/activities, such as problem searching and construction, information generation and encoding, and generate alternative options to solve the problem creatively (Uddin et al., 2020, Li et al., 2020). Since creativity or innovation comes from the employees' entrepreneurial bent of mind, it is essential to keep them tuned and engaged for fostering a stimulative mindset toward the innovation journey (Mahmood et al., 2019, Uddin et al., 2020, Mahmutaj et al., 2019). Amabile (1996) and Amabile (1988) precisely mentioned the essence of creative genius to bring novelty and originality to any firm. Moreover, Amabile (1996) and Amabile (1988) also shed light on the existence of perceived creative climate (PCC) and psychological empowerment (PE) that plays an abdominal and persistent role in stimulating creative genius for the next days' innovative behaviour. Studies showed that creative process involvement of employees seldom happens if employees are not individually, such as creative self-efficacy (CSE) and psychologically heightened (Zhang and Bartol, 2010a, Zhang and Bartol, 2010b).

Even though many studies were observed with fascinating findings, however, those findings were also subsequently criticised the ground of theoretical underpinning (Tan et al., 2018, Du et al., 2019), sampling technique (Zhang and Bartol, 2010b), response design (Azim et al., 2019, Uddin et al., 2020), hierarchical regression (Mahmood et al., 2019), and geographical perspectives (Yi et al., 2019, Sutz, 2012, Berdejo, 2019), which prevented the generalisability of those studies' findings. Remarkably, few studies stressed confirming a specific leadership style, for example, Zhang and Bartol (2010b), Uddin et al. (2018), and Saeed et al. (2018), that could affirm creative employees' autonomy and freedom. Moreover, few studies argued that the unconditional support and freedom nested to subordinates creates insubordination, dependence, and loyalty toward leader in the long run that might destroy the CSE and confidence in one's energy and capability (Eisenbeiß and Boerner, 2013, Raihan and Uddin, 2021, Škerlavaj et al., 2014).

Conversely, another stream of studies posited that employees' CPE could be ameliorated if their CSE can be energised by reshaping the firm's PCC (Uddin et al., 2020, Amabile, 1996, Chen et al., 2020). From the originality of the theory of interactionist perspective of creativity (Woodman and Schoenfeldt, 1990, Woodman et al., 1993), the study opines that innovative behaviour is the outcome of a collaborative effort from individual and organisational antecedents along with their interplay in the mechanism as mentioned earlier (Kaur and Kaur, 2020). The following research questions were crafted as follow:

**RO1.** Does employees' creative self-efficacy influence creative process engagement?

**RQ2.** Is there any moderated mediation effect of perceived creative climate on the observed nexus?

The present study's context is small and medium enterprises (SMEs) in Bangladesh, and the rationale for considering SMEs is due to its contribution to the GDP (25 percent), which is expected to grow to 32 per cent by 2024 (SMEF, 2020). In Bangladesh, 98 per cent of enterprises are SMEs that generate 80 to 85 per cent of industrial employment and 25 percent of total civilian employment (Khalily et al., 2020). Henceforth, innovation and creativity are critically essential to survive and succeed because the failure to do so leads them to the disappearance or extinction of these large pools of enterprises and employment opportunities (Azim et al., 2019, Uddin et al., 2017, Fan et al., 2017). In contrast to large organisations, SMEs are more innovative because of highly informalised, higher receptive to adapt and less inert to change during the high complexity in the competitive business world (Prasad and Junni, 2017). Unlike larger firms, SMEs are more agile and flexible for exhibiting incremental innovation in a shorter period (Uddin, 2018).

The present study ensures originality and novelty in numerous ways. Firstly, the present study contributes by bringing a new application of the theory of interactionists' perspective of creativity with antecedents of different levels and their interactions (Woodman and Schoenfeldt, 1990, Woodman et al., 1993). Using the tenet of the prior theories, the study asserts that creative genius cannot create and innovate if the self is not supported by an interactive environment between individuals and the working climate. Secondly, it brings novelty in research through affirming both self and others' response surveys. Both response surveys prevent social desirability biases and increase the generalisability of the findings (Azim et al., 2019, Gupta et al., 2017, Podsakoff et al., 2012). Thirdly, the study reengineers the practitioners and professionals' conceptualisation that a good fit between organisational climate and person is warranted to desire originalities and innovation from employees through the manifestation of the present study's result. Finally, the study contributes knowledge by making a clear divide between creative outcome and creative process and sheds light on how organisations should focus on bringing innovative development.

# 3. Literature Review and Hypothesis Development

#### 3.1. Related Literature

### 3.1.1. Psychological Empowerment

Empowerment is assumed to experience psychological states, and PE is a perceived feeling of being enablers and efficacious among the employees with an amicable situation prevailing within an organisation that prevents the risk of social alienation and ostracism (Zhang, 2007, Zhang and Bartol, 2010b, Matsuo, 2020). Studies reported that PE is an inspirational, motivational, and experienced framework with the cognitions of competence, meaning, self-determination, and impact (Chenji and Sode, 2019, Saeed et al., 2019). In another way, it is the means of empowering employees' confidence and

self-efficacy by identifying and removing the conditions or bottlenecks that increase powerlessness and inability (Safari et al., 2020, Bantha and Nayak, 2020).

### 3.1.2. Creative self-efficacy

The concept of CSE originated from self-efficacy, which stemmed from the work of Bandura (1977). Self-efficacy refers to the efficacious belief and one's own propelled confidence in performing an activity (Bandura, 1982). Tierney and Farmer (2002) advanced Bandura's (1977) concept and developed a new idea (i.e., CSE) for use in creativity and innovation literature. CSE refers to one nurse's self-ascribed belief and bestows thyself to produce a creative or original outcome (Cai et al., 2020). Prior studies describe CSE as a motivational tool (Du et al., 2020), cognitive belief, creative confidence belief (Lebuda et al., 2020), and creative ability (Teng et al., 2020) that explain a person's innovative production. Accordingly, Liu et al. (2021) elucidated that CSE is an extension of general self-efficacy that could be useful to the creativity domain.

### 3.1.3. Perceived creative climate

Creative climate refers to the working environment conducive to employees' creative thinking and capability (Aboramadan, 2020, Iqbal, 2019). Uddin et al. (2020) described it as the climate that promotes, champions, and stimulates idea generation, synthesis and implementation of original ideas for solving problems creatively. The PCC is the perceived support of resources from the firm bestowed to nurses and stimulates unconventional initiatives and tolerance of risk and failure (Munir and Beh, 2019). Thus, PCC can be described as the employees' perception of a supportive climate reflected in leadership style, top management support, working conditions, positive psychological stimulus, and reward systems (Iqbal, 2019).

# 3.1.4. Creative process engagement

The term "CPE" was emphasised from the ideation of doctoral dissertation by Zhang (2007) where Zhang (2007) echoed that the literature of creative performance or innovative outcome is over-researched and, however, how and when an individual or employee decides to engage in creative-related activities are not adequately studied. Likewise, the extant studies reported enormous scope to advance and extend this concept (Chen et al., 2020, Mao et al., 2020). CPE refers to identifying and constructing problems, searching information and encoding, and finally deciding alternatives to solve them (Cheung et al., 2020, Li et al., 2020).

# 3.2. Hypothesis on direct effects

### 3.2.1. Psychological empowerment and creative self-efficacy

Employees with high PE demonstrates higher behaviour (Aggarwal et al., 2020). Likewise, numerous studies have shown that PE significantly improves employees' creative performance (Zhang and Bartol, 2010b, Matsuo, 2020). When an employee

understands that the job is meaningful, exciting, and essential to him because its enduring supports and care hinge on it, the employee will have more energy to exert on the creative outcome (Zhang and Bartol, 2010b, Saeed et al., 2019). The study of Safari et al. (2020) underscored PE as a crucial catalyst of improving one's cognitive, emotional, perceptional, and attitudinal disposition toward the working environment that makes the employees more confident in their creative capability. In an organisation with adequate PE, employees feel supported and empowered by their leaders for creative originalities, ending with increased efficacious belief in creative ability (Matsuo, 2020, Aggarwal et al., 2020). According to Huang (2017), employees with high PE believe that they possess adequate capabilities to solve problems creatively. Thus, it can be synthesised that PE heightens creative self-efficacy because of the absence of any phobia of social alienation and public humiliation (To et al., 2021). We hypothesise the following hypothesis:

**Hypothesis 1.** Psychological empowerment significantly influences creative self-efficacy.

# 3.2.2 Creative self-efficacy and creative process engagement

The importance of CSE to predict creativity cannot be denied because of the growing support in the creativity domain. Studies showed that CSE significantly impacts employees engagement in the creativity-related task, indicating that individual with confidence and faith in their creative belief engages more in CPE (Azim et al., 2019). Bandura (1982), in the theory of self-efficacy, posited that an individual's CSE drives the individual to engage in problem definition and construction, information searching and decoding, and fixing the best alternative because a person with CSE believes in increased capacity to solve the same (Raihan and Uddin, 2021). The interactionist theory of creativity and innovation also sheds light on creative genius's existence for taking a creative pursuit that gives them ample opportunity to apply their self-possessed knowledge and capacity (Amabile, 1996, Amabile, 1988). The rationale behind the significant influence of employees' CSE on CPE is that they are self-directed and confident of advancing with their initiatives and assuming risk without others' approval (Teng et al., 2020, Du et al., 2020). Following the above literature, we hypothesise as follows:

**Hypothesis 2.** Creative self-efficacy predicts creative process engagement significantly.

# 3.3 Moderated mediation effect of perceived creative climate

The theory of self-efficacy (Bandura, 1977) and the componential theory of creativity in organisations (Amabile, 1988) showed that person and person with capabilities are substantially needed to facilitate CPE among employees. Apart from creative individuals, positive psychology, and domain-related skills, Amabile (1996, 1988) highlighted that organisational supports, such as resources, management practice, and corporate motivation, are equally essential for magnifying individuals' influence

creative potentials. Uddin et al. (2020) exhibited that a supportive environment or PCC is the self-possessed perception of the existing climate that prevents or advances individuals' CPE. The presence of high or low PCC drives employees to engage or not define and constructive problems, search and encoding information, and choose the suitable alternative. Whether employees will take risks or challenges while pursuing a creative purpose is eventually shaped by the magnitude of support available to them, particularly in case of failure (Munir and Beh, 2019, Aboramadan, 2020).

The extant literature criticised the insubordination of creative performance to individuals (Mahmood et al., 2019, Zennouche et al., 2014). Specifically, those studies asserted that individuals alone with all forms of knowledge and capacity seldom bring any breakthrough. Uddin et al. (2020) and Zennouche et al. (2014) attested creativity and innovation requires approval and supports from various levels. Individual and organisational supports must be involved with higher resource commitment to creating anything successfully (Mahmood et al., 2019, Černe et al., 2014). In this regard, the theory of interactionist perspective of creativity (Woodman et al., 1993, Woodman and Schoenfeldt, 1990) adequately contended that creativity and innovation require an individual variable and organisational variables and their interaction together. Henceforth, both the empirical studies and theoretical supports substantiate that the influence of CSE on CPE can accurately portray their relationships with the presence of organisational supports, such as PCC. Thus, we can posit that the high or low presence of PCC strengthens or weakens the influence of CSE on CPE. Therefore, we develop the hypothesis as follows:

**Hypothesis 3.** There is a moderated mediation of perceived creative climate on the influence of creative self-efficacy on creative process engagement. When the perceived creative climate is higher, the impact of creative self-efficacy on creative process engagement will increase and vice-versa.

Following the literature and theoretical underpinning, the following research framework is developed. Figure 1 highlights that PE predicts CSE, which in turn results in improved CPE. Figure 1 also posits that there is a moderated mediation effect through the influences of PCC and CSE. The model is multi-level (Černe et al., 2013, Černe et al., 2017) and supported by the theory of self-efficacy (Bandura, 1977) and the interactionist perspective of creativity (Woodman and Schoenfeldt, 1990). Both direct effects (PE→CSE and CSE→CPE) are explained by understanding self-efficacy theory. The moderated-mediation result is supported with the essence of the theory of interactionist perspective.

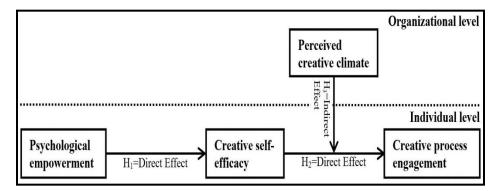


Figure 1. Research framework

### 4. Research Methods

# 4.1 Research setting

The study used a multi-item survey questionnaire to operationalise the experiment. A multi-item questionnaire ensures the robustness of collected data to guarantee the findings' exhaustiveness (Mahmood et al., 2019, Hair Jr. et al., 2017). We followed the deductive reasoning approach under the positivist paradigm for observing the relationships with quantitative analysis. The rationale behind using the deductive reasoning approach is to predict the relationships among the underlying variables in the Bangladesh context (Hair et al., 2020).

# 4.2 Sampling design

We collected data from small and medium enterprises located in Chattogram, the commercial capital in Bangladesh. Additionally, the author purposively selected Chattogram division to administer the survey and collected the data because of its significant influence on Bangladesh economy and GDP, and the homogeneity of respondents and culture across Bangladesh (Azim et al., 2019, Raihan and Uddin, 2021). Thus, the convenience sampling technique was used to collect the data because this method is considered cost-effective and convenient for researchers (Saunders et al., 2018). Another dominant reason for choosing this data is to engender homogeneous data according to the data collector's convenience (Emerson, 2021). Moreover, this sampling technique is used when researchers plan to quickly collect quality data, followed in similar other studies in the same context (Azim et al., 2019, Uddin, 2018). Since the study used cross-sectional data, data homogeneity is required for ensuring the broader generalisability of the cross-sectional data (Fan et al., 2019). In fact, we considered all forms of SMEs in Chattogram, Chattogram and the sampling frame of this survey was only the mid-level managers.

# 4.3 Data collection procedure and participants' information

The study collected data between 16 August and 31 October 2020. A self-administered questionnaire was distributed among the respondents with the help of research assistants. The author briefed and trained the research assistants on administering the data collection procedure to ensure a reasonable response rate. The research assistants distributed 357 questionnaires, and the respondents returned 235 replies with a response rate of 65.83 per cent. This response rate seems acceptable considering the response rate in other similar studies (Azim et al., 2019, Fan et al., 2019, Mahmood et al., 2019). The study collected data from mid-level employees with diverse backgrounds. The majority of the respondents is male (162, 68.94 per cent), aged between 25-35 years (114, 48.51 per cent), with tenure experience of 5 to 10 years (118, 50.21 per cent).

#### 4.4 Measurement tools

The study used measurement tools from prior studies, which were expressed in a 5-point Likert scale. The survey measures were based in English and, thus, the study follows the back-translation method mentioned in Brislin et al. (2006). PE is measured using Spreitzer's (1995) instrument with four dimensions: meaning, competence, autonomy, and impact. Sample items are 'The work I do is meaningful to me (meaning), I am confident about my ability to do my job (competence), I have significant autonomy in determining how I do my job (autonomy), and my impact on what happens in my department is large (impact).' CSE is estimated using Jaiswal and Dhar (2015) scale, and the sample item for CSE is 'I feel that I am good at generating novel ideas.' The study measures CPE with the scale of Zhang (2007), and a sample item for this is 'Employees look for connections with solutions used in seeming diverse areas.' Finally, the PCC is measured using Kim and Yoon (2015) instrument, and a sample item of this is 'around here [...], we are allowed to try to solve the same problems in different ways.'

### 5. Analysis and Findings

### 5.1 Analytical technique

The study employed partial least square-based (PLS) structural equation modelling (SEM) and IBM SPSS 25 to analyse the data. The PLS-SEM in place of composite-based SEM is highly recommended when the investigation aims for the prediction (Hair et al., 2020, Hair Jr. et al., 2017). The core reason for using SEM over conventional regression lies in its robustness and exhaustiveness in explaining the relationships among the observed variables (Hair Jr. et al., 2017, Uddin et al., 2021, Azim et al., 2021). SEM's key strength is its uniqueness to measure both measurement model with psychometric properties and structural model with path estimates holistically.

#### 5.2 Bias concern

Method bias and response bias are two crucial concerns preventing the findings' causality and overall generalisability (Podsakoff et al., 2012, Spector et al., 2019). The study took several ex-ante and ex-post measures to contain the method and response bias concerns. Firstly, the respondents' identities were anonymised and confirmed the confidentiality and privacy of their responses that assured them to report the accurate answer to items underlying the study. Second, the scale's face validity was attested following Brislin et al. (2006), and other changes were made to items for making the scale understandable to the respondents. Response quality likely increases if the objects representing the questionnaire were easy to read and simple to understand (Uddin et al., 2019, Mahmood et al., 2020). Third, the study runs Harman's one-factor test, and the result shows that CPE explains 34.11 percent of the total variance (72.71 per cent). Hence, the study affirms that not a single factor explains more than 50 per cent of the total variance. Finally, the study also examines the correlation matrix, as Pavlou et al. (2007) recommended, showing that correlation between any two latent variables does not exceed 0.90 per cent. Therefore, no concern about method or response bias issues is observed.

# **5.3** Psychometric properties of scales

The psychometric properties of scales or survey instruments were examined through convergent and discriminant validities testing. Convergent validity is tested using factor loading, composite reliability and average variance extracted. Notably, thresholds for factor loading, composite reliability and average variance extracted were 0.70, 0.80, 0.50, respectively (Hair Jr. et al., 2017). Table 1 showed estimates of psychometric properties of the scales. Table 1 endorses that the threshold limits are confirmed.

Latent variables	Items	Loadings	CR	AVE	Mean	SD	$\mathbb{R}^2$
Psychological empowerment -Meaning	PEM1	0.879	0.891	0.731	1.901	0.655	
	PEM2	0.839					
	PEM3	0.846					
Psychological empowerment -Autonomy	PEA1	0.888	0.913	0.779	2.031	0.699	
	PEA2	0.875					
	PEA3	0.885					
Psychological empowerment -Competence	PEC1	0.912	0.928	0.812	1.987	0.740	
	PEC2	0.901					
	PEC3	0.890					

Table 1. Psychometric properties of the scales

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Psychological empowerment	PEI1	0.833	0.886	0.722	1.942	0.639	
-Impact	PEI2	0.861					
	PEI3	0.856					
Perceived creative climate	PCC1	0.869	0.932	0.734	2.040	0.685	
	PCC2	0.844					
	PCC3	0.840					
	PCC4	0.858					
	PCC5	0.872					
Creative self-efficacy	CSE1	0.908	0.902	0.754	2.006	0.643	0.196
	CSE2	0.844					
	CSE3	0.851					
Creative process engagement	CPE2	0.797	0.946	0.636	2.064	0.632	0.278
	CPE3	0.793					
	CPE4	0.775					
	CPE5	0.819					
	CPE6	0.794					
	CPE7	0.778					
	CPE8	0.813					
	CPE9	0.832					
	CPE10	0.762					
	CPE11	0.806					

CR. Composite reliability, AVE. Average variance extracted and SD. Standard deviation.

Moreover, the coefficient of determination ( $R^2$ ) asserts that the present model explains CSE by 19.6 per cent and CPE by 0.278 percent, which also exceeds the minimum threshold mentioned in Cohen (1977). We estimated the effect sizes ( $f^2$ ) for CSE and CPE and the estimates showed that the effect sizes are 0.244 ( $f^2_{PE\to CSE}$ ), 0.134 ( $f^2_{CSE\to CPE}$ ) and 0.118 ( $f^2_{PCC\to CPE}$ ), which are close to medium (0.15) (Cohen, 1988). As alternative model fitness estimates, the calculated RMS<sub>theta</sub> is 0.112, indicating a well-fitting model (Hair Jr. et al., 2017, Henseler et al., 2014). The estimation of discriminant validity in Table 2 reveals that the square root of any variable's AVE is higher than its correlation with other variables (Fornell and Larcker, 1981). Thus, there is no issue with discriminant validity.

Table 2. Testing discriminant validity

Latent variables	1	2	3	4	5	6	7
1. PE - meaning	0.855						
2. PE - competency	0.279**	0.901					
3. PE - autonomy	0.319**	0.556**	0.882				
4. PE - impact	0.451**	0.316**	0.370**	0.850			
<b>5.</b> Creative self-efficacy	0.414**	0.252**	0.285**	0.350**	0.868		
<b>6.</b> Perceived creative climate	0.075	0.084	0.033	0.143*	0.346**	0.857	
<b>7.</b> Creative process engagement	0.239**	0.480**	0.443**	0.468**	0.421**	0.417**	0.797

PE = Psychological empowerment; \*\*. Correlation is significant at the 0.01 level (2-tailed) and \*. Correlation is significant at the 0.05 level

# 5.4 Hypothesis testing

#### **5.4.1** Assessment of direct effects

Figure 2 presents the structural model that reveals the path coefficients,  $R^2$ , and significance level. In hypothesis 1, the study hypothesises that PE significantly influences CSE. Figure 2 exhibits that the influence is positive significant ( $\beta$ =0.443, p=0.000) that postulates that PE significantly affects CSE. Thus, hypothesis 1 is supported. In hypothesis 2, the study also predicts that CSE significantly influences CPE. In a similar vein, figure 2 excerpts that the effect is also positive and significant ( $\beta$ =0.332, p=0.000), which means that CSE belief in employees positively influences their engagement in the creative process. Therefore, hypothesis 2 is also supported.

#### 5.4.2 Assessment of moderated mediation effect

To examine the moderated mediation effect, we run PROCESS macro (model 14) as recommended by Hayes (2018). Henceforth, model 14 of the PROCESS macro represents PCC as a moderator variable, CSE as a mediating variable, PE as an independent variable, and CPE as an outcome variable. A bias-corrected 95% bootstrapped confidence interval was calculated for the direct, indirect, and moderation effects using 5000 sample cases in table 3. The interaction effect is significant if the UCI and LCI do not contain zero.

Table 3 shows that the interaction effect and index of moderated mediation effect contain zero. Table 4 also shows the different moderation effects from high (+SD) to low (-SD). Likewise, the effect of each level contains zero. The result endorses that there is no significant moderated mediation effect. Therefore, the hypothesis, H3, on moderated mediation influence is not supported.

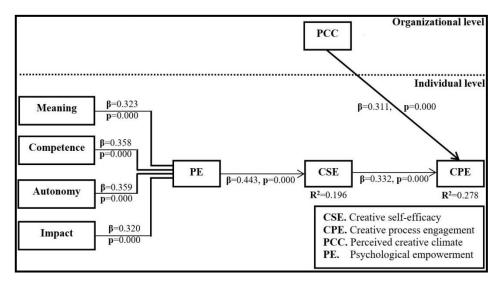


Figure 2. Structural model

Table 3. Direct, conditional indirect and moderated mediation result

Paths	Effect	Boot SE	LCL	UCL
CPE on CSE (indirect effect)	0.563	0.077	0.412	0.714
CSE on CPE (indirect effect)	-0.146	0.142	-0.426	0.134
CSE * PCC on CPE (Moderation effect)	0.100	0.054	-0.01	0.205
PE on CPE (Direct effect)	0.610	0.069	0.473	0.746
Index of moderated mediation	0.056	0.034	-0.012	0.123

Effect Levels PCC (Moderator) Boot SE LCL UCL Low (-SD) 1.355 -0.007 0.051 -0.1090.094 Moderate 2.040 0.032 0.042 -0.0470.122 High (+SD) 2.726 0.070 0.046 -0.013 0.170

Table 4. Conditional indirect effect of PE on CPE via CSE

#### 6. Discussion and conclusions

The present study attempts to investigate the influence of PE on CSE and CSE on CPE. The study also analyses the moderated mediation effect of PCC and CSE on CPE. The research questions and hypotheses were based on both self-efficacy theories and the interactionist perspective of creativity. The study collected cross-sectional data using the convenience sampling method. The deductive reasoning approach was followed to examine the hypothesised relationships.

The results revealed that PE significantly influences CSE. The significant positive influence of PE on CSE is found consistent with the finding of Huang (2017). This finding is also found congruent with the logic given in self-efficacy theory (Bandura, 1982). In hypothesis 2, the study affirms that CSE significantly influences CPE. It results so because employees with more CSE score significantly affects CPE because employees with CSE belief have more energy and desperation to involve more in problem definition, information searching and coding and generating alternatives. The result also goes with prior studies (Azim et al., 2019, Huang et al., 2016, Jaiswal and Dhar, 2015). The result also goes with the essence of self-efficacy theory because self-belief in one's capacity increases their knack toward CPE.

Finally, hypothesis 3 proposed that there is a moderated mediated influence on CPE. The result showed that the moderated mediation influence on PE and CPE is not supported. Despite the result is not endorsed with the tenet of the theory of interactionist perspective of creativity and its core findings contradict the understanding of self-efficacy theory, the present finding postulates that an individual's CSE belief matters for creativity or any behavioural change. The finding asserts that CPE in SEMs of Bangladesh is influenced by employees' self-belief (CSE) alone. The moderated mediation effect via PCC does not affect because employees in SMEs believe in themselves rather than receiving creative climatical support from organisations. The insignificant moderated mediation effect in the SMEs context endorses prioritising the building of employees' CSE for enhancing CPE.

# **6.1 Contributions of the study**

The current research contributes to advance knowledge and extend previous understanding in numerous ways. First, the present study proposes a unique model integrating PE, CSE and CPE, using the lens of self-efficacy theory. The novelty here is PE, CSE, and CPE in a mediation model that was never investigated before. Second, from the essence of the interactionist perspective of creativity, the study used PCC as a moderator and advanced the knowledge that there is no moderated mediation effect. Third, this study's methodological contribution is the use of both response surveys that amends the previous studies' limitation of using data from a single source and increases the generalisability of the findings. Finally, the current study contributes to academia and educationists, noting that PE influences CSE and CSE predict CPE in consequence.

# **6.2 Managerial implications**

The findings of the current study provide essential learning for professionals, environmental psychologists, and educators. Professionals get access to crucial insights for influencing employees to engage in creative behaviour. In this regard, it is advised that professionals can build energy and empowerment in employees by stimulating them to redefine and reconstruct problems, search for information, and identify alternatives to solve a problem creatively. Environmental psychologists received essential learnings from this study to understand the cognition process of navigating employees' CPE psychologically. The study shows that if employees' CSE can be elevated through empowering them psychologically, employees will spontaneously contribute to CPE. The present research also proposes academia's insights for redesigning academic curricula accommodating the findings that show how PE can drive CPE via CSE.

### **6.3** Limitations and future research directions

Despite the present research revealing several contributions with innovative points, the study is not free from any concerns impeding its' originality and generalisability of the findings. The present study collects data from small and medium enterprises, and the results provide a partial view of the overall scenario. Thus, future research can also include large-scale industries and small and medium enterprises for mirroring the general CPE environment. One of the dominant limitations is the use of cross-sectional data the prevents the causality of the findings. Thus, future researchers are advised to use longitudinal data or multi-wave data for affirming the generalisability of the results.

Furthermore, the type of culture and the control factors of a nation are also essential factors for nurturing/inhibiting the generation and diffusion of creative pursuits, which are ignored in this research. Henceforth, future researchers might consider these factors for developing a comprehensive model of creativity and innovation. Finally, the quantitative technique of analysing the data is another limitation that provides the reality's abstraction. Therefore, the extant studies recommend employing the mixed research method rather than using only quantitative research techniques.

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