

Do transformational leadership and employee learning orientation lead to organizational innovation? The moderating role of psychological empowerment

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Abstract

Drawing upon theories of transformational leadership and psychological empowerment, this research tested several hypotheses associating transformational leadership and employee learning orientation with organizational innovation via intervening variable, i.e., employee creativity. Using survey data from administrative and professional employees from public sector in People's Republic of China (PRC), we found that, as anticipated, transformational leadership and employee learning orientation positively influenced employee creativity, while employee creativity in return positively affected organizational innovation. Whereas, the relationship of transformational leadership and employee learning orientation with employee creativity was moderated by psychological empowerment.

Keywords: transformational leadership, employee learning orientation, employee creativity, psychological empowerment, organizational innovation.

Introduction

Because of intensive competition, constant technological innovation and increasingly sophisticated working environments, managers have realized that employees' creativity is essential to remain competitive in organization (Zhang & Bartol, 2010; Shalley & Gilson, 2004). Many researchers find that organizational existence, innovation and effectiveness depend on its employees' creativity (Shalley, Zhou, & Oldham, 2004; Amabile, 1996). More than ever before, to be successful, we must make our employees more creative, innovative and empowered (Quinn & Spreitzer, 1997; Jung, Chow & Wu, 2003; Tierney, Farmer & Graen, 1999). Creativity is the production of novel and useful ideas by an individual or by a group of individuals working together (Gumusluoglu & Ilsev, 2009; Amabile, 1988; Zhang & Bartol, 2010; Zhou & Shalley, 2003; Madjar, Oldham & Pratt, 2002) and it is treated at the level of the individual (Gumusluoglu & Ilsev, 2009) whereas innovation is the successful implementation of creative ideas within an organization (Oldham & Cummings, 1996; Amabile et al., 1996) and it is treated at the organizational level (Gumusluoglu & Ilsev, 2009). So, it is important to maximize individuals' creativity at work (Shalley & Gilson, 2004) because individuals' creativity plays a crucial role in attaining organizational creativity and innovation, which in return is associated with organizational performance and survival (Amabile, 1988; Nystrom, 1990).

Much research has been conducted to investigate leaders' support of creativity (Zhang & Bartol, 2010; Amabile, Schatzel, Moneta & Kramer, 2004). Gong, Huang and Farh (2009) argued that employee creativity can be achieved through transformational leadership and employee learning orientation. When supervisors convey transformational leadership, employee creativity will ensue

(Shin & Zhou, 2003; Jaussi & Dionne, 2003). Bass and Avolio (1995) argued that transformational leadership has four dimensions: (1) Individualized consideration, (2) Charismatic role modeling, (3) Intellectual stimulation and (4) Inspirational motivation. According to Redmond, Munford and Teach (1993) employee creativity will flourish, if employees have a learning orientation. A learning orientation motivates an employee to cultivate his (her) competence (Dweck & Leggett, 1988; Gong, Huang & Farh, 2009; Dweck, 2000).

Previous studies have shown inconclusive results associating transformational leadership and learning orientation to creativity at the individual level. In a laboratory study with student subjects, Jaussi and Dionne (2003) reported that there was little empirical evidence for the concept that transformational leadership has positive impact on creativity. Redmond et al. (1993) also described negative results with respect to a learning orientation in their laboratory study. The short-lived nature of the experiments is a possible explanation behind the nonsignificant relationships reported by them. As Weisberg (1999) conveyed it is a times taking process for individuals to attain new knowledge and harness it to creative solutions. Likewise, the influence of transformational leadership on employees takes time (Gong, Huang & Farh, 2009; Dweck, 2000).

To understand the mixed results of the previous studies, there is a need to understand the mechanism through which transformational leadership and employee learning orientation affect creativity at the individual level. So, in this study we consider psychological empowerment as a moderating factor on the relationship of transformational leadership and employee learning orientation on employee creativity.

Deci, Connell and Ryan (1989) showed that another source of employee creativity is psychological empowerment. Spreitzer (1995) defined psychological empowerment as a psychological state that is expressed by four cognitive modes: (1) Meaning; (2) Competence; (3) Self-determination; and (4) Impact. Thomas and Velthouse (1990) and Spreitzer (1995) stated that psychological empowerment is a motivational construct through which an employee perceives he (she) has the capability to accomplish his (her) job successfully (i.e., self-efficacy); has freedom to initiate and regulate task on his (her) own believes; he (she) is capable of having impact on work outcomes; and believes that his (her) work is meaningful.

In this study, we have four objectives: (1) to examine the association between individual employee creativity and organizational innovation; (2) investigate the impact of transformational leadership on employee creativity; (3) test the relationship of learning orientation on employee creativity; and (4) elucidate psychological empowerment as the moderator of the influence of transformational leadership and employee learning orientation on employee creativity. In this study, we take transformational leadership and employee learning orientation as an employee's creativity predictors, as they are related to actions anticipated that will enhance employee's competence and also lead to learning (Gong, Huang & Farh, 2009; Kruglanski et al., 2000; Benjamin & Flynn, 2006).

Amabile and Gryskiewicz (1987) argued that learning is associated with creativity. Finally, we study psychological empowerment as a moderator for two reasons. First, psychological empowerment has a positive effect on employee creativity (Alge, Ballinger, Tangirala & Oakley, 2006). Second, when psychological empowerment is high, it strengthen the relationship between transformational leadership, learning orientation and employee creativity. The proposed model of our study is delineated in Figure 1.

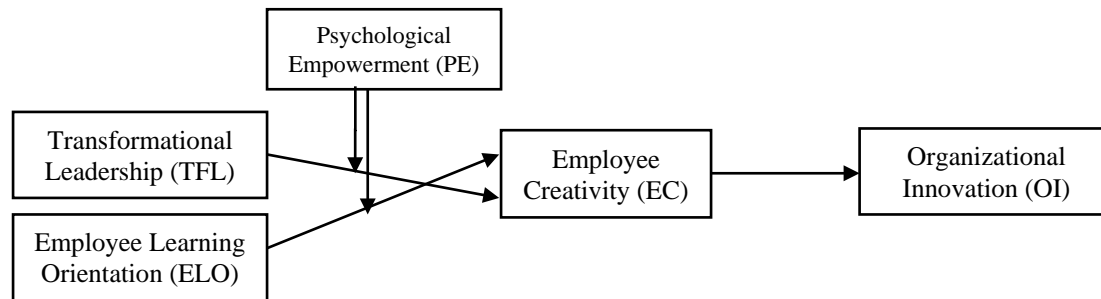


Figure 1: Conceptual model of transformational leadership and Employee Learning orientation effects on innovation.

Theory and Hypotheses

Impact of employee creativity on organizational innovation

The individual provides the raw material, which is needed to produce novel and unique ideas (Redmond et al., 1993). Shalley and Gilson (2004) argued that individuals are the dynamic source of organizational innovation. Hence, Oldham and Cummings (1996) theoretically proves that employees' creative performance is essential for organizational innovation. Specifically, when an individual demonstrates creativity on the job, he (she) produces novel ideas that are helpful to execute the tasks at hand (Amabile, 1996, 1983). Thus, Gumusluoglu and Ilsev (2009) argues that employee creativity explores and identifies opportunities for innovation as well as tends to find new uses for current equipment or methods. Creative employees tend to generate useful and novel ideas for organizational practices, procedures and products (Shalley & Gilson, 2004). In addition, Gumusluoglu and Ilsev (2009) clarifies that creative employees generate ideas that are work-related. As a result, organizational performance or progress of entire units will be enhanced (Gong, Huang & Farh, 2009). Creative employees not only produce novel ideas or solutions but also develop appropriate plans to execute them (Gumusluoglu & Ilsev, 2009). Therefore, these creative responses at the individual level lead to organizational innovation (Gumusluoglu & Ilsev, 2009). Consequently, we predict:

Hypothesis 1. Employees who are creative at individual level have positive impact on organizational innovation.

Impact of transformational leadership on employee creativity

Previous research finds that learning is a critical element of employee creativity (Gong, Huang & Farh, 2009; Weisberg, 1999) and these findings raise another question "Do learning-related activities linked with employee's learning orientation and transformational leader's behavior, correlate with employee creativity?" Social cognitive theory explains that employees attain skills and knowledge through "mastery modeling" and "enactive mastery experience" (Bandura, 1986, 1997). "Mastery modeling" refers to learning through observation of skillful and endowed models, e.g., leaders, whereas "enactive mastery experience" refers to acquiring a skill or knowledge through direct experience (Bandura, 1986). Bandura (1986) argues that both "mastery modeling" as an external situation element and "enactive mastery experience" as an internal personal element have influence to attain skills and knowledge. In any organization, leadership is essential for goal setting for employees (Gong, Huang & Farh, 2009; Scott & Bruce, 1994; Oldham & Cummings, 1996). The theory of transformational leadership is presented by Burns (1978), and Bass and Avolio (1995) advanced the theory further. They explain that transformational leadership has four components: (1) Individualized consideration (i.e., mentoring, developing and supporting their followers); (2) charismatic role modeling (i.e., energizing their followers by expressing the importance of collective vision and mission); (3) Intellectual stimulation (i.e., stimulating their followers by taking useful and

creative methods to problems); and (4) Inspirational motivation (i.e., expressing the inspirational vision to their followers and articulating his (her) belief that they can achieve it) (Bass & Avolio, 1995; Bass 1985; Bass 1990b). Gong, Huang and Farh (2009) argues that transformational leaders represent “mastery modeling” as defined by Bandura (1986, 1997) in employee learning. Using charismatic and inspirational characteristics, transformational leaders motivate the shared sense of mission and vision, so employees are more likely to learn and acquire skills from such leaders (Gong, Huang & Farh, 2009; Gumusluoglu & Ilsev, 2009). Through intellectual stimulation, transformational leaders encourage their employees’ creativity and stimulate out-of-the-box thinking (Bass, 1985). Because of individualized consideration, transformational leaders understand followers’ needs, consider their different skills and inspirations, build relationships with them and empathy for followers, which in return leads to higher levels of creativity (Gumusluoglu & Ilsev, 2009). Bass and Avolio (1990) argues that transformational leaders boost employees’ ability to produce useful and new ideas by the influence of their behavioral modeling. Finally, all transformational leadership’s dimensions encourage employee learning and thus, motivates employee creativity as well (Gong, Huang & Farh, 2009). So, we predict all components of transformational leadership are highly associated with employee creativity (Shin & Zhou, 2003).

Hypothesis 2. Transformational leadership has positive impact on employee creativity.

Influence of employee learning orientation on employee creativity

From the perspective of “enactive mastery experience” as explained by social cognitive theory (Bandura, 1986, 1997), an employee acquires skills and knowledge through his (her) direct experience. Bandura (1986) argued that “enactive mastery experience” refers to internal personal element, which affect obtaining skills and knowledge. A learning orientation refers to an individual’s internal mind-set that inspires his (her) development of competency (Dweck, 1986, 2000; VandeWalle, Brown, Cron, & Slocum, 1999; Gong, Huang & Farh, 2009; Dweck & Leggett, 1988); therefore Gong, Huang and Farh (2009) describes learning orientation as critical for enactive mastery. Previous research shows that through learning orientation individuals pursue attainment of skills and knowledge (Kozlowski, et al., 2001; Gong, Huang & Farh, 2009; Brett & VandeWalle, 1999). Individuals having a learning orientation seek experiments that provide them with more opportunities to learn (Ames & Archer, 1988). Empirical evidence demonstrates that individuals who acquire knowledge and skills (i.e., having a learning orientation) boost creativity (Gardner, 1993; Amabile & Gryskiewicz, 1987).

Hypothesis 3. Individuals’ learning orientation has positive impact on employee creativity.

Psychological empowerment as a Moderator

Thomas and Velthouse (1990) describes psychological empowerment as a psychological state that is distinguished by employees’ dynamic orientation towards their work. Zhang and Bartol (2010) conceptualized psychological empowerment as a set of cognitions or a psychological state. Researchers distinguish psychological empowerment as a motivational construct from the concept of managerial empowerment (i.e., delegation of authority and responsibility from top management to the lower management) (Pieterse, Van Knippenberg, Schippers & Stam, 2010; Leach, Wall & Jackson, 2003). Psychological empowerment is a state in which employees have a sense of self-efficacy (i.e., to have the capability to execute the job well) (Conger & Kanungo, 1988). Spreitzer (1995) further extends the study of Conger and Kanungo (1988) and Thomas and Velthouse (1990) and explains psychological empowerment has four dimensions: (1) Meaning, (2) Competence, (3) Self-determination, and (4) Impact. Meaning refers to an individual’s personal feelings that he (she) is important and valuable. Competence is defined as an employee’s perception of having the capability to accomplish his job successfully (i.e., self-efficacy). Self-determination is defined as an

individual's freedom to initiate and regulate tasks on his own initiative. Impact means an individual feels capable of having influence on work outcomes.

In recent times, many researchers have given significant attention to psychological empowerment (Carless, 2004; Liden, Wayne & Sparrowe, 2000; Pieterse, et al., 2010; Ergeneli, Saglam & Metin, 2007). Pieterse, et al. (2010) took psychological empowerment as a moderator, which has positive influence on transformational leadership and creative behavior. Individuals having sense of psychologically empowered are more likely to take initiatives at work place, act autonomously, show proactive behavior, and see themselves as capable of doing their job successfully (Thomas & Verthouse, 1990; Spreitzer, 1990; Pieterse, et al., 2010). Deci, Connell and Ryan (1989) shows that another source of employee creativity is psychological empowerment. Individuals with psychological empowerment exhibit more creativity (Zhou, 1998; Jung et al., 2003; Gumusluoglu & Ilsev, 2009). Autonomy is a fundamental feature of creative people (Sheldon, 1995) and when leaders support autonomy, employee creativity will be enhanced (Mumford & Gustafson; 1988). Therefore, transformational leadership motivates its followers to be creative and innovative at the work place, but they also have sense or feelings of competency and capability (through psychological empowerment) to be innovative (Pieterse, et al., 2010). In short, we posit that when psychological empowerment is high, transformational leadership is more effective to stimulate employee's creativity at individual level, and conversely under conditions of low psychological empowerment, transformational leadership is less effective to encourage creativity.

Hypothesis 4. Psychological empowerment moderates the relationship between transformational leadership and employee creativity, i.e., when psychological empowerment is high, the relationship will be stronger and when psychological empowerment is low, the relationship will be weaker.

Employees who are psychologically empowered are more motivated to demonstrate creativity behavior (Gumusluoglu & Ilsev, 2009; Jung et al., 2003; Zhou, 1998) and our belief is that employee learning orientation is conducive to the construct of psychological empowerment. Dweck and Leggett (1988) and Dweck (1986) discuss that employee learning orientation is based on the notion of efficacy beliefs. It is related to one of the dimensions of psychological empowerment, i.e., competence. The psychologically empowered employee believes that he (she) has the capability to accomplish his (her) task or job effectively (i.e., self-efficacy) (Zhang & Bartol, 2010). Dweck (1986, 2000) argues that learning orientation focuses on the development of competence. Individuals exhibiting a learning orientation are motivated to practice personal mastery over time and with that personal mastery, those individuals should prove to be more self-efficacious at exploring creative solution (Gong, Huang & Farh, 2009). Ames and Archer (1988) demonstrates that employees with a learning orientation see new challenges as opportunities. Self-determination is another dimension of psychological empowerment distinguished by a perception of freedom to carry out challenges or tasks on one's own initiative (Zhang & Bartol, 2010). Finally, employee learning orientation focuses on the enhancement of self-competence (Gong, Huang & Farh, 2009) and Conger and Kanungo (1988) explains that psychological empowerment is the process of enhancing employees' self-efficacy. With the help of the above arguments, we posit that psychological empowerment moderates the positive connection of employee learning orientation and employee creativity at the individual level, i.e., when employees have a sense of empowerment, they are more motivated to gain personal mastery and to produce creative outcomes.

Hypothesis 5. Psychological empowerment moderates the relationship between employee learning orientation and employee creativity, i.e., when employees feel psychologically empowered, they are more motivated to gain personal mastery and to be more creative.

Methods

Research Context and Participants

In this study, respondents were the employees of public and private sector organizations headquartered in Anhui province of People's Republic of China (PRC). Participants were administrative-level and professional-level employees, such as new market expansion, software engineers and new product developers, whose work demanded considerable creativity in order to perform their job effectively. We communicated to human resource (HR) department of each company to support the study, to encourage participation and to acquire their help in distributing hard copies of questionnaire. Respondents questioned to rate the level of transformational leadership of their respective leaders and their own level of psychological empowerment. Respondents also provided information about their demographics, creative intention and learning orientation.

A total of 320 questionnaires distributed to administrative and professional level employees and received 225 useful responses, for a 70.3% response rate. 48.9% respondents were males and 51.1% respondents were females. The majority of the respondents were well educated (52.9% respondents held undergraduate degrees, 29.8% respondents held graduate degrees). The average age of the respondents was 29.89 years. The majority of the respondents were engaged in administrative jobs (53.3%). The income of 67.1% respondents was 10,000 Yuan.

Measures

The entire questionnaire was translated into Chinese from English. To guarantee uniformity of the measures in Chinese and English, we used standard translation and back-translation procedure, which was suggested by Brislin, 1980. Unless otherwise indicated, all the variables were measured by participant responses to questions on a five-point Likert-type scale ranging from "strongly disagree" to "strongly agree."

Transformational Leadership

We used nine-item scale to measure transformational leadership, which was adopted from Overstreet, (2012). This scale was manifested by adopting seven-items from Carless, Wearing, & Mann, (2000). The remaining two items were established by Overstreet, (2012) to increase the items for transformational leadership to nine-item scale.

Psychological Empowerment

To measure psychological empowerment, we used a validated twelve-item scale of Spreitzer (1995). This scale was manifested in four subscales of 3 items each: meaning, competence, self-determination and impact.

Employee Learning Orientation

Six-item scale was used to measure employee learning orientation, which was adopted from Elliot and Church (1997).

Employee Creativity

To measure employee creativity, we developed 13-item scale. Ten items of the scale were adopted from Zhou and George (2001) and remaining items of the scale were adopted from Scott and Bruce (1994).

Organizational Innovation

We used three-item scale to measure organizational innovation, which is based on the work of Garcia-Morales, Llorens-Montes, & Verdú-Jover, (2006). Garcia-Morales et al., (2006) was defined organizational innovation on Miller and Friesen's (1983) work. The respondents were asked to calculate organizational innovation in the last three years by keeping in mind service/product, conveyance of services and new approaches of production.

Control variables

Pervious research has consistently associated level of education with innovative behaviors (Wiersema & Bantel, 1992; Baer, Oldham, & Cummings, 2003; west & Anderson, 1996). In this study, we took level of education as a control variable, which was divided into four categories: (1) “Undergraduate”; (2) “Graduate”; (3) “Postgraduate”; and (4) “Others”. Demographic variable, i.e., gender did not influence our results, so we examined it as a control variable. Jung (2001) argued that gender was associated with innovative behavior. Thus, we did not include gender in our final model.

Table 1: Reliability Index Scale

Construct	Items	Cronbach's Alpha
Transformational Leadership	09	.946
Employees Learning Orientation	06	.982
Employees Creativity	13	.948
Psychological empowerment	12	.927
Organizational Innovation	03	.952
Overall	43	.965

Data analysis

First of all, the data was scrutinized for wrong coding and missing values. The examination of data identified random cases of missing values as Hair, Anderson, Tatham, and Black (2006) argued that to acquire a huge data set without having missing values is not possible. Furthermore, no such case of wrong coding was found from the data set. To replace the missing values from the given data set, we used mean score substitution (Tabachnick & Fidell, 2001; Shammout, 2007). After that we checked normality of data through Kurtosis and skewness, value of both less than +/- 1.00 showed the normality of data. Examination of data was showed that there is no violation of this assumption.

Results

To assess the proposed relationship between exogenous and endogenous variables, structural equational modeling was applied and using AMOS 20.00 we independently tested the measurement model of transformational leadership. Three observed variables, namely: transformational leadership, employees learning organization, organizational innovation were associated in the model. Using psychological empowerment as moderating variable and employees creativity as intervening variable, this study explore the influence of transformational leadership on organizational innovation. For model fitness analysis, this study incorporated the model fitting tools suggested by Bagozzi and Yi (1988). According to them, calculate X2, GFI, AGFI, NFI, NNFI, X2/df, CFI, IFI and RMSEA values as model fitting tools. We used battery of fit indices to reveal that to what extent the data fits the anticipated model, which incorporated absolute fir measure i.e., chi-square statistic, which shows the anticipated and actual matrix differences are non-significant for a model to be acceptable. As they provide non-redundant information about the model's fit (Beauducel & Wittmann, 2005). Hu and Bentler (1999) suggested that a CFI close to or above .95 and a RMSEA less than .06 indicates an acceptable fit.

1. Chi-square goodness-of-fit statistic was computed. The outcome demonstrates that the model is fit the data well by the chi-square test, χ^2 (N = 225, df = 1) = 2.406, p=0.121 >.05.

2. GFI, AGFI, NFI and NNFI referred to goodness of fit, adjusted GFI, normed fit index, non-normed fit index respectively: the outcome indicates that GFI is equal to 0.995, which means this model could explain 99.5% and AGFI is equal to 0.950. Hair, Anderson, Tatham, and Black (1998) argued that if both values were greater than 0.8 then the fitness of the model will be good.

Meyers, Gamst, and Guarino (2006) explained that if result will be 0.9 or above then it will demonstrates acceptable model fit. After that, NFI is equal to 0.956 and NNFI is equal to .974, both values were greater than 0.9 which again indicates that the fitness of the model was good.

3. The outcome demonstrates $X^2/df = 2.406$, smaller than 3 (Segars & Grover, 1993), meaning the explanation capability achieved the level of explanation.

4. CFI and IFI referred to comparative fit index and incremental fit index: in this study both CFI and IFI are .996, greater than 0.9, meaning the fitness was suitable (Bentler & Bonett, 1980). Another fit indices incorporate relative fit measures like goodness of fit and normed fit index. According to Meyers, Gamst, and Guarino (2006), CFI and IFI are measures of model fit relative to the independent model.

5. If value of RMSEA smaller than 0.08 shows significance. In current study, RMSEA is equal to 0.079. Byrne (2001) explained RMSEA as the average of the residual between the observed correlation/covariance from the sample and the expected model estimation of the population.

Table 2: The fitness model table

Fitness Indicator	Critical Value	Results
X ² /df	<3	2.406
GFI	>0.9	.995
AGFI	>0.8	.950
NFI	>0.9	.956
NNFI (TLI)	>0.9	.974
CFI	>0.9	.996
IFI	>0.9	.996
RMSEA	<0.08	.079

Path analysis

In order to investigate the causal relationship, to acquire the relation, and also the antecedence and consequence reasoning directions we incorporated path analysis in this study. Table no. 3 indicating the path coefficients of different relationship between constructs. Significance level: This study adopted Max. Likelihood to estimate the path factor, and the outcome demonstrates that transformational leadership -> employees creativity, employees learning orientation -> employees creativity, and employees creativity -> organizational innovation; if P-value is smaller than 0.01 (***) than the significance level will be achieved. Transformational leadership -> employee's creativity, employees learning orientation -> employee's creativity, and employee's creativity -> organizational Innovation. The P-values were equal to 0.000 confidence level and standard errors were between 0.001~0.133.

Table 3: Path factor estimate results

Variable	Estimate	S.E.	C.R	P
Transformational Leadership (TL) → Employees Creativity (EC)	.195	.065	2.981	.003
Learning organization (LO) → Employees Creativity (EC)	1.204	.133	9.085	***
Psychological Empowerment (PE) → Employees Creativity (EC)	.641	.055	11.724	***
TL x PE → Employees Creativity (EC)	.010	.001	10.766	***
LO x PE → Employees Creativity (EC)	.018	.001	14.229	***
Employees Creativity (EC) → Organizational Innovation (OI)	.233	.015	15.044	***

The squared multiple correlations elucidate that 0.39 or 39% of the variance of support for transformational Leadership and employees' learning orientation are accounted for by the variance in Employees Creativity. 55% variance is accounted by the employee's creativity, transformational leadership and employees learning orientation in organizational innovation. The remaining 0.45 or 45% of the variance of support for organizational innovation cannot be explained by the model, and is thus attributed to the unique factor e_2 (residual).

Path Effect

Table no. 4 showing the path effects of predictors on the study variables.

Path 1: The outcome indicates that the direct influence of "transformational leadership -> employee's creativity" was .394 with p-value under 0.000. Thus, transformational leadership was significantly related to employee's creativity, and Hypothesis 1 of this study was proved.

Path 2: The outcome indicates that the direct influence of "Employees Learning Orientation -> Employees Creativity" was .601 with p value .000. Thus, employees learning orientation was positively and significantly effect on employee's creativity with a path coefficient of 1.206, and Hypothesis 2 of this study was proved.

Path 3: The outcome indicates that the direct influence of "employee's creativity -> organizational innovation" was 0.718 with p-value under 0.000. Thus, employee's creativity was positively related to organizational innovation with a path coefficient of .233 and Hypothesis 3 of this study was proved.

Path 4: The outcome indicates that the direct influence of "employee's psychological empowerment -> employee's creativity" was .617 with the p value of .000, which indicating that there is a direct relationship between psychological empowerment and employees creativity but psychological empowerment positively moderating the relationship of transformational leadership and employees creativity. The moderating effect was .584 with p- value of 0.000, the path coefficient was .010 and Hypothesis 4 of this study was proved.

Path 5: The outcome indicates that the direct influence of "employees' psychological empowerment -> employees' creativity" was .617 (0.000) which demonstrating that there is a positive relationship between both variables but psychological empowerment positively and significantly moderating the relationship of employees learning orientation and employees creativity. The moderating effect was .689 with the p value of 0.000, the path coefficient was .018 and Hypothesis 5 of this study was proved.

Table 4: The comparison of path effect

Variable	Direct Effect	Indirect Effect	Total Effect
Transformational Leadership (TL) → Employees Creativity (EC)	.394 (***)		.394
Employees Learning Orientation (LO) → Employees Creativity (EC)	.601 (***)		.601
Employees Creativity (EC) → Organizational Innovation (OI)	.718 (***)		.718
Transformational Leadership (TL) → Organizational Innovation (OI)		.283 (***)	.283
Employees Learning Orientation (LO) → Organizational Innovation (OI)		.432 (***)	.432
Psychological Empowerment (PE) → Employees Creativity (EC)	.617 (***)		
TL x PE → Employees Creativity (EC)	.584 (***)		
LO x PE → Employees Creativity (EC)	.689 (***)		

Moderation Analysis

Transformational Leadership, Psychological Empowerment & Employees creativity

The direct effect of transformational leadership on employee’s creativity was -.86, which indicating the significantly negative relationship because high correlation between both constructs (Cohen, 1978) and the direct effect of psychological empowerment on employee’s creativity was -.27 which also indicating significant negative relationship because both constructs are highly correlated (Cohen, 1978). After incorporating moderating variable (transformational leadership x psychological empowerment), the effect become 1.58. Thus, the moderating variable (psychological empowerment) positively changes the relationship between transformational leadership and employee’s creativity and H4 supported. Figure no. 3 indicates that if there is high psychological empowerment then the relationship between transformational leadership and employee’s creativity will be stronger (High) and if there is low psychological empowerment then the relationship between transformational leadership and employee’s creativity will be weaker (Low). The relationship between psychological empowerment and employee’s creativity was significant, psychological empowerment significantly and positively moderate the relationship of transformational leadership and employees creativity which indicates that as the level of employees psychological empowerment increases than they will become more motivator, inspirational and creative leaders and vice versa.

Table 5: Analysis of moderation effect TL & PE

Variable	Transformational Leadership (TL)	Psychological Empowerment (PE)	Transformational Leadership x Psychological Empowerment (TL x PE)
Employees Creativity (EC)	-.86	-.27	1.58

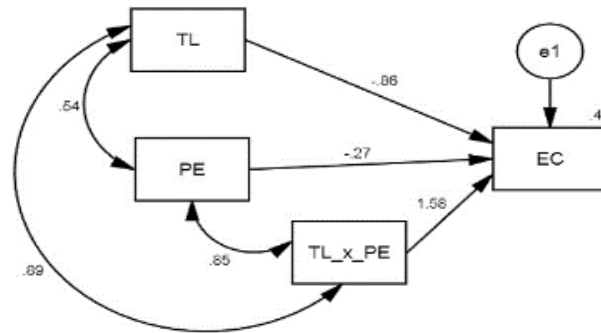


Figure 2: Moderation analysis: transformational leadership & psychological empowerment

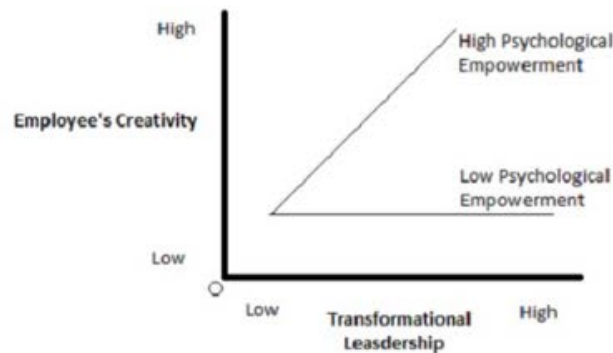


Figure 3: Psychological empowerment as a moderator of transformational leadership & employees’ creativity

Employees Learning Orientation, Psychological Empowerment & Employees creativity

The direct effect of Employee's learning orientation (LO) on employee's creativity was $-.05$, which indicating the significantly negative relationship because these two constructs are highly correlated (Cohen, 1978) and the direct effect of psychological empowerment on employee's creativity was $-.17$ which also indicating significant negative relationship because both constructs are highly correlated (Cohen, 1978). After incorporating moderating variable (Employees learning orientation x psychological empowerment), the effect become $.89$. Thus, the moderating variable (psychological empowerment) positively changes the relationship between employees learning orientation and employee's creativity and H5 supported.

Table 6: Analysis of moderation effect LO & PE

Variable	Employee Learning Orientation (LO)	Psychological Empowerment (PE)	Employee Learning Orientation x Psychological Empowerment (LO x PE)
Employees Creativity (EC)	$-.05$	$-.17$	$.89$

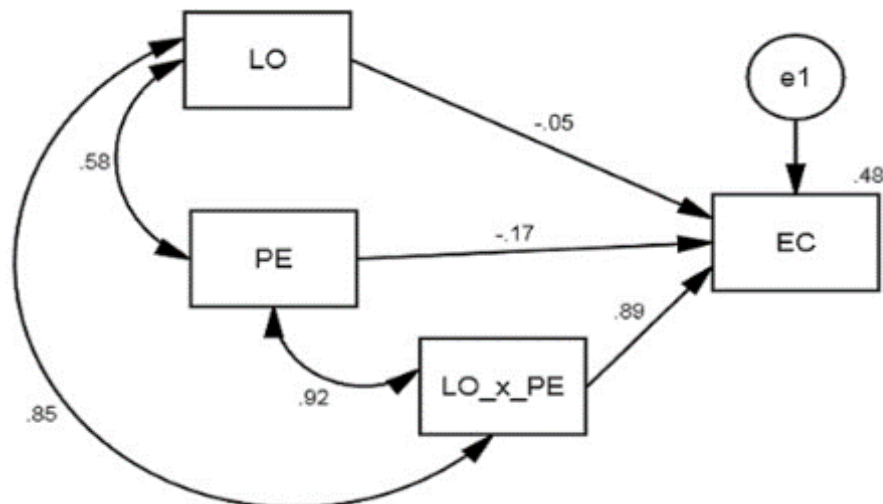


Figure 4: Moderation analysis: employees' learning orientation & psychological empowerment

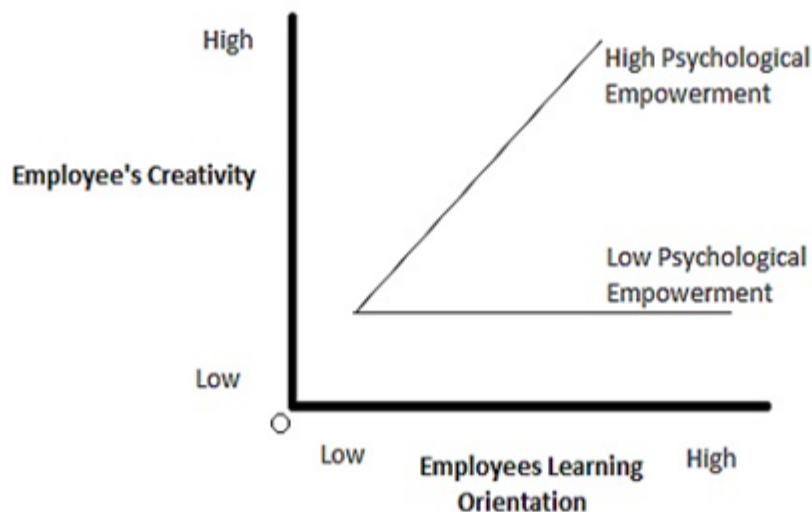


Figure 5: Psychological empowerment as a moderator of employees' learning orientation & employees' creativity

Figure no. 5 showing that if there is high psychological empowerment then the relationship between employees learning orientation and employee's creativity will be stronger and if there is low psychological empowerment then the relationship between employees learning orientation and employee's creativity will be weaker. The relationship between psychological empowerment and employee's creativity was significant, psychological empowerment significantly and positively moderate the relationship of employees learning orientation and employees creativity which indicates that as the level of employees psychological empowerment increases than they will become more motivator, inspirational and creative leaders and vice versa.

Mediation Analysis

Without mediating variable, the direct effect of transformational leadership on organizational innovation was 0.183 and after mediating variable (Employees Creativity) was included, the total effect was .311. Table no. 7 indicating the indirect effect .128, which is strengthening the relationship of both constructs. This mediation analyses provided that there is a perfect positive mediation between transformational leadership and organizational innovation. While the direct effect of employees learning orientation on organizational innovation was -.166 which is indicating negative impact on organizational innovation and after incorporating the intervening variable, employees creativity the total effect become .228. Table no. 7 showing that there is a positive indirect effect .394 between employees' learning orientation and organizational innovation, which is showing that employee's creativity has a great contribution towards relationship between organizational innovation and employee's learning orientation.

Table 7: Analysis of mediation effect

Variables	Effects	Transformational Leadership	Employee Learning Orientation	Employees Creativity
Employees Creativity (EC)	Direct Effect	.173	.53	
	Indirect Effect			
	Total Effect	.173	.53	
Organizational Innovation (OI)	Direct Effect	.183	-.166	.746
	Indirect Effect	.128	.394	
	Total Effect	.311	.228	.746

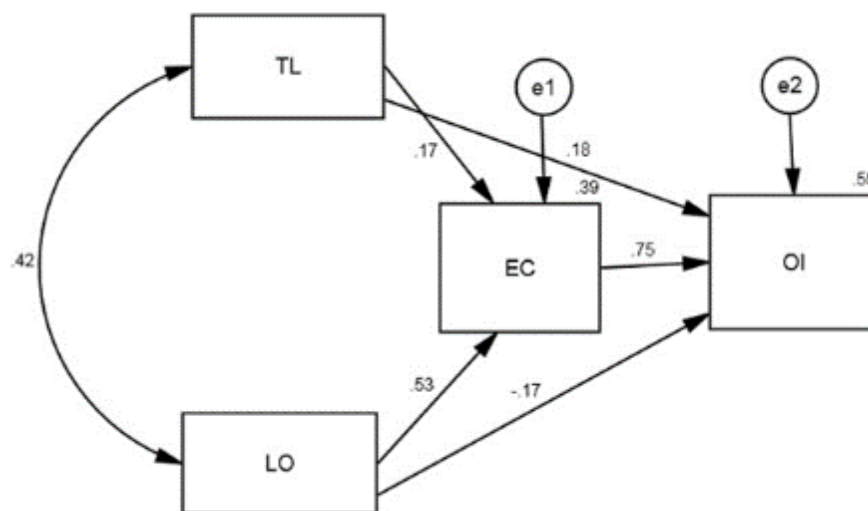


Figure 6: Path diagram

Discussion

Our study contributes to leadership literature in four ways, which are as follows: First, we have examined the association between individual employee creativity and organizational innovation; second, we have investigated the impact of transformational leadership on employee creativity; third, we have tested the relationship of learning orientation on employee creativity; and fourth, we have elucidated psychological empowerment as the moderator of the influence of transformational leadership and employee learning orientation on employee creativity. In this study, we have taken transformational leadership and employee learning orientation as an employee's creativity predictors, as they are related to actions anticipated that will enhance employee's competence and also lead to learning (Gong, Huang & Farh, 2009; Kruglanski et al., 2000; Benjamin & Flynn, 2006). Amabile and Grysiewicz (1987) argued that learning is associated with creativity. Finally, we have examined psychological empowerment as a moderator for two reasons. First, psychological empowerment has a positive effect on employee creativity (Alge, Ballinger, Tangirala & Oakley, 2006). Second, when psychological empowerment is high, it strengthens the relationship between transformational leadership, learning orientation and employee creativity.

Conclusion

Because of intensive competition, constant technological innovation and increasingly sophisticated working environments, managers have realized that employees' creativity is essential to remain competitive in industry (Zhang & Bartol, 2010; Shalley & Gilson, 2004). So, day-to-day need of creativity and innovation in current situation, managers should provide enough support and create supportive working environment, so that, their employees feel free to be more creative and focus out-of-box thinking.

In conclusion, we found that, as anticipated, transformational leadership and employee learning orientation positively influenced employee creativity, which in return employee creativity positively affected organizational innovation. Whereas, the relationship of transformational leadership and employee learning orientation with employee creativity moderated by psychological empowerment. Using survey data (simple random technique), we have proved all our hypothesis with the help of transformational leadership and psychological empowerment theories.

The limitation of this study is about the common methods biasness. Our study may or may not be influenced from common methods biasness. We recommend researcher to extend this study in cross-culture analysis to further investigate the impact of transformation leadership and employee learning orientation on employees' creativity.

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