



# Article Nexus between Leader–Member Exchange, Paternalistic Leadership, and Creative Behavior in the Construction Industry

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Abstract: Effective leadership and creative performance are the predominant factors for the success of modern projects in the global construction industry. However, rigorous research has not explored the nexus between such factors and the leader-member exchange (LMX). To address this gap, this study explores the relationship between dimensions of paternalistic leadership and employee creativity achieved through LMX in the context of the construction industry. Based on social exchange theory (SET), six relevant hypotheses were proposed in this study. The data were collected through a structured questionnaire. An online survey form was used for data collection, through which 288 responses were collected from the construction industry employees working in Pakistan. The collected data were analyzed using Smart PLS in two stages, i.e., measurement model evaluation (reliability analysis, convergent and discriminant validity) and structural model evaluation (R<sup>2</sup>, F<sup>2</sup>, and path coefficient). The findings of the current study reveal a positive association of authoritarian, benevolent, and moral leadership with employee creativity. In addition, LMX significantly mediates the relationship between the two dimensions of paternalistic leadership (benevolent and moral leadership) and creativity, except for authoritarian leadership. Based on the results, this study contributes to the body of knowledge related to the appropriate leadership style in the local construction industry that can be extended to other developing countries with similar dynamics. It also helps the managers target and develops relevant skills to acquire positive outcomes from their team members.

**Keywords:** construction industry; developing countries; employee creativity; leader–member exchange; paternalistic leadership

# 1. Introduction

The construction industry provides job opportunities and plays a significant role in national economic growth. However, some tasks and operations of the construction industry require technical knowledge, creativity, and skills [1,2]. Thus, every individual from diversified backgrounds has to generate creative ideas for solving these technical and amorphous problems [3,4]. Furthermore, with the ever-increasing complexity of construction projects, individuals working in different teams must collaborate to solve these emergent problems and develop effective and innovative solutions [5,6]. Therefore, besides the collaborative efforts of team members, the success of construction projects



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**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). is contingent upon the effective management of an individual's knowledge, skills, and abilities (KSA). Such management can be achieved through effective leadership [7,8].

Effective leadership fosters creative performance, which helps team members achieve project goals by developing novel and innovative ideas to improve processes [9,10]. In the absence of effective leadership, organizational performance and the work pace are stalled and consequently fail to achieve its goals. Thus, for organizations to thrive in challenging times, a leader's role in influencing and encouraging his team members, showing organizational commitment, and developing creative solutions to emergent problems is paramount. Hence, such a role takes center stage in the overarching frame of the predictors of project success.

Construction projects are complex and require a dynamic leadership style to promote creative performance, allowing individuals to contribute toward project success [11]. In this regard, paternalism has received more attention from researchers around the globe, specifically in Asia [12]. Paternalistic leadership combines the following three dimensions: authoritarian, moral, and benevolent leadership, to promote creative performance in the workplace [13]. However, preceding studies have examined the individualistic leadership style [14,15] without giving much importance to the impact of paternalistic leadership. As a result, scientific studies possess limited evidence on the combined effects of authority, benevolence, and morality on employee creative behavior on construction industry projects. Furthermore, the leader–member exchange (LMX) is considered the most vital component of any organization [16].

From the perspective of social exchange theory (SET), social exchanges occur with an expectation that an individual's positive action will be reciprocated by the other individual. Paternalistic leadership style theorized to be an antecedent of leader–member exchange is expected to pave the way for employees to reciprocate by exerting to find creative solutions to the specific problems rampant on construction projects. Therefore, based on SET, which is one of the most reliable behavioral assessment theories, LMX is expected to enhance creative employee behavior and make the relationship stronger with a leader [17]. However, this relation has not been explored to date through rigorous research. Previous empirical studies have demonstrated a significant impact of paternalistic leadership—authoritarian, moral, and benevolent—on employee voices from the perspective of LMX [18]. In addition, most past studies limit the scope of paternalistic leadership to just benevolent and authoritarian style to enhance employee creativity through LMX [19,20].

Accordingly, little is known about the role of LMX in the relationship between the three distinct dimensions of paternalistic leadership and employee creativity. Accordingly, it is proposed that LMX is a fundamental intervening variable between the relationship of dimensions of paternalism and creativity in this study. Furthermore, this model is based on the SET, which is based on the principle of reciprocity; therefore, the main goal of the research is to explore the nexus between LMX, paternalistic leadership and creative behavior in the construction industry.

The evidence [21] shows that the global construction industry in general and the construction industry in developing states, such as Pakistan in particular, comprises members with diverse educational, professional, and cultural backgrounds [22,23]. For example, civil engineers, architects, and other graduates need minimum professional guidance, but other classes defined as laborers or low-level skilled workers need more dire attention from managers to perform specific tasks. In this respect, the paternalistic leadership style and LMX can help the construction employees improve their creative behaviors in exchange for loyalty and trust [20]. In the review of this point, a detailed analysis of paternalistic leadership and LMX and its impact on employees' creativity can add new insight to the management studies by investigating the significance of the relationship between the proposed variables that have been ignored in previous studies. So, this paper aims to analyze the impact of paternalistic leadership on employees' creativity by exploring the mediating role of LMX in the construction industry. With the background of the study and the focus of the research explained in the introduction section of this paper, the remainder of the paper is organized as follows. Section two begins by explaining the conceptual framework of this study in the light of SET; the second section then concludes by presenting the hypotheses of this study. With the framework conceptualized and hypotheses presented, the paper proceeds by articulating the research design in the third section of the paper. The results related to path coefficients and their relevance to testing hypotheses are discussed in section four of the paper, followed by section five, which discusses the significance of the results. The paper then concludes by presenting a section on the conclusion with the key takeaways, future directions, and limitations of research.

#### 2. Model and Hypothesis Development

#### 2.1. Theoretical Underpinning

The model proposed in the current study is based on SET. This theory is considered one of the most reliable behavioral assessment theories and is predominantly used to analyze organizational behavior [24]. SET comprises three steps, which are as follows: initial treatment towards the follower, reciprocity, and the formation of the relationship between the leader and follower. Reciprocity is the basic norm of SET [25]. In general, employees are motivated to exchange constructive behavior based on obligation and acknowledgment towards their leaders who provide them with initial favor in positive terms, such as guidance in settling in and becoming used to the system [26].

Reciprocity norm is also pertinent for supervisors and subordinates in the construction industry because workers in construction work closely and communicate with each other frequently. When employees are treated with respect, they acknowledge their leader and vice versa [27]. Therefore, treatment given to the employees is the basic notion of SET. Such treatment also supports the chosen variables for this research. These include authoritarian leadership, benevolent leadership, moral leadership, LMX, and creative behavior. Authoritarian leadership is considered the high side of the paternalistic leadership style that focuses on the role of leaders in a culture where there is a defined hierarchy in job roles, and the leaders prefer to order the subordinates instead of working together [28].

Communication gaps, the need to maintain discipline, recruitment of new graduates on an annual basis, recruitment of skilled members or laborers, especially in the construction industry, and lack of technological advancement play a significant role in supporting authoritarian leadership styles. However, in recent scenarios, as construction projects are becoming more complex and teams need joint efforts to compete in the challenging environment, other leadership styles have become more important.

In benevolent leadership, the managers ensure the personal development of the team members in their professional lives and continuously review employees' performance to improve creativity in the workplace [29]. In moral leadership, managers promote virtues at the workplace to ensure a healthy working environment, which motivates the team members and improves creativity in the workplace [30]. LMX also deals with the concept of social exchange that impacts job performance, employees' voice, behavior, and commitment [31]. Thus, the impact of paternalistic leadership and the mediating role of LMX can affect employees' creative behaviors in the construction field. Therefore, considering the scope of variables, the following framework (Figure 1) has been designed to test the significance of the relationship between the proposed variables.



#### Figure 1. Conceptual model.

#### 2.2. Hypotheses Development

Based on the model presented in Figure 1, multiple hypotheses are proposed in this study. These are subsequently discussed.

#### 2.2.1. Paternalistic Leadership Styles and Employee Creativity

Paternalistic leadership is the combination of morality, benevolence, and authoritarianism that is deeply rooted in the Confucianism Chinese culture [32]. Accordingly, it has been demonstrated that there must be mutual, reciprocal obligations at different levels of authority [13,28]. The SET elucidates the expected relationship between the dimensions of paternalism and employees' creative performance. The first dimension of paternalistic leadership, i.e., authoritarian style, refers to a leadership style where the leader exhibits strong control and authority over team members and asks for unquestioned obedience. However, this is mostly considered a destructive leadership style [33].

In contrast, the dimensions of moral and benevolent leadership comprise of positive traits. Past literature highlights the negative association of authoritarian leadership with the behavior and other traits of employees, such as job satisfaction, the intention of sharing tacit knowledge [28], teamwork [34], intent to stay in the organization [29], creativity [30], and performance [35]. So, when leaders treat their employees with strict and threatening attitudes, they cannot generate unique and novel ideas. Moreover, even if they can generate such ideas, they are reluctant to share them. This is due to mental pressures, lack of confidence, and poor recognition of the inputs [36]. This forms the basis for the first hypothesis of this study, which is stated as follows:

#### Hypothesis 1 (H1). Authoritarian leadership style is negatively associated with employee creativity.

The second dimension of paternalistic leadership, i.e., benevolent leadership, refers to the concern of leaders for team members at personal and professional levels. Leaders with benevolent traits show apprehension and a caring attitude toward their subordinates and encourage them to solve their problems efficiently [13]. They further show concern for the personal problems of subordinates and kindness towards their family members and other relations [37,38]. Individual consideration toward team members is similar to transformational leadership, which provides individualized care to employees at work and in non-work domains (encouragement and family welfare) [39]. It also provides opportunities for personal growth and career development [40]. Numerous empirical studies illustrate the positive association of benevolence with job commitment, satisfaction, employee performance, and creativity [41,42]. So, when an employee is treated with individualized care, they will perform positively and be creative. Based on this, the second hypothesis of this study is proposed as follows:

#### Hypothesis 2 (H2). Benevolent leadership style is positively associated with employee creativity.

The third dimension of paternalistic leadership, i.e., morality, implies that the leader acts as a role model through unselfish behavior and creates a sense of responsibility [13,29]. When employees find their work persuasive, they perform their tasks efficiently and help others achieve their goals. As a result, employees adopt a continuous learning approach and become more creative [43]. Empirical research demonstrates the significant impact of moral leadership on employees' behavioral outcomes [44], such as intrinsic motivation, trust in the supervisor, and creativity [45]. Furthermore, Yidong and Xinxin [46] showed the positive association of ethical leadership with the employee's creative outcome. Consequently, morality is positively linked with employee creativity. Based on this discussion, the third hypothesis is proposed as follows:

# Hypothesis 3 (H3). Moral leadership style is positively associated with employee creativity.

#### 2.2.2. Paternalistic Leadership Styles, Leader-Member Exchange, and Creativity

Based on SET, LMX is defined as a quality of give-and-take dealings between leaders and subordinates. Past studies indicate the positive association of LMX with workplace outcomes, i.e., job performance, satisfaction, autonomy, and paternalism [37,47–49]. Employees of Asian organizations build long-term relationships and emphasize the results [50]. Several empirical studies highlight the research of LMX in the context of Asia. Employees with low LMX are more likely to exhibit workplace deviant behavior [51]. Contrary to this, employees enjoying a high quality of LMX perceive a high level of support from their leaders [52,53].

For the first type of paternalistic leadership, authoritarianism is negatively associated with employee creativity for several reasons, which are as follows: high power distance, stringent hierarchy, punishment, and ignoring subordinates during decision making. Employees who perceive their leader as authoritarian feel threatened by their supervisors [30]. Therefore, such employees perform their tasks just to evade punishment and exhibit a low level of LMX [54]. Previous studies indicate that authoritarian leadership creates a low quality of LMX in relation to the task performance of an employee [54]. Overall, authoritarianism produces a low level of LMX, due to the fact that the team members do not feel obliged and are not interested in performing creative tasks. Based on the principle of reciprocity, when employees face negative treatment, they will respond with negative outcomes. Therefore, authoritarianism creates low-quality LMX in a relationship with employee creativity. Accordingly, the fourth hypothesis of this study is proposed as follows:

# **Hypothesis 4 (H4)**. Leader member–exchange mediates the relationship between authoritarian leadership and employee creativity.

According to SET, benevolent leaders provide a broader framework for relationship building, as it helps them and their team members. For example, such relations help the leaders in their career development and help their subordinates to correct mistakes. In return, subordinates will take the initiatives to accomplish targeted goals and be more willing to assist the leader. This type of relationship ultimately earns respect, loyalty, and commitment [52]. LMX builds the obligation that subordinates are loyal to their leaders who support them and will pay more attention and effort at the workplace. Based on the social exchange process, LMX mediates between a benevolent leader and employees' performance [55,56]. Prior studies indicate partial and full mediation of LMX between benevolent leadership and employee performance [52]. Therefore, with the high quality of LMX due to benevolent leadership, employees are expected to generate creative ideas in the workplace. Accordingly, the fifth hypothesis of this study is proposed as follows:

**Hypothesis 5 (H5)**. Leader–member exchange mediates the relationship between benevolent leadership and employee creativity.

The third aspect of paternalistic leadership, i.e., moral leadership, comprises integrity, ethics, honesty, and mutual welfare towards their team members ([57]. The past few studies illustrate that ethical leadership with integrity and justice is positively linked to LMX [58]. Furthermore, employees perceive the high quality of LMX when moral leaders focus on the collective well-being of employees [59]. As a result, they generate creative and useful ideas in the workplace [17]. Accordingly, it is proposed that moral leadership creates a high quality of LMX, which is expected to affect employee creativity. Based on the above discussion, the sixth hypothesis is proposed as follows:

**Hypothesis 6 (H6)**. *Leader–member exchange mediates the relationship between moral leadership and employee creativity.* 

#### 3. Research Methodology

This study adopts a stepwise research method that is explained subsequently.

#### 3.1. Sampling and Data Collection

A post positivist philosophical worldview is utilized in the current research. It is based on the assumption of objectivity and is true for quantitative research and theory verification [60]. A structured questionnaire and non-probability convenient sampling technique are used to collect data from the construction industry of Pakistan [61].

Partial least square-structural equation modeling (PLS-SEM) is used for the data analysis of the current research [62]. PLS-SEM is used because it helps analyze the complex model with multiple variables and examine research questions with systematic analysis [63]. Based on Cohen's table and 10-times rule of thumb, a sample of 296 respondents is selected on the criteria of arrowheads in the research path model towards latent variables [64].

Cohen's (1992) work on the minimum sample size requirements for multiple regression analysis was capitalized upon to determine the sample size for this study. Cohen's (1992) work provides minimum sample size requirements to detect percentage variance ( $\mathbb{R}^2$ ) in the endogenous constructs at different levels of 0.1, 0.25, 0.5, and 0.75 against the significance levels of 1%, 5%, and 10%. Cohen's (1992) work allows researchers to view sample size requirement as a function of the requirement to detect minimum  $\mathbb{R}^2$  at different statistical significance levels and the complexity of a model, whereby the maximum number of relationships with the variables are considered. Referring to Cohen's (1992) work, to detect at least 10% of the variance in the endogenous construct of a research model at the 1% statistical significance level with a maximum of 6 arrows pointing at the dependent variable, the minimum sample size 217 responses is required.

In view of the sample size requirements, an online survey form was shared with 296 potential respondents, which led to the receipt of 291 complete responses. All individuals working in managerial and technical positions were considered potential respondents for this study. The rationale behind this decision was that these individuals have to frequently deal with peculiar problems on construction projects. Furthermore, their creativity could make a huge difference in ensuring the deliverance of project deliverables as per contractual stipulations.

# Demographic Profile

The demographic profile analysis provides information regarding the respondents of the study. Considering that the research was carried out during the COVID-19 pandemic, the safety of both researchers and the respondents was of primary concern. Therefore, keeping the health concerns in perspective, an online survey form was shared with 297 potential respondents working in the government and private (local and international) construction firms. A total of 291 complete responses were acquired from the construction industry respondents located in Pakistan. Table 1 shows the demographic characteristics of these respondents. Out of 291 respondents, 85.4% are males, and 14.6% are females. A total of 45.6% of respondents belong to the 26–30 years of age group, while only 3.7% of respondents are above 40. In terms of education, most respondents have completed master's or bachelors' degrees and had experience of fewer than 5 years. This demonstrates that most of the young employees are working in the construction industry of Pakistan. This is positive, as the young workforce is considered tech-savvy and open to innovation compared to the older generation [65].

Table 1. Demographic profile.

Demographic Items	Frequency	Cumulative Percentage				
Gender						
Female	42	14.6%				
Male	249	85.4%				
	Age					
20–25	60	20.3%				
26–30	132	45.6%				
31–35	62	20.9%				
35–40	28	9.5%				
Above 40	9	3.7%				
	Education					
Intermediate	8	3.9%				
Bachelor	132	44.2%				
MS/M.Phil.	139	46.8%				
PhD.	12	5.1%				
	Total Job Experience					
<5 years	133	45.7%				
5–10 years	81	27.8%				
10–15 years	53	18.2%				
<15 years	24	8.2%				
	Employment Status					
Permanent	122	42.3%				
Contractual	148	50.4%				
Daily Wages	21	7.3%				
Organizations						
Government Firms	34	10.7%				
Local Private Construction Firms	249	85.4%				
International Construction Firms	8	3.9%				
Job Role						
High Management Positions	13	5.2%				
Low management positions	82	26.8%				
Site Engineers	154	53.4%				
Others	42	14.6%				

In terms of professional requirements, the majority (50.4%) of the respondents are working on a contract basis in private construction firms as engineers (53.4%). A total of 26.8% of the respondents work in low management positions and 5.2% in high management positions, such as chief executives, deputy directors, and CEOs of a group.

#### 3.2. Measures

The data were collected through a questionnaire in the current research. The survey instrument was adapted from past studies, and all items were measured using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree).

In this study, the following three dimensions of paternalistic leadership were taken as independent variables: benevolence, morality, and authority. In addition, paternalistic leadership is measured on a 15-item scale, adapted from the study of Cheng et al. [39]. Similarly, LMX is measured using a 7-item scale, adopted from the study [66]. Lastly, creativity is measured using a 4-item scale, adopted from Farmer et al. [67]. The items of each construct are shown in Table 2. All the measures are coded according to their constructs or categories. For example, the measures pertinent to leadership roles are coded as LR1,2,3..., the LMX measures are coded as LMX1,2,3..., and the measures pertinent to employee creativity are coded as EC1,2,3... as shown in Table 2.

Table 2. Construct and measures.

Construct	Code	Measure	Reference
	LR1	Appears to be intimidating in front of their subordinates	[39]
	LR2	Brings me a lot of pressure when we work together	
	LR3	Very strict with their subordinates	
	LR4	Scolds me when I fail the expected target	
	LR5	Disciplines me for violation of their principles	
	LR6	Often shows their concern about me	
Determent's Ca	LR7	Understands my preference enough to accommodate my requests	
Paternalistic	LR8	Encourages me when I encounter difficulties at work	
leadership	LR9	Would try to understand the real cause of my unsatisfied performance	
	LR10	Trains and coaches me when I lack the required abilities at work	
	LR11	Is responsible for the job	
	LR12	Takes responsibility on the job and never neglects their duty	
	LR13	Sets an example for me in all aspects	
	LR14	Well self-disciplined before demanding upon others	
	LR15	Leads, rather than follows, subordinates to deal with difficult tasks	
	LMX1	My team leader would come to my defense if I were 'attacked' by others in the organization	[66]
	LMX2	I do not mind doing additional work for my team leader	
Leader-member	LMX3	I admire my team leader's professional skills	
exchange	LMX4	I like to deal with my team leader	
Ū	LMX5	My team leader is a lot of fun to work with	
	LMX6	I am impressed by my team leader's skills and competence	
	LMX7	I work for my team leader, who goes beyond what is specified in my job description	
	EC1	I seek new ideas and ways to solve problems	[67]
Employee	EC2	I try new ideas or methods first	
creativity	EC3	I generate ground-breaking ideas related to the field	
2	EC4	I am a good role model for creativity	

### 3.3. Data Analysis

For data analysis, inferential statistical tests were conducted using Smart PLS software. Partial least square (PLS) analysis comprises two steps; measurement model and structural model evaluation [68]. In comparison, structural equation modeling (SEM) is used to analyze the model's fitness. Finally, the test is applied to the research model and instrument to confirm the degree of acceptance for the proposed model, and after checking the degree of acceptance, further tests are carried out to determine the reliability and validity of the results. Reliability and validity analysis techniques were used for measurement model evaluation. Coefficient of determination ( $\mathbb{R}^2$ ), effect size ( $f^2$ ), and path coefficient parameters were used for structural model evaluation [69].

#### 3.4. Model Consistency, Reliability, and Validity

Different measures were put in place to ensure that the model was properly assessed and validated accordingly. These are explained in the following sub-sections.

#### 3.4.1. Internal Consistency

Cronbach's alpha and composite reliability techniques were used to measure the model's internal consistency. For internal consistency, a value should be near 1 [70]. Table 3 shows that the highest Cronbach's alpha value is 0.891, the highest rho-A is 0.908, and the highest composite reliability is 0.92. So, all the current study variables achieved satisfactory values of Cronbach's alpha and composite reliability for their reliable internal consistency. Therefore, these variables can be used for acquiring reliable results.

#### Table 3. Reliability analysis.

	Cronbach's Alpha	rho_A	Composite Reliability
Authoritarian Leadership	0.891	0.908	0.919
Benevolent Leadership	0.825	0.842	0.877
Employee Creativity	0.805	0.816	0.871
Leader–Member Exchange	0.881	0.896	0.908
Moral Leadership	0.897	0.900	0.924

# 3.4.2. Outer Loading

The outer loading technique is used for measuring the reliability of variables. According to the results (Table 4), the lowest value in authoritarian leadership is 0.664, and the highest value is 0.905. In benevolent leadership, the highest value is 0.822, and the lowest value is 0.639; in employee creativity, the highest value is 0.800, and the lowest value is 0.779.

Table 4. Outer loading of variables.

	Authoritarian Leadership	Benevolent Leadership	Employee Creativity	LMX	Moral Leadership
EC1			0.797		
EC2			0.779		
EC3			0.795		
EC4			0.800		
LMX1				0.792	
LMX2				0.663	
LMX3				0.837	
LMX4				0.838	
LMX5				0.736	
LMX6				0.846	
LMX7				0.624	

	Authoritarian Leadership	Benevolent Leadership	Employee Creativity	LMX	Moral Leadership
LR1	0.814				
LR2	0.878				
LR3	0.905				
LR4	0.892				
LR5	0.664				
LR6		0.639			
LR7		0.765			
LR8		0.822			
LR9		0.807			
LR10		0.792			
LR11					0.822
LR12					0.820
LR13					0.864
LR14					0.857
LR15					0.843

Table 4. Cont.

In LMX, 0.846 is the highest, and 0.663 is the lowest recorded value, while in moral leadership, 0.864 is the highest, and 0.820 is the lowest value. All these values are near 0.70, which illustrates that the values of all the variables have accomplished the satisfactory indicator reliability value through the outer loading technique [70]. However, a value of 0.6 is also acceptable because it shows the diversity in the data set [71].

#### 3.4.3. Model Validity

Convergent and discriminant validity are the two common methods used for evaluating the validity of any model. Convergent validity is measured using the average variance extracted (AVE) value. AVE value should be greater than 0.5 for convergent validity [70]. According to Table 5, the AVE of all the values is more than 0.5 as for authoritarian leadership, AVE is 0.6, for benevolent leadership, it is 0.5, for employee creativity, it is 0.6, and for LMX and moral leadership, the values are 0.5 and 0.7, which shows that all the variables accomplish satisfactory convergent validity in the current study.

Table 5. AVE results.

Constructs	AVE	
Authoritarian Leadership	0.698	
Benevolent Leadership	0.589	
Employee Creativity	0.629	
Leader–Member Exchange	0.588	
Moral Leadership	0.708	

Discriminant validity is the second method for validity analysis. The hetero-traitmonotrait ratio (HTMT) is one of the standards for examining discriminant validity. HTMT is used for determining the correlation among the variables. Based on the analysts' opinion, this test is the most reliable test for determining the discriminant validity of the data [72].

Analysts believe that the threshold value of HTMT should be less than 1 [73]. Table 6 shows that all the variables through the HTMT test achieved satisfactory discriminant validity values, as the results show that the highest HTMT result for authoritarian leadership is 0.187, benevolent leadership is 0.848, employee creativity is 0.525, and for LMX, it is 0.899.

Constructs	AL	BL	EC	LMX	ML
Authoritarian Leadership (AL)					
Benevolent Leadership (BL)	0.187				
Employee Creativity (EC)	0.047	0.415			
Leader–Member Exchange (LMX)	0.111	0.848	0.525		
Moral Leadership (ML)	0.141	0.839	0.439	0.899	

Table	6.	HTMT	results.
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#### 4. Results

The structural model assessment was used for this study to conduct the inferential statistical analysis. In the second phase of PLS analysis, the proposed hypotheses are tested through various parameters, such as path co-efficient, R<sup>2</sup> value, and f<sup>2</sup> value [62]. Figure 2 shows the results of the structural model evaluation, which shows that authoritarian leadership has a 0.98 t-value less than 1 and indicates the presence of a weak relationship between AL and LMX. However, in the other two variables, the t-values are above 1 (6.36 and 11.73), which shows a strong positive relationship between BL and LMX; and ML and LMX, while the t-value (7.898) supports that LMX is mediating the relationship between EC and the three independent variables.





Figure 2. Structural model evaluation.

The path coefficient test is used to determine the effect of variables. For the 5% significance level, the value of T-statistics is significant if it is greater than 1.96. The relationship among the variables is assessed through p-value, path coefficient, and t-statistics [74]. Table 7 shows the results of the structural model evaluation. Later, the indirect effect determines the mediation among the variables.

According to the results, authoritarian leadership does not significantly impact employee creativity and LMX, as the  $\beta$ -values are -0.014 and -0.030, and P values are 0.342 and 0.323. In concurrence with previous studies [35,75], the results of this study also remained inconclusive about the relationship between authoritarian leadership and employee creativity. The standardized coefficient between AL and EC; and AL and LMX describes that the increase of 1 standard deviation in authoritarian leadership can bring a -0.014 standard deviation decrease.

Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	p Values
Authoritarian Leadership $\rightarrow$ Employee Creativity	-0.014	-0.010	0.014	0.951	0.342
Authoritarian Leadership $\rightarrow$ Leader-Member Exchange	-0.030	-0.022	0.031	0.989	0.323
Benevolent Leadership $\rightarrow$ Employee Creativity	0.145	0.146	0.029	4.933	0.000
Benevolent Leadership $\rightarrow$ Leader-Member Exchange	0.323	0.323	0.051	6.362	0.000
$\begin{array}{c} \text{Leader-Member Exchange} \rightarrow \\ \text{Employee Creativity} \end{array}$	0.448	0.452	0.057	7.898	0.000
Moral Leadership $\rightarrow$ Employee Creativity	0.261	0.264	0.042	6.224	0.000
Moral Leadership $\rightarrow$ Leader-Member Exchange	0.583	0.583	0.050	11.736	0.000

Table 7. Bootstrap results for casual structural model.

Benevolent leadership has a positive and significant impact on employees' creativity and LMX. Table 7 shows that the *p*-value of the independent variable is less than 0.05, and the t-value is more than  $\pm 1.96$ . The standardized coefficient between BL and EC describes that an increase of 1 standard deviation in BL can bring a 0.14 standard deviation increase in EC, while the standardized coefficient between BL and LMX describes that an increase of 1 standard deviation in BL can bring a 0.32 standard deviation increase in LMX.

Moral leadership has a positive and significant impact on employees' creativity and LMX. Table 7 shows that the *p*-value of the independent variable is less than 0.05 and the t-value is more than  $\pm 1.96$ . The standardized coefficient between ML and EC describes that an increase of 1 standard deviation in ML can bring a 0.26 standard deviation increase in EC, while the standardized coefficient between ML and LMX describes that an increase of 1 standard deviation in BL can bring a 0.58 standard deviation increase in LMX.

Table 8 shows significant mediation of LMX, except for the relationship between authoritarian leadership and employee creativity. According to the results, the t-value from independent (AL) to mediator (LMX) and the mediator to the dependent variable (EC) is 0.951, less than  $\pm 1.96$ , and the *p*-value is 0.342, more than 0.05. So, LMX does not mediate the relationship between authoritarian leadership and employee creativity.

 Table 8. Mediator effect regression analysis test results.

Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	p Values
Authoritarian Leadership $\rightarrow$ Leader–Member Exchange $\rightarrow$ Employee Creativity	-0.014	-0.010	0.014	0.951	0.342
Benevolent Leadership $\rightarrow$ Leader–Member Exchange $\rightarrow$ Employee Creativity	0.145	0.146	0.029	4.933	0.000
Moral Leadership $\rightarrow$ Leader–Member Exchange $\rightarrow$ Employee Creativity	0.261	0.264	0.042	6.224	0.000

In respect of benevolent leadership, the t-value from independent (BL) to mediator (LMX) and mediator to the dependent variable (EC) is 4.933, which is more than  $\pm 1.96$ , and the *p*-value is 0.000, less than 0.05. So, LMX significantly mediates the relationship between benevolent leadership and employee creativity.

In respect of moral leadership, the t-value from independent (ML) to the mediator (LMX), and the mediator to the dependent variable (EC) is 6.224, which is more than  $\pm$ 1.96, and the *p*-value is 0.000, which is less than 0.05. So, LMX significantly mediates the relationship between moral leadership and employee creativity.

The value of  $R^2$  is used for the accuracy assessment of the structural model to determine the variance caused by the independent variable. The acceptable range of  $R^2$  is from 0 to 1. The value closer to 1 shows the high level of change in an endogenous variable [72]. For example, Table 9 shows that the 20% change was brought to employee creativity by the exogenous variables, such as authoritarianism, benevolence, and morality. On the other hand, 71.5% variance in the leader–member exchange is explained by the exogenous latent variables.

Table 9. Coefficient of determination.

Constructs	R <sup>2</sup> Value	Adjusted R <sup>2</sup> Value
Employee Creativity	0.200	0.198
Leader–Member Exchange	0.715	0.712

#### 5. Discussion

The discussion of the results against the hypotheses is presented in the following sub-sections.

#### 5.1. Authoritarian Leadership Is Negatively Related to Employee Creativity

The results of the current study demonstrated the direction of the relationship between authoritarian leadership and employee creativity as hypothesized but at an insignificant level ( $\beta$ -value: -0.014; *p*-value: 0.342). This might be because authoritarian leadership provides clear prospects about what to do, how to do it, and when the expected task should be carried out. According to Liphadzi et al. [76], authoritative leaders set guidelines, assign the task to every individual, make unilateral decisions, and take the task responsibility for team members' progress. As mentioned earlier, the literature is also inconclusive about the relationship between authoritarian leadership and employee creativity. Nevertheless, most studies on authoritarian leadership have supported a negative association between the authoritative style of leadership and employee creativity [35,77], and the results of the present study do not indicate any significant impact of authoritarian leadership on the employees' creativity. Thus, it is reasonable to argue that authoritarian leadership might be perceived as both a positive and negative trait of a leader in the construction industry of Pakistan. The individuals working in the government sector or at the start of professional lives have a positive attitude toward authoritarian leadership, as they need guidelines to stay motivated and perform their tasks for rewards or avoid punishment [78], but in other cases, other forms of leadership are preferred over authoritarian leadership style.

It is pertinent to mention that the path coefficient is negative as hypothesized but not at statistically significant levels. Therefore, it is reasonable to infer that some respondents were working in the construction environment that did not involve much complexity; hence, they were better off working under authoritative leadership. The aforesaid inference further leads us to argue that the majority of the construction projects do involve complexity, where the authoritative aspect of paternalistic leadership is ought to be minimized in favor of other dimensions to enhance the creativity of employees.

# 5.2. Benevolent Leadership Is Positively Related to Employee Creativity

The findings of the current research showed that benevolent leadership is a significant predictor of employee creativity ( $\beta$ -value; 0.145 and *p*-value 0.000). Liphadzi et al. [76]

stated that transformational leadership is the most appropriate leadership style in the South African construction industry. Furthermore, the findings of this study are also in line with the past studies [13,18,79], which support the role of transformative leadership in the construction industry, as compared to the traditional authoritarian leadership style.

It is important to note that benevolent leadership provides employees with cues and directions in relation to role obligations, which affirm indebtedness, obedience, and loyalty [40], allowing individuals to involve in creative pursuits despite challenges. The results of this study also supported the idea that in the construction industry of Pakistan, the majority of the population, especially those working in low management positions or working in private construction companies, prefer a transformative leadership style in which managers encourage team members to participate in the decision, instead of giving the order. Thus, the sharing of information and idea ensures more creativity at work.

#### 5.3. Moral Leadership Is Positively Related to Employee Creativity

The results of the current study indicate moral leadership as a significant predictor of employee creativity ( $\beta$ -value: 0.261 and *p*-value: 0.000). This implies that it is important for leaders to have various qualities such as selflessness, integrity, and respect for their team members. Leaders that exhibit moral leadership allow for team members to reciprocate the positive behavior and bring in novel ideas.

Moral leaders being the torchbearers of moral values, especially in terms of selflessness, self-discipline, and an inclination to support others, inspires individuals to identify with their leaders [17]. This relational identification of individuals with their leaders inspires them to act in a similar way to their leaders. Thus, individuals tend to achieve more as they follow in the footsteps of a moral leader. More importantly, this pursuit to commit and devote oneself allows individuals to enhance their self-efficacy, leading individuals to perform better, be creative, and be innovative [58].

The results of this study are aligned with previous studies [45,46,80]. For example, leadership is the major concern in the South African construction industry. The context of South Africa is similar to Pakistan, as both are developing countries. Thus, a leader with honesty and moral attributes links creative ideas with the project's success [75]. Regarding the Pakistan construction industry, the leaders who encourage their team members to share their ideas, respect all members, and support at the workplace ensure more creativity than authoritarian leaders. Thus, moral leadership shows a positive effect on employees' creativity.

# 5.4. Leader–Member Exchange Mediates the Relationship between Authoritarian Leadership and Employee Creativity

This study could not find support for the direct relationship between authoritarian leadership and employee creativity, as evident from the results of H1. The results further indicate that LMX does not mediate the relationship ( $\beta$ -value: -0.014; *p*-value; 0.342). Therefore, Hypothesis 4 (H4) has been rejected due to a lack of evidence.

The insignificant indirect path between authoritarian leadership and employee creativity is because of the insignificant relation between authoritarian leadership and LMX ( $\beta$ -value: -0.030; *p*-value; 0.323). It is plausible to argue that the unexpected result has its roots in the make-up of national culture. Referring to Hofstede [81], insights on national cultures, power distance, uncertainty avoidance, and collectivism are unique characteristics of developing countries, such as Pakistan. Power distance, viewed as an ingrained part of national culture, may exclude individuals from perceiving authoritarian leadership style as negative. Although the path-coefficient for the relationship between authoritarian style and LMX is negative, its statistical insignificance suggests that the number of respondents did not find the authoritarian style an inhibitor of LMX. Thus, it is reasonable to argue that authoritarian leadership is perceived as both a positive and negative trait of a leader in the construction industry of Pakistan, leading to the statistically insignificant results of the study. There are employees who consider the authoritative style a positive trait of leaders based on setting unambiguous and clear goals for their subordinates. In contrast, others find the carrot and stick policy appropriate to stay motivated and perform their tasks for rewards or avoid punishment [78].

# 5.5. Leader–Member Exchange Mediates the Relationship of Benevolent Leadership and Employee Creativity

The results of the current study support the hypothesis that high-quality LMX mediates the relationship between benevolent leadership and employee creativity ( $\beta$ -value: 0.145; *p*-value; 0.000). Benevolent leaders support their team members and help them grow to accomplish their goals, leading to high-quality LMX. The results are also aligned with prior studies, such as [20,52,55], which support the conclusion that LMX can significantly mediate the relationship between benevolent leadership in the construction industry and the traditional authoritarian leadership style. The results of this study also supported the idea that in the construction industry of Pakistan, the majority of the population consists of the young population that believes in cooperative relationships. Thus, a high level of LMX resulting from the benevolent leadership style in the workplace can ultimately improve the creative behavior of employees in the construction industry.

# 5.6. Leader–Member Exchange Mediates the Relationship between Moral Leadership and Employee Creativity

The current study's findings show that LMX significantly mediates the relationship between moral leadership and employee creativity ( $\beta$ -value: 0.261; *p*-value: 0.000). This indicates that moral leadership creates high-quality LMX. In return, employees feel more committed and perform creatively. Prior research has also found the same nature of the relationship in other contexts [17,59] by supporting the idea that high morals can create a leader–member exchange, as members feel more confident about their leaders and prefer to work with them. This satisfaction and loyalty induces creativity by sharing ideas and group decisions. For example, in Pakistan, the private construction firms seem more competent than the government firms because the leaders follow group efforts instead of giving orders, which brings more innovation. Thus, managers in this industry need to follow moral leadership styles to create high LMX and creativity.

Table 10 summarizes the results; four out of the six hypotheses were supported by the current research findings. This study showed that benevolent leadership and moral leadership styles have a more positive impact on the creative behavior of employees in the Pakistan construction industry than authoritarian leadership. The results also indicate that some individuals prefer authoritarian leadership, especially those working in higher positions in traditional firms, such as government firms, where a defined hierarchy is present. However, transformative leadership is preferred to maintain the creative working environment on lower levels and in the private construction sector.

Hypothesis	Findings
The authoritarian leadership style is negatively associated with employee creativity.	Not supported
A benevolent leadership style is positively associated with employee creativity.	Supported
Moral leadership style is positively associated with employee creativity.	Supported
Leader-member exchange significantly mediates the relationship between authoritarian	Not supported
leadership and employee creativity.	
Leader-member exchange significantly mediates the relationship between benevolent	Supported
leadership and employee creativity.	
Leader-member exchange significantly mediates the relationship between moral	Supported
leadership and employee creativity.	

Table 10. Summary of results.

#### 6. Conclusions

This study investigated the association between different dimensions of paternalistic leadership styles and employee creativity. In addition, it investigated the intervening role of LMX in a relationship between paternalistic leadership styles and employee creativity.

The research was directed by acquiring 291 complete responses from respondents in the construction industry of Pakistan to examine and interpret the proposed relationships among the variables. The current study results revealed the positive impact of benevolent and moral leadership on employee creativity. Furthermore, the current research also revealed that the relationships between the dimensions of paternalistic leadership (benevolent and moral leadership) and employees' creativity are significantly mediated by LMX, suggesting the fact that when leaders treat their employees with morality and benevolence, LMX plays a significant role in making individuals creative. Therefore, using the study results, one could investigate the dimensions of paternalistic leadership and the state of LMX in different teams working on a construction project in other developing and developed countries.

The results further suggest that the authoritarian leadership style should not always be construed as negative. Rather, the effectiveness of the authoritarian style of leadership may be viewed as a function of project complexity, national culture and the type of prevailing organizational culture, and the employees' perceived image of an exemplary leader. For example, a less complex project may require a leader to be authoritarian to allow individuals to follow instructions and produce results compared to complex projects, where the leader's guidance and support for out-of-the-box thinking are deemed essential.

# 6.1. Implications

Creativity is one of the most important factors in the construction industry to achieve a competitive edge. It is only possible through effective leadership in the construction industry of developing countries, such as Pakistan, which is striving to attain a respectable position in the global market. This study will help understand the role of paternalism in achieving unique and useful ideas in the local and other construction industries with similar contexts.

This research will bring awareness among the construction industry leaders concerning how they should motivate their employees through appropriate leadership styles towards creativity. However, Pakistan's construction industry is in the developing stage and is evolving.

This research will help the managers analyze their employees and develop their human resources to efficiently and effectively meet the global industry's needs. Variables such as benevolent leadership and LMX have been witnessed to help bring favorable outcomes to an organization. The benevolence and morality trait of leaders brings creative outcomes to a workplace via LMX.

The current research also has some theoretical implications. After analyzing all these variables, this study provides effective procedures for improving the performance of employees in the construction industry. Furthermore, this study enriches the information of leaders about the significance of each investigated variable and their roles in enlightening employee creativity.

#### 6.2. Limitations and Future Directions

In a similar manner to other studies, the current research also comes with some limitations. First and foremost, the analysis conducted in this study was based on a cross-sectional study design. It means that the study did not investigate the yearly data to understand how each style of leadership influences the employee's creativity.

Past studies revealed that leadership styles are developed over the years, and positive results are witnessed by strengthening positive attributes. However, the researcher did not investigate the pattern of changes over the years in this study. Therefore, it is recommended that in the future, for better understanding, research is conducted by evaluating the change

in behavior witnessed in the employee's creativity with the change in different styles of leadership. For this purpose, a focused group and scenario-based research should be conducted to obtain better results.

Furthermore, future researchers should consider different organizational and social cultures to validate and generalize the findings. In addition, future researchers should also consider the other sectors of different regions that belong to the collectivist culture. A similar study repeated in a developed country will also be useful to the body of knowledge. The results can be compared to the current study to enhance the global body of knowledge.

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