

Can leader humility enhance project management effectiveness? Interactive effect of top management support

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Abstract:

This paper aims to explore the effect of humble leadership on project success by integrating the mediating role of employee creativity. Top management support moderates the direct relationship (humble leadership and project management effectiveness) and indirect relationships through employee creativity. Time-lagged data were obtained from 332 persons working in the matrix

organization across the information technology. The results showed that humble leadership enhance project management effectiveness by mediating and moderating processes. This study provides a solution to an underlying research question that has gone unanswered in prior studies. What are the strategies proposed for humble leadership in fostering the effectiveness of the project?

Keywords – Humble leadership, employee creativity, top management support, project management effectiveness

Introduction

Researchers and practitioners have recognised the vital eminence indicators that state projects¹. Based on numerous features that affect the project management effectiveness, the position of the project manager is crucially essential². Some scholars agree that the leadership position of the manager is critical for the effectiveness of the project³. The project manager discusses, guide and encourages followers to accomplish their goals⁴. Recently, scholars started to study growing aspects of leadership to contribute to the progress of the projects⁵. Among all traits of leaders, humility trait can be an important antecedent of project management effectiveness. Ali, et al.⁶ defined humble project managers as a pure form of relational leadership who appreciate the contributions of followers. Consequently, the present research recommended that the link between humble leadership and project management effectiveness be investigated.

This research aims to understand other processes through which the project managers mark project management effectiveness with their humble leadership behaviour. Ali, et al.⁷ call for additional research to explain the connection among humble project managers and the project's effectiveness through the mediators signifying creativity. Employee creativity raises valuable ideas from individuals or working groups⁸. Humble leadership is embodied in recognising subordinates skills, which build self-confidence in their innovative thinking among subordinates' expertise⁹. Zheng, et al.¹⁰ emphasise the need for empirical work in an essential way of creativity in a project context. Given this gap, the current research investigates the critical approach of employee creativity as a mediator between humble leadership and project management effectiveness.

Besides, this study investigates top management support as the confining form for humble leaderships to influence project management effectiveness. Standing concepts and study directly that the project manager and senior management assistance simultaneously significant in project management effectiveness¹¹. Previous research has emphasised that superior management support is critical at various project stages¹². However, few studies have examined the interactive leadership effects and superior management backing on project effectiveness¹³. This literature gap is significantly robust because the excellent leadership skills of project managers cannot be effective for projects until the top management does not support them. Earlier studies suggest that leaders' humility emphasises different facets of the innovation cycle, containing the overall nurturing atmosphere to support his/her influences¹⁴. This support considers top management contribution to increasing the project management effectiveness. This research introduces top management support for creativity that can interlink with humble leadership and project management effectiveness. Previous literature has shown that top management support is essential between leadership and creativity, earning scant attention as a moderator¹⁵. Many research called for a need to investigate the boundary conditions for the use of humble leader behaviour¹⁶, so we

subsequently examine how top management assistance act as a boundary basis for the motivational impact on humble leader behaviour.

Establish on the preceding discussion, and the current study proposes a theoretical model that is a humble leader, both direct and indirect, linked to robust project management effectiveness (via innovative work behaviour). The goal of this research is to accord significantly to the existing literature by developing the structure. This research will extend our view of the leadership dimension by expanding the previous findings on a leadership position in project performance with followers' psychological factors¹⁷. The study further strengthens the current knowledge of resource theory. Hobfoll¹⁸ added the principle premises to the theory's assumptions to this study's model. Hobfoll¹⁸ said a leader is a resource that aids workers to cope with their resources. The resource paradigm conservation should provide insight toward how humble leadership relates to resource regulations methods that procreate project management effectiveness—drawing further on the assumptions of “caravans passageways” in resource theory¹⁹. Top management support functions like resource caravan passageway (i.e., a procedure that support regulate, rout, and provide resources), providing a desirable supportive atmosphere that enables humble leaders to activate employees creativity hence outcome in project management effectiveness.

Humble leadership and project management effectiveness

Prior literature suggested that humble leadership is a vital factor for workplace outcomes, such as team effectiveness and project outcomes²⁰⁻²¹. Still, project leadership work remains relatively scarce^{5, 22}, and humble project manager in project context may vary substantially than in permanent organisations²³. The leader's humility promotes team unity and collective conception and encourages ideas sharing and logical interpretation amid followers²⁴. Cohesion, coordination, and solidity at a reasonable level create an environment in which followers continue their efforts to raise project effectiveness²⁵. Humble leadership empowers team members and gives importance to their ideas through delegation of power²⁶. Devolution of authority and involvement in target setting improve followers efficiency, which is a necessary condition for conflict management, problem-solving techniques and goal-oriented decision-making to affect the outcome of projects²⁷. Such humble leadership behaviour improves follower morale and enhances the open sharing of ideas through feedback²⁸. It will create an environment where followers tend to focus on addressing their deficiencies to meet performance requirements, allowing them to work effectively and run the project management effectively¹¹.

Byrne, et al.²⁹ revealed that the leader might have been described as a source that generates insight into the organisation by positively developing the followers or conserving resources. Furthermore, leaders' humility is a significant personal resource that enhances subordinates' trust to build an atmosphere of collaboration and teamwork that leads to project management effectiveness. Therefore, it is suggested that:

H1. Humble leadership is positively related to project management effectiveness

The Mediating Role of Employee Creativity

Past studies described that humble leadership is strongly associated with creative conducts¹⁴. Humble project manager values the commitment of subordinates, treats followers with kindness, appreciation, and reverence, resulting in the assistants developing helpful ideas³⁰. Humble leaders also respect the feedback of followers and recommendations that facilitate the subordinates to promote the ideas and strengthen their expertise level^{14, 31}. A humble leader accepts the errors and

shortcomings of followers as a medium for growth and progress. Consequently, subordinates are more likely to exhibit more meaningful risk-taking conduct³². They find their immediate boss to encourage this conduct by either providing sufficient incentives or refusing discipline in the event of failure to produce desirable results³³. As a result, employees are secure enough to openly present suggestion to leaders and trust their leaders to notice and act coherently³⁴. Humble leadership promotes followers to put on fresh ideas and generate an environment where innovative approaches are encouraged to inspire workers to establish inventive solutions before a suitable method is selected⁶. Furthermore, the humble leader makes their subordinates resilient toward precariousness by teachability and responsiveness to criticism and encourages their team members to attempt new things based on trial and error (Mallén et al., 2019) that stimulate creativity among them the followers³⁵.

Earlier studies showed that creativity meets organisational objectives³⁶⁻³⁷. Project team members able to produce fast solutions can address organisational and technological challenges in time and improve the pace and productivity of projects³⁸⁻³⁹. Creative work frequently relies on increasing the productivity of the workplace as creative. Team members predict and recognise visions for growth and craft new solutions to their workplaces⁴⁰, thereby allowing them to succeed in a competitive atmosphere⁴¹. Duan, et al.⁴² submitted that employees creativity is promoted because it is a powerful method for overcoming problems in a dynamic atmosphere. A sufficient number of employees inventiveness can follow increasingly creative procedures and ambitious skills to transform these advantages into project management effectiveness⁴³. Creativity aims to increase the project importance and improve the perception that such behaviour positively influences their effectiveness and achieves objective adequately⁴⁴⁻⁴⁵.

This implies that a humble leader stimulates creativity in order to complete the project management effectively. Therefore, creativity serves as a fundamental structure that allows humble leadership to impact project management effectiveness. Founding on conservation of resource theory¹⁸, taking humble leadership as a constructive gain resource through their behaviours enable subordinates to spend their resources on flexible behaviours (i.e., employee creativity). Also, as a corollary, they are motivated to develop more resources, bringing effective project management. Based on the above discussion, the following hypotheses are proposed:

H2a. Humble leadership will be positively related to employee creativity.

H2b. Employee creativity will be positively associated to project management effectiveness.

H2c. Employee creativity favourably mediates the relationship between humble leadership and project management effectiveness.

The Moderating Role of Top Management Support

The most crucial factor is top management support, which can moderate humble leadership and project outcomes. Superior management refers to an organisation's elliot decision-makers, such as managing director, chief executive officer, executive chairman, chief financial officer, president, and vice president⁴⁶. Superior management has a critical role in planning and supporting a project manager to ensure that it is executed effectively⁴⁷⁻⁴⁸. Schultz, et al.⁴⁹ revealed that top management assistance is the triumph aspect for ventures and reinforce the connection between leadership and employee innovation and project management effectiveness.

Using the concepts of resource conservation theory⁵⁰. Top management support can be characterised in the work environment of the project managers as resource caravan passageways that can help them acquire and build additional resources such as engaging in humble leadership behaviour. Top management support is motivated to accomplish its goals by accordance with acknowledgement standards, strategies, budgeting, providing human, material, and technical resources¹², and through fulfilling all capacity parameters, by improving project managers' confidence within the organisation⁵¹. Top management support can impact project progress through its processes, such as appointing project managers, establishing an internal project supportive system, providing project resources and project methods⁵². Project-based organisations experience difficulty, and workers who operate in such organisations encounter workplace challenges and day-to-day stress⁵³. Under these conditions, in association with superior managerial support, the humble leader may significantly influence the effectiveness of the project management.

It has to be acknowledged that humble leadership behaviours exist in the framework of the organisation, and evaluating a bivariate connection will be insufficient unless recognising the top management support system in which creativity conduct⁵⁴. Therefore, it is obligatory to classify and analyse top management support qualities that may interrelate with humble leadership behaviours affecting creativity. Creative behaviours are an essential motivation source and have been a topic in leadership and invention research⁵⁵. The motivation for creative conduct is mainly dependent on top management support that fuels innovation⁵¹. Strengthening and encouraging creative activities should provide a perspective of the process, methods, strategies, and things inside the organisation. Accordingly, the organisation would be viewed based on specific communicative patterns, attitudes, and emotions⁵⁶, promoting creativity. Innovative behaviours are strongly related to top management support because executives are the ones who set organisational targets, make decisions on bringing and implementing innovative forms of doing jobs, and inspire employees⁵⁷. The encouragement of creative behaviours in the organisation will deliver workers and leaders with an energetic working atmosphere, leading to creativity. Workers can speak out as they observe they are motivated by humble leadership through top management support. Under these conditions, employees are likely to transmute ideas into innovative outcomes because a stable climate for innovation stimulates them. Besides, when employees notice humble leadership, they imitate their leaders to share views and ideas; transforming them into innovative results requires an innovative environment³⁰.

According to the concept of resource caravan passageways, the capability of individuals to design and retain their stream of resources relies mainly on circumstances outside their influence⁵⁸. Ali, et al.⁷ revealed that top management support is an environmental variable that can help, encourage, augment, and preserve the possessions of peoples, groups or sections of workers. Humble leadership and followers believe that senior management is concerned about resources and perceive to have sufficient resources at work. Hence, we suggest that top management interact with humble leadership and creativity and act as moderator direct and indirect linkages between humble leadership and project management effectiveness.

H3a. Top management support moderates the relationship between humble leadership and project management effectiveness, such that senior management support strengthens the relationship.

H3b. Top management support moderates the relationship between humble leadership and creativity, such that higher management support strengthens the relationship.

H3c: The indirect effect of humble leadership through creativity on project management effectiveness is likely to be significant for high top management support and nonsignificant for those with low top management support.

Methodology

Sampling and Research Tool

Data obtained from four major information technology companies operating in Pakistan, engaging in natural resource production and healthcare. These industries aid in developing and strengthening sustainable resources, software design, network structure, renewable building landscape architecture, and assistance with e-commerce and worker coaching to comprehend updated software tools and techniques. The survey was conducted in English, which is part of education in most educational institutions in Pakistan. The Time-lagged data collection technique was used at two-time intervals with a time lag of three months to reduce the common method bias. First time (T1) interval demographics, humble leadership and top management support data were collected. At the second time (T2) interval, we collect data on employee creativity and project management effectiveness from the same respondents targeted in the first time survey. Out of 550 circulated questionnaires, 511 questionnaires were returned. The number of responses was pretty positive in the follow-up survey, and 511 questionnaires were returned out of 179 is dropped because of careless responses. Three hundred thirty-two questionnaires were used for analysis with 60.36 percentage. The demographics of the study respondents are presented in table 1.

Table 1 Demographic profile of respondents

Measures	Item	Frequency	Percentage
Gender	Male	210	63.2
	Female	122	36.8
Age (years)	20 to 30	81	24.9
	31 to 40	92	27.6
	41 to 50	86	25.5
	Above 51	73	22.0
Education	Bachelors	237	71.5
	Master	65	19.0
	Diploma	30	9.5
Work Experience	Less than 5year	25	7.4
	5 to 10 years	100	30.6
	11 to 15 years	131	39.5
	16 years and above	76	22.6

Measures

From past literature, the focal construct methods were implemented. All measures were anchored on a 5-point rating scale of strongly disagree (1) to strongly agree (5). Humble leadership was measured with the 9-items scale developed by Owens, et al. ⁵⁹ with an alpha reliability of 0.93. Project management effectiveness was measured with the 10-item scale developed by Ong and Bahar ¹¹ with 0.94 alpha reliability. The 6-item scale of top management support developed by Islam, et al. ⁶⁰ with 0.89 alpha reliability. Employee creativity measured with 13-items developed by George and Zhou ⁸, with 0.91 alpha reliability. Employee creativity items gauged from not all

characteristic (1) to very characteristic (5). Work experience, gender, age, and education level are included as control variables.

Table 2. Mean, standard deviation, validity, and correlation.

	CR	Mean	SD	AVE	EC	PME	HL	TMS
EC	0.91	3.5	0.85	0.55	0.74			
PME	0.94	3.8	0.83	0.61	0.27**	0.78		
HL	0.93	3.6	0.79	0.58	0.19**	0.18**	0.761	
TMS	0.89	3.5	0.77	0.58	0.17**	0.19**	-0.063	0.764

Notes: variances extracted are on the diagonal, correlations are off diagonal. **p < 0.01 (two tailed). Note: variances extracted are on the diagonal; correlations are off diagonal. AVE = average variance extracted; CR = composite reliability; HL = humble leadership, EC = employee creativity, PME = project management effectiveness, TMS = Top management support.

Data analysis

Data analysis was performed using SPSS 23 and AMOS 23. The analysis was performed in two steps: confirmatory factor analysis (CFA) and structural model testing. CFA is a preliminary step in the data analysis process to confirm whether the measured items underlie the hypothesised latent variables ⁶¹. Then, hypothesise relationships are tested using a structural equation model (SEM) ⁶².

Composite reliability (CR) and average variance extracted (AVE)

Composite reliability (CR) and average variance extracted (AVE) can be used to confirm convergent and discriminatory validity ⁶³. The CR values were higher than 0.90, with solid consistency in all constructs ⁶⁴⁻⁶⁵. By utilising the average variance retrieved, convergent validity was confirmed. To establish convergent validity amongst the study structures, AVE values should be larger than 0.5 ⁶⁶. All constructs had an AVE value higher than 0.5, indicating no difficulty with convergent validity. Discriminant validity was tested following the Fornell–Larcker approach ⁶⁴. The criterion was fulfilled since the square root of the AVE value of all the constructs was greater than the correlation among all the constructs as given in table 2 (The square root of AVE is given in diagonal with bold letters).

Measurement Model

Confirmatory factor analysis (CFA) was used to confirm the model fit before the hypothesis was tested ⁶⁷. CFA results found that the four factors proposed models best match the data compared to seven alternate models, along with a single-factor model with all variables separated into one factor, three two-factor models where variables collapsed into separate mergers with two factors, and the subsequent models of various collapsing combinations of three factors.

Table 3. Confirmatory factor analysis of the measures

Models	χ^2	χ^2/df	NFI	TLI	CFI	RMSEA
Hypothesized 4 factor Model	779.7	1.49	.896	.96	.96	.038
Two Factors Model (F1 =HL+PME, F2 =EC+TMS)	3475.2	6.6	.537	.547	.576	.129
Two Factors Model (F1 = HL+EC, F2 =TMS+PME)	3299.4	6.27	.561	.574	.601	.125

Three Factors Model (F1 =HL+EC, F2 =TMS, F3 =PME)	2311.8	4.412	.69	.72	.74	.101
Three Factors Model (F1 =HL+PME, F2 =EC, F3 =TMS)	2483	4.73	.66	.69	.71	.105
Single Factor Model	4904.9	9.30	.34	.33	.37	.157

HL = humble leadership, EC = employee creativity, PME = project management effectiveness, TMS = Top management support.

Structural model testing

The SEM findings of direct links for the proposed model are represented in table-4. About the significant effect, the investigation revealed a significant positive connotation between humble leadership and project management effectiveness ($\beta = 0.15$, $P < .001$), aiding *H1*. *H2a* has also aided as humble leadership an important predictor of employee creativity ($\beta = 0.18$, $P < .001$). As in the case of *H2b*, the findings reported a strong relationship of employee creativity ($\beta = 0.21$, $P < .001$) with project management effectiveness; thus, it was approved. It is essential to highlight that the controls were insignificantly related to project management effectiveness except for gender. These results did not influence the relationships among the study variables.

We followed the previous method of bootstrap analysis as instructed by Preacher et al. (2007). Wang, et al. ⁶⁸ revealed that the average indirect effect evaluations generally do not shadow the ordinary suggestion and might result in bias. The bootstrap technique gives the most precise confidence intervals for estimating the indirect effect. Bootstrapping analysis is persuasive as they distinguish when the mediated effect sample distribution is skewed away from 0 ⁶⁹. Using 5000 data samples, we estimated 95% bias-corrected bootstrapped confidence intervals (CIs). The top and lower limit findings for employee creativity ignore 0, implying that they have been substantial by conventional standards. The bootstrap findings demonstrates that employee creativity has a favourable mediating effect between humble leadership and project management effectiveness ($\beta = 0.04$, $SE = 0.02$, $P < .05$, 95% CI [0.013, 0.088]). The direct link among humble leadership and project management effectiveness was also important, thus the humble leadership and project management effectiveness were significantly mediated by employee creativity.

Table 4. Structural equation model path analysis results.

Path			Coefficient	SE	t-value
Controls					
Age	→	Project Management Effectiveness	0.018	0.04	0.32
Education	→	Project Management Effectiveness	-0.10	0.06	-0.16
Work Experience	→	Project Management Effectiveness	-0.12	0.05	-2.50
Gender	→	Project Management Effectiveness	0.16***	0.08	1.84
Main effects					
Humble Leadership	→	Project Management Effectiveness	0.15***	0.05	2.70
Employee Creativity	→	Project Management Effectiveness	0.21***	0.05	3.25

Humble Leadership	→	Employee Creativity	0.18***	0.05	3.26
HL_X_TMS	→	Project Management Effectiveness	0.17***	0.04	2.89
HL_X_TMS	→	Employee Creativity	0.11***	0.04	2.59
Notes= *p < 0.05; **p < 0.01; ***p < 0.001					

SE: Standard error, HL_X_TMS: interaction term of humble leadership and Top management support

Moderated mediation

To test hypotheses 3a, 3b, and 4, we have used Model 8 with the PROCESS method and carried out conditional process analysis⁷⁰⁻⁷¹. Conditional process analysis is known as moderated mediation model, which considered by the synchronised existence of a moderator (in this case, top management support) that strengthen the link among two other variables (in the present study, humble leadership and employee creativity, and humble leadership and project management effectiveness), and a mediation (employee creativity). Table 2 demonstrate that the primary outcome of humble leadership and project management effectiveness was meaningfully moderated by top management support ($\beta=0.17$, $p<.001$). Top management support meaningfully moderates the link between humble leadership and employee creativity ($\beta= 0.11$, $p<.001$), which showed in Table 4. For explanatory reasons, the employee creativity and project management effectiveness were displayed even against the humble leadership in Fig. 1 and Fig. 2, separately, distinctly for high and low top management support (1 *SD* below and 1 *SD* above the mean, respectively). The bias-corrected percentile bootstrap outcomes farther displayed that the implied indirect effect among humble leadership and project management effectiveness via employee creativity was inconsequential at -1 *SD* underneath the mean of TMS (*Estimate*= 0.04, *SE*= 0.01, 95% CI= [-0.15, 0.15]), but was substantial at +1 *SD* (*Estimate*= 0.012, *SE*= 0.008, 95% CI= [0.003, 0.032]). Agreed that the top management support moderated both the direct and indirect paths. Hence, hypotheses 3a, 3b, and 3c were supported.

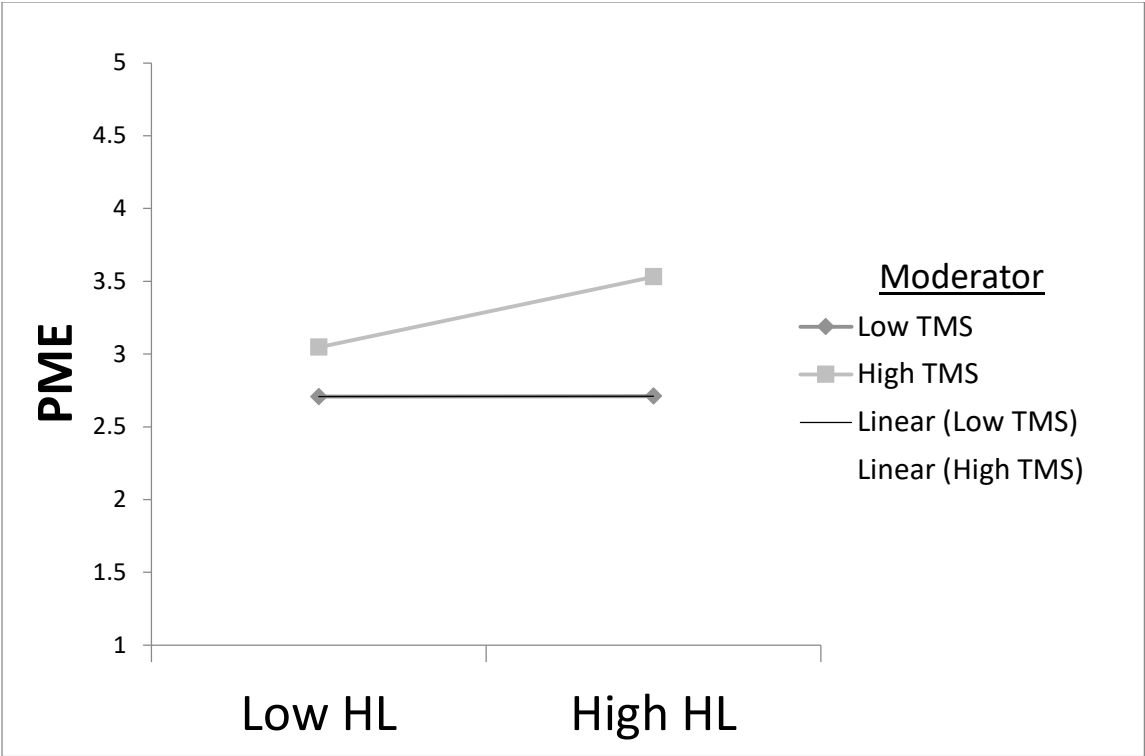


Figure-1 The conditional effect of top management support among humble leadership and effectiveness of project managent

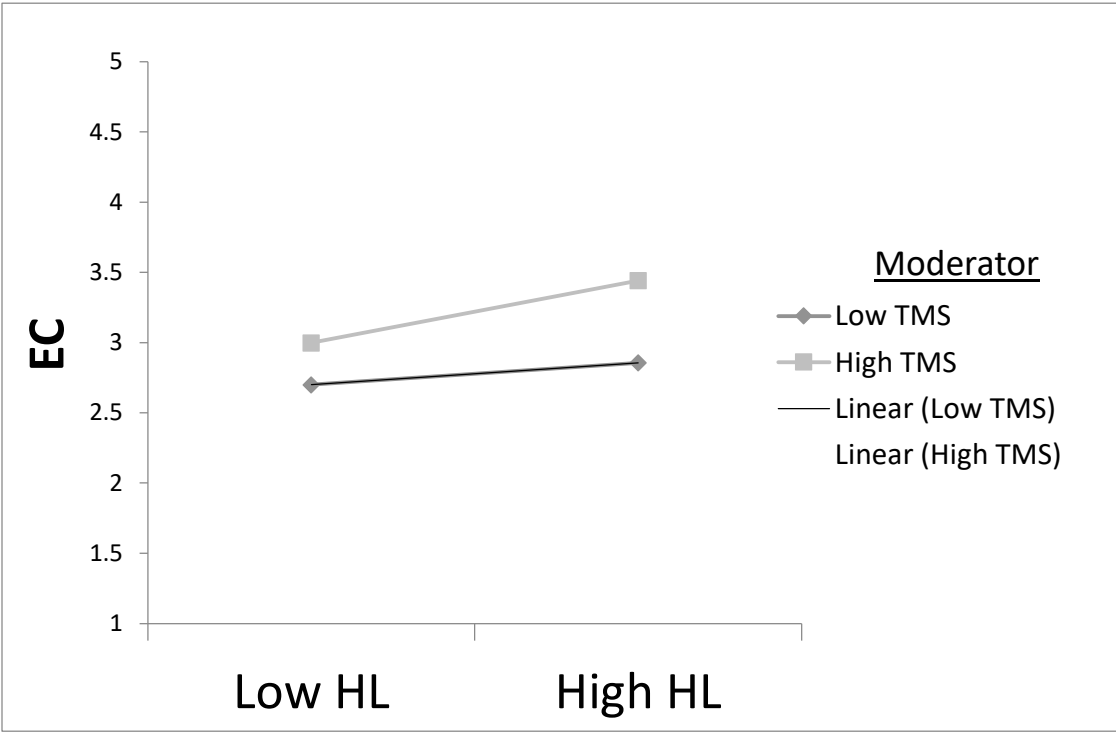


Figure-2 The interacting effect of top management support between humble leadership and employees creativity

Discussion

The present study investigated a framework empirically to determine the impact of humble leadership on project management effectiveness. A significant association has been found between humble leadership and project management effectiveness. The humble project manager may persuade followers to believe in the cohesive notion of project management effectiveness, which is defined by the efficiency and gratification of stakeholders. The study's findings suggested that humility is an essential trait for a project manager to guarantee the effectiveness of the project management. Furthermore, the current research covers the gap highlighted by earlier researchers that the literature on project management does not adequately define the leadership styles of the project manager in project management effectiveness ¹¹.

The present study also pointed out that employee creativity partially mediates the connection between humble leadership and project management effectiveness, indicating that humble leadership contributes to the project's significant accomplishment through employee creativity. This current finding indicates that innovative behaviour can contribute to a highly productive team ⁷². This result reinforces past claims that organisations and project managers can stimulate creative solutions capabilities among employees through employees' innovative behaviours, ultimately enhancing the project management effectiveness ⁷³. Overall, the current research findings submit that employee creativity is a beneficial factor in project management effectiveness, which might be accomplished through appointing team leaders with a high level of humility.

Top management support interacts among humble leadership and employee creativity. The study has emphasised the importance that creativity boost innovation in the organisation ⁷⁴. Zhang, et al. ⁷⁵ concluded that even as workers grow their creative capacities, implementing innovative efforts in the organisational atmosphere that impact their behaviour is undertaken. Gumusluoglu and Ilsev ⁷⁶ discovered that the top manager's transformational leadership could explicitly and indirectly encourage organisational creativity by developing a corporate culture that supports innovative behaviours. As a result, employees feel empowered to carry out innovative activities. Our findings depict that while executives support creativity inside the organisation, the humble leader may only slightly motivate team members toward innovation and swift resolutions for problems. Grant and Berry ⁷⁷ considered that creating and signifying new ideas transformed an existing system and was supposed as pretty risky. The creation and execution of innovative ideas cannot be isolated from the individual who proposes the idea and typically follows leaders' appraisal.

Evidence has found that innovative behaviours improve when employees feel they need and welcome fresh innovations and easily share their ideas without being censored or penalised for faults ⁷⁸. Appraising and backup idea generation will encourage staff to attempt new things to improve organisational processes continually and promote inventions. It will contribute to reconstructing the organisations' framework, procedures, and approaches of the organisation and upsurges project performance. According to Murat Ar and Baki ⁷⁹, idea-generating includes promoting new ideas, marketing good ideas, developing solutions, and inspiring workers to discover innovative conduct to solve problems. Mallén, et al. ⁹ also indicated that humble leadership's impact on creativity would be more substantial where specific organisational environments facilitate idea generation existing and involved rather than inactive or absent. Risk-taking and idea implementation are closely associated with innovation ⁸⁰. As inventions need long-term risk-taking and commitment, staff must understand that senior executives encourage more

ambitious and creative ideas⁴⁹. Some scholars stated that the development of risk-taking values in the organisation improves the leaders' workplace support and contributes to creativity⁸¹.

Founded on Altunoğlu and Bulgurcu Gürel (2015) results, too much management control in the organisation would inhibit risk-taking and development. It is necessary to assume that there is still a reasonable possibility of success when taking risks. It is, therefore, essential to be responsible for tracking and calculating risk-taking while at the same time having superior management support to accept mistakes⁸². It is essential to recognise that risk-taking capacity will ultimately inspire employee creativity. In this regard, with the support of top management, humble project manager believes in trial and error approach³², which provide a balance between allowing freedom to employees to innovate quick solutions for problems⁸³.

Practical implications

Such results may have a variety of relevant implications. Firstly, our findings show the value of a humble leader for project management effectiveness. Humility is a cherished and developable attribute. Leaders must be educated in humble working practices. It might be a method to raise the quality of matrix organisations, particularly in action learning³¹. Humility is a social and friendship trait that can formally and informally facilitate mutual teamwork among employees.

Our second research shows that creativity significantly mediates the link between humble leadership and project management effectiveness. The leaders' job forms the skilled team to cope with their tasks, responsibilities, expertise, and behaviour necessary for the practical outcomes and project objectives. One implication is the effectiveness of creativity techniques, including idea growth, idea understanding, idea application, strengthening the organisational ties and clarity of responsibilities, and activities and problems surrounding the project team's functioning. Furthermore, it means a good chance of projects following as the employee creativity element is appropriately applied. The previous work demonstrated that such an operational application produces a climate where subordinates feel confident, adding to the triumph of the venture⁶.

Thirdly, Our results showed that top management helps provide resources, institutional structures, communication, skills, and strategies help to increase project management effectiveness and creativity. The findings should enable the practitioners to handle projects more actively in which senior management will take their position seriously and confirm that managers furnish the necessary support. Upper management improves performance and conflict management methods through the supportive atmosphere⁶⁰. The literature suggests that superior management support project managers and followers do their best and sustain high efficiency, ultimately leading to project management effectiveness⁸¹.

Limitations and future research directions

The cross-sectional breadth and the single data collection method limit our study. The notion that data obtained from IT industries and future research will explore the civil projects. Our work considered the relations rather than the predictions between the primary constructs. In prospective studies, experimental design can be used to found the reason and consequence of such associations. Subsequently, data were obtained using a single method; possible common method variance can not be ignored. We attempted to tackle this issue to some degree by applying Harman's one-factor test⁸⁴. The findings revealed that the single factor accounted for only 23.4% of the difference, which was less than the threshold level of 50%⁸⁵, representing that common method bias is not a critical concern.

It will be fascinating to see how humble leadership resulted in negative consequences^{16, 86}. Zhong, et al.⁸⁷ illustrate that a growing number of empirical research into humility has confirmed its beneficial impacts. However, it is unknown if humility leads to adverse effects, such as sluggish or less positive actions, that can conflict with the company's responses to quick alterations in the climate⁸⁸. Future work would be carried out at a turning point where it negatively affects the impact of humility on project quality or other outcomes.

Conclusions

Improved awareness of the factors triggering project management effectiveness is vital for matrix organisations. We also have seen that the humility of the project manager has both a direct and indirect impact on project management effectiveness within information technology projects. We also found that interacting role of superior management support among humble leadership and employee creativity and project management effectiveness. Therefore, matrix organisations must enhance humble traits in project managers through training and development techniques. As a result, it would create a collaborative project atmosphere that promotes employee creativity like idea creation, advancement, and comprehension. We expect that our study will inspire further research into employee creativity and project management effectiveness.

Biography

Mudassar Ali completed his Ph.D. from Harbin Institute of Technology, Harbin, P.R. China. His research interest related to leadership and applied knowledge areas of project management. He is reviewer of numbers of SSCI and ESCI journals. He has had published in reputed journals such as *Leadership and organizational development journal (SSCI)*, *International journal of managing projects in business (SSCI)*, *Asia pacific journal of marketing & logistics (SSCI)*, *Management Information System (SSCI)*, *Baltic Journal of Management (SSCI)*, *Management Research Review (ESCI)*.

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