

Creative Performance Sparks from Strong Bonds: Exploring Leader-member Exchange, Creative Self-efficacy, and Creative Process Engagement

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ABSTRACT

Keywords:

*Creative
Performance, Leader
Member Exchange,
Self-Efficacy,
Creative Process
Engagement.*

Creativity is considered a crucial factor in ensuring organization's success. This study examines the mediating effects of creative self-efficacy and creative process engagement on the relationship between leader-member exchange and creative performance at job. This is a quantitative study that collected data from 288 respondents working in small and medium enterprises of Pakistan. First, subordinates completed measures of their leader-member exchange, creative process engagement, and creative self-efficacy. Then, the supervisors of these employees assessed their subordinates' creative performance at job. Results showed that creative self-efficacy and creative process engagement mediated the effect of leader-member exchange on creative performance at job. This study is the first of its kind to empirically examine the effect of leader-member exchange on creative performance at job through creative self-efficacy and creative process engagement.

INTRODUCTION

Creative performance of employees is one of the most effective ways to gain competitive advantage. Small and medium enterprises heavily depend on the creativity of its employees because taking first mover advantage and maintaining that advantage is what small and medium enterprises always look for. However, creativity of employees is a complex phenomenon. There has been a number of studies that have investigated the antecedents of creative performance at job (He, Morrison, & Zhang, 2021; Liao, Chen, & Hu, 2018; Olsson, Hemlin, & Pousette, 2012; Xie et al., 2020; Volmer, Spurk, & Niessen, 2012; Wang, 2016). Still, there is a lack of consensus in available literature. There are two research areas that need further investigation. First, a number of leadership styles have been studied up till now but the effect of leader-member exchange is still not explored in detail. LMX is important and effective because it is a mutual understanding between leader and his/her follower that the expectations from both parties is well communicated and taken care of. The exchange that occurs between

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leader and follower is based on trust, respect, mutual understanding, and meaningful interactions (Olsson, Hemlin, & Pousette, 2012; Xie et al., 2020; Volmer, Spurk, & Niessen, 2012). These exchanges create positive energy among employees and they do not feel threatened to start thinking and implementing new and novel ways in organizational setting. This study proposes that LMX positively affects creative performance of employees at jobs. Second, the complex nature of creative performance suggests that in order to understand it better and in detail, the underlying mechanisms need to be examined (He, Morrison, & Zhang, 2021; Liao, Chen, & Hu, 2018). The complete picture cannot be understood if only the direct effect of a leadership style is investigated on creative performance. Innovation literature also calls for looking into the mediating mechanisms. This study proposes that creative process engagement and creative self-efficacy are two important and critical mediating variables that can better explain the effect of LMX on creative performance.

Creative self-efficacy refers to the belief and confidence that one has over his/her creative endeavors (Puozzo & Audrin, 2021). It is critical to feel confident about one's potential in doing creative tasks. Creativity demands to think out of the box and in order to do so, one has to have self-efficacy and belief on ability to create new things. If there is a low level of creative self-efficacy, the individual might feel threatened and hence do not try new things. Moreover, low creative self-efficacy also means that an employee is thinking about others that how colleagues and bosses would react to their new and creative ideas. Feelings of shame and lack of confidence to convince others about the practicality of the idea also poses serious threats to people with low creative self-efficacy (Gelaidan, Al-Swidi, & Al-Hakimi, 2024; Karimi, Malek, & Farani, 2022; Shaw, Kapnek, & Morelli, 2021; Tantawy et al., 2021). On the other hand, if an employee has greater degree of creative self-efficacy, he/she is not afraid to share his/her idea. There is no feeling of shame, guilt, or any fear related to what others would think of the idea. They know that not every idea is implementable but this does not stop them from sharing new ideas. They firmly believe that it is natural to fail but one should keep on trying and bring out new things to keep organizations on innovative path. This study proposes that having superior exchange relationship between leader and follower improves creative self-efficacy of employees because they do not feel frightened and they know that the trust and respect would always be there for them to get out of difficult situations (Karimi, Malek, & Farani, 2022; Shaw, Kapnek, & Morelli, 2021). Creative self-efficacy in turn improves one's ability to engage in creative performance.

It is manageable for SME owners to do it since the size of SMEs is typically small and each worker can be considered on individual basis. For example, the leaders should establish open

communication channels at formal as well as informal level. They should consider each employee's expectations, and training needs. For example, the managers should look for what resources are needed by each employee, what are skills and abilities that need further development, how to improve communication and interaction with every employee, and what to do so that employees can feel respected and engaged (Sumanth et al., 2023). One way is to hold regular meetings with as many followers as possible and embrace individual differences. Another way is to establish a culture where conflicts are avoided and small successes are cherished. Creative self-efficacy can be improved by giving confidence to employees and developing a learning culture where everyone is open to new methods, techniques, and processes (Abbas et al., 2021). When managers display traits that encourage employees to speak up without thinking about the outcomes, creative performance increases. Moreover, giving psychological support and resources to followers so that they can champion ideas and implement them without worrying about the resistance or pessimism would further strengthen creative performance.

Hypotheses Development

Creative performance at job is the ability to create new ideas in improving processes, procedures, systems, products, services, and departments (Juyumaya & Torres, 2023). LMX is about building quality relationships between leader and each subordinate. Leaders consider individual needs of subordinates and take care of their resource utilization. To perform better at jobs in terms of creating new ideas, one needs individual consideration, mutual respect, commitment, loyalty, and trust. These traits are present in a quality LMX. Creating new ideas is not straight forward. One knows that some ideas would fail or might not be taken positively by coworkers and bosses. In such situation, having a better LMX ensures that even if some ideas are not realized, the trust, respect, and quality relationships would remain intact (Chen & Wei, 2023). Another dimension of LMX is having open communication and superior interactions. These interactions at formal as well as informal levels are absolutely crucial for creative performance. If there is no communication, employees would feel hesitant to share ideas with others. LMX ensures that each subordinate is given importance at individual as well as group level and sharing ideas is a norm that is always encouraged in the working environment. Therefore, we propose:

Hypothesis 1. Leader-member exchange is positively associated with employees' creative performance at job.

Creative self-efficacy is believing that one's ability to think and act in creative ways is always welcomed without fearing about the consequences of it. LMX is bound to create an atmosphere

of trust and respect. The confidence to individuals is ensured in quality exchanges between supervisor and subordinate. Each subordinate thinks that his/her needs are being taken care of. There is a feeling that special treatment is being given that has respect and trust in it. When an employee thinks that there is trust and quality interactions no matter what ideas he/she floats, the efficacy in terms of creating new things enhance (Christensen-Salem et al., 2021; Jan, Zainal, & Lata, 2021). Without having a psychological resource that guarantees comfort, employees would not engage in creative endeavors. LMX helps in building and protecting psychological resources of employees. Conservation of resources is important for employees to perform well at jobs. When there is a quality relationship between leader and follower, creative self-efficacy increases because without thinking about the outcome of creative ideas, an individual would be sure that he/she would not lose any psychological resource. Therefore, we hypothesize:

Hypothesis 2. *Leader-member exchange is positively associated with employees' creative self-efficacy.*

Creative self-efficacy gives confidence and psychological impetus to try out new things. Those having high creative self-efficacy are more innovative and they always look to challenge the status quo. There is a personal belief that is followed by actions (Faraj et al., 2021; Riva, Magrizos, & Rubel, 2021). Without having confidence, it becomes difficult to act. If there is a fear that one's actions might not bring out the desired outcomes, the ability to engage in such actions and behaviors diminishes. This is applicable to creativity literature as well. When there is a low confidence that new ideas might not succeed and there would be resistance from others, creative performance at job would decrease. There are many types of uncertainties and fears associated with creative ideas (Van Dijk et al., 2021). For example, fear of losing support from others, fear of facing resistance, fear of shame, and fear of failure would all mean low creative self-efficacy. In such an environment, it is difficult to perform creatively at jobs. Having creative self-efficacy means that one is not having any fear related to outcome of the idea. The only thing in one's hand is to trust the abilities, skills, and knowledge and create something new and positive (Ali, Wang, & Boekhorst, 2023; Bagheri, Akbari, & Artang, 2022; Siyal et al., 2021). The outcome depends on many internal and external factors that are not in control of the originator of the idea. For instance, uncertainties associated with external forces such as political pressure, economic challenges, resources, competitors' strategies, consumers' preferences, and government regulations are some of the factors that might impact the idea. Moreover, the guarantee that the idea would succeed is also not in hands of the initiator of the idea. When employee has creative self-efficacy, he/she understands these limitations and

constraints but despite these in place, he/she trusts his/her abilities, intuitive thinking, knowledge, and skills. Therefore:

Hypothesis 3. *Creative self-efficacy is positively associated with employees' creative performance at job.*

Creative self-efficacy is critical to feel confident about one's potential in doing creative tasks. Creativity demands to think out of the box and in order to do so, one has to have self-efficacy and belief on ability to create new things. If there is a low level of creative self-efficacy, the individual might feel threatened and hence do not try new things. When there is quality LMX, it is going to improve creative performance at jobs but this relationship is mediated by creative self-efficacy (Ahmad et al., 2023). This is because even in presence of open communication, trust, loyalty, respect, and quality relationship, followers might perform better at jobs but to think out of the box, the ability and confidence to make a difference matters the most. Without having belief in creativity at individual level, it is difficult to perform better in creative endeavors even having quality relationships. When there is a fear that creative endeavors might lower the quality of relationship, respect, and/or individual consideration, the effect of LMX on creative performance at jobs might deter (Khan & Abbas, 2022). Moreover, low creative self-efficacy also means that an employee is thinking about others that how colleagues and bosses would react to their new and creative ideas. Feelings of shame and lack of confidence to convince others about the practicality of the idea also poses serious threats to people with low creative self-efficacy. On the other hand, if an employee has greater degree of creative self-efficacy, he/she is not afraid to share his/her idea (Habib et al., 2024). There is no feeling of shame, guilt, or any fear related to what others would think of the idea. They know that not every idea is implementable but this does not stop them from sharing new ideas. They firmly believe that it is natural to fail but one should keep on trying and bring out new things to keep organizations on innovative path (Aboramadan et al., 2022; Almulla, 2023; Engidaw, 2021). This study proposes that having superior exchange relationship between leader and follower improves creative self-efficacy of employees because they do not feel frightened and they know that the trust and respect would always be there for them to get out of difficult situations. Based on the above arguments, we hypothesize that:

Hypothesis 4. *Creative self-efficacy mediates the effect of leader-member exchange on employees' creative performance at job.*

Leaders do play an important role in creative process engagement (Miller, 2023). LMX helps individuals to involve in identifying problems at workplace and provide necessary resources needed to tackle those problems. Creative process engagement is the psychological

involvement in activities related to creative processes. These activities involve generating new ideas that are based on solving issues and problems, searching for information, and implementing those ideas. Information is key to engage in creative processes. Each individual is at different stage of information seeking base on experience, skills, knowledge, abilities, and prior exposure to knowledge sharing (Thornhill-Miller et al., 2023). LMX considers individual needs and help in building an atmosphere where each individual can search and encode information as per individual needs. Some people in organization have access to more information and they need better networking to utilize the information. Others might need more information that can be provided by leaders and coworkers (Al Bloushi et al., 2024). LMX ensures that individuals keep getting what they want and hence involve in resource utilization. This relationship is translated into better ideas and problem identification. Having an open communication and trust are also considered as reciprocal. Employees think that they need to do something extra for the organization since they are being given what is needed. Hence, they engage in creative processes.

Hypothesis 5: Leader-member exchange is positively associated with creative process engagement.

Creative process engagement is expected to enhance creative performance at jobs. It is the psychological involvement in activities related to creative processes. These activities involve generating new ideas that are based on solving issues and problems, searching for information, and implementing those ideas. Information is key to engage in creative processes. Creative process engagement makes employees to do positive extra-role activities. One such activity is improving creative performance (Akkan & Guzman, 2022). Employees have necessary psychological resources, better information, and idea generation abilities, all of which are crucial to enhance creative performance at jobs. Each individual is at different stage of information seeking base on experience, skills, knowledge, abilities, and prior exposure to knowledge sharing. Creative process engagement considers individual needs and help in building an atmosphere where each individual can search and encode information as per individual needs. Some people in organization have access to more information and they need better networking to utilize the information. Others might need more information that can be provided by leaders and coworkers (Begum et al., 2022). Creative process engagement ensures that individuals keep getting what they want and hence involve in resource utilization. This relationship is translated into better ideas and problem identification. Having an open communication and trust are also considered as reciprocal. Employees think that they need to

do something extra for the organization since they are being given what is needed. Therefore, we propose:

Hypothesis 6. *There is a positive relationship between creative process engagement and creative performance at job.*

Researchers have suggested that a good leader-member exchange relationship encourages a social climate where employees feel safe to engage in creative endeavors (Liao, Chen, & Hu, 2018; Olsson, Hemlin, & Pousette, 2012; Xie et al., 2020; Volmer, Spurk, & Niessen, 2012). Moreover, LXM enhances open communication, freedom to try out new ways of doing things, information flow, and supportive behaviors, all of which lead to creative process engagement, and in turn, creative work involvement (He, Morrison, & Zhang, 2021; Liao, Chen, & Hu, 2018). LMX helps individuals to involve in identifying problems at workplace and provide necessary resources needed to tackle those problems. Creative process engagement is the psychological involvement in activities related to creative processes. These activities involve generating new ideas that are based on solving issues and problems, searching for information, and implementing those ideas. Information is key to engage in creative processes. Each individual is at different stage of information seeking base on experience, skills, knowledge, abilities, and prior exposure to knowledge sharing. LMX considers individual needs and help in building an atmosphere where each individual can search and encode information as per individual needs. Some people in organization have access to more information and they need better networking to utilize the information (He, Morrison, & Zhang, 2021). Others might need more information that can be provided by leaders and coworkers. LMX ensures that individuals keep getting what they want and hence involve in resource utilization. This relationship is translated into better ideas and problem identification. LXM enables creation and sharing of new knowledge by building a context of frequent interaction and facilitation. As a consequence, novel and useful ideas generate. Hence:

Hypothesis 7: *The relationship between leader-member exchange and creative performance at job is mediated by creative process engagement.*

METHODOLOGY

Data were collected from leaders and followers working in small and medium enterprises of Pakistan. There are three reasons to select SMEs as the research context. First, SMEs are highly competitive in nature because of their small size and relatively easy entry to the market. There are thousands of SMEs working in Pakistan. This means the level of competition is extremely high and this rivalry demands SMEs to be innovative all the time. Second, SMEs understand the fact that in order to survive, they continuously need to innovate so that they can get their

market share. Each SME tries to take first mover advantage and that can only be achieved if employees continue to perform better in creative endeavors. Third, SMEs are the major source of exports in Pakistan. In order to increase exports, they have to face a continuous pressure from the government, clients, and other stakeholders to come up with new and useful ideas. The population of the current study was SMEs in textile, football, garments, pharmaceuticals, beverages, chemicals, manufacturing, glassware, and food industry. A total of 550 SME owners were contacted. They were briefed about the purpose of the research. Their contact details were taken from personal references as well as websites. The contacts were made through telephone. 313 owners of SMEs agreed to allow us to collect data. The researchers went to each SME office and detailed presentation was given to the owners and employees. We distributed questionnaires in two parts. Leaders were asked to rate creative performance at job and creative process engagement of their followers. Then subordinates were asked to rate their leaders' member exchange and creative self-efficacy. A total of 298 usable surveys were gathered. 53% of respondents were males.

Measures

To measure LXM, Graen and Uhl-Bien's scale (1995) was used. Creative process engagement was measured with Tantawy et al.'s scale (2021). Creative self-efficacy was measured through a three item scale developed by Tierney and Farmer (2002). Creative performance at job was quantified through a 13 item scale developed by Zhou and George (2001). The measures had been used from previous studies. The scales that we adopted were reliable and validated. A five point Likert scale was used to record opinions of respondents.

RESULTS

In this study, we first confirmed the measurement model using confirmatory factor analysis (CFA). The hypothesized model fit the data reasonably well. CFA results showed that the four-factor model (i.e., leader-member exchange, employee creative performance at job, creative process engagement, and creative self-efficacy) fit the data better than alternative models, $\chi^2(105) = 256.3$, $p < .001$; CFI = .952, NFI = .923, IFI = .953; RMSEA = .068. Table 1 provides the scale reliabilities, means, standard deviations, and correlations for the variables in the study.

Table 1. Descriptive Statistics, Correlations, and Reliabilities

Variables	Mean (SD)	α	1	2	3	4	5	6	7	8
1 Creative performance at job	3.78(.32)	.82	1							
2 Leader-member exchange	4.03(.46)	.79	.43**	1						

3	Creative process engagement	3.39(.39)	.82	.28*	.34*	1					
4	Creative self-efficacy	3.78(.51)	.83	.34**	.36**	.35***	1				
5	Age	32.3(2.8)		.01	-.04	.04	.05	1			
6	Gender	.67(.28)		.04	.05	.03	.04	.04	1		
7	Education level	2.39(1.96)		.15*	.09	.03	.03	.02	.13*	1	
8	Job tenure	4.9(2.5)		.04	.03	.03	.02	.02	.01	.04	1

* $p < .05$; ** $p < .01$; *** $p < .001$

There was a significant positive relationship between leader-member exchange and employee creative performance at job ($r = .43$, $p < .01$). This is consistent with Hypothesis 1. As expected, leader-member exchange is significantly correlated with creative process engagement ($r = 0.36$, $p < .01$). Creative self-efficacy is also significantly correlated with creative performance at job ($r = 0.34$, $p < .01$). Creative process engagement is positively correlated with leader-member exchange, and creative performance at job ($r = 0.34$, $p < 0.05$; $r = 0.28$, $p < 0.01$), respectively. Using Hayes's (2012) PROCESS macro (Model 4), we found that leader-member exchange was positively related to employee creative performance at job; therefore, Hypothesis 1 was supported. Leader-member exchange was positively related to creative process engagement, and creative self-efficacy. Creative process engagement partially mediated the relationship between leader-member exchange and employee creative performance at job. Creative self-efficacy partially mediated the link between leader-member exchange and employee creative performance at job. The estimates and bias-corrected bootstrapped 95% CI for the conditional indirect effects were as follows: Leader-member exchange had a total effect on employee creative performance at job ($P = .44$, $p < .001$, bias-corrected CI: .35–.62); Leader-member exchange had an indirect effect on employee creative performance at job through creative process engagement ($P = .13$, $p < .05$, bias-corrected CI: .08–.24), and creative self-efficacy ($P = .35$, $p < .001$, bias-corrected CI: .21–.39). Thus, Hypotheses 4 and 7 were supported.

Table 2. Regression Results in the Hypothesized Model

Variable	Creative performance at job		Creative process engagement		Creative self-efficacy		Creative performance at job	
	B	SE	B	SE	B	SE	B	SE
Age	.01	.01	-.05	.04	-.02	.01	.01	.01
Gender	-.13	.11	-.08	.07	.05	.08	-.14	.09
Education level	.03	.02	.04	.03	.04	.033	.04	.03
Job tenure	.09	.07	.09	.09	.13	.09	.14	.12
Leader-member exchange	.44**	.09	.47**	.11	.49**	.12	.06	.07

Creative process engagement				.24*	.09
Creative self-efficacy				.62***	.05
R ²	.21**	.35***	.38**	.45***	

* $p < .05$; ** $p < .01$; *** $p < .001$

DISCUSSION

This study has three important findings to report. First, LMX positively affected creative performance at job of followers. When an organization has leaders that maintain superior and quality relationships with followers, the creative performance at job would enhance. The better the quality of exchange between leader and follower, the greater would be his/her willingness to perform better in creative endeavors at job. Second, LMX positively affected creative process engagement that in turn influenced creative performance at job. Thus, creative process engagement partially mediated the effect of LMX on creative performance. Creative process engagement is the psychological involvement in activities related to creative processes. These activities involve generating new ideas that are based on solving issues and problems, searching for information, and implementing those ideas. Information is key to engage in creative processes (Liao, Chen, & Hu, 2018; Olsson, Hemlin, & Pousette, 2012; Xie et al., 2020; Volmer, Spurk, & Niessen, 2012; Wang, 2016). Each individual is at different stage of information seeking base on experience, skills, knowledge, abilities, and prior exposure to knowledge sharing. LMX considers individual needs and help in building an atmosphere where each individual can search and encode information as per individual needs. Some people in organization have access to more information and they need better networking to utilize the information. Others might need more information that can be provided by leaders and coworkers. LMX ensures that individuals keep getting what they want and hence involve in resource utilization. This relationship is translated into better ideas and problem identification. LXM enables creation and sharing of new knowledge by building a context of frequent interaction and facilitation. Third, creative self-efficacy partially mediated the link between LMX and creative performance. Creative self-efficacy is critical to feel confident about one's potential in doing creative tasks. Creativity demands to think out of the box and in order to do so, one has to have self-efficacy and belief on ability to create new things. If there is a low level of creative self-efficacy, the individual might feel threatened and hence do not try new things. When there is quality LMX, it is going to improve creative performance at jobs but this relationship is mediated by creative self-efficacy. This is because even in presence of open communication, trust, loyalty, respect, and quality relationship, followers might perform better

at jobs but to think out of the box, the ability and confidence to make a difference matters the most. Without having belief in creativity at individual level, it is difficult to perform better in creative endeavors even having quality relationships. When there is a fear that creative endeavors might lower the quality of relationship, respect, and/or individual consideration, the effect of LMX on creative performance at jobs might deter. Moreover, low creative self-efficacy also means that an employee is thinking about others that how colleagues and bosses would react to their new and creative ideas. Feelings of shame and lack of confidence to convince others about the practicality of the idea also poses serious threats to people with low creative self-efficacy.

Practical implications

This study shows that SME owners should try to develop personalized relationships with their followers. It is manageable for SME owners to do it since the size of SMEs is typically small and each worker can be considered on individual basis. For example, the leaders should establish open communication channels at formal as well as informal level. They should consider each employee's expectations, and training needs. For example, the managers should look for what resources are needed by each employee, what are skills and abilities that need further development, how to improve communication and interaction with every employee, and what to do so that employees can feel respected and engaged. One way is to hold regular meetings with as many followers as possible and embrace individual differences. Another way is to establish a culture where conflicts are avoided and small successes are cherished. Creative self-efficacy can be improved by giving confidence to employees and developing a learning culture where everyone is open to new methods, techniques, and processes. When managers display traits that encourage employees to speak up without thinking about the outcomes, creative performance increases. Moreover, giving psychological support and resources to followers so that they can champion ideas and implement them without worrying about the resistance or pessimism would further strengthen creative performance.

Limitations and recommendations

The current study is not without limitations. First, we were unable to establish causality due to the cross-sectional nature of data. Second, data were collected from SMEs only. To generalize the findings, future studies should investigate large corporations and find out whether the findings hold there or not. Third, to further understand the relationship between LMX and creative performance, mediators such as psychological need satisfaction and job engagement can be extremely important. Moreover, boundary conditions have also not been tested in this study. Future researchers should investigate the role of boundary conditions such as personality

characteristics, job crafting, and organizational support to better predict the effect of LMX on creative performance.

REFERENCES

- Abbas, M. W., Rafi, N., Dost, M. K. B., & Ali, M. (2021). Role of organizational justice in facilitating LMX and its impact on psychological Well-Being and creativity of employees. *Multicultural Education*, 7(8), 144-155.
- Aboramadan, M., Hamid, Z., Kundi, Y. M., & El Hamalawi, E. (2022). The effect of servant leadership on employees' extra-role behaviors in NPOs: The role of work engagement. *Nonprofit Management and Leadership*, 33(1), 109-129.
- Ahmad, T., Hamid, A. R., Abbas, A., Anwar, A., Ekowati, D., Fenitra, R. M., & Suhariadi, F. (2023). Empowering leadership: role of organizational culture of self-esteem and emotional intelligence on creativity. *Journal of Management Development*, 42(3), 201-214.
- Akkan, E., & Guzman, F. A. (2022). When discordant work selves yield workplace creativity: The roles of creative process engagement and relational identification with the supervisor. *Journal of Occupational and Organizational Psychology*, 95(1), 184-208.
- Al Bloushi, B., Mehmood, K., Jabeen, F., & Alharmoodi, A. (2024). The nexus between epistemic curiosity and innovative work behavior: role of leader-member exchange and work engagement. *Personnel Review*, 53(7), 1745-1767.
- Ali, A., Wang, H., & Boekhorst, J. A. (2023). A moderated mediation examination of shared leadership and team creativity: a social information processing perspective. *Asia Pacific Journal of Management*, 40(1), 295-327.
- Almulla, M. A. (2023). Constructivism learning theory: A paradigm for students' critical thinking, creativity, and problem solving to affect academic performance in higher education. *Cogent Education*, 10(1), 2172929.
- Bagheri, A., Akbari, M., & Artang, A. (2022). How does entrepreneurial leadership affect innovation work behavior? The mediating role of individual and team creativity self-efficacy. *European Journal of Innovation Management*, 25(1), 1-18.
- Begum, S., Xia, E., Ali, F., Awan, U., & Ashfaq, M. (2022). Achieving green product and process innovation through green leadership and creative engagement in manufacturing. *Journal of Manufacturing Technology Management*, 33(4), 656-674.
- Chen, G., & Wei, J. (2023). How self-verification striving affects creative performance: the moderating effect of authentic leadership and the mediating effect of taking charge. *Leadership & Organization Development Journal*, 44(3), 350-370.
- Christensen-Salem, A., Walumbwa, F. O., Hsu, C. I. C., Misati, E., Babalola, M. T., & Kim, K. (2021). Unmasking the creative self-efficacy–creative performance relationship: the roles of thriving at work, perceived work significance, and task interdependence. *The International Journal of Human Resource Management*, 32(22), 4820-4846.
- Engidaw, A. E. (2021). The effect of motivation on employee engagement in public sectors: in the case of North Wollo zone. *Journal of Innovation and Entrepreneurship*, 10(1), 43.
- Faraj, K. M., Faeq, D. K., Abdulla, D. F., Ali, B. J., & Sadq, Z. M. (2021). Total quality management and hotel employee creative performance: The mediation role of job embeddedness.
- Faraj, KM, Faeq, DK, Abdulla, DF, Ali, BJ, & Sadq, ZM (2021). Total Quality Management And Hotel Employee Creative Performance: The Mediation Role Of Job Embeddedness. *Journal of Contemporary Issues in Business and Government*, 27(1), 3838-3855.
- Gelaidan, Al-Swidi, & Al-Hakimi, 2024; Karimi, Malek, & Farani, 2022; Shaw, Kapnek, & Morelli, 2021; Tantawy et al., 2021

- Gelaidan, H. M., Al-Swidi, A. K., & Al-Hakimi, M. A. (2024). Servant and authentic leadership as drivers of innovative work behaviour: the moderating role of creative self-efficacy. *European Journal of Innovation Management*, 27(6), 1938-1966.
- Habib, S., Vogel, T., Anli, X., & Thorne, E. (2024). How does generative artificial intelligence impact student creativity?. *Journal of Creativity*, 34(1), 100072.
- He, J., Morrison, A. M., & Zhang, H. (2021). How high-performance HR practices and LMX affect employee engagement and creativity in hospitality. *Journal of Hospitality & Tourism Research*, 45(8), 1360-1382.
- Jan, G., Zainal, S. R. M., & Lata, L. (2021). Enhancing innovative work behaviour: the role of servant leadership and creative self-efficacy. *On the Horizon: The International Journal of Learning Futures*, 29(2), 33-51.
- Juyumaya, J., & Torres, J. P. (2023). Effects of transformational leadership and work engagement on managers' creative performance. *Baltic Journal of management*, 18(1), 34-53.
- Karimi, S., Malek, F. A., & Farani, A. Y. (2022). The relationship between proactive personality and employees' creativity: the mediating role of intrinsic motivation and creative self-efficacy. *Economic research-Ekonomska istraživanja*, 35(1), 4500-4519.
- Khan, S. M., & Abbas, J. (2022). Mindfulness and happiness and their impact on employee creative performance: Mediating role of creative process engagement. *Thinking Skills and Creativity*, 44, 101027.
- Liao, S. H., Chen, C. C., & Hu, D. C. (2018). The role of knowledge sharing and LMX to enhance employee creativity in theme park work team: A case study of Taiwan. *International Journal of Contemporary Hospitality Management*, 30(5), 2343-2359.
- Miller, A. L. (2023). Does creative coursework predict educational, career, and community engagement outcomes for arts alumni?. *Creativity Research Journal*, 35(2), 196-210.
- Olsson, L., Hemlin, S., & Pousette, A. (2012). A multi-level analysis of leader-member exchange and creative performance in research groups. *The Leadership Quarterly*, 23(3), 604-619.
- Puozzo, I. C., & Audrin, C. (2021). Improving self-efficacy and creative self-efficacy to foster creativity and learning in schools. *Thinking Skills and Creativity*, 42, 100966.
- Riva, F., Magrizos, S., & Rubel, M. R. B. (2021). Investigating the link between managers' green knowledge and leadership style, and their firms' environmental performance: The mediation role of green creativity. *Business Strategy and the Environment*, 30(7), 3228-3240.
- Shaw, A., Kapnek, M., & Morelli, N. A. (2021). Measuring creative self-efficacy: An item response theory analysis of the creative self-efficacy scale. *Frontiers in psychology*, 12, 678033.
- Siyal, S., Xin, C., Umrani, W. A., Fatima, S., & Pal, D. (2021). How do leaders influence innovation and creativity in employees? The mediating role of intrinsic motivation. *Administration & Society*, 53(9), 1337-1361.
- Sumanth, J. J., Černe, M., Hannah, S. T., & Škerlavaj, M. (2023). Fueling the creative spark: how authentic leadership and LMX foster employees' proactive orientation and creativity. *Journal of Leadership & Organizational Studies*, 30(3), 356-374.
- Tantawy, M., Herbert, K., McNally, J. J., Mengel, T., Piperopoulos, P., & Foord, D. (2021). Bringing creativity back to entrepreneurship education: Creative self-efficacy, creative process engagement, and entrepreneurial intentions. *Journal of Business Venturing Insights*, 15, e00239.
- Thornhill-Miller, B., Camarda, A., Mercier, M., Burkhardt, J. M., Morisseau, T., Bourgeois-Bougrine, S., ... & Lubart, T. (2023). Creativity, critical thinking, communication, and

- collaboration: Assessment, certification, and promotion of 21st century skills for the future of work and education. *Journal of Intelligence*, 11(3), 54.
- Van Dijk, D., Kark, R., Matta, F., & Johnson, R. E. (2021). Collective aspirations: collective regulatory focus as a mediator between transformational and transactional leadership and team creativity. *Journal of Business and Psychology*, 36(4), 633-658.
- Volmer, J., Spurk, D., & Niessen, C. (2012). Leader–member exchange (LMX), job autonomy, and creative work involvement. *The leadership quarterly*, 23(3), 456-465.
- Wang, C. J. (2016). Does leader-member exchange enhance performance in the hospitality industry? The mediating roles of task motivation and creativity. *International Journal of Contemporary Hospitality Management*, 28(5), 969-987.
- Xie, Z., Wu, N., Yue, T., Jie, J., Hou, G., & Fu, A. (2020). How leader-member exchange affects creative performance: an examination from the perspective of self-determination theory. *Frontiers in Psychology*, 11, 573793.