# UNLOCKING INNOVATION: EXPLORING THE LINK BETWEEN ENTREPRENEURIAL LEADERSHIP AND INNOVATIVE WORK BEHAVIOR VIA INTRINSIC MOTIVATION

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# **ABSTRACT**

The concept of entrepreneurial leadership has been extensively studied and has shown positive effects on promoting innovative work behavior among employees and promoting a culture of innovation in organizational climate. However, there is a lack of rigorous research on this topic within the context of Pakistan, particularly in the banking sector. To fill this research gap, this study has employed a quantitative research methodology, using a questionnaire to collect primary data from management and employees of various commercial banks in Lahore, Pakistan. Convenience sampling was used to obtain data from 350 respondents. Confirmatory factor analysis (CFA) was used to test the validity and reliability of the research model, while structural equation modeling (SEM) was employed to test the hypotheses. The findings indicated that entrepreneurial leadership is positively associated with innovative work behavior, and intrinsic motivation partially mediates this relationship. The study contributes to academia by providing empirical evidence and practical implications for organizations seeking to promote innovation and intrinsic motivation in their workforce. Future direction for researchers includes they should opt either mixed methods or qualitative research along with a purposive sampling technique to enhance the validity of the study results. Overall, the study's insights provide valuable knowledge for developing strategies to enhance innovation and creativity in the workforce, contributing to the long-term success of organizations.

## KEYWORDS

Entrepreneurial leadership, innovative work behavior, intrinsic motivation, identified motivation, commercial banks.

## INTRODUCTION

The study focuses on how organizations are using different leadership styles to promote innovation among employees. While past research has mostly emphasized the benefits of Transformational Leadership, many modern managers are now utilizing Entrepreneurial Leadership (EL) to foster innovative competencies in their employees (Cai et al., 2019). This leadership style maximizes trust and encourages passion for innovation, enabling employees to show their skills and competencies in tackling

challenging issues. The study identifies a gap in the research related to the effects of entrepreneurial leadership (EL) on innovative work behavior in the Pakistani context. Additionally, the study highlights the importance of innovative organizational climate in enhancing innovative workplace practices in employees through entrepreneurial leadership. To build a sustainable business in today's competitive environment, organizations need such entrepreneurs with vision, innovation as leaders within workplaces. Entrepreneurs as leaders are more persuasive and engaging for the employees that align them to achieve a common organizational goal (Butler, 2017). For this organizations are opting for entrepreneurial leadership within their workplace. Entrepreneurial leadership is such a type of a leadership that maximizes trust in its employees through their unique skills and encourages passion for innovation in them (Soomro et al., 2018). Moreover, this leadership style has not only brought innovation and uniqueness, but also enabled their employees to demonstrate their capabilities and competencies in solving complex issues (Bagheri et al., 2020). The characteristics of entrepreneurial leader's entail perseverance, innovation, risk optimization, managing dynamic business environment, and taking advantages of opportunities (Entrepreneurs Academy, 2020). Entrepreneurial leaders by creating such an environment where employees are aligned towards achieving a common goal through innovation and creativity, lead towards innovative work behavior at the organization. Along with the leadership of an entrepreneur, employees are expected to be creative because they have been developed to be creative for new ideas and solving complex situations for their organizations. In striving for sustainable business environment, entrepreneurial leadership maintains the freedom of employees to bring and develop innovation in a group or organization (Faulks et al., 2021). In addition, when entrepreneurship leadership is used within workplaces, leaders make valuable contributions to their employees by supporting them in improving their productivity through innovation and creativity, enabling them to compete at a larger scale and with competitors as well (Afsar et al., 2017). Hence, EL is fundamental in developing innovative work behavior in employees. The gap in this study considering the effects of entrepreneurial leadership style on innovative work behavior of employees is limited in Pakistani context. Entrepreneurial leadership (EL) has been studied many times with innovative work behavior (IWB) in manufacturing as well as technological organizations in Indonesia (Sarwoko, 2020). No research study till now has examined the above- mentioned variables association in the banking sector of the country (Pakistan). The banking sector of the Pakistan lags behind in innovation and creativity that result in its poor economic contribution in improving living standard of the people. The underlying reason is attributed to lack of training and focus of banking leaders towards entrepreneurial competencies that plays a vital role in fostering creativity, innovation, and developing innovative organizational climate. As banking sector can contribute towards economic development of a country, if employees' creative selfefficacy can be developed by providing them innovative climate through innovative work behavior that ultimately leads to employees' innovative work behavior. The above outlined gap in prior research studies has considered as a research gap in this research study. This mentioned research gap will be overcome with the contribution of this research study so the main research objective is to investigate the relationship between entrepreneurial leadership and employee innovative work behavior through Intrinsic motivation as a mediator. In the aforementioned discussion following research question can be made.

- RQ1: What is the relationship between entrepreneurial leadership and innovative work behavior?
- RQ2: What is the relationship between identified motivation and innovative work behavior?
- RQ3: How does the intrinsic motivation mediates the relationship between entrepreneurial leadership and innovative work behavior?
- RQ4: How does the intrinsic motivation mediates the relationship between identified motivation and innovative work behavior?

# LITERATURE REVIEW

# **Entrepreneurial Leadership**

Entrepreneurial Leadership(EL) is defined as "A leadership type, in which leaders take risks, and have capabilities of transforming opportunities into innovation (Leitch & Volery, 2017, p.150)". EL is a high-level leadership style that carries both characteristics of entrepreneur and leadership. As a leadership theory, it has its foundations in both entrepreneurship and leadership. Cai et al. (2019) presented a framework of Entrepreneurial Leadership in which it states its five roles. They entail framing the challenge, clearing paths for its team, absorbing every uncertainty in its way, building commitment, and specifying limits in all of the process. Mehmood et al. (2021) stated in their study that Three cross-cultural concepts serve as the foundation for entrepreneurial leadership that entail team-orientation at large, value added, and neo-charismatic leadership as well. Entrepreneurial Leadership has transformational leadership characteristics. Intellectual simulation is one of the key determinants that enable entrepreneurial leaders to inspire their followers by using charisma. With this determinant, they identify their employee's needs and provide resources to keep them align with the goals they want to pursue. They communicate with them and nurture their unique talents. A research study by has assessed the contributions of entrepreneurial leadership towards their employees. The findings of the study outlined that entrepreneurial leader enhances their employee's self-efficacy and passion. They build their employees confidence in bringing creativity and innovation that best satisfies their interests. Therefore, it can be inferred that entrepreneurial leadership role is to explore and exploit opportunities in the best interest of their employees. Leitch & Volery (2017) has assessed when entrepreneurial leadership is considered to be more effective. The researcher has conducted a semi-structured interview technique from the managers and entrepreneurs. The sample size of the study was 32 (16 managers and 16 entrepreneurs). The results of the study outlined that EL is related with developing creativity and proactivity in employees. Moreover, entrepreneurial leadership can be ascertained with the autonomy and risk-taking behavior of managers and entrepreneurs. However, entrepreneurs and managers exhibited no such big difference. The only difference lies in outside-in approach of the managers. On the other hand, entrepreneurs exhibited inside-out approach. But managers have more often utilizing entrepreneurial leadership than entrepreneurs itself. They concluded that entrepreneurial leadership is more effective when organization needs to bring and develop creativity and innovation in its employees and within its project delivery. Hence, entrepreneurial leadership is effective when it is used as a dimension drive strategy to fulfills organizational goals.

One such form of leadership is entrepreneurial leadership, in which leaders take risks, and have capabilities of transforming opportunities into innovation (Leitch & Volery, 2017). Entrepreneurial leaders have strived for innovation, encourages their employees in creating vision and influencing their awareness level. Renko (2017) stated that Entrepreneurial leaders in particular served as a role model for their employees. By focusing on value creation, entrepreneurial leaders have encouraged their employees to contribute in innovation. Fontana and Musa (2017) highlighted that entrepreneurial leader have provided necessary support in the value creation process by developing and adapting goals that can be achieved to increase the resilience of employees, and working with them to develop different perspectives and address their concerns and issues as well.

# **Innovative Work Behavior**

The dynamic environment of the trade and business seriously call for innovation in the organization and the business firms. In the current era the innovation is not only an option for the organization rather it is pivotal for them to innovate in order to sustain the business environment. The innovation process is not only dependent on the technology or resources nut also the human behavior is an important part of it. The innovative behavior of the employees at the workplace contributes a lot in ground-breaking changes in the work routines of the organization and their overall performance of the organization (Prieto et al. 2014). Innovative work behavior is an attitude of the people when they actually think creatively and introduce novel ideas in their daily routines, craft their jobs, innovate the supply chains and production processes according to the latest industry demands to make the business flourish and perform in the market both locally and internationally. The indulgence of new business ideas, techniques, technology, and human resources in the business helps people and businesses to leave the orthodox approaches and bring something new in league (Siregar, Suryana, & Senen, 2019). Several factors that contribute in the innovative work behavior of people are motivation, commitment, self-efficacy and competency. They can be two sources of motivation of the employees to innovate and perform.

#### **Intrinsic Motivation:**

Intrinsic motivation is a self-driven desire of the people to remain up to date and innovative. It is the in-built ability and attitude of the people to work with a purpose. These people always find one or the other way to make their work interesting and always come up with unique ideas and practices. People who are intrinsically motivated try out something new to stay in limelight and they usually work hard and smart to meet their internal desires and satisfaction associated with work (Bin Saeed et al., 2019). Their better work performance and innovative attitude make them stand out and appreciated by the management further boast their motivation and innovative behavior (Kuvaas et. al. 2017).

## **Identified Motivation**

Innovative work behaviors are much more likely to be exhibit by the people who seems their work meaningful and impactful (Bammens, 2016). An individual is typically thought to have an innovative work behavior when he/she constantly explore the opportunities around him and tend to generate the greatest output with minimal resources. It's a directed attitude towards accepting change, bringing change, developing creativity

and creating a performance-oriented aura. Most of the previous literature agreed to a point the creativity, new ideas and right attitude serves as the base of innovation (Choi et al., 2020). Usually, the misconception about innovation is that it is confused with creativity. Process of innovation is simply not bringing new ideas on the table but also to implement those ideas and turn that creativity into reality. Thus, it can be rightly said that the innovative work behavior is not just the generation of new ideas or technology but the behavior to implement those ideas and grade up that technology to outperform in the market. Innovation is more than life for the business in today's competitive market (Schoemaker et al., 2018). It is pivotal for the business firms to innovate in their process, products, and daily routines etc. innovative behavior of an employee tend to impact larger than it looks. The innovative trends set by the manager's acts as a bench mark and provide a base ground for the continuous innovation. However the pace of innovation may vary from firm to firm (Legenvre & Gualandris, 2018). The innovative work behaviors generally divided into four different behaviors. These four different practices and behavior combined together to formulate the innovative work behavior. The practices are recognition of the trouble, concept era, promotion, and awareness. The first two practices are concerned with the creativity or generation of the ideas. These are the practices that initiate the innovative work behavior by pondering on the existing problems and suggesting an idea to solve those problems. These are implementation-oriented practices and tend to help people to implement their ideas in the real time. Only those people will be successful who tend to be highly professional and innovative in order to meet their personal and professional goal (Shin et al., 2017). This can also be observed from the point of view for the trait theory which suggest that people creativity and innovative behavior are dependent on their personality traits. The five characters are of the great importance in shaping an individual's work behavior (extraversion, agreeableness, conscientiousness, neuroticism and openness) (Woods et. al., 2017). But it is not that employees with innovative work behaviors guaranteed out of the box performance. The innovative work behavior is a dynamic approach. It is beyond the simple take and responsibility but involves in complex task and obligations.

# **Conceptual Model and Hypothesis Generation**

Leadership is a one of the deciding factors of the organizational success. The latest type of leadership in the startups or newborn local and global firms is known as the entrepreneurial leadership. A plethora of studies suggest the relationship between the innovative work behavior and entrepreneurial leadership. Leadership behavior has a substantial impact on the employee's behavior, thinking patterns, organization success, organizational culture, process of innovation and much more. The employee's performance and its behavior towards work is highly influenced by its leadership (Pawirosumarto et al., 2017). In every business setting, senior management or the leadership of the business are the ones who support the innovation process by letting the employees to unveil their innovative work behavior (Li, Makhdoom, Asim, & Management, 2020). Business and innovation are highly influenced by the leadership style of the firm. The entrepreneurial leadership style has the maximum margin of responding at the earliest of the competitive and dynamic nature of the market demands. In context of the innovative, the innovative work behavior supports the employees in meeting the extreme needs of the changing environment with innovative, unique and

creative ideas. The innovative work relates to the projection and implementation of the unique ideas to bring efficiency and effectiveness in the daily process (Serdyukov, 2017). Innovation is a process that involves uncertainty, ambiguity and complexity. There is no hard and fast rule to predict that innovative behavior always brings positive changes in the organizations (Middlebrooks, 2015). Therefore, the role of leadership is even more important in shaping the behavior of the employees. To foster the process of innovation involving calculated risk to minimize the chances of loss is one of the major responsibilities of the organization. Therefore, leaders facilitate the subordinate in creating and implementing right ideas in right situation to bring right changes (Chen et al., 2016; Bagehri et al., 2018). Another aspect described by the literature about the entrepreneurial leadership is their ability to implement their knowledge and understanding of the business or the market to attain maximum level of innovation. The entrepreneurial leadership usually opt people with more creative, innovative, independent and situation handling people. Therefore, immense studies in literature represent the positive relation of entrepreneurial leadership with innovative work behavior of the employees (Huang, Ding, & Chen, 2014; Kim et al., 2017). According to the theoretical perspective, the personality of the entrepreneurial leadership has a lot of impact on the decision making. The personal abilities, mindset and aura of the leadership contribute a lot in the creative thinking patterns and help them to understand the particular situation by looking at the hidden realities and listening the unsaid truths. The skills and the knowledge of the entrepreneurial leadership help to create an aura that inspires the people. A leader with the ability of inspiring people and motivating them to achieve their common goals by following his ideology can achieve any goal (Bagheri & Akbari, 2018). The entrepreneurial leader with an innovative approach can inspire people to think beyond their conventional patterns and craft their jobs with their innovative abilities and behavior to bring efficiency, freshness, positivity, and success in their jobs. Literature supports the massive role of entrepreneurial leaders in shaping and enhancing the innovative work behavior of the employees by assisting them in opting new and friendly techniques, technology and idea. The perception of a friendly and supportive environment towards innovation amplifies the innovative thoughts and behavior of the employees (Gupta & Singh, 2015). The EL can bring a positive change in the innovative work behavior of the employees by acknowledging and appreciating the efforts of the employees towards innovation. The above-mentioned references are the reason that literature heavily counts the relationship between the entrepreneurial leadership and the innovative work behavior of the employees. Leaders and supervisor have to face a number of challenges and constraints to foster new ideas and enhance employee innovative work behavior but still their role cannot be denied (DiPaola & Wagner, 2018). A research study by Li et. al., (2020) has assessed the significant association between Entrepreneurial leadership and Innovative Wok Behavior of employees. The researcher has opted for primary quantitative research study. Data has been gathered in this research study from 350 respondents from "Jiangsu" province of China. The findings of this research study exhibited that entrepreneurial leadership (EL) directly influence the innovative work behavior of employees (IWB). The EL has developed competencies in their employees to exhibit confidence to bring their insights, creativity, and innovation as well in solving organizational problems and queries in an effective way. Furthermore, they have reshaped their employee's behavior and attitudes that discourages them to think

creative and bring innovation. The geographical research gap has been identified in the research study of Li et al. (2020) as they have conducted in China. The findings of the research study have been applicable to China only. The studies available about the relation of entrepreneurial leadership with the innovative work behavior are significant of the foreign context. Negligible number of studies investigates the relation in the local context. The identified research gap will be overcome in this research study by conducting research study in Pakistan on the variables of Entrepreneurial leadership(EL) and Innovative Wok Behavior(IWB) of employees. Thus, on the basis of above discussion this study has the following hypotheses.

- H1: Entrepreneurial Leadership has a positive impact on employees' innovative work behavior.
- H2: Identified motivation has positive impact on employees' innovative work behavior.
- H3 Intrinsic motivation positively mediates the relationship between Entrepreneurial Leadership and innovative work behavior.
- H4: Intrinsic motivation positively mediates the relationship between Identified motivation and innovative work behavior

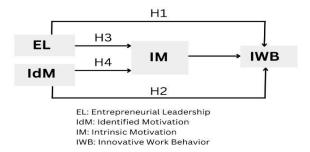


Figure 1: Conceptual Model

#### RESEARCH METHODOLOGY

# Research Approach

The deductive approach refers to a formulation of the hypotheses initially, gathering and analyzing data to accept or reject the formulated hypotheses, and drawing specific conclusions as well (Woiceshyn & Daellenbach, 2018). This study has opted for a deductive research approach in this research study. The underlying rationale for using this approach is that it identifies the possible association between variables of a research study, measures them quantitatively, and assists in generalizing the study's findings (Azungah, 2018).

# Sampling

The convenience sampling technique is used in this research study. It is such a type of non-probability sampling technique in which a researcher samples the required target population based on his/her convenience (Stratton, 2021). The significance behind using

the convenience sampling technique is that it is cheap sampling technique, easy to use, and provides immediate results in a sampling technique (Etikan et al., 2016).

## **Data Collection**

The researcher has opted for primary data collection in this research study. All items were adapted and modified according to the study needs (Covin and Slevin 1989, De Jong and Den Hartog 2010, Kör 2016) The survey research used a scale which was shared with 350 respondents via self-administration and online means(Hair 2009). The target population included staff and employees of commercial banks in Pakistan who possess knowledge of innovative work behavior. Out of the 350 scales distributed, a total of 250 questionnaires were received containing complete and reliable information pertaining to the research topic. Upon entering the data into IBM SPSS software (version 23) for analysis, it was found that 30 of the received questionnaires were only partially filled out and were therefore excluded from the study due to incomplete, univariate or biased responses by the employees. Consequently, the final sample size for data analysis in this study was reduced to 220 questionnaires. The significance behind using this type of data collection is that researcher can collect first-hand data keeping in view the topic of variables under study (Neelankavil, 2015). Hence, primary data collection is best suited in this research study.

# **Data Analysis**

The researcher opted for the IBM SPSS and AMOS (V. 23) statistical analysis software technique to analyze the quantitative gathered data through survey questionnaires. The significance of using the SPSS and AMOS analysis technique is that it provides meaningful association behind variables of a research study in the form of tables and charts (McCormick & Salcedo, 2017).

## ANALYSIS AND RESULTS

The present study employed confirmatory factor analysis to evaluate the validity of a multi-item measurement scale, which comprised four constructs: EL (entrepreneurial leadership), IWB (innovative work behavior), IM (intrinsic motivation), and IdM (identified motivation). The factor loadings of these constructs ranged from 0.593 to 0.925, indicating that the items were reliable measures of their respective constructs. The values of Cronbach's  $\alpha$ , which ranged from 0.804 to 0.931, further confirmed the internal consistency of the constructs. The composite reliability values ranged from 0.851 to 0.910, indicating that the measurement scale was also reliable at the aggregate level.(Hair, Anderson et al. 1998, Hair 2009)

	Factor Loadings	Cronbach's α	Composite Reliability
EL	0.671- 0.808	0.931	0.910
IWB	0.710- 0.899	0.804	0.819
IM	0.593- 0.925	0.901	0.946
IdM	0.691- 0.908	0.893	0.851

Model fit indices were also used to assess the goodness of fit of the measurement model. The comparative fit index (CFI) value of 0.917, root mean square error of approximation (RMSEA) of 0.039, standard root mean square residual (SRMR) of 0.06, and the ratio of Chi square goodness-of-fit measure to degrees of freedom of 1.91, all indicate that the measurement model fit the data well (Hu and Bentler 1999, Hair 2009)These results confirm that the multi-item measurement scale is a valid and reliable measure of the constructs under investigation.

Table 2 Correlation Analysis

	CR	AVE	EL	IWB	IM	IdM
EL	0.910	0.688	0.724	ı	ı	-
IWB	0.819	0.618	0.725***	0.686	-	-
IM	0.946	0.707	0.537***	0.664***	0.827	-
IdM	0.851	0.589	0.672***	0.687***	0.577***	0.706

The results of the hypothesis testing revealed a positive correlation between all the variables. EL was positively associated with IWB, and IdM was positively associated with IDM, both at a significant level. These findings supported the study's initial hypothesis and were consistent with the theoretical predictions. The path coefficients ( $\beta$ ) for these relationships were 0.326 and 0.633, respectively. These findings support Hypothesis 1 and Hypothesis 2, respectively. These results are well aligned with (Åmo 2006, Kör 2016)

Table 3
Hypothesis Testing Analysis

Paths	Beta	Hypothesis	Results
$EL \rightarrow IWB$	.326***	H1	Supported
$IdM \rightarrow IWB$	.633***	H2	Supported
$IM-EL \rightarrow IWB$	.407***	НЗ	Supported

The results of the DEWOM and DWM statistics indicate the presence of partial mediation in the relationships between EL-IM-IWB and IdM-IM-IWB. The DEWOM values for both relationships are statistically significant, which implies that there is a direct effect of the EL and IdM on the IWB without the mediator. However, the DWM values for both relationships are lower than the DEWOM values, indicating that the mediator partially explains the relationship between the independent variable and dependent variable.

The regression results indicate that EL, IdM, and IM are positively associated with IWB. This finding provides evidence for the direct effect of EL and IdM on IWB, without considering the mediating effect of IM. However, the significant positive association between IM and IWB, after controlling for the effects of EL and IdM, supports the partial mediation hypothesis. The significant beta coefficient ( $\beta = .407$ )

between IM-EL-IWB indicates that IM plays a mediating role in the relationship between EL and IWB. Table 4 suggest that IM partially mediates the relationships between EL-IWB and IdM-IWB. These findings imply that there are both direct and indirect effects of EL and IdM on IWB. Hence, the mediation hypothesis is partially supported. These results are well supported by (Devloo, Anseel et al. (2015), Siyal, Xin et al. 2021).

Table 4 Mediation Results

Mediation	D.E.W.O.M	D.W.M	Mediation
$EL \rightarrow IM \rightarrow IWB$	0.546***	0.215	Partial Mediation
$IdM \rightarrow IM \rightarrow IWB$	0.679***	0.321	Partial Mediation

# **CONCLUSION AND DISCUSSION**

In this study, we aimed to investigate the relationship between entrepreneurial leadership and innovative work behavior, as well as the role of motivation in mediating this relationship. Our findings suggest that entrepreneurial leadership is positively associated with innovative work behavior, which is in line with previous research that has highlighted the importance of leadership in promoting innovative work behavior. The study's conclusion is grounded on the analysis of data gathered through survey research. The hypothesis was tested and yielded positive and statistically significant results, which align with previous research conducted by Leitch and Volery in 2017 where the described that leaders can facilitate dynamic changes in employees that go beyond technological advancements (Prieto et al., 2014). Additionally, Fontana and Musa's 2017 study expounded on the notion that entrepreneurs strive for innovation in the workplace. Renko's 2017 investigation also corroborates the results of this study. Furthermore, our study identified motivation as a key factor in mediating the relationship between entrepreneurial leadership and innovative work behavior. Specifically, we found that intrinsic motivation partially mediates this relationship, demonstrating that those with intrinsic motivation are more inclined to innovative work behavior under the leadership of an entrepreneurial leader. These results are in line with the previous studies (Devloo, Anseel et al. 2015, Kör 2016, Siyal, Xin et al. 2021).

This study makes important contributions to academia by providing empirical evidence of the positive relationship between entrepreneurial leadership and innovative work behavior, extending our understanding of the underlying mechanisms, and emphasizing the practical implications for managers. It bridges the gap between academia and industry by providing insights into creating a work environment that promotes innovation and fosters intrinsic motivation. These findings have important implications for organizations that seek to foster innovation and creativity in their workforce. By promoting entrepreneurial leadership and providing opportunities for employees to engage in intrinsically motivating work, organisations have the ability to build a work environment that fosters innovative work behavior. This, in turn, can lead to a range of benefits, such as increased competitiveness, improved performance, and enhanced employee satisfaction. Furthermore, managers should prioritize creating a work environment that nurtures intrinsic motivation, providing meaningful work, autonomy, and opportunities for skill development. They should encourage risk-taking,

experimentation, reward creativity, and innovative ideas, and align employee goals with the organization's mission and values. By doing so, managers can enhance employee engagement, job satisfaction, and improve organizational performance.

However, this study has several limitations that should be acknowledged. First, the study was conducted in a specific industry and country, limiting the generalizability of the findings to other industries or cultural contexts. Future research should examine these relationships in different settings to enhance the external validity of the findings. Future research should employ longitudinal designs to better understand the temporal relationship between entrepreneurial leadership, motivation, and innovative work behavior. Third, the study relied on self-reported data, which may be subject to response biases such as social desirability bias. Future studies could employ multiple sources of data, including objective measures of innovative work behavior, to enhance the validity of the findings. Fourth, the study did not consider the role of other factors that may influence innovative work behavior, such as organizational culture, resources, and support. Future research should investigate the interplay between these factors and entrepreneurial leadership in stimulating innovative work behavior.

Additionally, future research should explore the potential moderating effects of other variables on the relationship between entrepreneurial leadership, motivation, and innovative work behavior, such as organizational culture, resources, and support. Finally, future research could explore the role of entrepreneurial leadership in fostering innovation in different organizational contexts, such as start-ups and established firms, and examine how leadership styles may vary across different stages of organizational development.

Overall, our study provides valuable insights into the role of entrepreneurial leadership and motivation in fostering innovative work behavior(IWB). By understanding these relationships, organizations can develop strategies to foster innovation and creativity in their workforce, which can ultimately contribute to their long-term success.

# REFERENCES

- 1. Afsar, B., Badir, Y.F., Saeed, B.B. and Hafeez, S. (2017). Transformational and transactional leadership and employee's entrepreneurial behavior in knowledge—intensive industries. *The International Journal of Human Resource Management*, 28(2), 307-332.
- 2. Ahmad, S., Wasim, S., Irfan, S., Gogoi, S., Srivastava, A. and Farheen, Z. (2019). Qualitative vs. Quantitative Research. *Journal of Evidence Based Medicine and Healthcare*, 6(43), 2828-2832
- 3. Ahmed, F., Hassan, A., Ayub, M.U. and Klimoski, R.J. (2018). High commitment work system and innovative work behavior: The mediating role of knowledge sharing. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 12(1), 29-51.
- 4. Akbari, M., Bagheri, A., Imani, S. and Asadnezhad, M. (2020). Does entrepreneurial leadership encourage innovation work behavior? The mediating role of creative self-efficacy and support for innovation. *European Journal of Innovation Management*, 24(1), 1-22.

- 5. Akhtar, D.M.I. (2016). Research design. *Research Design*. Available at http://dx.doi.org/10.2139/ssrn.2862445
- 6. Alharahsheh, H.H. and Pius, A. (2020). A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3), 39-43.
- 7. Åmo, B.W. (2006). Employee innovation behaviour in health care: the influence from management and colleagues. *International nursing review*, 53(3), 231-237.
- 8. Azeem, M., Ahmed, M., Haider, S. and Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635.
- 9. Azungah, T. (2018). Qualitative research: deductive and inductive approaches to data analysis. *Qualitative research journal*, 18(4), 383-400.
- 10. Bagheri, A. and Akbari, M. (2018). The impact of entrepreneurial leadership on nurses' innovation behavior. *Journal of Nursing Scholarship*, 50(1), 28-35.
- 11. Bagheri, A., Newman, A. and Eva, N. (2020). Entrepreneurial leadership of CEOs and employees' innovative behavior in high-technology new ventures. *Journal of Small Business Management*, 1-23.
- 12. Bammens, Y.P. (2016). Employees' innovative behavior in social context: A closer examination of the role of organizational care. *Journal of Product Innovation Management*, 33(3), 244-259.
- 13. Bibi, S., Khan, A., Qian, H., Garavelli, A.C., Natalicchio, A. and Capolupo, P. (2020). Innovative climate, a determinant of competitiveness and business performance in Chinese law firms: the role of firm size and age. *Sustainability*, 12(12), 4948.
- 14. Bin Saeed, B., Afsar, B., Shahjeha, A. and Imad Shah, S. (2019). Does transformational leadership foster innovative work behavior? The roles of psychological empowerment, intrinsic motivation, and creative process engagement. *Economic research-Ekonomska istraživanja*, 32(1), 254-281.
- 15. Brannen, J. (2017). Combining qualitative and quantitative approaches: an overview. *Mixing methods: Qualitative and quantitative research*, 3-37.
- 16. Butler, T. (2017). Hiring an entrepreneurial leader. *Harvard Business Review*, 95(2), 85-93
- 17. Cai, W., Lysova, E.I., Khapova, S.N. and Bossink, B.A. (2019). Does entrepreneurial leadership foster creativity among employees and teams? The mediating role of creative efficacy beliefs. *Journal of Business and Psychology*, 34(2), 203-217.
- 18. Chen, L., Zheng, W., Yang, B. and Bai, S. (2016). Transformational leadership, social capital and organizational innovation. Leadership & Organization Development Journal, 37(7), 843-859
- 19. Choi, H. J., Ahn, J.C., Jung, S.H. and Kim, J.H. (2020). Communities of practice and knowledge management systems: effects on knowledge management activities and innovation performance. *Knowledge Management Research & Practice*, 18(1), 53-68.
- 20. Covin, J.G. and D.P. Slevin (1989). Strategic management of small firms in hostile and benign environments. *Strategic management journal*, 10(1), 75-87.
- 21. DiPaola, M. and Wagner, C.A. (2018). Improving instruction through supervision, evaluation, and professional development. IAP.

- 22. De Jong, J. and Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and innovation management*, 19(1), 23-36.
- 23. Devloo, T., Anseel, F., De Beuckelaer, A. and Salanova, M. (2015). Keep the fire burning: Reciprocal gains of basic need satisfaction, intrinsic motivation and innovative work behaviour. *European Journal of Work and Organizational Psychology*, 24(4), 491-504.
- 24. Drobyazko, S., Barwińska-Małajowicz, A., Ślusarczyk, B., Zavidna, L. and Danylovych-Kropyvnytska, M. (2019). Innovative entrepreneurship models in the management system of enterprise competitiveness. *Journal of Entrepreneurship Education*, 22(4), 1-6.
- 25. Entrepreneurs Academy. (2020). Entrepreneurial Leadership Characteristics. Retrieved 23 January 2022, from https://www.entrepreneursacademy.co.uk/post/10-entrepreneurial-leadership-characteristics
- 26. Etikan, I., Musa, S.A. and Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4.
- 27. Faulks, B., Song, Y., Waiganjo, M., Obrenovic, B. and Godinic, D. (2021). Impact of Empowering Leadership, Innovative Work, and Organizational Learning Readiness on Sustainable Economic Performance: An Empirical Study of Companies in Russia during the COVID-19 Pandemic. *Sustainability*, 13(22), 12465.
- 28. Fontana, A. and Musa, S. (2017). The impact of entrepreneurial leadership on innovation management and its measurement validation. *International Journal of Innovation Science*, 9, 2-19.
- 29. Gupta, V. and Singh, S. (2015). Leadership and creative performance behaviors in R&D laboratories: Examining the mediating role of justice perceptions. *Journal of Leadership & Organizational Studies*, 22(1), 21-36.
- 30. Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998). *Multivariate Data Analysis Prentice-Hall*: New Jersey.
- 31. Hsu, M.L. and Chen, F.H. (2017). The cross-level mediating effect of psychological capital on the organizational innovation climate-employee innovative behavior relationship. *The Journal of Creative Behavior*, 51(2), 128-139.
- 32. Hu, L.T. and Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- 33. Kör, B. (2016). The mediating effects of self-leadership on perceived entrepreneurial orientation and innovative work behavior in the banking sector. *SpringerPlus*, 5(1), 1-15.
- 34. Kuvaas, B., Buch, R., Weibel, A., Dysvik, A. and Nerstad, C.G. (2017). Do intrinsic and extrinsic motivation relate differently to employee outcomes?. *Journal of Economic Psychology*, 61, 244-258.
- 35. Legenvre, H. and Gualandris, J. (2018). Innovation sourcing excellence: Three purchasing capabilities for success. *Business Horizons*, 61(1), 95-106.
- 36. Leitch, C.M. and Volery, T. (2017). Entrepreneurial leadership: Insights and directions. *International Small Business Journal*, 35(2), 147-156.

- 37. Li, C., Makhdoom, H.U.R. and Asim, S. (2020). Impact of entrepreneurial leadership on innovative work behavior: examining mediation and moderation mechanisms. Psychology Research and Behavior Management, 13, 105.
- 38. McCormick, K. and Salcedo, J. (2017). SPSS statistics for data analysis and visualization. John Wiley & Sons.
- 39. Mehmood, M.S., Jian, Z., Akram, U. and Tariq, A. (2021). Entrepreneurial leadership: thekey to develop creativity in organizations. Leadership & Organization Development Journal, 42(3), 434-452.
- 40. Nasifoglu Elidemir, S., Ozturen, A. and Bayighomog, S. W. (2020). Innovative behaviors, employee creativity, and sustainable competitive advantage: A moderated mediation. Sustainability, 12(8), 3295.
- 41. Pawirosumarto, S., Sarjana, P.K. and Gunawan, R. (2017). The effect of work environment, leadership style, and organizational culture towards job satisfaction and its implication towards employee performance in Parador Hotels and Resorts, Indonesia. International journal of law and management, 59(6), 1337-1358.
- 42. Prieto, I.M. and Pérez-Santana, M.P. (2014). Managing innovative work behavior: the role of human resource practices. Personnel Review.
- 43. Renko, M. (2017). Entrepreneurial leadership. *Nature of leadership* (3rd edition). SAGE: Chicago.
- 44. Sarwoko, E. (2020). Entrepreneurial Leadership and Innovative Work Behavior: The Role of Creative Self-efficacy. Journal of Economics, Business, & Accountancy Ventura, 23(2), 183-193.
- 45. Schoemaker, P.J., Heaton, S. and Teece, D. (2018). Innovation, dynamic capabilities, and leadership. California management review, 61(1), 15-42.
- 46. Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it?. Journal of research in innovative teaching & learning, 10(1), 4-33.
- 47. Shin, S.J., Yuan, F. and Zhou, J. (2017). When perceived innovation job requirement increases employee innovative behavior: A sensemaking perspective. Journal of Organizational Behavior, 38(1), 68-86.
- 48. Siyal, S., Xin, C., Umrani, W.A., Fatima, S. and Pal, D. (2021). How do leaders influence innovation and creativity in employees? The mediating role of intrinsic motivation. Administration & Society, 53(9), 1337-1361.
- 49. Stratton, S.J. (2021). Population research: Convenience sampling strategies. Prehospital and Disaster Medicine, 36(4), 373-374.
- 50. Soomro, B.A., Shah, N. and Mangi, S. (2018). Factors affecting the entrepreneurial leadership in small-and medium-sized enterprises (SMEs) of Pakistan: An empirical evidence. World Journal of Entrepreneurship, Management and Sustainable Development, 15(1), 31-44.
- 51. Woods, S.A., Mustafa, M.J., Anderson, N. and Sayer, B. (2018). Innovative work behavior and personality traits: Examining the moderating effects of organizational tenure. Journal of Managerial Psychology, 33(1), 29-42.
- 52. Woiceshyn, J. and Daellenbach, U. (2018). Evaluating inductive vs deductive research in management studies: Implications for authors, editors, and reviewers. Qualitative Research in Organizations and Management: An International Journal, 13(2), 183-195.