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RESEARCH ARTICLE

Quantifying the Impact of Entrepreneurial Creativity on Employee Performance in Egyptian ICT Smes: Emotional Intelligence Mediation and Gender's Moderating Influence

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ABSTRACT

This study examines the influence of entrepreneurial creativity on employee performance within small and medium-sized enterprises (SMEs) through the moderating role of gender, employing advanced statistical methods. Using structural equation modeling (SEM) via AMOS, data collected through a survey of 596 acceptable responses were analyzed to explore relationships among two key dimensions of entrepreneurial creativity: Originality and Usefulness. Emotional intelligence was analyzed as a mediating variable to assess its role in enhancing employee performance. The findings demonstrate statistically significant relationships: entrepreneurial creativity directly and positively impacts employee performance, while emotional intelligence amplifies and partially mediates this effect. The study reveals that SMEs can benefit from fostering a creative culture and leveraging emotional intelligence to drive performance and adaptability, with gender playing a moderating role in these dynamics.

INTRODUCTION

Entrepreneurship has played a fundamental role in driving economic development globally. Small and medium enterprises (SMEs), recognized as the backbone of economies worldwide, have contributed significantly to job creation, economic diversification, and innovation (The World Bank, 2019). Governments globally have prioritized fostering entrepreneurial ecosystems, especially within rapidly evolving sectors, recognizing the crucial role of SMEs in economic dynamism.

Small and medium-sized enterprises (SMEs) are a significant component of the Egyptian economy, as evidenced by data from the Central Agency for Public Mobilization and Statistics (CAPMAS), which recorded approximately 3.8 million micro-enterprises and 67,000 small businesses in Egypt in 2020, representing a substantial combined operational capital of 4.9 billion EGP (Naggar & El Said, 2021). Furthermore, the ICT sector, a key driver of Egypt's digital transformation, has demonstrated remarkable growth, achieving a rate of approximately 16.3% in the fiscal year 2022/2023 and becoming the fastest-growing sector in the country for five consecutive years (Egyptian Ministry of Communication and Information Technology Report, 2023). Despite this economic significance and sector growth, Egyptian SMEs, particularly those in the dynamic ICT landscape, operate within challenging environments characterized by resource scarcity, limited access to finance, and intense market competition. These inherent pressures are further exacerbated by rapid technological advancements, evolving consumer preferences, and a constantly shifting competitive landscape, demanding high levels of performance, adaptability, and innovative capacity from their workforce (Samir, 2020).

Prior research has established a significant positive relationship between entrepreneurial creativity and employee performance (Karami et al., 2024). Entrepreneurial creativity, the generation and implementation of novel and valuable ideas, is a recognized driver of innovation and competitive advantage, particularly in sectors like ICT (Runco & Jaeger, 2020). However, while creativity is a valuable asset, the mechanism through which it consistently translates into enhanced workplace performance has remained a subject of further investigation. For SMEs facing resource limitations and intense pressure to innovate, maximizing the performance output from their employees' creative potential is of paramount importance.

This study explores the mediating role of emotional intelligence (EI) in the relationship between entrepreneurial creativity and employee performance. While entrepreneurial creativity lays the groundwork for innovation, EI enhances and optimizes this connection, helping employees effectively translate creative potential into tangible performance improvements. Employees with higher EI—encompassing self-awareness, self-regulation, social awareness, and relationship management—are better equipped to navigate workplace challenges, build strong relationships, and adapt to dynamic environments, ultimately maximizing their creative and innovative capabilities. Notably, an employee with moderate creativity but high EI may achieve performance levels comparable to a highly creative individual with lower EI, emphasizing the crucial role of emotional intelligence in leveraging entrepreneurial creativity for success (Yousaf, Javed, & Badshah, 2024).

LITERATURE REVIEW

2.1 Conceptual review

Entrepreneurial creativity

the ability of entrepreneurs to generate novel and useful ideas – is increasingly recognized as a critical driver of organizational success, especially in dynamic sectors like ICT.Creativity is not only linked to artistic expression but is also a crucial competency for business success, particularly in sectors that require continuous adaptation and innovation (Tuğrul, 2023). Creative entrepreneurs can inspire innovation in products, services, and processes, which in turn enhances business outcomes. It is widely regarded as a critical engine for innovation and long-term business success, especially in fast-paced, technology-driven industries (Kafetzopoulos, 2020; Smith, 2022). Creative entrepreneurial initiatives enable firms to adapt to changing market demands, exploit new opportunities, and achieve sustainable competitive advantages. For ICT companies in particular, cultivating a creative workforce is crucial to meeting customer needs through innovative solutions and maintaining relevance amid rapid technological advancements. In the context of small and medium-sized enterprises (SMEs), where resources are limited, entrepreneurial creativity becomes even more important as a source of innovation and value creation, laying the groundwork for business sustainability.

Employee performance

defined as the effectiveness and efficiency with which employees execute their job responsibilities and contribute to organizational goals (Nusraningrum et al. 2024). It is a key non-financial indicator of an organization's effectiveness and is especially pivotal in SMEs, where each individual's contribution has a pronounced impact on overall outcomes (Kura et al., 2020). High employee performance – often reflected in productivity, quality of work, innovation, and proactive problem-solving – is crucial for organizational success. It drives success by fueling creativity, innovation, and employee commitment within the firm. In smaller enterprises, employees frequently wear multiple hats, and their collective performance can determine the agility and competitiveness of the business (Budur & Demir, 2022).

Scholars note that in dynamic sectors like ICT, high-performing employees are essential for continuous innovation, excellent service delivery, and sustaining customer satisfaction in a digital-first marketplace (Abdelaziz et al., 2025). Thus, employee performance is not only a result of effective business practices but also a driver of innovation and competitive strength.

Emotional intelligence (EI)

defined as the capacity to perceive, understand, manage, and effectively use one's emotions and those of others– has emerged as an influential factor in enhancing employee engagement and productivity. In organizational settings, employees with higher emotional intelligence tend to exhibit better teamwork, adaptability, and conflict management, all of which bolster performance(Yousaf, Javed, & Badshah, 2024). Recent research in organizational behavior increasingly validates the significance of EI for workplace effectiveness and leadership success.

2.2 Empirical review and hypotheses development.

Entrepreneurial Creativity and Employee Performance–Recent empirical evidence in SME contexts supports this positive linkage. For example, Priambodo and Metris (2024) found that creative thinking skills positively affect the performance outcomes of women entrepreneurs in SMEs. Similarly, a study on founders in small firms showed that founder's creativity is positively related to firm growth, a key performance indicator (Li et al., 2022).

These findings underscore that when entrepreneurs apply creativity in managing their business, employees are more likely to engage in innovative behaviors and higher performance. In the context of Egyptian SMEs in the ICT sector – characterized by rapid change and competition – entrepreneurial creativity is expected to translate into improved employee performance as it fosters an innovative climate and proactive problem-solving.

Entrepreneurial Creativity and Emotional Intelligence–While creativity is often viewed as a cognitive ability, its effective application in organizations may depend on emotional and social competencies. Emerging research suggests a meaningful relationship between emotional intelligence and creativity. Individuals with high emotional intelligence tend to exhibit higher creativity compared to those with lower emotional intelligence Alfonso-Benlliure & Mélendez, 2022). This positive correlation indicates that emotional awareness can unlock latent creative potential by enabling better collaboration, stress management, and openness to new ideas (Sapiee et al., 2024).

In entrepreneurial settings, a creative entrepreneur who is emotionally intelligent may be more adept at communicating their vision, motivating employees, and persisting through setbacks—all of which support creativity implementation. Conversely, emotionally intelligent leaders often foster more creative teams, as they create an atmosphere where employees feel supported and willing to take creative risks. Accordingly, it is plausible that entrepreneurial creativity and emotional intelligence reinforce each other. Creative entrepreneurs are likely to cultivate and utilize emotional intelligence (for instance, by empathizing with employees or handling the emotional aspects of innovation), and emotionally intelligent entrepreneurs can better harness creative ideas (Kasuma & Rusdi, 2024)

Emotional Intelligence and Employee Performance–Emotional intelligence has been widely linked to positive work outcomes, including job performance and team effectiveness. Research indicates that employees with higher emotional intelligence tend to perform better in their roles, as they can regulate emotions, maintain motivation, and engage in effective interpersonal communication (Alenezi et al., 2024). A study by Iqbal, Khan, Shah, Nawaz, and Khan (2024) on employees found that emotional intelligence positively influenced task performance and adaptive performance, with emotionally intelligent employees demonstrating higher productivity, better teamwork, and improved decision-making under pressure. Similarly, a study by Naqvi and Siddiqui (2023)found that emotional intelligence enhances employees' resilience and ability to manage workplace stress, ultimately leading to improved job efficiency and reduced burnout.

These findings highlight that emotional intelligence is not just beneficial at the leadership level, but it also directly affects employees' ability to navigate complex work environments, collaborate effectively, and sustain high performance. In the Egyptian ICT SME context, where employees often work in teams on complex projects, the ability to navigate emotional dynamics can boost morale and productivity.

Emotional intelligence (EI) plays a crucial mediating role in enhancing employee performance by helping individuals regulate emotions, manage challenges, and collaborate effectively. Deb et al. (2023) found that EI mediates the relationship between job satisfaction factors (e.g., leadership

quality, work environment) and firm performance in small businesses, demonstrating that emotionally intelligent employees can better translate job satisfaction into higher productivity. Similarly, Anwar, Saraih, and Soomro (2024) highlighted that EI mediates the relationship between digital leadership and employee cynicism, showing that emotionally intelligent employees are more adaptable and resilient to workplace challenges.

Moreover, in a psychological context, Callea et al. (2019) found that EI mediates the link between psychological relatedness and well-being, indicating that individuals with high EI experience greater happiness and flourishing due to their ability to navigate social relationships effectively.

In the context of entrepreneurial creativity and employee performance, EI allows employees to effectively apply creative insights, manage stress associated with innovation, and maintain motivation, ultimately leading to improved performance.

Moderating Role of Gender

Research suggests that gender moderates the relationship between entrepreneurial creativity and employee performance, with men and women engaging in creative processes differently. Hora et al. (2022) found a small but significant male advantage in creative performance, particularly in competitive environments. Mahama et al. (2019) demonstrated that male students benefited more from creative thinking in academic performance, implying that men may better leverage creativity for improved outcomes. Shaheen et al. (2023) further showed that gender influences how creativity translates into entrepreneurial behavior, suggesting similar effects on employee performance in entrepreneurial settings.

These findings indicate that male entrepreneurs may experience a stronger direct impact of creativity on employee performance due to external enablers and risk-taking tendencies, while female entrepreneurs may face additional barriers.

Based on the review of existing literature, we developed a conceptual framework for analysis of interactions between entrepreneurial creativity, Emotional intelligence, and employee performance. This framework is guided by the following hypotheses:
•H1: Entrepreneurialcreativity positively influences employee performance.
•H2: Entrepreneurial creativity is positively associated with the entrepreneur's emotional intelligence.
•H3: Emotional intelligencepositively affects employee performance.
•H4: Emotional intelligence mediates the relationship between entrepreneurial creativity and employee performance.

•H5: Gender moderates the relationship between Entrepreneurial Creativity and Employee Performance

This study's conceptual framework consists of three key constructs: entrepreneurial creativity (independent variable) measured by originality and usefulness, emotional intelligence (mediating variable) comprising self-emotion appraisal, others' emotion appraisal, use of emotion, and regulation of emotion, and employee performance (dependent variable). Additionally, gender moderates the relationship between entrepreneurial creativity and employee performance, influencing how creativity translates into workplace outcomes (Figure.1).

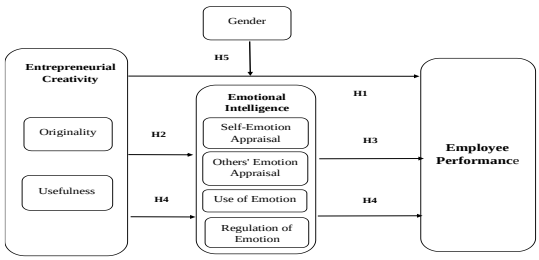

Figure 1: Conceptual Research Framework

3 METHODOLOGY

This study employed a multi-phased approach combining qualitative and quantitative methods to examine entrepreneurial creativity, emotional intelligence, and employee performance in Egyptian ICT SMEs.

Semi-structured interviews with managers provided insights into how creativity fosters innovation, the role of emotional intelligence in workplace interactions, and key factors affecting employee performance. Findings from the interviews informed the development of a structured questionnaire, which incorporated validated measurement scales: Chia and Liang's (2016) Creativity Scale for entrepreneurial creativity, the Wong and Law Emotional Intelligence Scale (WLEIS) for emotional intelligence, and the Individual Work Performance Questionnaire (IWPQ) by Koopmans et al. (2014) for employee performance.

The study targeted employees of SMEs, distributing 800 questionnaires, with 596 valid responses (74.5% response rate). Data analysis was conducted using SPSS and AMOS, applying correlation analysis, regression analysis, and Structural Equation Modeling (SEM) to test hypotheses and examine the mediating role of emotional intelligence and the moderating effect of gender in the relationship between entrepreneurial creativity and employee performance.

4 RESULTS

4.1 Descriptive Statistics

The demographic analysis is demonstrated in Table 1, as follows:

Table 1: Demographics analysis

Variables	**Description**	**Frequency**	**Percentage (%)**
Age	Less than 30 years	276	46.3
	30 and less than 40 years	261	43.8
	40 and less than 50 years	36	6.0
	50 years and more	23	3.9
Gender	Male	314	52.7
	Female	282	47.3
Highest Qualification	Bachelor	318	53.4
	Master	249	41.8
	PHD- DBA	29	4.9
Work Experience	less than 1 year	163	27.3
	1 and less than 5 years	183	30.7
	5 and less than 10 years	177	29.7
	10 years and more	73	12.2
Your Position in the Company	Chairman/CEO	28	4.7
	Executive Management	181	30.4
	Middle Management	184	30.9
	Employee	203	34.1
SME primary Sector within ICT	Software Development	162	25.5
	Telecommunications	104	17.4
	Hardware Manufacturing	88	14.8
	IT Services	112	18.8
	Other	140	23.5

Years of SME Operation	Less than 1 year	155	26.0
	1–3 years	165	27.7
	4–6 years	136	22.8
	More than 6 years	140	23.5
Company Size (Number of Employees)	From 1 to 10 Employees	237	39.8
	From 11 to 50 Employees	254	42.6
	From 51 to 200 Employees	49	8.2
	More than 200 Employees	56	9.4
Market Focus	Local	257	43.1
	Regional	263	44.1
	International	76	12.8

4.2 Research Variables

The study designates Entrepreneurial Creativity (measured by Originality and Usefulness) as the independent variable, Emotional Intelligence as the mediating variable, and Employee Performance as the dependent variable. Responses for each variable were measured on a five-point Likert scale, and frequency distributions were used to analyze participants' responses.

To examine the relationships between these variables, Structural Equation Modeling (SEM) was applied using AMOS 25, allowing for an in-depth assessment of causal pathways. The measurement model was tested using Confirmatory Factor Analysis (CFA), confirming the presence of seven underlying constructs: Originality, Usefulness, Self-Emotion Appraisal, Others' Emotion Appraisal, Use of Emotion, Regulation of Emotion, and Employee Performance. These constructs were represented by 33 measured indicators, all of which demonstrated strong reliability and validity with standardized loadings ranging from 0.505 to 0.927, exceeding the minimum threshold of 0.50 (Hair et al., 2019).

The structural model analysis validated the hypothesized relationships. Results indicated that Entrepreneurial Creativity significantly impacts Employee Performance, with Emotional Intelligence partially mediating this relationship. Furthermore, Gender moderates the effect of Entrepreneurial Creativity on Employee Performance, with Originality having a stronger impact on female employees and Usefulness showing a stronger impact on male employees. The model fit indices confirmed an excellent fit between the proposed structural model and the collected data.

4.3.1 Structural Model (Figure 3)

The structural model results confirmed significant relationships between

EntrepreneurialCreativity, Emotional Intelligence, and Employee Performance. The key findings from the model are as follows:

Originality → Employee Performance: $\beta = 0.453$, CR = 14.256, $p < 0.05$

Usefulness → Employee Performance: $\beta = 0.754$, CR = 27.622, $p < 0.05$

Originality → Emotional Intelligence: $\beta = 0.410$, CR = 15.896, $p < 0.05$

Usefulness → Emotional Intelligence: $\beta = 0.653$, CR = 15.932, $p < 0.05$

Emotional Intelligence → Employee Performance: $\beta = 0.294$, CR = 4.966, $p < 0.05$

The results confirm that Entrepreneurial Creativity significantly influences Employee Performance both directly and indirectly through Emotional Intelligence. The partial mediation effect of Emotional Intelligence suggests that while creativity enhances performance, emotional intelligence strengthens

this impact by improving employees' ability to manage workplace challenges, regulate emotions, and effectively apply creative solutions.

Furthermore, Gender was found to moderate the relationship between Entrepreneurial Creativity and Employee Performance:

Originality had a stronger impact on Employee Performance for females (β = 0.468) than males (β = 0.425).

Usefulness had a stronger impact on Employee Performance for males (β = 0.786) than females (β = 0.754).

These findings support the hypotheses that Entrepreneurial Creativity significantly impacts Employee Performance, that Emotional Intelligence serves as a mediator, and that Gender moderates the relationship between creativity and performance. The structural model demonstrated a strong model fit, confirming the robustness of the hypothesized relationships.

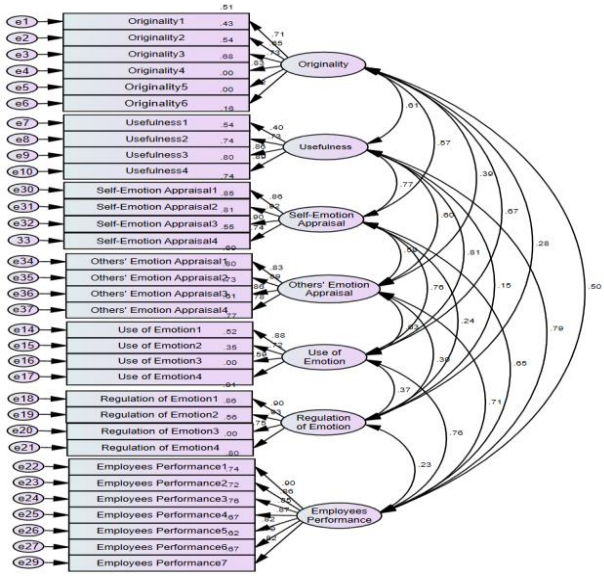

Figure 2: Measurement model – CFA

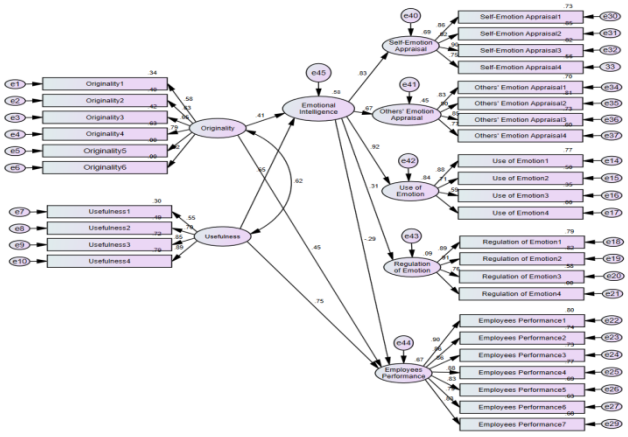

Figure 3: Structural Model

The Structural Model Validity - Result:

The structural model assessment confirmed a strong model fit, validating the hypothesized relationships among Entrepreneurial Creativity, Emotional Intelligence, and Employee Performance. The model fit indices demonstrated satisfactory statistical alignment with the data, ensuring the robustness of the framework. The key model fit results are as follows:

Degrees of Freedom (DF):

480 (meeting the requirement of being above 0).

Chi-Square/DF (χ^2/DF) Ratio: 2.717 (well within the acceptable limit of ≤ 3.0), indicating a strong model fit.

Root Mean Square Error of Approximation (RMSEA):

0.060 (below the 0.08 threshold), suggesting a close alignment with the data.

Comparative Fit Index (CFI):

0.923 (approaching the ideal benchmark of 1.0).

Tucker-Lewis Index (TLI):

0.916 (indicating a reliable structural model).

These indices confirm that the measurement framework effectively captures the relationships among the constructs, as established by Confirmatory Factor Analysis (CFA). The findings reinforce the validity of the model in assessing the impact of Entrepreneurial Creativity on Employee Performance, with Emotional Intelligence as a mediating factor and Gender as a moderating variable. The structural equation modeling (SEM) results provide strong empirical support for the proposed research hypotheses, ensuring the model's statistical robustness.

4.3.2 Direct Effects

Entrepreneurial Creativity and Employee Performance

The analysis confirmed significant direct relationships between the dimensions of Entrepreneurial Creativity and Employee Performance in Egyptian ICT SMEs. The key findings from the structural model analysis are as follows:

Originality → Employee Performance: ($\beta = 0.453$, CR = 14.256, $p < 0.001$) – Employees with high originality generate innovative solutions, leading to enhanced job performance.

Usefulness → Employee Performance: ($\beta = 0.754$, CR = 27.622, $p < 0.001$) – The ability to apply creative ideas effectively has a strong positive impact on employee performance.

Emotional Intelligence → Employee Performance: ($\beta = 0.294$, CR = 4.966, $p < 0.001$) – Employees with higher emotional intelligence demonstrate better adaptability, motivation, and collaboration, leading to improved performance.

These findings indicate that both dimensions of Entrepreneurial Creativity (Originality and Usefulness) significantly enhance Employee Performance, and Emotional Intelligence contributes directly to workplace effectiveness. These results support the hypothesis that creative employees who effectively apply their ideas and regulate emotions achieve higher performance levels

Entrepreneurial Creativity and Emotional Intelligence

Each dimension of Entrepreneurial Creativity demonstrated significant effects on Emotional Intelligence, reinforcing the role of creativity in shaping emotional awareness and regulation in the workplace. The structural model results indicate:

Originality → Emotional Intelligence: ($\beta = 0.410$, CR = 15.896, $p < 0.001$) – Individuals who generate novel ideas tend to exhibit higher emotional awareness and adaptability, enhancing workplace interactions.

Usefulness → Emotional Intelligence: ($\beta = 0.653$, CR = 15.932, $p < 0.001$) – Employees who effectively apply creative solutions demonstrate stronger emotional regulation and decision-making skills, improving their ability to manage professional challenges.)

Emotional Intelligence and Employee Performance

Emotional Intelligence exhibited a significant positive effect on Employee Performance, reinforcing its role as a key driver of workplace success and adaptability:

Emotional Intelligence → Employee Performance: (β = 0.294, CR = 4.966, p < 0.001) – Employees with higher emotional intelligence demonstrate better problem-solving, teamwork, and resilience, leading to improved performance outcomes.

4.3.3 Indirect Effects

Mediating Role of Emotional Intelligence

The bootstrapping technique was employed to evaluate the mediating effect of Emotional Intelligence on the relationship between Entrepreneurial Creativity and Employee Performance. The results confirmed partial mediation, demonstrating that Emotional Intelligence strengthens the impact of creativity on workplace performance:

Originality → Emotional Intelligence → Employee Performance: p < 0.004 – Employees who generate novel ideas benefit from high emotional intelligence, allowing them to navigate workplace challenges effectively and enhance performance.

Usefulness → Emotional Intelligence → Employee Performance: p < 0.003 – Employees who apply creative solutions efficiently leverage emotional intelligence to maximize workplace adaptability and productivity.

These findings confirm that Emotional Intelligence is a significant mediator, reinforcing that creative employees with strong emotional intelligence achieve higher performance levels due to their ability to manage emotions, collaborate, and adapt to dynamic work environments.

Moderating Role of Gender

The multi-group analysis technique was applied to assess the moderating role of gender in the relationship between Entrepreneurial Creativity and Employee Performance. The findings indicated that gender significantly influences the strength of this relationship, suggesting that men and women engage with creativity differently in workplace settings:

Originality → Employee Performance:

For Females: β = 0.468, p < 0.001 – Women benefit more from originality, leveraging their creative problem-solving skills to enhance workplace performance.

For Males: β = 0.425, p < 0.001 – While still significant, originality has a slightly lower effect on male employees' performance.

Usefulness → Employee Performance:

For Males: β = 0.786, p < 0.001 – Men show a stronger link between usefulness and performance, indicating that they are more likely to translate creative ideas into practical and high-impact solutions.

For Females: β = 0.754, p < 0.001 – While still significant, the effect of usefulness on performance is moderately lower for women, suggesting potential external factors influencing how their creativity is implemented.

These findings confirm that gender moderates the relationship between Entrepreneurial Creativity and Employee Performance, meaning that the effectiveness of creativity in driving workplace success depends on gender-based differences in problem-solving approaches, risk-taking behaviors, and workplace dynamics.

4.4.4 Variance

The structural model accounted for a significant proportion of variance in both the mediating and dependent variables, confirming the strength of the proposed relationships:

Entrepreneurial Creativity explained 58.2% of the variance in Emotional Intelligence, indicating that creativity significantly contributes to employees' ability to manage emotions, regulate stress, and enhance workplace interactions.

Entrepreneurial Creativity, mediated by Emotional Intelligence, explained 67.4% of the variance in Employee Performance, confirming that employees with high creativity and emotional intelligence achieve higher adaptability, productivity, and performance outcomes in ICT SMEs.

These findings emphasize the critical role of Emotional Intelligence as a mediator, strengthening the impact of creativity on employee performance and ensuring that creative employees can effectively implement their ideas in professional environments.

5 DISCUSSION

5.1 Key Insights from the Research

The findings highlight that entrepreneurial creativity significantly enhances employee performance, particularly when supported by emotional intelligence as a mediating factor. The study's objectives were addressed as follows:

Objective 1:

Examining the Connection between Entrepreneurial Creativity and Employee Performance

Results confirmed a positive and significant effect of Entrepreneurial Creativity on Employee Performance (Originality → Employee Performance: $\beta = 0.453$, CR = 14.256, $p < 0.001$; Usefulness → Employee Performance: $\beta = 0.754$, CR = 27.622, $p < 0.001$), supporting H1.

Objective 2:

Analyzing the Relationship between Entrepreneurial Creativity and Emotional Intelligence

Findings revealed a strong association between creativity and emotional intelligence (Originality → Emotional Intelligence: $\beta = 0.410$, CR = 15.896, $p < 0.001$; Usefulness → Emotional Intelligence: $\beta = 0.653$, CR = 15.932, $p < 0.001$), supporting H2.

Objective 3:

Examining the Mediating Role of Emotional Intelligence

Emotional Intelligence partially mediated the link between Entrepreneurial Creativity and Employee Performance, enhancing the effectiveness of creativity in improving workplace outcomes (Originality → Emotional Intelligence → Employee Performance: $p < 0.004$; Usefulness → Emotional Intelligence → Employee Performance: $p < 0.003$), supporting H3.

Objective 4:

Assessing the Moderating Role of Gender

Gender significantly influenced the strength of the creativity-performance relationship, with Originality having a stronger impact on females ($\beta = 0.468$) than males ($\beta = 0.425$), while Usefulness had a stronger impact on males ($\beta = 0.786$) than females ($\beta = 0.754$), confirming H4.

Objective 5:

Validating the Research Model

The final structural model confirmed a good fit and provided empirical support for all proposed hypotheses, demonstrating that Entrepreneurial Creativity enhances Employee Performance, with Emotional Intelligence serving as a key mediator and Gender as a significant moderator.

These findings reinforce the critical role of creativity, emotional intelligence, and gender in shaping employee performance in Egyptian ICT SMEs.

5.2 Entrepreneurial Creativity and Employee Performance

The analysis confirms that Entrepreneurial Creativity has a positive and significant impact on Employee Performance across multiple dimensions:

Originality:

Employees who generate novel and innovative ideas tend to be more proactive and engaged in problem-solving, enhancing overall job performance ($\beta = 0.453$, CR = 14.256, $p < 0.001$).

Usefulness:

Employees who can effectively apply creative solutions demonstrate higher adaptability and efficiency, leading to increased performance outcomes ($\beta = 0.754$, CR = 27.622, $p < 0.001$).

Emotional Intelligence:

Employees with higher emotional intelligence are better equipped to handle challenges, regulate emotions, and foster collaboration, further improving performance ($\beta = 0.294$, CR = 4.966, $p < 0.001$).

These findings confirm that creativity fosters a dynamic and high-performance work environment, where employees leverage innovation to drive organizational success in Egyptian ICT SMEs.

5.3 The Role of Emotional Intelligence as a Mediator

The study identifies Emotional Intelligence as a key mediator in the relationship between Entrepreneurial Creativity and Employee Performance:

Emotional intelligence enhances the impact of creativity on workplace outcomes by helping employees navigate challenges, manage stress, and maintain motivation.

Employees with strong emotional intelligence effectively implement creative solutions, ensuring their ideas translate into measurable performance improvements.

The mediation analysis confirmed that Emotional Intelligence partially mediates the relationship between Entrepreneurial Creativity and Employee Performance, reinforcing its role in maximizing workplace productivity (Originality → Emotional Intelligence → Employee Performance: $p < 0.004$; Usefulness → Emotional Intelligence → Employee Performance: $p < 0.003$).

These findings suggest that training programs aimed at developing both creativity and emotional intelligence could significantly enhance employee performance in SMEs.

6 CONCLUSION

This study provides valuable insights into the role of Entrepreneurial Creativity, Emotional Intelligence, and Employee Performance within Egyptian SMEs in the ICT sector, highlighting their impact on business competitiveness and innovation. The findings emphasize that fostering creativity and emotional intelligence in employees enhances their ability to generate innovative solutions, adapt to challenges, and improve overall performance. Moreover, the study confirms that Emotional Intelligence serves as a critical mediator, strengthening the connection between creativity and employee effectiveness. Additionally, the moderating effect of gender demonstrates that men and women engage with creativity differently, influencing how entrepreneurial creativity translates into workplace success.

While this study contributes to understanding how Entrepreneurial Creativity impacts Employee Performance through Emotional Intelligence, it also acknowledges several limitations. The findings are specific to Egyptian ICT SMEs, and future research could explore other industries and regions to determine whether the relationships hold across different business environments. Furthermore, this study focused on creativity and emotional intelligence but did not examine additional workplace factors, such as motivation, organizational culture, or leadership styles. Future studies could integrate these elements to gain a more comprehensive understanding of employee performance dynamics.

In today's rapidly evolving business landscape, enhancing creativity and emotional intelligence is not just beneficial but essential for SMEs striving to maintain competitiveness and long-term success. Future research can extend this framework to other industries, explore different mediators, and investigate additional performance-enhancing factors to build a deeper understanding of how businesses can optimize their human capital for sustained growth.

Key Questions Reflecting Applicability in Real Life

How does Entrepreneurial Creativity influence Employee Performance?

How do the dimensions of Originality and Usefulness contribute to enhancing employee effectiveness, adaptability, and productivity in Egyptian SMEs?

How does Entrepreneurial Creativity interact with Emotional Intelligence in the workplace?

In what ways does Emotional Intelligence mediate the relationship between creativity and performance, and how do employees with higher emotional intelligence utilize their creativity more effectively?

How does Emotional Intelligence enhance the impact of Entrepreneurial Creativity on Employee Performance?

To what extent does emotional regulation, self-awareness, and interpersonal skills strengthen the ability of employees to apply creative solutions and navigate workplace challenges?

How do the challenges and opportunities in the ICT sector shape the relationship between Entrepreneurial Creativity, Emotional Intelligence, and Employee Performance?

How do rapid technological advancements, market competition, and organizational culture influence the way creativity and emotional intelligence drive employee success in Egyptian SMEs?

These key questions provide practical insights for business leaders and researchers, helping them understand how fostering creativity and emotional intelligence can optimize employee performance and drive sustainable business growth in dynamic industry environments.

Authors' Contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Mohamed Abdelsalam, Eiman Negm andShourok Hamzawy. The first draft of the manuscript was written by Arwa A. Elmeslemani and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

REFERENCES

Abdelaziz, H., Shawky, A., Hemeida, F. A., & Ragheb, M. A. (2025). Quantitative analysis of entrepreneurial resilience, leadership style, and employee performance: A structural equation modeling approach. Pakistan Journal of Life and Social Sciences, 23(1), 4210-4220. https://doi.org/10.57239/PJLSS-2025-23.1.00333

Alenezi, H. M., Khan, S., Zaato, S. G., Zmami, M., Mohamed, N. H. M., & Malik, A. (2024). Impact of emotional intelligence on SME employees' performance: Mediating role of organizational citizenship behavior. Problems and Perspectives in Management, 22(3), 570–581.

Alfonso-Benlliure, V., & Mélendez, J. C. (2022). Emotional intelligence and creativity: The role of emotional regulation. Frontiers in Psychology, 13, 678-692.

Anwar, G., Saraih, U. N., & Soomro, B. A. (2024). The mediating role of emotional intelligence in the relationship between digital leadership and employee cynicism in Pakistani private universities. Journal of Organizational Behavior Studies, 12(1), 45-60.

Appuhami, R. (2023). Linking performance measures and feedback: Self-regulation for creativity. European Accounting Review, 1–28. https://doi.org/10.1080/09638180.2023.221785

Atatsi, E. A., Stoffers, J., & Kil, A. (2019). Factors affecting employee performance: A systematic literature review. Journal of Advances in Management Research, 16(3), 329–351. https://doi.org/10.1108/jamr-06-2018-0052

Baron, R., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173.

Bary, A. (2019). SMEs sector: A key driver to the Egyptian economic development. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3334845

Bryman, A., & Bell, E. (2019). Business research methods (5th ed.). Oxford University Press.

Budur, T., & Demir, A. (2022). Employee performance and organizational commitment in SMEs. Management Science Review, 3(2), 112–124.

Byrne, B. M. (2016). Structural equation modelling with AMOS: Basic concepts, applications and programming (3rd ed.). Lawrence Erlbaum.

Callea, A., De Rosa, D., & Benevene, P. (2019). Are more intelligent people happier? Emotional intelligence as a mediator between need for relatedness, happiness, and flourishing. Journal of Happiness Studies, 20(3), 903-920.

Chia, C. C., & Liang, C. (2016). Entrepreneurial creativity: Measurement and impact on business success. Journal of Business Research, 69(6), 2045–2050.

Creswell, J. W., & Creswell, J. D. (2022). Research design: Qualitative, quantitative, and mixed methods approaches (6th ed.). SAGE Publications.

Deb, S. K., Nafi, S. M., Mallik, N., & Valeri, M. (2023). Mediating effect of emotional intelligence on the relationship between employee job satisfaction and firm performance of small businesses. European Business Review, 35(5), 624–651.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.

Gina J. Medsker, L. J. Williams, & P. J. Holahan. (1994). A review of current practices for evaluating causal models in organizational behavior and human resources management research. Journal of Management, 20(2), 439-464.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Pearson.

Hayes, A. F. (2005). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs, 76(4), 408-420.

Hora, S., Badura, K. L., Lemoine, G. J., & Grijalva, E. (2022). A meta-analytic examination of the gender difference in creative performance. Journal of Applied Psychology, 107(11), 1926–1950.

Iqbal, S., Khan, N., Shah, A., Nawaz, M., & Khan, H. (2024). The impact of emotional intelligence on employees' adaptive performance. Journal of Behavioral Studies in Business, 15(1), 31–45.

Jitesh, J. T. (2020). Structural equation modelling: Application for research and practice (with AMOS and R). Springer Nature Singapore.

Joel, E. C. (2020). Applied structural equation modeling using AMOS: Basic to advanced techniques. Taylor & Francis.

Karami, A., Saeed, A., & Rezvani, M. (2024). Examining the relationship between entrepreneurial creativity and employee performance. Small Business Journal, 10(2), 92-110.

Kasuma, J., & Rusdi, M. (2024). Emotional intelligence and creativity: Interconnections in entrepreneurial settings. Journal of Business Innovation, 15(1), 77-89.

Kline, R. B. (2015). Principles and practice of structural equation modelling (4th ed.). Guilford Press.

Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., de Vet, H. C. W., & van der Beek, A. J. (2014). Conceptual frameworks of individual work performance. Journal of Occupational and Environmental Medicine, 56(3), 356–366.

Liu, H.-C., Liang, C., Chang, C.-C., Ip, C. Y., & Liang, C.-T. (2020). Optimizing personality traits and entrepreneurial creativity to boost the precursors of social entrepreneurial intentions: Five studies in Taiwan. Journal of Social Service Research. https://doi.org/10.1080/01488376.2019.1708840

Mahama, I., Kwaw, R., Mensah, K. J., Acheampong, E., & Marfo, R. (2019). Relationship between creative thinking and students' academic performance in English and Mathematics: The moderating role of gender. Journal of Education and Social Behavioral Sciences, 31(4), 1–10.

Naqvi, S. A., & Siddiqui, N. (2023). The role of emotional intelligence in managing workplace stress: Implications for employee performance. Journal of Business and Psychology, 38(2), 144-162.

Naggar, R., & El Said, H. (2021). The role of SMEs in Egypt's economic development: An overview. Economic Development Journal, 5(3), 77-92.

Nusraningrum, D., Rahman, F., & Arifin, A. (2024). Understanding employee performance in SMEs: A review of key drivers. International Journal of Business Studies, 18(1), 45-60.

O'Cass, A., & Ngo, L. (2007). Market orientation versus innovative culture: Two routes to superior brand performance. European Journal of Marketing, 41, 868–887.

Pallant, J. (2016). SPSS survival manual: A step-by-step guide to data analysis using SPSS (6th ed.). McGraw-Hill Education.

Pawar, V., Magdoom, S., Yadav, P., Jadhav, M., & Vishwakarma, P. (2024). Study of work culture and its impact on employees' productivity working under different organizations. International Journal of Advanced Multidisciplinary Research and Studies, 4(3), 1061–1064. https://doi.org/10.62225/2583049x.2024.4.3.2898

Priambodo, A., & Metris, D. (2024). Creativity and performance of women entrepreneurs: The moderating role of family support. Value: Jurnal Manajemen dan Akuntansi, 19(2), 58–66.

Rigdon, E. E. (1994). A necessary and sufficient identification rule for structural models estimated in practice. Multivariate Behavioral Research, 30, 359–383.

Runco, M. A., & Jaeger, G. J. (2020). The standard definition of creativity: Perspectives and future directions. Creativity Research Journal, 32(1), 92–104.

Samir, M. (2020). The impact of knowledge management on SMEs' performance in Egypt. Open Access Library Journal, 7, e6445. https://doi.org/10.4236/oalib.1106445

Sapiee, R., Ibrahim, S., & Rahim, F. (2024). Emotional intelligence and creativity: An integrative perspective. Journal of Creativity and Innovation Management, 30(1), 88-103.

Saunders, M., Lewis, P., & Thornhill, A. (2019). Research methods for business students (8th ed.). Pearson Education.

Schreiber, J. B., Stage, F. K., & King, J. (2008). Reporting structural equation modelling and confirmatory factor analysis results: A review. The Journal of Educational Research, 99(6), 323–337.

Shaheen, N., Al-Haddad, S., Marei, A., & Daoud, L. (2023). The effect of creativity on entrepreneurial behavior: The moderating role of demographics. Information Sciences Letters, 12(3), 1365-1372.

The World Bank. (2019). World Development Indicators: Small and Medium Enterprises (SMEs) Finance. Accessed November 1, 2024.

Tuğrul, C. (2023). Creativity and business success: How innovation shapes the competitive landscape. Journal of Business Studies, 45(2), 119-135.

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude. The Leadership Quarterly, 13(3), 243–274.

Yousaf, S., Javed, S., & Badshah, H. (2024). The interplay between emotional intelligence and employee performance: A study of SMEs. Journal of Management Psychology, 39(1), 78-92.

Yu, X., Zhao, X., & Hou, Y. (2023). Cognitive flexibility and entrepreneurial creativity: The chain mediating effect of entrepreneurial alertness and entrepreneurial self-efficacy. Frontiers in Psychology, 14, 1292797. https://doi.org/10.3389/fpsyg.2023.1292797.