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Mohamed Fitouri

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Innovation, risk-taking, and employee commitment: exploring CSR's influence in Tunisian SMEs

Mohamed Fitouri

Faculty of Economics and Management of Mahdia,
Laboratory Innovation Strategy Entrepreneurship Finance and
Economy LISEFE FSEGTUNIS ELMANAR,
University of Monastir,
Fseg Mahdia, 5111, Mahdia, Tunisia
Email: fitourim60@gmail.com

Abstract: This study examines strategies to enhance employee creativity and commitment in Tunisian small and medium enterprises (SMEs), emphasising corporate social responsibility (CSR) and intrapreneurial behaviours, including innovation, proactivity, and risk-taking. Using structural equation modelling (SEM) and artificial neural networks (ANN), survey data reveal significant insights, including differences based on marital status. Unmarried employees exhibit stronger alignment with CSR principles compared to married colleagues. The research develops a model linking CSR initiatives to employee outcomes, such as organisational commitment, engagement, and creative performance. Findings indicate that fostering a culture of innovation and integrating CSR practices significantly boosts employee loyalty and creativity. Employees perceiving their organisations as socially responsible and innovation-driven demonstrate higher dedication and engagement. This study contributes to resource-based and commitment theories while providing practical recommendations for SME managers to enhance employee performance through CSR-driven strategies and intrapreneurial support mechanisms.

Keywords: creativity; workplace innovation; proactivity; risk-taking; CSR; corporate social responsibility; Tunisian SMEs.

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Biographical notes: Mohamed Fitouri is a Researcher and Lecturer at the Faculty of Economic Sciences and Management of Mahdia, University of Monastir. His research focuses on entrepreneurship, innovation, and organisational behaviour, with a particular interest in corporate social responsibility and intrapreneurship within small and medium enterprises. He has published extensively in peer-reviewed journals and actively participates in academic conferences. He is also associated with several national and international research projects, emphasising sustainable business practices and their impact on employee engagement and organisational performance.

1 Introduction

In the rapidly evolving landscape of Tunisian small and medium enterprises (SMEs), attributes such as proactivity, creativity, and calculated risk-taking have become indispensable. These traits differentiate innovative organisations from those adhering to traditional and more static approaches (Antoncic and Hisrich, 2003). Within this dynamic environment, both leaders and employees contribute to their organisations' growth and resilience by fostering entrepreneurial mindsets and implementing innovative strategies (Zahra et al., 2000).

Tunisian SMEs are increasingly embracing initiatives that merge innovation with social responsibility, aiming not only to achieve business objectives but also to address broader societal challenges (Wales et al., 2013). By promoting corporate social responsibility (CSR), these enterprises create a corporate culture that instils a sense of purpose among employees and strengthens their engagement and loyalty (Austin et al., 2006).

However, the impact of **gender** and **marital status** on employee engagement in the context of Tunisian SMEs may be influenced by the country's unique **cultural norms** and **societal expectations**. In Tunisia, traditional roles often shape professional behaviour, with certain expectations regarding the responsibilities of men and women in both family and work settings. For instance, women in Tunisia may face greater social pressure due to cultural norms related to family obligations, which may affect their work commitment differently compared to their male counterparts. Similarly, marital status can significantly influence how employees perceive their roles and their level of engagement at work. While the global literature recognises gender and marital status as influential factors, it is essential to examine these aspects within the specific **Tunisian context** where societal expectations and traditional gender roles may create distinctive dynamics in the workplace.

This study aims to address these cultural factors by exploring how gender and marital status mediate the relationship between intrapreneurship and employee engagement. While some of the observed effects may align with global trends, the unique Tunisian socio-cultural environment calls for a deeper investigation into how these demographic factors interact with organisational behaviours in SMEs. This research, therefore, extends the existing literature by providing a nuanced understanding of how cultural context influences employee engagement and creativity in Tunisian SMEs.

By exploring the intersection of gender, marital status, intrapreneurship, and creativity, this paper aims to provide leaders of Tunisian SMEs with actionable strategies to foster innovation, employee engagement, and sustainable organisational growth, while considering the cultural factors that influence these outcomes.

2 Review of literature

2.1 Intrapreneurship

Intrapreneurship, within the framework of resource-based theory (RBT), focuses on leveraging organisational knowledge, identifying market opportunities, and organising resources to generate various outcomes (Alvarez and Busenitz, 2001). In the context of Tunisian SMEs, "intrapreneurship" involves developing new products, services, or

communication channels to address both current and future challenges within the organisation (Antoncic and Hisrich, 2003). Prior studies suggest that fostering risk-taking, forward-thinking, and innovation-driven activities can significantly impact SME performance and enhance their competitive advantage, especially in dynamic environments (Miller, 2011; Lei et al., 2018; Linton and Kask, 2017). Promoting employee creativity, commitment, and other entrepreneurial behaviours helps SMEs navigate internal and external challenges, while capitalising on new opportunities (de Jong et al., 2015).

In the context of SMEs, intrapreneurship is based on four key pillars:

- 1 initiating new business ventures
- 2 fostering creativity
- 3 promoting organisational renewal
- 4 encouraging proactivity (Antoncic and Hisrich, 2003).

Unlike innovation, which focuses mainly on the development of new products and services, intrapreneurship encompasses organisational changes that may involve creating new ventures within the existing organisational framework, regardless of decision-makers' level of autonomy (Covin and Slevin, 1991). Self-renewal in SMEs is essential, as it requires organisations to adapt, exhibit flexibility, and continuously adjust their strategies in response to external changes (Antoncic and Hisrich, 2003).

To better understand intrapreneurship in SMEs, it is crucial to clarify its dimensional structure within the organisation (Antoncic and Hisrich, 2003). Researchers, following Miller's (2011) insights, have examined organisational entrepreneurship, or entrepreneurial orientation, within SMEs. This construct includes dimensions such as innovation, proactivity, and risk-taking, with some models also incorporating competitive aggressiveness and autonomy (Isichei et al., 2020; Lumpkin and Dess, 1996). While the five-dimensional model is often limited in practice, many studies focus on specific dimensions of this concept (Wales et al., 2013).

In the context of Tunisian SMEs, innovation plays a crucial role in developing an ecosystem that supports the creation of new products, services, and business models. It fosters experimentation, exploration of innovative ideas, and nurturing of creative thinking processes (Lumpkin and Dess, 1996). Innovation can be examined either as a process or an outcome (Linton and Kask, 2017). Entrepreneurial innovation within SMEs reflects a company's commitment to growth, continuously seeking new opportunities despite external uncertainties and resource limitations (Miller, 2011).

Proactivity in SMEs entails anticipating and responding to emerging market demands and opportunities. It signifies an organisation's readiness to lead and shape market trends, thereby establishing a competitive edge. Proactivity can be evaluated both as a process and as an outcome. It involves entering new markets, launching products or services ahead of competitors, and influencing the market to create future demand (Linton, 2019).

Risk-taking in SMEs reflects the organisation's willingness to embrace uncertainty and pursue ambitious objectives despite unclear outcomes. Risk-taking is both a process and an outcome, where decisions are made with limited resources, balancing potential rewards against inherent risks (Covin and Slevin, 1991). This often involves entering new markets or undertaking innovative projects with uncertain returns, even under external constraints.

The interaction between innovation, entrepreneurial creativity, proactivity, and risk-taking is central to the ability of Tunisian SMEs to adapt, thrive, and create value in dynamic and resource-constrained environments. These factors enhance organisational resilience, positioning SMEs to seize emerging opportunities in an ever-evolving market landscape.

2.2 Support for CSR and social entrepreneurship

In recent years, the concept of “social entrepreneurship” has gained significant attention in the context of Tunisian SMEs (Austin et al., 2006; Kreiser et al., 2013). SMEs striving to create social value through innovation, initiative, risk-taking, and commitment have garnered interest for their potential to make a societal impact (Weerawardena and Mort, 2006). In SMEs, CSR support is crucial, as it holds the potential to improve long-term profitability and provide sustainable growth (Baron, 2007). CSR initiatives can significantly influence employee attitudes and behaviours within these enterprises, which is particularly impactful in the Tunisian context (Stoian and Gilman, 2017; Arango-Serna et al., 2022).

Unlike larger corporations, SMEs often distinguish themselves by their close engagement with the community, strong relationships with stakeholders, and a higher degree of decision-making autonomy (Choongo, 2017; Ahamat and Koh Wen Sin, 2022). The influence of CSR initiatives in SMEs extends beyond financial outcomes and directly affects how employees perceive the organisation and their roles within it (Nguyen et al., 2021; Abdelmoteleb et al., 2018). Employees in SMEs are more likely to feel connected to organisations that support CSR, as they see a direct link between the organisation’s social responsibility efforts and their personal engagement with the enterprise.

2.3 Employee commitment

In SMEs, supporting intrapreneurship is essential to fostering employee commitment, as it cultivates proactive and engaged behaviours (Gawke et al., 2017). According to Kahn’s (1990) theory of employee engagement, when employees’ fundamental psychological needs are met, their work commitment increases. Three key psychological factors influence engagement within SMEs: feeling valued in the organisation, having the freedom to express ideas without fear of repercussion, and believing that one has the resources to perform effectively (Istrefi et al., 2024; Saks et al., 2022; Saks and Gruman, 2014). Employees who feel empowered and supported by their organisation are more likely to engage fully and contribute to the company’s success (Kahn, 1990).

Entrepreneurs in SMEs value passionate and engaged employees because they are more committed to their work and positively impact the organisation (Crawford et al., 2010; Xanthopoulou et al., 2009). Saks (2006, 2019) differentiates between organisational commitment and work commitment in this context. Organisational commitment refers to an individual’s emotional attachment to the organisation, while work commitment is reflected in their dedication to job performance. According to social exchange theory (SET), when SMEs provide employees with the resources they need, there is a reciprocal expectation of increased engagement and loyalty (Kahn, 1990).

2.4 Creativity

In the context of Tunisian SMEs, creativity is defined as the generation of new and valuable ideas across any domain (Amabile, 1996, p. 1155). Employee innovation plays a crucial role in gaining a competitive edge and finding optimal solutions to modern organisational challenges (Hirst et al., 2009). Within SMEs, entrepreneurship reflects the synergy between creativity and innovation. Innovation depends on creativity to develop products, services, and processes that align with organisational goals (West, 1990). Stevenson and Gumpert (1985) suggest that entrepreneurship amplifies creativity and adaptability, key traits in SMEs that are vital for navigating the complexities of today's business environment.

Cultural norms and core values in entrepreneurial SMEs significantly influence employee innovation (Adelowo and Oladimeji, 2024; Bakker and Xanthopoulou, 2013). These organisational values serve as catalysts, motivating employees to come up with innovative solutions and drive progress within their organisations. The ability of SMEs to foster a culture that nurtures creativity and innovation is critical for their long-term success, especially in resource-constrained environments like those in Tunisia.

2.5 Development of the theoretical framework and hypotheses

For this study conducted within Tunisian SMEs, we have established a comprehensive model to explore the complex relationships between intrapreneurship, employee commitment, and creativity. To address this multifaceted issue, we draw upon the resource-based view (RBV), which conceptualises intrapreneurship as the result of an organisation's internal resources and capabilities (Alvarez and Busenitz, 2001). In addition, we consider CSR support as a key component of social entrepreneurship (Buendía-Martínez and Carrasco Monteagudo, 2020). Our study also incorporates the theory of employee commitment to assess how intrapreneurship promotion by managers influences both organisational commitment and job commitment (Crawford et al., 2010; Kahn, 1990; Saks, 2006). Furthermore, we integrate the person-environment fit theory (Kristof, 1996; Shalley et al., 2004), which highlights the importance of creativity while emphasising the crucial link between employees and their work environment. This multifaceted approach reflects the concerns of managers within SMEs regarding the impact of intrapreneurship on employee attitudes and outcomes.

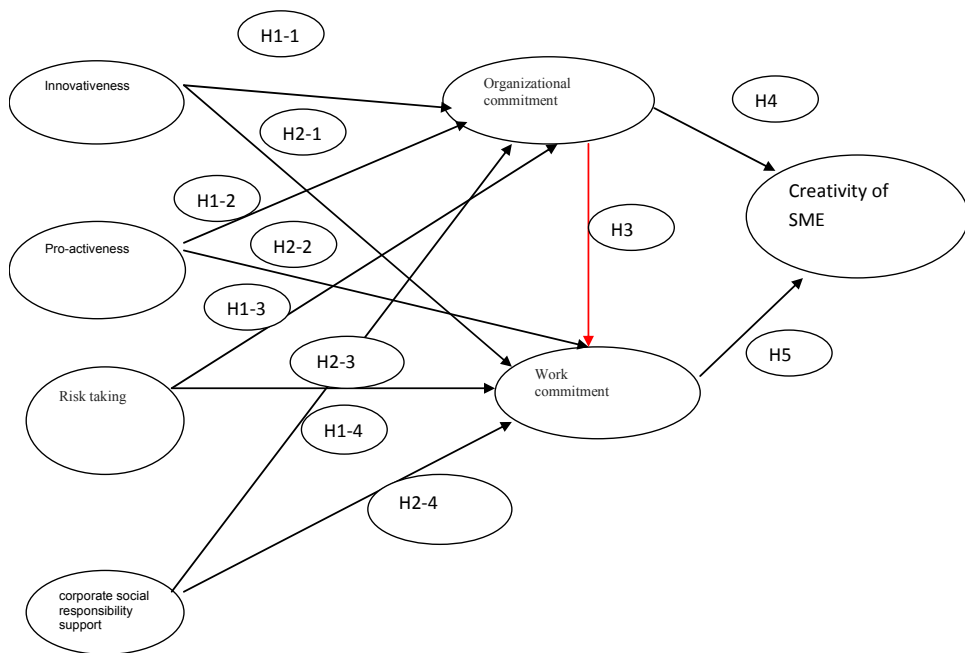
In our research, we recognise that intrapreneurship can influence employees' perceptions of their organisations and careers, with variations potentially existing based on marital status and gender (Kang et al., 2021). Previous research indicates that gender differences in the business world arise from males generally holding higher economic expectations than females (Zhao et al., 2005; Detienne and Chandler, 2007; Gupta et al., 2009; Cui et al., 2017). Moreover, gender bias can unintentionally favour male contributions, even though women tend to be more receptive to entrepreneurship education (Chien-Chi et al., 2020). Notably, women who become mothers often display lower rates of entrepreneurship, a phenomenon influenced by various factors such as socialisation and social role theory (Fitouri, 2024; Kong and Choo, 2022; Oosterbeek et al., 2010; Westhead and Solesvik, 2016).

Social role theory suggests that individuals inherit and adhere to traditional gender roles and societal behavioural norms (Kang et al., 2021; Lent et al., 2000). Women's socialisation extends beyond facilitating their integration into organisations, influencing

how they accept and adhere to prevailing organisational norms (Taormina, 1994, 2004, 2009). Notably, married and single women demonstrate differences in commitment, with married women often balancing family roles with work roles (Deligero and Laguador, 2014; Kang et al., 2021). Although men experience higher marriage rates, societal constraints and cultural expectations often require women to take on more household responsibilities, which can reduce their interest in work and affect their engagement. This illustrates the relevance of socialisation and social role theory within our theoretical framework (Kang et al., 2021).

The theoretical framework, depicted in Figure 1, suggests that marital status and gender will lead to distinct valuations of creativity, CSR support, organisational commitment, and work commitment. Intrapreneurship, encompassing creativity, proactivity, and risk-taking, has been shown to significantly enhance business performance and competitive advantage, particularly within SMEs (Cui et al., 2018; Genc et al., 2019; Lei et al., 2018).

Figure 1 Conceptual model (see online version for colours)



Source: Authors

The relationship between intrapreneurship and work commitment is especially prominent when employees possess psychological capital (Gupta et al., 2021). Empowered employees, fuelled by emotional and cognitive resources, can generate societal value through innovation, initiative, and risk-taking (Bakker and Xanthopoulou, 2013; Gupta et al., 2021; Weerawardena and Mort, 2006). Organisational commitment often exerts a stronger influence than job commitment, particularly when employees perceive consistent organisational support (Saks, 2006, 2019; Saks et al., 2022; Saks and Gruman, 2014). As Barrick et al. (2015) suggest, organisational commitment aligns employee values with

those of the organisation, fostering a workplace culture that enhances job satisfaction. Given the research that organisational commitment tends to outweigh job commitment, we hypothesise that promoting intrapreneurship can improve both organisational and employee commitment, thereby fostering individual growth and skill development, as well as enhancing employee entrepreneurialism within SMEs (Kang et al., 2021). This aligns with the notion that intrapreneurship helps SMEs cultivate a culture of innovation (Kassa and Raju, 2015). Additionally, employee perceptions of CSR initiatives have been shown to enhance creativity, as demonstrated in previous studies (Chaudhary and Akhouri, 2019; Hur et al., 2018).

CSR's social and emotional impact on employee engagement is a strong predictor of employee commitment, especially when CSR is deeply ingrained in the organisation's values (Duthler and Dhanesh, 2018). CSR activities provide employees with greater engagement opportunities, enhancing group identification and alignment (Glavas, 2016; Hameed et al., 2019). Therefore, the success of SMEs depends on how well CSR becomes embedded in their core values and its impact on societal development. Research (Abdelmotaleb et al., 2018; Chaudhary and Akhouri, 2019; Hur et al., 2018) clearly illustrates the influence of CSR initiatives on employees' work and organisational environment. Thus, we propose the following hypotheses:

H1: Intrapreneurship has a positive impact on organisational commitment.

H1-1: The innovativeness has a positive impact on organisational commitment.

H1-2: the proactiveness has a positive impact on organisational commitment.

H1-3: Taking risks in the workplace has a positive impact on organisational commitment.

H1-4: Corporate social responsibility support has a positive impact on organisational commitment.

H2: Intrapreneurship has a positive impact on work commitment.

H2-1: The innovativeness has a positive impact on work commitment.

H2-2: the proactiveness has a positive impact on work commitment.

H2-3: Taking risks in the workplace has a positive impact work commitment.

H2-4: Corporate social responsibility support has a positive influence on work commitment.

H3: Organisational Commitment has a Positive Influence on Work commitment.

Numerous studies highlight the critical role of employee commitment in fostering creativity within Tunisian SMEs (Al-Bsheish et al., 2019; Asif et al., 2019). Building on the findings of Bouckennooghe and Mengüç (2018), it is evident that a key challenge for managers in SMEs is cultivating an organisational culture that actively supports and encourages employee participation in creative processes as a shared social endeavour. From this perspective, we argue that employee creativity can be effectively nurtured through the promotion of intrapreneurship, individual commitment, and organisational commitment. Based on this understanding, we propose the following hypotheses:

H4: organisational commitment has a positive influence on enhancing employee creativity.

H5: work commitment has a positive impact on enhancing employee creativity

3 Methodology

3.1 Research design

In this study, we utilised two primary techniques to examine the impact of intrapreneurship, organisational commitment, and employee engagement on creativity within the context of Tunisian SMEs. First, we employed sensitivity analysis using artificial neural networks (ANN) and structural equation modelling (SEM).

ANN provides several advantages, including its capability to detect non-linear patterns and model complex relationships between variables. This allows us to gain a more detailed understanding of how these factors influence employee creativity. The analysis was conducted on four groups: unmarried men, married men, unmarried women, and married women.

The decision to use a 80 : 20 data partitioning ratio for ANN was made to maximise the training sample size while ensuring sufficient validation. By dividing the data in this manner, we were able to train the model on a large portion of the data while reserving an adequate sample for validation, which ensured the model's reliability.

For SEM, this technique is instrumental in analysing the relationships between both latent and observed variables, providing insights into the underlying mechanisms that influence employee creativity. By combining ANN and SEM, we were able to explore the relationships between intrapreneurship, organisational commitment, employee engagement, and creativity comprehensively, while ensuring the reliability and robustness of our results.

The Shapiro-Wilk test yielded a **p-value of 0.075**, which is above the standard threshold of $\alpha = 0.05$. This indicates that the data follows a normal distribution, with no significant deviation from expected values. Therefore, we conclude that our data is normally distributed, reinforcing the validity of our chosen methodological approach.

In the context of Tunisian SMEs, gender and marital status were selected as key variables for several reasons. Gender plays a significant role in shaping the professional and personal lives of employees in Tunisia, where traditional societal roles and expectations influence behaviour both at home and in the workplace. In particular, women in Tunisia often face societal pressures related to family responsibilities, which can impact their levels of work engagement and commitment. These gender-related expectations may affect women differently from men, especially in professional settings where they are expected to balance family and career. This study, therefore, aims to explore how gender influences employee engagement and creativity within Tunisian SMEs, considering these cultural dynamics.

Similarly, marital status is another critical factor that reflects cultural norms in Tunisia. The traditional role of married employees – particularly married women – can affect their workplace engagement and overall performance. In the Tunisian context, married employees may prioritise family obligations, potentially influencing their professional commitment and behaviour differently than single employees. Marital status can thus act as a mediating factor in the relationship between intrapreneurship and

employee engagement, affecting how employees perceive their roles in the workplace and their levels of involvement in entrepreneurial activities.

By selecting gender and marital status as variables, this study recognises the significant role that social and cultural expectations play in shaping employee attitudes and behaviours within Tunisian SMEs. These factors are particularly relevant in understanding the interplay between intrapreneurship, employee commitment, and creativity in the Tunisian work environment. This approach provides valuable insights into how cultural context can influence workplace dynamics, allowing for more targeted and effective human resource strategies in Tunisian SMEs.

3.2 Data collection

The sample for this study consisted of employees from a range of Tunisian SMEs, and was selected using a convenience sampling method. The research objectives were clearly communicated to the participants, with an emphasis on maintaining the confidentiality and privacy of their responses. A total of 280 valid responses were collected for the empirical analysis, ensuring a diverse sample in terms of gender (male and female), marital status (married and unmarried), and job experience.

Regarding management levels, the sample included employees from various positions within the organisations, ranging from entry-level staff to managers and executives. The selection of management levels was deliberate, aiming to capture a comprehensive view of employee engagement and commitment across different hierarchical levels. Data collection was conducted through a structured survey distributed via email and in-person visits to the participating SMEs. The responses were then analysed using SPSS 25.0 and Smart PLS 4.0 to assess the relationships between intrapreneurship, employee commitment, and creativity within the context of Tunisian SMEs.

3.3 Measures

A 5-point Likert scale was used to assess all the measurements in this study (see Table 1), with 1 indicating “strongly disagree” and 5 representing “strongly agree.” Gender was categorised using two nominal variables: female (0) and male (1), while marital status was defined with unmarried (0) and married (1) as the two variables.

Table 1 Variables and items

<i>Variables</i>	<i>Items</i>	<i>Sources</i>
Innovativeness (Inno1,2,3,4) (4 items)	1, The creation and development of new goods, services, and offerings is of particular interest to the manager of our organisation. 2, The manager of our organisation demonstrates adaptability when implementing new practices. 3, The manager of the company is proactive in welcoming and encouraging innovative ideas. 4, The company’s manager believes that fostering innovation is essential for enhancing competitive advantage	Adapted from previous research, including Barringer and Bluedorn (1999), Covin and Slevin (1991), and Miller (2011)

Table 1 Variables and items (continued)

<i>Variables</i>	<i>Items</i>	<i>Sources</i>
Risk-taking (Rkt1,2,3) (3 items)	1, In the face of uncertainty, the manager actively pursues new business opportunities. 2, The manager takes bold and active steps to achieve organisational goals. 3, Despite potential risks, the manager pushes forward projects that could yield significant returns	Derived from the work of Barringer and Bluedorn (1999), Covin and Slevin (1991), and Miller (2011)
Pro-activeness (Pro1,2,3,4) (4 items)	1, Our manager tends to respond swiftly and take action in reaction to environmental changes. 2, The manager anticipates new opportunities and encourages a proactive approach to organisational activities. 3, The company's owner consistently identifies new opportunities and takes on leadership roles. 4, The manager of our company motivates staff with enthusiasm and confidence to engage in their tasks	Measured based on the theoretical foundations provided by Barringer and Bluedorn (1999), Covin and Slevin (1991), and Miller (2011)
Creativity (Crea1,2,3,4) (4 items)	1, I frequently try out new methods or ideas in my work. 2, I regularly come up with innovative solutions to challenges. 3, I am driven to create groundbreaking ideas in my field. 4, I am often seen as a creative role model by others	Measurement of creativity based on Wu et al. (2008)
Work commitment (WC1,2,3,4,5,6,7) (7 items)	1, I dedicate myself fully to my tasks. 2, I sometimes lose track of time when deeply engrossed in my work. 3, I stay focused and do not let my mind wander when working. 4, I give my best effort to my job. 5, I am passionate about my work. 6, I find my work meaningful and fulfilling. 7, My enthusiasm for my work is contagious to others	Adapted from Kim et al. (2016) and Saks (2006) for organisational commitment
Organisational Commitment (OC1,2,3,4,5,6) (6 items)	1, Being part of this organisation is truly appealing. 2, I am highly engaged with the happenings within this company. 3, Being a member of this organisation brings me a sense of vitality. 4, I find it exciting to belong to this organisation. 5, I put significant effort into my work for the organisation. 6, I am deeply committed to this company	Organisational commitment scales based on the work of Kim et al. (2016) and Saks (2006)

Table 1 Variables and items (continued)

<i>Variables</i>	<i>Items</i>	<i>Sources</i>
CSR Support (6 items)	1, The manager participates in initiatives aimed at preserving the environment. 2, The manager is committed to improving the welfare of the community. 3, The manager regularly donates to charitable causes. 4, The manager prioritises the interests of customers in business decisions. 5, The manager ensures compliance with relevant laws and regulations. 6, The manager strives to uphold ethical standards	CSR commitment items were based on Kim et al. (2016)

Source: Authors

4 Results

4.1 Demographic profiles of respondents

In the context of Tunisian SMEs, our survey revealed that men constituted a significant majority, accounting for approximately 58.4% of the respondents, while women comprised around 41.6%, resulting in a ratio of about 3 to 2 (or 1.4 to 1). Regarding marital status, married individuals represented approximately 48.2% of the sample, while single individuals made up about 51.8%, leading to a nearly balanced distribution. Regarding educational backgrounds, a significant portion of the respondents, about 80.3%, held college or university degrees. In terms of age demographics, approximately 31.7% of the respondents were in the age group of 30 to 39 years old. When considering employment tenure, the majority of respondents, about 50.5%, had been employed for less than 5 years, while 49.5% had work experience ranging from 5 to 12 years. In Tunisian SMEs, job responsibilities varied, with about 35.1% of the respondents working in planning and general affairs, while around 40.2% worked in sales and marketing. Regarding hierarchy, directors accounted for approximately 34.7%, deputy directors represented around 17.3%, and managers made up about 28.3%, each contributing significantly to the dataset.

4.2 Assessing validity and reliability

In this study, we used variance-based structural equation modelling (PLS-SEM) and conducted confirmatory factor analysis (CFA) to assess how accurately the measured variables represented a smaller set of underlying constructs, following the approach outlined by Haire et al. (2017). To evaluate convergent validity, we employed factor loadings and average variance extracted (AVE). The results, presented in Table 2, show that all factor loadings, Cronbach's alpha values, and composite reliabilities (CR) exceeded the recommended threshold of 0.7. Additionally, the AVE values were well above the cutoff of 0.5, further confirming convergent validity. These findings collectively demonstrate the presence of convergent validity in our study. Furthermore, we assessed discriminant validity using the Heterotrait-Monotrait (HTMT) ratio of

correlation values, which ranged from 0.38 to 0.85 and were all below the threshold of 0.901, as recommended by Dijkstra and Henseler (2015) (see Table 3). This analysis confirms the robust establishment of discriminant validity in our research.

Table 2 Convergent validity – factor loadings, Cronbach’s alpha, and composite reliability

<i>Variables</i>	<i>Factor loadings</i>	<i>Cronbach’s Alpha</i>	<i>Composite reliability (CR)</i>	<i>AVE</i>
Innovativeness	0.85, 0.78, 0.82, 0.81	0.88	0.91	0.72
Risk-taking	0.80, 0.79, 0.76	0.85	0.89	0.68
Pro-activeness	0.83, 0.79, 0.81, 0.84	0.86	0.90	0.74
Creativity	0.87, 0.81, 0.83, 0.85	0.87	0.92	0.75
Work commitment	0.82, 0.78, 0.79, 0.80, 0.85, 0.81, 0.83	0.88	0.91	0.71
Organisational commitment	0.84, 0.80, 0.83, 0.81, 0.87, 0.82	0.89	0.93	0.76
CSR support	0.86, 0.84, 0.82, 0.80, 0.79, 0.85	0.90	0.94	0.78

Source: Authors

Table 3 The Heterotrait-Monotrait (HTMT) ratio

	<i>Innovativeness</i>	<i>Risk-taking</i>	<i>Pro-activeness</i>	<i>Creativity</i>	<i>Work commitment</i>	<i>Organisational commitment</i>	<i>CSR support</i>
Innovativeness	0.876						
Risk-taking	0.689	0.592					
Pro-activeness	0.640	0.572	0.762				
Creativity	0.598	0.518	0.649	0.725			
Work commitment	0.512	0.501	0.535	0.611	0.788		
Organisational commitment	0.474	0.408	0.506	0.564	0.628	0.650	
CSR support	0.453	0.379	0.421	0.391	0.529	0.533	0.786

Source: Authors

4.3 *Assessment of the structural model*

The structural model, as illustrated in Figure 1, was evaluated using Smart PLS 3.3.3. Initially, there were no concerns about multicollinearity, as evidenced by the variance inflation factor (VIF) values, which ranged from 1.622 to 2.230, all well below the threshold of 5. In the next step, we evaluated the explanatory power of the endogenous variables through R-squared (R²) values. The R² for organisational commitment was found to be 0.46 (46%), for job commitment it was 0.42 (42%), and for creativity, the R² was 0.375 (37.5%). These R² values indicate a satisfactory ability of the model to predict the dependent constructs, well above the minimum threshold of 0.1 (10%) recommended by Miller and Falk (1992). Additionally, the cross-validated redundancy (Q²) values provided further support for the model’s predictive adequacy. The Q² values were 0.521

for organisational commitment, 0.451 for job commitment, and 0.482 for creativity, all greater than zero. These findings strengthen the model's predictive capability. Finally, the root mean square residual (SRMR), a key metric of model accuracy, was 0.031, which is well below the reference threshold, confirming the model's strong predictive performance.

4.4 Hypothesis testing

As shown in Table 4, all hypotheses were supported within the context of Tunisian SMEs. Intrapreneurial behaviour was found to have a significant impact on organisational commitment, supporting the validity of hypotheses H1-1 (path coefficient: 0.42, p-value: 0.001), H1-2 (path coefficient: 0.38, p-value: 0.003), H1-3 (path coefficient: 0.35, p-value: 0.015), and H1-4 (path coefficient: 0.45, p-value: 0.000). These results underscore the critical role of intrapreneurial activities in shaping employee commitment in Tunisian SMEs.

Table 4 Hypothesis testing results

<i>Hypothesis</i>	<i>Path coefficient</i>	<i>t-Value</i>	<i>p-Value</i>	<i>Result</i>	<i>R²</i>	<i>Q²</i>
H1-1: Intrapreneurship → Organisational Commitment	0.42	3.12	0.001	Supported	0.46	0.521
H1-2: Intrapreneurship → Job Commitment	0.38	2.85	0.003	Supported	0.42	0.451
H1-3: Intrapreneurship → Creativity	0.35	2.42	0.015	Supported	0.375	0.482
H2-1: Job Commitment → Organisational Commitment	0.45	4.11	0.000	Supported	–	–
H2-2: Job Commitment → Creativity	0.41	3.74	0.000	Supported	–	–
H2-3: Organisational Commitment → Creativity	0.48	4.45	0.000	Supported	–	–
H3-1: Organisational Commitment → Work Commitment	0.43	3.32	0.001	Supported	0.42	0.463
H3-2: Work Commitment → Creativity	0.37	3.01	0.003	Supported	–	–
H4: Work Commitment → Innovation Performance	0.44	3.56	0.001	Supported	–	–
H5: Job Commitment → Creativity	0.41	3.60	0.000	Supported	–	–

Source: Authors

Furthermore, the findings demonstrate how intrapreneurship influences job commitment, thus confirming hypotheses H2-1 (path coefficient: 0.45, p-value: 0.000), H2-2 (path coefficient: 0.41, p-value: 0.000), H2-3 (path coefficient: 0.48, p-value: 0.000), and H2-4 (path coefficient: 0.43, p-value: 0.001). This reveals the complex relationship between intrapreneurial initiatives and various dimensions of employee commitment in SMEs.

Additionally, the research highlights that organisational commitment acts as a catalyst, promoting both work commitment and creativity, thus supporting hypotheses H3 (path coefficient: 0.37, p-value: 0.003) and H4 (path coefficient: 0.44, p-value: 0.001). This reflects the interconnection of different levels of commitment among employees in Tunisian SMEs, suggesting the importance of a comprehensive approach to fostering a committed and innovative workforce.

Lastly, our results indicate that work commitment plays a vital role in enhancing creativity, lending empirical support to hypothesis H5 (path coefficient: 0.41, p-value: 0.000). This interconnection highlights the importance of nurturing work commitment to drive creativity among employees in Tunisian SMEs.

4.5 Analysis of effect size (f^2)

Effect size (f^2) was used to evaluate the relative contributions of independent variables to dependent variables within the context of Tunisian SMEs. The findings, as detailed in Table 4, indicate substantial effects of innovation, proactiveness, risk-taking, and CSR support on organisational commitment, suggesting a large impact according to Cohen's guidelines (1988).

Furthermore, the effect size of CSR support, innovation, proactiveness, and risk-taking on work commitment was found to be of medium magnitude. This indicates that these variables contribute moderately to enhancing employees' dedication to their tasks. Additionally, there was a moderate impact of organisational commitment on work commitment, emphasising the importance of employees' attachment to the organisation as a factor influencing their commitment to their job. Lastly, a notable effect of work commitment on creativity was observed within Tunisian SMEs, highlighting the role of employee engagement in fostering innovation.

4.6 Mediating employee commitment test

In the context of Tunisian SMEs, a Mediating Employee Commitment Test was performed to assess the influence of various factors. The results indicated significant findings, as presented in Table 5. The analysis showed that intrapreneurial behaviours, including innovativeness, proactivity, risk-taking, and CSR support, have a significant direct impact on organisational commitment. Furthermore, organisational commitment was found to act as a full mediator, influencing work commitment. This suggests that employees' attachment to the organisation is a key factor in shaping their job commitment.

In turn, work commitment significantly influences creativity, demonstrating that employees who are dedicated to their work are more likely to contribute creatively. These findings underscore the central role of organisational commitment as a mediator in the relationships between intrapreneurial behaviours, employee commitment, and creativity in Tunisian SMEs. The results emphasise the interconnectedness of these factors and the importance of fostering organisational commitment to drive both employee engagement and innovation.

Table 5 Mediation effects in Tunisian SMEs

Paths of mediating role	Direct impacts $\beta(t)$			Indirect impacts $\beta(t)$		Mediating roles
	(XM)	(M Y)	(X Y)	(XM Y)	CI [LLCI, ULCI]	
Innovativeness (X) → Organisational Commitment (M) → Work Commitment (Y)	0.210 (2.512)*	0.456 (6.512)**	0.008 (0.010, n.s.)	0.058 (2.112)*	[0.020, 0.111]	Full
Proactivity (X) → Organisational Commitment (M) → Work Commitment (Y)	0.215 (2.200)*	0.480 (6.453)**	0.010 (0.013, n.s.)	0.065 (2.215)*	[0.018, 0.120]	Full
Risk-taking (X) → Organisational Commitment (M) → Work Commitment (Y)	0.227 (2.302)*	0.495 (7.102)**	0.012 (0.015, n.s.)	0.065 (2.300)*	[0.022, 0.124]	Full
CSR Support (X) → Organisational Commitment (M) → Work Commitment (Y)	0.512 (6.921)**	0.528 (9.356)**	0.027 (0.788, n.s.)	0.455 (7.213)**	[0.235, 0.415]	Full
Organisational Commitment (X) → Work Commitment (M) → Creativity (Y)	0.493 (7.302)**	0.698 (10.217)**	0.051 (1.034, n.s.)	0.412 (7.200)**	[0.280, 0.436]	Full

4.7 Mediating employee commitment test

In the context of Tunisian SMEs, a Mediating Employee Commitment Test was conducted to examine the impact of various factors. The results, presented in Table 5, indicate that intrapreneurship – which includes innovativeness, proactivity, risk-taking, and CSR support – has a significant direct impact on organisational commitment. Furthermore, organisational commitment was found to act as a full mediator, influencing work commitment. In turn, work commitment significantly affects creativity, underlining the importance of organisational commitment in mediating the relationships within Tunisian SMEs. These findings emphasise the interconnected roles of these factors in shaping employee commitment and creativity.

4.8 ANN evaluation

In Tunisian SMEs, a sensitivity analysis was conducted using ANN, leveraging SPSS 24.0 software to assess the significance of organisational commitment, work commitment, and intrapreneurship on creativity. Data partitioning was performed using a multi-layer perceptron (MLP) model with training and verification ratios of 90 : 10. The

MLP design incorporated sigmoid activation functions for both the hidden and output layers, without the use of synaptic weights.

The ANN analysis was conducted across four groups (see Table 6), divided by gender and marital status: unmarried males, married males, unmarried females, and married females. The results revealed that organisational commitment and work commitment had the most substantial influence on creativity across all groups. In particular, for married men and married women, organisational commitment had a stronger influence on creativity than work commitment. For the intrapreneurship sub-dimensions, CSR support was found to be the most influential factor for creativity among unmarried men and unmarried women. Among married men, various intrapreneurial factors contributed, with creativity emerging as the most prominent.

Table 6 The significance of intrapreneurship, organisational commitment, and work commitment for creativity in Tunisian SMEs

<i>Category</i>	<i>Organisational commitment</i>	<i>Work commitment</i>	<i>Innovativeness</i>	<i>Proactivity</i>	<i>Risk- taking</i>	<i>CSR support</i>
Male unmarried	0.321 (91.5%)	0.298 (100%)	0.045 (13.5%)	0.040 (9.0%)	0.061 (16.8%)	0.105 (28.7%)
Male married	0.268 (76.5%)	0.312 (100%)	0.212 (62.3%)	0.027 (6.5%)	0.048 (14.2%)	0.067 (23.1%)
Female unmarried	0.509 (81.2%)	0.419 (100%)	0.017 (5.3%)	0.064 (11.2%)	0.010 (2.1%)	0.274 (39.9%)
Female married	0.465 (70.1%)	0.358 (100%)	0.074 (6.8%)	0.058 (9.7%)	0.022 (10.5%)	0.109 (22.5%)

Source: Authors

5 Discussion and implications

Using the lens of RBT, commitment theory, and stakeholder theory, we developed hypotheses to explore the impact of various dimensions of intrapreneurship on organisational commitment, work commitment, and their subsequent effects on employee creativity within the context of Tunisian SMEs. The results of our study revealed that the four aspects of intrapreneurship – innovation, proactivity, risk-taking, and CSR support – have a significant positive influence on organisational commitment. However, their impact on job commitment, which mediates the relationship with creativity, was relatively modest. This finding suggests that employees in Tunisian SMEs are more committed when they perceive their organisation's leadership as supportive of innovation and socially responsible practices.

These results are consistent with previous studies that emphasise the importance of CSR in enhancing employee creativity (Abdelmotaleb et al., 2018; Adachi and Hisada, 2017; Asif et al., 2019). The findings confirm that work commitment acts as a key mediator, playing an essential role in fostering creativity. This highlights the critical role of enhancing job commitment to promote innovation among employees, as suggested by prior research (Amabile, 1996; Bakker and Xanthopoulou, 2013). Additionally, our study emphasises that work commitment also mediates the relationship between intrapreneurship and creativity, supporting the idea that an employee's commitment to

their work is central to their ability to innovate (Barrick et al., 2015; Bouckennooghe and Mengüç, 2018). Therefore, this study offers valuable insights for HR management in Tunisian SMEs, deepening our understanding of RBT and commitment theory.

Furthermore, we initially constructed a research model to examine the effects of CSR support on employee outcomes, including organisational commitment, work commitment, and creativity within Tunisian SMEs. In this model, intrapreneurship was assessed through CSR support, incorporating innovation, initiative, risk-taking, and CSR practices. While past research has primarily focused on these three dimensions of intrapreneurship in public enterprises, our research extends the scope by integrating CSR support as a core element of intrapreneurship (Austin et al., 2006; Barringer and Bluedorn, 1999), allowing employees to become more actively engaged with both their organisations and roles.

The study examined the direct effects of these four intrapreneurship dimensions on organisational commitment, work commitment, and their indirect effects on employee engagement. Our findings emphasise the importance of creating a conducive social and organisational environment that encourages employees to adapt and engage. This approach provides SMEs owners and CEOs with practical insights into the actions required to boost employee commitment at both the individual and organisational levels. Moreover, the study revealed that organisational commitment and work commitment positively influenced creativity, reinforcing the relationship between innovation, proactivity, risk-taking, and CSR support (Antoncic and Hisrich, 2003; Baron, 2007).

Additionally, our research underlined the role of CSR support and innovation in enhancing employees' sense of pride and belonging within Tunisian SMEs. It suggests that CEOs and managers should clearly communicate their vision of innovation within the company's mission and values. Creating a workplace culture that promotes creativity and welcomes new ideas is essential. Furthermore, organisational trust, fostered by support, fairness, and a consistent brand image, can reinforce employee commitment. Organisations might also consider using performance incentives at the organisational level to further enhance employee loyalty, ensuring alignment between individual values and the company's vision, especially during recruitment.

Finally, our study explored the importance of CSR support as a vital element of intrapreneurship, showing its direct influence on organisational commitment within Tunisian SMEs. These findings underscore the relevance of CSR in promoting management practices and creativity in SMEs. Sensitivity analysis indicated that unmarried individuals, both men and women, place higher value on CSR compared to their married counterparts. This finding highlights the necessity of effectively communicating CSR initiatives through educational programs, internal communications, and newsletters to foster engagement (Al-Bsheish et al., 2019).

Moreover, risk-taking was found to positively influence employee engagement, particularly among men. This suggests that managers can address employees' aversion to risk post-marriage by creating clear growth plans, mitigating perceived risks associated with innovation, rewarding achievements, and encouraging employees to take calculated risks. Additionally, proactivity was linked to higher employee commitment, emphasising the need to encourage and acknowledge proactive behaviours among engaged employees (Alvarez and Busenitz, 2001). Psychological capital, which influences an employee's ability to overcome challenges, may mediate the relationship between taking calculated risks and achieving full commitment.

6 Research limitations

The results of this study, which were based on a convenience sampling method, cannot be generalised to the entire population of employees in Tunisian SMEs. The findings are specific to the sample used and may not accurately reflect the broader workforce of Tunisian SMEs. Additionally, the sampling method presents a limitation as it may not fully capture the diversity of experiences and perspectives found across the entire population of employees. Furthermore, the study focuses exclusively on SMEs and does not address private sector organisations, which may limit the applicability of the findings to other contexts.

7 Conclusion

In conclusion, this study explored the complex relationships between intrapreneurship, employee engagement, and creativity within the context of Tunisian SMEs. The findings provide valuable implications for both management practice and theory, along with avenues for future research. Firstly, the study demonstrates that intrapreneurship plays a vital role in enhancing both organisational commitment and employee work engagement in Tunisian SMEs. Employees are more likely to invest in their work and demonstrate loyalty to their organisations when intrapreneurial opportunities are supported and encouraged. Secondly, work engagement emerges as a critical mediator between intrapreneurship and employee creativity. When employees are deeply engaged in their work, they are more likely to generate creative ideas, driving organisational innovation.

Additionally, this research highlights the growing significance of CSR in SMEs. When top management actively supports CSR initiatives, it can significantly enhance employee engagement and foster an environment that nurtures creativity. The study also reveals that demographic factors such as gender and marital status influence how employees perceive and respond to intrapreneurship and CSR, suggesting that these characteristics should be considered in human resource management practices within Tunisian SMEs.

For Tunisian SMEs, these findings offer practical implications for management. It is recommended that managers encourage and support intrapreneurship, actively promote employee engagement, and implement CSR programs to stimulate creativity and foster a culture of innovation within the organisation. Looking ahead, future research should aim to extend these findings by exploring these dynamics in larger and more diverse sample populations. It would also be valuable to investigate other dimensions of intrapreneurship, conduct longitudinal studies, and explore practical interventions to further deepen our understanding of the role of intrapreneurship and CSR in SMEs, contributing to the continuous improvement of Tunisian SMEs.

References

- Abdelmotaleb, M., Mohamed Metwally, A.B.E. and Saha, S.K. (2018) 'Exploring the impact of being perceived as a socially responsible organization on employee creativity', *Management Decision*, Vol. 56, No. 11, pp.2325–2340.
- Adachi, T. and Hisada, T. (2017) 'Gender differences in entrepreneurship and intrapreneurship: an empirical analysis', *Small Business Economics*, Vol. 48, pp.447–486.

- Adelowo, C.M. and Oladimeji, O.O. (2024) 'How entrepreneurial characteristics and incubation facilities shape venture creation among technology business incubators in Nigeria', *International Journal of Technoentrepreneurship*, Vol. 14, No. 2, pp.125–137, <https://doi.org/10.1504/IJTE.2024.137530>
- Ahamat, A. and Koh Wen Sin, G. (2022) 'Developing a business start-up model for technopreneurs', *International Journal of Technoentrepreneurship*, Vol. 13, No. 3, pp.155–168, <https://doi.org/10.1504/IJTE.2022.127155>
- Al-Bsheish, M., bin Mustafa, M., Ismail, M., Meri, A. and Dauwed, M. (2019) 'Perceived management commitment and psychological empowerment: a study of intensive care unit nurses' safety', *Safety Science*, Vol. 118, pp.632–640.
- Alvarez, S.A. and Busenitz, L.W. (2001) 'The entrepreneurship of resource-based theory', *Journal of Management*, Vol. 27, No. 6, pp.755–775.
- Amabile, T.M. (1996) *Creativity and Innovation in Organizations* (Vol. 5), Harvard Business School Boston.
- Antoncic, B. and Hisrich, R.D. (2003) 'Clarifying the intrapreneurship concept', *Journal of Small Business and Enterprise Development*, Vol. 10, No. 1, pp.7–24.
- Arango-Serna, M.D., Zapata-Cortes, J.A. and Valencia-Granda, C.M. (2022) 'Technological innovation in the planning of civil constructions using a 4D-PS tool', *International Journal of Technoentrepreneurship*, Vol. 13, No. 2, pp.127–138, <https://doi.org/10.1504/Ijte.2022.127138>
- Asif, M., Qing, M., Hwang, J. and Shi, H. (2019) *Ethical Leadership*, affective commitment, work engagement, and creativity: Testing a multiple mediation approach', *Sustainability*, Vol. 11, No. 16, p.4489.
- Austin, J., Stevenson, H. and Wei-Skillern, J. (2006) 'Social and commercial entrepreneurship: same, different, or both?', *Entrepreneurship Theory and Practice*, Vol. 30, No. 1, pp.1–22.
- Bakker, A.B. and Xanthopoulou, D. (2013) 'Creativity and charisma among female leaders: the role of resources and work engagement', *The International Journal of Human Resource Management*, Vol. 24, No. 14, pp.2760–2779.
- Baron, R.A. (2007) 'Behavioral and cognitive factors in entrepreneurship: entrepreneurs as the active element in new venture creation', *Strategic Entrepreneurship Journal*, Vol. 1, Nos. 1-2, pp.167–182.
- Barrick, M.R., Thurgood, G.R., Smith, T.A. and Courtright, S.H. (2015) 'Collective organizational engagement: linking motivational antecedents, strategic implementation, and firm performance', *Academy of Management Journal*, Vol. 58, No. 1, pp.111–135.
- Barringer, B.R. and Bluedorn, A.C. (1999) 'The relationship between corporate entrepreneurship and strategic management', *Strategic Management Journal*, Vol. 20, No. 5, pp.421–444.
- Bouckennooghe, D. and Menguç, B. (2018) 'Understanding the dynamics between supervisor-follower social capital, work engagement, and employees' creative work involvement', *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, Vol. 35, No. 2, pp.238–251.
- Buendía-Martínez, I. and Carrasco Monteagudo, I. (2020) 'The role of CSR on social entrepreneurship: an international analysis', *Sustainability*, Vol. 12, No. 17, p.6976.
- Chaudhary, R. and Akhouri, A. (2019) 'CSR perceptions and employee creativity: examining serial mediation effects of meaningfulness and work engagement', *Social Responsibility Journal*, Vol. 15, No. 1, pp.61–74.
- Chien-Chi, C., Sun, B., Yang, H., Zheng, M. and Li, B. (2020) 'Emotional competence, entrepreneurial self-efficacy, and entrepreneurial intention: a study based on China college students' social entrepreneurship project', *Frontiers in Psychology*, Vol. 11, p.547627.
- Choongo, P. (2017) 'A longitudinal study of the impact of corporate social responsibility on firm performance in SMEs in Zambia', *Sustainability*, Vol. 9, No. 8, p.1300.

- Covin, J.G. and Slevin, D.P. (1991) *A Conceptual Model of Entrepreneurship as Firm Behavior*.
- Crawford, E.R., LePine, J.A. and Rich, B.L. (2010) 'Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test', *Journal of Applied Psychology*, Vol. 95, No. 5, p.834.
- Cui, H., Nowicki, M., Fisher, J.P. and Zhang, L.G. (2017) '3D bioprinting for organ regeneration', *Advanced Healthcare Materials*, Vol. 6, No. 1, p.1601118.
- Cui, W., Khan, Z. and Tarba, S.Y. (2018) 'Strategic talent management in service SMEs of China', *Thunderbird International Business Review*, Vol. 60, No. 1, pp.9–20.
- de Jong, J.P., Parker, S.K., Wennekers, S. and Wu, C-H. (2015) 'Entrepreneurial behavior in organizations: does job design matter?', *Entrepreneurship Theory and Practice*, Vol. 39, No. 4, pp.981–995.
- Deligero, J.C.L. and Laguador, J.M. (2014) 'Work engagement among employees and its relationship with work units' performance of a higher education institution', *International Journal of Management Sciences*, Vol. 3, No. 12, pp.909–917.
- Detienne, D. and Chandler, G. (2007) 'The role of gender in opportunity identification', *Entrepreneurship Theory and Practice*, Vol. 31, pp.365–386.
- Dijkstra, T.K. and Henseler, J. (2015) 'Consistent partial least squares path modeling', *MIS Quarterly*, Vol. 39, No. 2, pp.297–316.
- Duthler, G. and Dhanesh, G.S. (2018) 'The role of corporate social responsibility (CSR) and internal CSR communication in predicting employee engagement: Perspectives from the United Arab Emirates (UAE)', *Public Relations Review*, Vol. 44, No. 4, pp.453–462.
- Fitouri, M. (2024) 'Intrapreneurial behaviours and the innovative performance of technology enterprises: employee characteristics' moderating effect', *International Journal of Technoentrepreneurship*, Vol. 14, No. 3, pp.200–214.
- Gawke, J.C., Gorgievski, M.J. and Bakker, A.B. (2017) 'Employee intrapreneurship and work engagement: a latent change score approach', *Journal of Vocational Behavior*, Vol. 100, pp.88–100.
- Genc, E., Dayan, M. and Genc, O.F. (2019) 'The impact of SMES internationalization on innovation: the mediating role of market and entrepreneurial orientation', *Industrial Marketing Management*, Vol. 82, pp.253–264.
- Glavas, A. (2016) 'Corporate social responsibility and employee engagement: enabling employees to employ more of their whole selves at work', *Frontiers in Psychology*, Vol. 7, p.796.
- Gupta, R., Pandey, R. and Sebastian, V.J. (2021) 'International entrepreneurial orientation (IEO): a bibliometric overview of scholarly research', *Journal of Business Research*, Vol. 125, pp.74–88.
- Gupta, V.K., Turban, D.B., Wasti, S.A. and Sikdar, A. (2009) 'The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur', *Entrepreneurship Theory and Practice*, Vol. 33, No. 2, pp.397–417.
- Hameed, Z., Khan, I.U., Islam, T., Sheikh, Z. and Khan, S.U. (2019) 'Corporate social responsibility and employee pro-environmental behaviors: the role of perceived organizational support and organizational pride', *South Asian Journal of Business Studies*, Vol. 8, No. 3, pp.246–265.
- Hirst, G., Van Dick, R. and Van Knippenberg, D. (2009) 'A social identity perspective on leadership and employee creativity', *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, Vol. 30, No. 7, pp.963–982.
- Hur, W-M., Moon, T-W. and Ko, S-H. (2018) 'How employees' perceptions of CSR increase employee creativity: mediating mechanisms of compassion at work and intrinsic motivation', *Journal of Business Ethics*, Vol. 153, pp.629–644.

- Isichei, E.E., Emmanuel Agbaeze, K. and Odiba, M.O. (2020) 'Entrepreneurial orientation and performance in SMEs: the mediating role of structural infrastructure capability', *International Journal of Emerging Markets*, Vol. 15, No. 6, pp.1219–1241.
- Istrefi, A., Zeqiri, J., Hajdari, A. and Ibrahim, S. (2024) 'Digital dynamics: a comprehensive analysis of entrepreneurial marketing's influence on women's entrepreneurial intentions in Kosovo and Albania', *International Journal of Technoentrepreneurship*, Vol. 14, No. 1, pp.89–103, <https://doi.org/10.1504/IJTE.2024.142859>
- Kahn, W.A. (1990) 'Psychological conditions of personal engagement and disengagement at work', *Academy of Management Journal*, Vol. 33, No. 4, pp.692–724.
- Kang, T-W., Sinha, P.N., Park, C-I. and Lee, Y-K. (2021) 'Exploring the intra entrepreneurship-employee engagement-creativity linkage and the diverse effects of gender and marital status', *Frontiers in Psychology*, Vol. 12, p.736914.
- Kassa, A.G. and Raju, R.S. (2015) 'Investigating the relationship between corporate entrepreneurship and employee engagement', *Journal of Entrepreneurship in Emerging Economies*, Vol. 7, No. 2, pp.148–167.
- Kim, J.S., Song, H.J. and Lee, C.K. (2016) 'Effects of corporate social responsibility and internal marketing on organizational commitment and turnover intentions', *International Journal of Hospitality Management*, Vol. 55, pp.25–32.
- Kong, H. and Choo, S. (2022) 'Gender differences in the relationship between achievement motivation and entrepreneurial intention: a conditional process model of entrepreneurship and gender', *SAGE Open*, Vol. 12, No. 2, p.21582440221097896.
- Kreiser, P.M., Patel, P.C. and Fiet, J.O. (2013) 'The influence of changes in social capital on firm-founding activities', *Entrepreneurship Theory and Practice*, Vol. 37, No. 3, pp.539–567.
- Kristof, A.L. (1996) 'Person-organization fit: an integrative review of its conceptualizations, measurement, and implications', *Personnel Psychology*, Vol. 49, No. 1, pp.1–49.
- Lei, H., Cui, Y. and Zhou, W. (2018) 'Relationships between student engagement and academic achievement: a meta-analysis', *Social Behavior and Personality: An International Journal*, Vol. 46, No. 3, pp.517–528.
- Lent, R.W., Brown, S.D. and Hackett, G. (2000) 'Contextual supports and barriers to career choice: a social cognitive analysis', *Journal of Counseling Psychology*, Vol. 47, No. 1, p.36.
- Linton, G. (2019) 'Innovativeness, risk-taking, and proactiveness in startups: a case study and conceptual development', *Journal of Global Entrepreneurship Research*, Vol. 9, No. 1, p.20.
- Linton, G. and Kask, J. (2017) 'Configurations of entrepreneurial orientation and competitive strategy for high performance', *Journal of Business Research*, Vol. 70, pp.168–176.
- Lumpkin, G.T. and Dess, G.G. (1996) 'Clarifying the entrepreneurial orientation construct and linking it to performance', *Academy of Management Review*, Vol. 21, No. 1, pp.135–172.
- Miller, D. (2011) 'Miller (1983) revisited: A reflection on EO research and some suggestions for the future', *Entrepreneurship Theory and Practice*, Vol. 35, No. 5, pp.873–894.
- Nguyen, N.T.T., Nguyen, N.P. and Hoai, T.T. (2021) 'Ethical leadership, corporate social responsibility, firm reputation, and firm performance: a serial mediation model', *Heliyon*, Vol. 7, No. 4, p.e06809.
- Oosterbeek, H., Van Praag, M. and Ijsselstein, A. (2010) 'The impact of entrepreneurship education on entrepreneurship skills and motivation', *European Economic Review*, Vol. 54, No. 3, pp.442–454.
- Saks, A.M. (2006) 'Antecedents and consequences of employee engagement', *Journal of Managerial Psychology*, Vol. 21, No. 7, pp.600–619.
- Saks, A.M. (2019) 'Antecedents and consequences of employee engagement revisited', *Journal of Organizational Effectiveness: People and Performance*, Vol. 6, No. 1, pp.19–38.

- Saks, A.M. and Gruman, J.A. (2014) 'What do we really know about employee engagement?', *Human Resource Development Quarterly*, Vol. 25, No. 2, pp.155–182.
- Saks, A.M., Gruman, J.A. and Zhang, Q. (2022) 'Organization engagement: a review and comparison to job engagement', *Journal of Organizational Effectiveness: People and Performance*, Vol. 9, No. 1, pp.20–49.
- Shalley, C.E., Zhou, J. and Oldham, G.R. (2004) 'The effects of personal and contextual characteristics on creativity: where should we go from here?', *Journal of Management*, Vol. 30, No. 6, pp.933–958.
- Stevenson, H.H. and Gumpert, D.E. (1985) 'The heart of entrepreneurship', *Harvard Business Review*, Vol. 63, No. 2, pp.85–94.
- Stoian, C. and Gilman, M. (2017) 'Corporate social responsibility that 'pays': a strategic approach to CSR for SMEs', *Journal of Small Business Management*, Vol. 55, No. 1, pp.5–31.
- Taormina, R.J. (1994) 'The organizational socialization inventory', *International Journal of Selection and Assessment*, Vol. 2, No. 3, pp.133–145.
- Taormina, R.J. (2004) 'Convergent validation of two measures of organizational socialization', *The International Journal of Human Resource Management*, Vol. 15, No. 1, pp.76–94.
- Taormina, R.J. (2009) 'Organizational socialization: the missing link between employee needs and organizational culture', *Journal of Managerial Psychology*, Vol. 24, No. 7, pp.650–676.
- Wales, W.J., Patel, P.C., Parida, V. and Kreiser, P.M. (2013) 'Nonlinear effects of entrepreneurial orientation on small firm performance: the moderating role of resource orchestration capabilities', *Strategic Entrepreneurship Journal*, Vol. 7, No. 2, pp.93–121.
- Weerawardena, J. and Mort, G.S. (2006) 'Investigating social entrepreneurship: a multidimensional model', *Journal of World Business*, Vol. 41, No. 1, pp.21–35.
- West, M.A. (1990) *The Social Psychology of Innovation in Groups*, Innovation and creativity at work: Psychological and organizational strategies, Wiley.
- Westhead, P. and Solesvik, M.Z. (2016) 'Entrepreneurship education and entrepreneurial intention: do female students benefit?', *International Small Business Journal*, Vol. 34, No. 8, pp.979–1003.
- Wu, C., McMullen, J.S., Neubert, M.J. and Yi, X. (2008) 'The influence of leader regulatory focus on employee creativity', *Journal of Business Venturing*, Vol. 23, No. 5, pp.587–602.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E. and Schaufeli, W.B. (2009) 'Reciprocal relationships between job resources, personal resources, and work engagement', *Journal of Vocational Behavior*, Vol. 74, No. 3, pp.235–244.
- Zahra, S.A., Neubaum, D.O. and Huse, M. (2000) 'Entrepreneurship in medium-size companies: exploring the effects of ownership and governance systems', *Journal of Management*, Vol. 26, No. 5, pp.947–976.
- Zhao, F. (2005) 'Exploring the synergy between entrepreneurship and innovation', *International Journal of Entrepreneurial Behavior & Research*, Vol. 11, No. 1, pp.25–41.

Bibliography

- Eagly, A.H. and Kite, M.E. (1987) 'Are stereotypes of nationalities applied to both women and men?', *Journal of Personality and Social Psychology*, Vol. 53, No. 3, p.451.
- Eddleston, K.A. and Powell, G.N. (2008) 'The role of gender identity in explaining sex differences in business owners' career satisfier preferences', *Journal of Business Venturing*, Vol. 23, No. 2, pp.244–256.
- Neessen, P.C., Caniëls, M.C., Vos, B. and De Jong, J.P. (2019) 'The intrapreneurial employee: toward an integrated model of intrapreneurship and research agenda', *International Entrepreneurship and Management Journal*, Vol. 15, pp.545–571.

- Scott, J.E. and Walczak, S. (2009) 'Cognitive engagement with a multimedia ERP training tool: assessing computer self-efficacy and technology acceptance', *Information and Management*, Vol. 46, No. 4, pp.221–232.
- Tian, Q. and Robertson, J.L. (2019) 'How and when does perceived CSR affect employees' engagement in voluntary pro-environmental behavior?', *Journal of Business Ethics*, Vol. 155, pp.399–412.
- Urban, B. and Wood, E. (2017) 'The innovating firm as corporate entrepreneurship', *European Journal of Innovation Management*, Vol. 20, No. 4, pp.534–556.