

Exploring the power of psychological empowerment in boosting workforce agility in SMEs

Exploration du potentiel de l'autonomisation psychologique pour stimuler l'agilité des employés dans les PME

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Abstract:

This study investigates the impact of psychological empowerment on workforce agility in small and medium-sized enterprises (SMEs). The study employs a quantitative analysis to measure levels of psychological empowerment and workforce agility, assessing the dimensions of psychological empowerment, including Meaning, Self-determination, Competences, and Impact, and examining their influence on workforce agility. The results reveal a significant positive relationship between the dimensions of competence and meaning in psychological empowerment and workforce agility. However, the dimensions of impact and self-determination do not exhibit a strong relationship with workforce agility. This research contributes to the existing literature by addressing the gap in knowledge regarding the impact of psychological empowerment on workforce agility in Moroccan SMEs. The findings have practical implications for managers and decision-makers in SMEs, suggesting that organizations should focus on improving their employees' skills and enhancing their sense of work meaning to foster resilience and adaptability. By fostering workforce agility through empowerment, organizations can create a more engaged and adaptable workforce, potentially leading to increased productivity and competitiveness.

Keywords: Psychological empowerment, organizational agility, workforce agility, small and medium-sized enterprises (SMEs), construction sector firms.

JEL Classification : O15, C3, M1, L74

Paper type: Empirical research

1. Introduction

In today's dynamic and competitive business environment, organizations are constantly seeking ways to enhance their agility to adapt to rapid changes and maintain a competitive edge (Trachsler & Jong, 2020; Dyer & Shafer, 2003; Cummings & Worley, 2014). To achieve organizational agility, it is not sufficient to solely have an agile strategy, it is also necessary to have an agile workforce (Zentar et al., 2020; Sherehiy & Karwowski, 2014). Previous research has identified several factors contributing to organizational agility, including strategic awareness, organizational reconfigurability, learning capability, flawless execution, and workforce agility (Breu et al., 2001; Doz & Kosonen, 2008; Dyer & Shafer, 2003). Workforce agility, defined as the ability of employees to quickly respond and adapt to changing circumstances, has emerged as a crucial factor for organizational success (Alavi & Wahab, 2013). As a result, researchers and practitioners have become increasingly interested in understanding the factors that influence workforce agility.

Workforce agility refers to employees' possession of cross-training and flexibility to swiftly adapt to changes and convert them into advantages for the company (Dyer & Ericksen, 2006; Dyer & Shafer, 2003; Sherehiy et al., 2007). However, limited research in this area hampers leaders' ability to invest in workforce agility without sufficient knowledge of the factors that contribute to its success and the resulting outcomes (Alavi & Wahab, 2013). Additionally, organizational structures and cultures that resist novel ideas often impede organizations' capacity to adapt rapidly (Varshney & Varshney, 2020; Spreitzer, 1995).

Psychological empowerment has garnered considerable scholarly attention in recent years. It is conceptualized as the subjective perception of individuals regarding their competence, autonomy, and ability to exert influence within the context of their work environment (Amor et al., 2021). This multifaceted construct serves as a pivotal determinant of employee motivation and job satisfaction. The attainment of psychological empowerment entails the implementation of various strategies, including the provision of opportunities for personal and professional growth, the delegation of job autonomy, and the inclusion of employees in decision-making processes (Lee et al., 2019; Zani, 2014).

Psychological empowerment refers to the sense of control, competence, and meaning that individuals experience in their work. It encompasses dimensions such as autonomy, self-efficacy, and a sense of purpose (Spreitzer, 1995). Numerous studies have highlighted the positive impact of psychological empowerment on various work-related outcomes, including job satisfaction, motivation, and performance (Hechanova et al., 2006).

However, despite the growing recognition of the importance of psychological empowerment, limited research has focused specifically on its relationship with workforce agility. Understanding how psychological empowerment influences workforce agility can provide valuable insights into how organizations can foster an agile workforce (Muduli & Pandya, 2018). By empowering employees psychologically, organizations may be able to cultivate a workforce that is proactive, resilient, and capable of quickly adapting to changing circumstances (Muduli, 2017).

In the context of Moroccan SMEs, where agility is crucial for survival and growth, it is particularly important to investigate the link between psychological empowerment and workforce agility. SMEs face unique challenges, including limited resources and a rapidly changing business landscape, which require employees to be agile in their decision-making and actions (Del Giudice et al., 2021). Thus, exploring the impact of psychological empowerment on workforce agility in this specific context can provide valuable insights and practical implications for organizations in the Moroccan SME sector.

Therefore, this study aims to examine the relationship between psychological empowerment and workforce agility in SMEs. Specifically, we seek to answer the research question: "To what

extent does psychological empowerment impact the agility of employees in SMEs?" By addressing this research question, we aim to contribute to the existing body of knowledge on psychological empowerment and workforce agility, while providing empirical evidence that can inform strategies for fostering an agile workforce in Moroccan SMEs.

To achieve this objective, this study employs a quantitative analysis to measure the levels of psychological empowerment and workforce agility. The findings of this study will not only contribute to academic research but also provide practical implications for managers and decision-makers in Moroccan SMEs seeking to enhance their workforce agility through psychological empowerment initiatives.

In the following sections, we will present a comprehensive theoretical framework, review relevant literature, outline the research methodology, present and discuss the findings, and conclude with recommendations for practice and future research directions. Through this study, we hope to shed light on the crucial role of psychological empowerment in fostering a workforce that is agile, adaptable, and well-equipped to navigate the challenges and opportunities of today's business environment.

2. Literature review and hypothesis development

Psychological empowerment goes beyond the mere delegation of control and influence to employees; it encompasses the creation of a comprehensive environment where individuals perceive themselves as valued and supported. This ambition is actualized through strategies including affording avenues for expansion and advancement, nurturing transparent communication, recognizing and rewarding employee contributions.

Likewise, workforce agility extends beyond rapid adaptation to dynamic scenarios; it entails nurturing a culture of pioneering thought and unceasing enhancement. This aspiration is realized through initiatives such as endorsing experimentation and embracing calculated risk, fostering collaborative synergy and the exchange of knowledge, and furnishing employees with the requisites for triumph.

From our vantage point, both psychological empowerment and workforce agility stand as indispensable pillars in the creation of a flourishing and triumphant organization. By promoting these principles, organizations can instill heightened engagement, motivation, and fortitude in their workforce, thereby equipping them to effectively navigate the complexities of the modern business environment.

2.1. Background

2.1.1. Psychological Empowerment

Psychological empowerment aims to increase an individual's control and authority over resources and decisions (Zimmerman, 1995). This enhances self-esteem, identity, and problem-solving abilities. By eliminating conditions of powerlessness, employees take greater control of their work and become more engaged in their tasks. Furthermore, by providing information on effectiveness to employees, their self-efficacy and intrinsic motivation are enhanced, while their sense of powerlessness decreases (Conger & Kanungo, 1988; Greco et al., 2006).

According to Conger and Kanungo (1988), empowerment is defined as a process aimed at enhancing feelings of self-efficacy among organizational members by identifying conditions that foster powerlessness and eliminating them through both formal organizational practices and informal techniques of providing efficacy information (Conger & Kanungo, 1988).

Regarding empowerment in organizations, two approaches are generally adopted: structural empowerment and psychological empowerment. Structural empowerment refers to the social arrangements and systems in place that facilitate employees' tasks, enabling them to access opportunities, support, information, and resources effectively. On the other hand, psychological

empowerment pertains to the subjective experiences and positive perceptions individuals derive directly from their work when their sense of meaning, competence, self-determination, and impact are fulfilled (Amor et al., 2021; Bowen & Lawler, 1995). In essence, structural empowerment focuses on providing employees with the necessary means to succeed, while psychological empowerment centers on employees' emotional well-being and their perception of their work and role within the organization (Cayaban et al., 2022).

As a multidimensional concept, psychological empowerment refers to individuals' cognitive ability to access and control resources, influence decision-making processes, and have confidence in their ability to act. According to Spreitzer (1995), psychological empowerment is a psychological state based on intrinsic work motivation, influenced by different psychological states identified by other researchers such as Hackman (1980) and Kahn (1990). These states can affect individuals' sense of control, meaning, and competence in their work, thereby contributing to their satisfaction and professional engagement.

The four psychological determinants of psychological empowerment that lead to engagement are meaning, competence, self-determination, and impact (Spreitzer, 1995; Stander & Rothmann, 2008).

Meaning refers to the perception an individual has of the purpose and value of their work about their personal values and identity, creating a sense of purpose and personal connection to work (Thomas & Velthouse, 1990; Mishra & Spreitzer, 1998). This can enhance employee engagement and satisfaction (Muduli, 2017). If employees do not find meaning in their work, they may be more inclined to leave their position or not fully invest in their work. By encouraging meaning at work, employers can foster a more satisfying and motivating work environment for their employees.

Impact refers to an individual's ability to influence strategic, administrative, and operational decisions, leading to a sense of progress toward a goal and the belief that their actions contribute to the organization's success (Mishra & Spreitzer, 1998; Quinn & Spreitzer, 1997).

Competence involves a sense of confidence in one's ability to achieve valued goals and perform work activities skillfully and successfully (Llorens et al., 2007; Mishra & Spreitzer, 1998; Bandura, 1977).

Self-determination refers to the sense of autonomy and control individuals have over their work. It refers to the perception of freedom an individual has in how they carry out their work activities, leading to greater motivation and job satisfaction (Mishra & Spreitzer, 1998).

Competence and self-determination are important as they reinforce employees' confidence and motivation (Ryan et al., 2008). Employees who feel competent and autonomous are more likely to feel valued and have higher self-esteem. Moreover, by giving employees the freedom to choose how they perform their work, employers can empower them and strengthen their intrinsic motivation.

Figure 1: The Four Dimensions of Psychological Empowerment by Spreitzer (1995)

<p>Meaning</p> <p>Feeling that your work or activities are personally valuable and aligned with your values.</p>	<p>Competences</p> <p>Having confidence in your knowledge, skills, and abilities to perform tasks effectively.</p>
<p>Self-determination</p> <p>Having a sense of autonomy and control over your work and personal life choices.</p>	<p>Impact</p> <p>Believing that your actions can make a meaningful difference and influence outcomes.</p>

Source: Spreitzer (1995)

These determinants are interconnected and mutually reinforce employees' psychological empowerment. It enables employees to see the positive effect of their work on the organization and can strengthen their sense of contribution and worth.

2.1.2. Workforce agility

Workforce agility refers to an organization's capacity to adapt rapidly and effectively to evolving business environments and customer demands. A comprehensive review of existing literature on workforce agility reveals multiple dimensions and determinants associated with this concept, as well as various outcomes and challenges. Doz and Kosonen (2010) identified several dimensions of workforce agility, including strategic agility, operational agility, human resource agility, and learning agility. These dimensions assess how well an organization can align its vision, processes, personnel, and knowledge with the changing demands of the market. Determinants of workforce agility encompass organizational culture, leadership, technology, and innovation, all of which influence an organization's readiness and willingness to embrace change and uncertainty (Sherehiy et al., 2007). Workforce agility yields a range of outcomes, such as enhanced performance, customer satisfaction, employee engagement, and competitive advantage. These outcomes underscore the advantages of being agile in a dynamic and intricate business landscape (Lee et al., 2019). However, workforce agility also presents challenges, including resistance to change, lack of skills, coordination difficulties, and ethical dilemmas. These challenges pose potential risks and obstacles to achieving and sustaining workforce agility (Bennett & McWhorter, 2021).

Workforce agility has emerged as a crucial construct for organizations striving to thrive in a constantly evolving business landscape. The ability of employees to swiftly adapt to shifting environmental conditions, encompassing customer requirements, technological advancements, organizational practices, and market fluctuations, has gained significant importance (Alavi et al., 2014; Breu et al., 2001; Sherehiy, 2008; Taylor & Haneberg, 2010). Empirical research indicates that companies equipped with a more agile workforce exhibit superior change management capabilities and achieve enhanced business outcomes (Sherehiy & Karwowski, 2014). Additionally, workforce diversity has been identified as a catalyst for agility, as it brings forth a diverse range of perspectives and problem-solving skills within teams (Dyer & Singh, 1998). Agile employees demonstrate a positive inclination toward continuous learning and personal development, possess strong problem-solving abilities, and exhibit proficiency in leveraging emerging technologies. Consequently, organizations must foster a culture that promotes agility and make strategic investments in the professional growth of their employees. The concept of workforce agility holds significant importance within the dynamic and rapidly evolving business environment, even though a universally accepted theoretical definition of this construct is yet to be established (Junior & Saltorato, 2021; Alavi et al., 2014; Breu et al., 2001; Sherehiy, 2008). Saeed et al. (2022) suggest that workforce agility can be perceived as a skill, behavior, or capability that is indispensable for employees operating within an ever-changing global economy. Some researchers define it as a specific ability, encompassing employees' adaptability to changes, problem-solving skills, and strategic responses to uncertainties, drawing upon their diverse business and technical knowledge (Al-Faouri et al., 2014).

According to Petermann and Zacher (2021), workforce agility consists of 10 different dimensions: accept changes, decision making, create transparency, collaboration, reflection, user centricity, iteration, testing, self-organization, and learning.

Dyer and Shafer (2003), found that agile employees can be characterized by several distinct traits, which include a proactive attitude, high adaptability, resilience, and the ability to generate innovative ideas. These individuals exhibit a strong motivation to continually learn and improve, possess proficient problem-solving and analytical skills, and demonstrate a willingness to take risks and act proactively in response to changes in their environment. The

authors have operationalized workforce agility by defining it in terms of three primary sub-dimensions (Saleem et al., 2021; Zhu et al., 2022): Proactive behavior, Adaptive behavior, and Resilient behavior. These sub-dimensions collectively contribute to the effectiveness of agile employees in crisis management.

Resilience refers to the ability of employees to adapt their working hours to meet personal and organizational needs, allowing for greater control over schedules through arrangements like flexible working hours, telecommuting, and part-time work (Franco and Landini, 2022). It benefits both employees and organizations by promoting work-life balance, job satisfaction, motivation, and productivity (Hill et al., 2008). Resilience also fosters innovation by enabling employees to work during their most productive and creative periods and facilitates cross-functional collaboration and knowledge sharing across different time zones (Gajendran & Oloruntoba, 2017). Furthermore, resilience encompasses maintaining a positive attitude and behavior in unfavorable circumstances such as changes, technological advancements, and stressors (Muduli & Pandya, 2018). Resilient employees exhibit a positive orientation towards change, possess a higher tolerance for uncertainty, and embrace diverse opinions and approaches (Al-Faouri et al., 2014). They demonstrate effective stress management skills and the ability to recover from challenging situations (Bennett et al., 2020).

Adaptability, or task agility, refers to employees' ability to switch tasks among colleagues in response to organizational needs, involving job rotation, enlargement, enrichment, cross-training, and multi-skilling (Franco and Landini, 2022). This dimension enhances employee learning, development, and career opportunities by exposing them to diverse tasks and roles within the organization (Campion et al., 1994). It also fosters innovation by promoting diversity, creativity, problem-solving, and teamwork skills (Sherehiy et al., 2007). Additionally, adaptability relates to an employee's capacity to navigate ambiguity, uncertainty, and change, allowing them to adapt to evolving environments. Adaptive employees seamlessly transition between roles, manage multiple tasks, and play a vital role in organizations facing changes or uncertain circumstances (Raut & Das, 2021).

Proactivity is a crucial aspect of personal development, involving taking initiative and responsibility for one's actions and goals. Proactive individuals are self-motivated, self-directed, and seek opportunities for learning and improvement. They anticipate and prepare for future situations rather than being caught off guard. Proactivity is essential for success as it allows us to create positive change and achieve desired outcomes. In the context of employees, proactivity refers to a proactive mindset where individuals actively seek opportunities to contribute to the organization's success. This includes problem-solving, continuous learning, and taking calculated risks to benefit the organization. Proactivity empowers employees with self-direction and autonomy, particularly valuable in managing crisis situations effectively (Giesecke & McNeil, 2004).

2.2. Hypotheses development

Psychological empowerment and workforce agility are two concepts that are closely connected. The former pertains to the process of facilitating a sense of control and influence in employees concerning their work, while the latter encompasses an organization's employees' capacity to swiftly adapt to dynamic conditions and effectively address novel challenges.

Empirical investigations suggest that psychological empowerment holds the potential to enhance workforce agility by cultivating intrinsic motivation and self-efficacy among employees (Muduli & Pandya, 2018). Empowered employees are predisposed to exhibit proactive behaviors, such as adaptability, resilience, and tenacity (Muduli, 2017), thereby engendering a more agile workforce capable of adeptly responding to fluctuations in the business landscape.

A theoretical framework, as postulated by Spreitzer, elucidates the interplay between these two constructs by outlining four pivotal constituents of psychological empowerment: meaningfulness, self-determination, competence, and impact (Spreitzer, 1995). These constituents serve as catalysts for workforce agility by nurturing feelings of control and influence within employees. Notably, when employees perceive their work as meaningful and impactful, their commitment and engagement intensify, culminating in heightened swiftness and adaptability (Muduli & Pandya, 2018; Paul et al., 2020).

Psychological empowerment refers to the presence of motivation and autonomy among employees, which are associated with proactive, adaptive, and resilient behaviors that are vital for effectively addressing the evolving demands of customers and the business.

The concept of empowerment, as proposed by Thomas and Velthouse (1990), suggests that individuals who feel empowered are more likely to engage in proactive behavior, including flexibility, resilience, and persistence. Empowered employees tend to exhibit increased adaptability due to the enhanced flexibility that comes with empowerment (Scott & Bruce, 1994). This suggests that psychological empowerment plays a significant role in fostering workforce agility.

Moreover, studies have highlighted the importance of empowerment and autonomy in decision-making for achieving true workforce agility. Goldman and Nagel (1993), Kidd (1994), and Van Oyen, et al. (2001) have emphasized the role of empowerment and autonomy in decision-making as crucial factors in creating an agile workforce. The empowerment of employees and the practice of power-sharing have been identified by Hopp and Van Oyen (2003) as offering the greatest potential for supporting the architecture of workforce agility. These practices can enhance efficiencies in training, task switching, multitasking, and collaboration, all of which are essential components of an agile workforce.

Therefore, it is hypothesized that psychological empowerment, characterized by motivation, autonomy, and power-sharing practices, will positively relate to workforce agility. Empowered employees are expected to exhibit greater adaptability, flexibility, and resilience, enabling them to effectively respond to changing demands and contribute to the overall agility of the workforce.

In essence, psychological empowerment and workforce agility are intricately linked concepts. Organizations can bolster workforce agility through the cultivation of psychological empowerment in their employees, with an emphasis on fostering meaningfulness, self-determination, competence, and impact.

Based on this foundation, this study addresses the following hypothesis (H):

H1: Psychological empowerment is positively associated with workforce agility in SMEs.

2.2.1. Meaning and Workforce Agility

Psychological empowerment encompasses factors such as meaningfulness of tasks, motivation, and engagement, which are associated with adaptive behaviors and agility in the workforce.

Prior research has provided insights into the potential impact of meaningful work on employee motivation, engagement, and adaptability. High levels of task meaningfulness have been found to result in greater engagement, increased participation, and preparedness for speed and flexibility (Sjoberg et al., 1983). Meaningful tasks provide employees with a sense of purpose and direction, enhancing their motivation and willingness to adapt to change and respond quickly to shifting demands and priorities, thereby improving workforce agility (Muduli, 2017). For instance, Wrzesniewski and Dutton (2001) found that employees who perceived their work as meaningful and useful reported higher motivation, job satisfaction, and demonstrated greater adaptability and resilience in the face of change. Similarly, Spreitzer (1995) demonstrated that employees who experienced a sense of personal meaning in their work were more likely to exhibit proactive and innovative behaviors and be adaptable.

Furthermore, studies have explored the role of meaningful work in enhancing organizational agility. Ryan and Deci (2000) revealed that organizations fostering a sense of purpose and meaning in employees experienced higher levels of motivation, engagement, innovation, and adaptability. Based on the preceding discussion, we advance the following hypothesis:

H1.1: Meaningfulness of work positively influences workforce agility.

2.2.2. Competences and Workforce Agility

Competence encompasses mastery of diverse skills, including proficiency in technology tools and software, adeptness in management and business process integration, and the ability to adapt to ever-changing business dynamics. (Breu et al., 2001). The level of workforce competency has been recognized to impact their readiness to be agile. Agile workforces are known to proactively innovate their skills base just ahead of the need, capitalizing on their skills (Hamel & Prahalad, 1990; Yusuf et al., 1999).

Competency assessment, training, and development are managerial actions that enhance the competence level of the workforce, leading to a feeling of being competent. Employees can perform a flexible range of tasks only if they possess the necessary skill sets. Cross-training and job rotation have been identified as practices that help workers adapt better to new jobs.

Competence can be defined as an individual's perceived ability to effectively perform tasks, which can enhance self-confidence and personal effectiveness. This increased confidence and effectiveness can foster a greater willingness among employees to take on new challenges, develop new skills, and ultimately improve workforce agility.

Previous research has explored the relationship between employee competence and organizational agility, shedding light on the potential impact of employees' skills and knowledge on organizational performance and adaptability. Studies have found that employees who perceive themselves as competent in their work are more likely to exhibit proactive behaviors, be innovative, and demonstrate adaptability in response to changes in the work environment (Parker & Bindl, 2016). Additionally, employee competence has been found to have a positive relationship with organizational agility, with organizations that invest in employee training and development experiencing greater agility and flexibility.

Other studies have also examined the role of employee competence in enhancing organizational performance and resilience, suggesting that a focus on developing employee competence can improve organizational agility by fostering a culture of continuous learning and development, innovation, and adaptability (Chakravarty et al., 2013; Ravichandran, 2018). Therefore, it is crucial to determine the most effective methods of developing and promoting employee competence in the workplace to enhance their work agility. Based on the preceding discussion, we advance the following hypothesis:

H1.2: Competence positively influences workforce agility.

2.2.3. Self-Determination and Workforce Agility

Self-determination refers to an individual's sense of autonomy and control over their work, which enhances motivation and engagement. This, in turn, leads to a greater willingness to take initiatives and adapt to changing circumstances, improving workforce agility.

Previous research has provided insights into the relationship between self-determination and workforce agility. Studies have shown that employees who experience a sense of autonomy and control over their work are more likely to exhibit proactive behaviors, be innovative and adaptable, and have higher levels of motivation and job satisfaction (Gagné & Deci, 2005). Additionally, organizations that offer employees greater autonomy and decision-making authority tend to be more agile and flexible (Moller et al., 2018).

The role of employee self-determination in enhancing performance and organizational resilience has also been explored. Organizations that foster a culture of employee empowerment are more likely to experience high levels of innovation, adaptability, and performance (Singh & Sarkar, 2012).

Overall, previous research suggests that self-determination plays a significant role in enhancing workforce agility by promoting innovation, adaptability, and a culture of employee empowerment. However, further research is needed to explore the underlying mechanisms of this relationship and determine the most effective ways to promote self-determination in the workplace.

Self-determination is represented by behaviors that are initiated and regulated through choices as an expression of oneself, rather than behaviors that are forced by the environment (Bell & Staw, 1989). It presupposes intelligence, which involves the collective environmental responsiveness of a workforce, including the ability to read and interpret external changes such as customer needs, market conditions, emerging business opportunities, and competitor strategies. The perception of self-determination by employees is connected to intrinsic motivation (Weitz et al., 1986). Intrinsically motivated individuals are more likely to adapt their behavior from customer to customer, learning and effectively responding to customer needs. This intrinsic reward orientation promotes adaptive selling behavior.

Condry and Chambers (1978) further suggest that intrinsically motivated individuals possess a natural inclination to engage in adaptive behaviors. Their motivation to learn and vary their behavior stems from an intrinsic orientation, which drives them to adapt effectively and meet customer needs. Based on the preceding discussion, we advance the following hypothesis:

H1.3: Self-determination positively influences workforce agility.

2.2.4. Impact and Workforce Agility

Impact refers to the perceived influence an employee has on strategic, administrative, or operating outcomes in their task environment (Ashforth, 1989; Thomas & Velthouse, 1990). It encompasses the belief that one's behavior can produce intended effects and influence organizational decisions or policy. This notion of impact is similar to the psychological state of knowledge of results.

According to Muduli and Pandya (2018), when individuals feel that they can influence their work environment, they are more likely to collaborate effectively across different boundaries within the organization. This increased collaboration may further enhance workforce agility. Additionally, perceiving one's work as meaningful and impactful can enhance motivation and engagement, leading to a greater willingness to take on new challenges and respond quickly to changing circumstances.

Previous research supports the hypothesized relationship between impact and workforce agility. Wrzesniewski and Dutton (2001) found that employees who perceived their work as positively impacting others or society reported higher motivation, job satisfaction, adaptability, and resilience in the face of change. Muduli and Pandya (2018) also found that organizations fostering a culture of employee impact and contribution were more likely to experience higher levels of workforce agility. Based on the preceding discussion, we advance the following hypothesis:

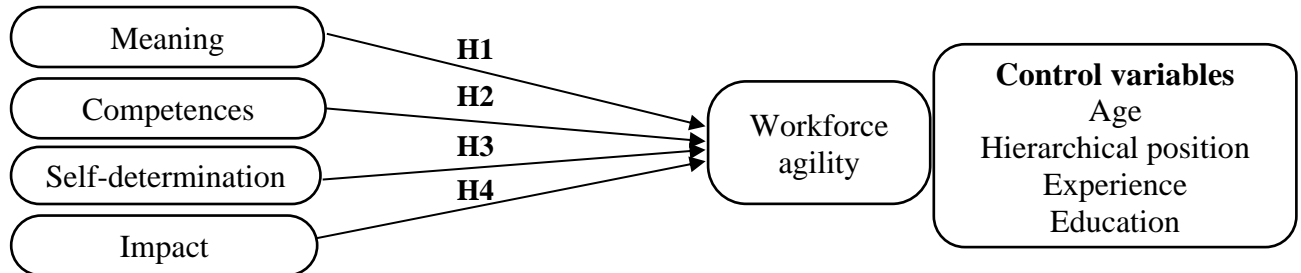
H1.4: Impact positively influences workforce agility.

3. Research method

3.1. The Conceptual Model

By using the theoretical links assumed between the discussed concepts, we develop a conceptual model that considers psychological empowerment as an independent variable and workforce agility as a dependent variable in this study.

Figure 2: Conceptual model of the study



The econometric model we used is based on multiple regression analysis techniques. We employ this analysis to estimate the effects of various dimensions of psychological empowerment (independent variables) on workforce agility (dependent variable). This chosen model is the most appropriate given the multidimensional data of the study. To do so, we use the ordinary least squares (OLS) method to estimate the following equation for our model:

$$WA_i = \beta_0 + \beta_1 * \text{Meaning} + \beta_2 * \text{Competence} + \beta_3 * \text{Self-determination} + \beta_4 * \text{Impact} + \epsilon.$$

Where:

WA_i: Workforce Agility is the dependent variable, measured by the dimensions of proactivity, resilience, and adaptability.

X_n: Meaning, Competence, Self-determination, and Impact are the dimensions of the independent variable psychological empowerment.

β_n: β₀, β₁, β₂, β₃, and β₄ are the regression coefficients to be estimated.

ε_i: the random error.

This equation shows how the different dimensions of psychological empowerment can influence workforce agility. The regression coefficients indicate the magnitude and direction of this influence.

3.2. Method

The objective of this study is to examine the relationship between the four dimensions of psychological empowerment stated by Spreitzer (1995) and workforce agility in the construction sector. Specifically, it aims to provide insights into the following question: "To what extent does employees' psychological empowerment impact the agility of employees in small and medium-sized enterprises (SMEs)?"

To address this research question, a confirmatory quantitative methodology was adopted, following a hypothetico-deductive reasoning approach. This approach allows testing pre-established hypotheses regarding the relationship between the variables under study.

To collect data for our study, we conducted a survey among employees working in construction companies located in Marrakech. We used a questionnaire that was distributed to a total of 320 participants. We were able to retrieve 132 completed questionnaires, representing a response rate of 41%. We ensured the anonymity and confidentiality of the participants' responses. The collected data were analyzed using SPSS 12 software.

The selection of participants for this study, which includes employees from various operational categories, was driven by several key considerations.

Firstly, employees in operational roles are often the ones who are most directly involved in the day-to-day activities of an organization. They are the ones who interact with the systems, processes, and structures on a regular basis. As such, they are likely to have a deep understanding of the workings of the organization and are well-placed to provide insights into aspects such as agility and empowerment.

Secondly, including employees from various operational categories allows for a more comprehensive and diverse range of perspectives to be captured. This diversity is crucial in ensuring that the findings of the study are robust and broadly applicable, rather than being skewed or limited by the views of a narrow segment of the workforce.

Lastly, by focusing on these employees, the study aligns with its objective of understanding workforce agility in SMEs. Operational employees represent a significant portion of the workforce in these organizations and are key to their agility. Their empowerment is therefore of great interest and relevance.

In sum, the choice of participants from different operational categories not only enriches the data collected but also enhances the relevance and applicability of the study's findings.

Multiple regression analysis was conducted to test the underlying hypotheses that the dimensions of psychological empowerment are significantly associated with workforce agility in the construction sector.

Initial analysis revealed that 58.2% were of the male gender. Concerning their age distribution, 7.5% of the participants were 25 years old or younger, 53.7% fell within the age range of 25 to 35 years, 33.6% were aged between 35 and 50 years, and 4.5% were 50 years and older. A majority of the respondents possessed a university education (98.5%), while among the remaining individuals, 1.4% (2 cases) held a high school education, one case indicated completion of a college education, and another had achieved graduate school qualifications. Regarding their years of work experience, 27.6% of the subjects reported five years or less, 30.6% had accumulated between 5 and 10 years, 32.6% had garnered 11 to 20 years, and 8.4% had acquired 20 years or more.

3.3. Measurement and analysis

Data collection was done using a face-to-face administered questionnaire, consisting of two parts. The first part of the questionnaire focused on measuring psychological empowerment, using the measurement scale proposed by Spreitzer (1995). This scale consists of four dimensions, namely Meaning (4 items), Competence (3 items), Self-determination (3 items), and Impact (3 items).

Example items are: "The work that I do is very important to me" (meaning); "I am self-assured about my capabilities to perform my work activities" (competence); "I can decide on my own how to go about doing my work" (self-determination); "My impact on what happens in my department is large" (impact).

The second part of the questionnaire focused on measuring workforce agility. We used the scale developed by Cai et al. (2018) as a measure of workforce agility. This scale is the latest version of the most popular scale in workforce agility research, originally developed by Sherehiy (2008). The scale uses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) and consists of 15 items divided into three dimensions: Proactivity (5 items), Adaptability (6 items), and Resilience (4 items). Examples of the items are "I look for the opportunities to make improvements at work" (Proactivity); "In my work, I can adjust to new work procedures" (Adaptability) and "I am able to perform my job efficiently in difficult or stressful situations" (Resilience).

The internal validity of the created dimensions was verified using Cronbach's alpha coefficient. Two items from the Workforce agility scale (i.e., “I drop everything and take an alternate course of action to deal with an urgent problem” and “ I let time take care of things that I have to do”) were excluded from the analyses because the factor loading was non-significant across the two samples.

The control variables in this study include participants' age, professional experience measured in years spent within the company, education level measured in years of higher education, and their position within the company measured by their role.

4. Results and discussion

4.1. Reliability and validity analysis

Principal component analysis (PCA) with Varimax rotation on the measurement items was conducted, resulting in the identification of 4 factorial axes for the dependent variable of the study, which is workforce agility: Workforce agility_Proactivity, Workforce agility_Resilience, Workforce agility_Adaptability, and Workforce agility_Emergency, illustrating the conceptualization of workforce agility according to Dyer and Shafer (2003) (Table 1).

The reliability of the measure of workforce agility was assessed using Cronbach’s alpha, a common indicator of internal consistency (Peterson, 1994). In this case, the fourth identified factor (Workforce agility_Emergency) showed low internal consistency with the two items used to measure it ($\alpha = 0.516$), which is lower than the recommended threshold of 0.7. This suggests that the two items used to measure (Workforce Agility_Emergency) are not consistent and reliable in measuring the same characteristic and that participants' responses may be influenced by random factors rather than the measured characteristic. To ensure the validity and reliability of the study results, it is recommended to remove this factor from the analysis. This decision avoids erroneous or biased conclusions and ensures that the presented results are robust and representative of the true characteristics of the studied population. Overall, the removal of this factor contributes to enhancing the quality and credibility of the study.

The study's independent variable, "Psychological Empowerment," was examined through PCA, revealing four factors: PE_Competence, PE_Self-determination, PE_Meaning, and PE_Impact. These factors align with Spreitzer's (1995) conceptualization of psychological empowerment.

Table 1: Internal Consistency of Variable Scales

Variables (Factor)	Variable type	Mean (SD)	Cronbach’s Alpha
Workforce Agility			
Proactivity (AGILITY_PRO)	Index (5items)	21,68 (SD=2,67)	0,805
Adaptability (AGILITY_ADAPT)	Index (4items)	16,24 (SD=2,49)	0,725
Resilience (AGILITY_RESIL)	Index (4items)	16,24 (SD=2,49)	0,769
Emergency (AGILITY_EMER)	Index (2items)		0,516
Psychological empowerment			
Competence (PE_COMPT)	Index (3items)	13,96 (SD=1,42)	0,859
Self-determination (PE_SELFDET)	Index (3items)	11,80 (SD=2,71)	0,892
Impact (PE_IMPACT)	Index (3items)	11,69 (SD=2,61)	0,839
Meaning (PE_MEANING)	Index (4items)	15,99 (SD=3,19)	0,819

Source: Authors

After analyzing the independent variables used in the regression models, we examined the correlation matrix to assess the linear relationships between the variables. The results indicate

that the strongest correlation is observed between the "Impact" and "Self-determination" variables, with a correlation coefficient of 0.578. In contrast, the weakest correlation is found between the "Competence" variable and the "Participants' Age" variable, with a correlation coefficient of 0.003. Additionally, we calculated tolerance statistics for all independent variables used in the regression models. These statistics verify if an independent variable has a strong multicollinearity with the other predictors. All tolerance statistic values are above 0.2, and the VIF values are below 10 (ranging from 1.175 to 3.053), ruling out any issues of multicollinearity (Field, 2009). This analysis of correlations and multicollinearity ensures the independence of the independent variables in the regression models used in our study.

Table 2: Correlation between the different study variables.

Correlations	1	2	3	4	5	6
1-AGILITY_PRO	1					
2-AGILITY_ADAPT	,567**	1				
3-AGILITY_RESIL	,616**	,554**	1			
4-PE_COMPT	,447**	0,161	,326**	1		
5-PE_SELF-DETERMINATION	,241**	0,130	,391**	,284**	1	
6-PE_IMPACT	,328**	,207*	,355**	,267**	,578**	1
7-PE_MEANING	,511**	,353**	,553**	,340**	,517**	,506**

**Correlation is significant at the 0.05 level (two-tailed).

**Correlation is significant at the 0.01 level (two-tailed).

Source: Authors

4.2. Regression results

The results of the conducted regression analysis are summarized in Table 3. According to the obtained results, Model 1 is statistically significant at a 1% confidence level and explains 31.8% of the variance in the dependent variable studied, which is workforce agility in terms of proactivity. The initial model results highlight that two out of the nine independent variables are significantly related to the dependent variable. Firstly, the variable "Psychological Empowerment_Meaning" is positively and significantly correlated with the dependent variable "Workforce agility_Proactivity" at a 1% confidence level. Secondly, the variable "Psychological Empowerment_Competence" is also positively and significantly associated with the dependent variable "Workforce agility_Proactivity" at a 1% confidence level.

These results suggest that psychological empowerment, particularly the dimensions of meaning and competence, plays a significant role in promoting workforce agility in terms of proactivity. Comparing the results of Models 2 and 3, it appears that Model 2 is more significant and explains a larger portion of the variance in the dependent variable "Workforce agility_Resilience." Indeed, Model 2 explains 31.3% of the variance, while Model 3 only explains 10.7%, which is relatively low.

In Model 2, when analyzing the independent variables, it is evident that among the nine variables, only two of them exhibit significance. Specifically, the variable "Psychological Empowerment_Meaning" demonstrates a significant positive relationship, at a 1% threshold, with the dependent variable "Workforce agility_Resilience." This finding indicates that ascribing meaning to one's work and having a sense of involvement in the organization play a crucial role in fostering workforce agility.

Secondly, the variable "Psychological Empowerment_Competence" exhibits a positive and significant relationship at a 5% threshold with the dependent variable "Workforce agility_Resilience."

As for Model 3, only two variables are considered, but only the variable "Psychological Empowerment_Meaning" is significant. This variable demonstrates a positive and significant relationship at a 1% threshold with the dependent variable "Workforce agility_Adaptability." This implies that attributing meaning to one's work and feeling involved in the organization can assist employees in adapting more easily to changes.

Table 3: Results of regression analyses for various models.

Variables	AGILITY_PRO		AGILITY_RESIL		AGILITY_ADAPT	
	β (p-value)	t-value	β (p-value)	t-value	β (p-value)	t-value
Constant	7,892 (0,008)	2,713	1,757 (0,563)	0,581	11,644 (0,000)	3,715
GENDER	-0,59 (0,462)	-7,38	0,110 (0,172)	1,374	-0,099 (0,283)	-1,078
AGE	0,164 (0,185)	1,332	0,041 (0,741)	0,331	0,083 (0,549)	0,601
EXPERIENCE	-0,138 (0,277)	-1,092	0,067 (0,605)	0,518	0,069 (0,633)	0,479
EDUCATION	0,020 (0,818)	0,23	0,044 (0,605)	0,502	-0,110 (0,278)	-1,090
POSITION	-0,014 (0,889)	-0,140	0,044 (0,617)	0,304	0,081 (0,474)	0,718
PE_MEANING	0,425 (0,000)***	4,553	0,403 (0,000)***	4,315	0,385 (0,001)***	3,570
PE_COMP	0,327 (0,000)***	3,958	0,163 (0,050)**	1,978	0,024 (0,799)	0,255
PE_SELFDET	-0,142 (0,146)	-1,463	0,127 (0,194)	1,306	-0,114 (0,314)	-1,01
PE_IMPACT	0,084 (0,417)	-0,814	-0,010 (0,920)	-0,101	0,088 (0,452)	0,738
Adjusted R Square	0,318		0,313		0,107	
F (P-value)	7,515 (0,000)		7,419 (0,000)		2,658 (0,008)	
N	127 ¹		128 ¹		126 ¹	

** p-value < 5%; *** p-value < 1%;

1: The software proceeded to eliminate the incomplete cases

Source: Authors

5. Discussion

The analysis of multiple regression shows that psychological empowerment can have a significant impact on workforce agility. Specifically, the variables of psychological empowerment (meaning and competence) have a significant positive relationship with workforce agility in both models. This suggests that when employees feel empowered to make decisions and have the necessary confidence to perform complex tasks, they are more likely to be proactive and resilient in their work.

However, the results of Model 3 are less convincing as there is only one significant variable, indicating that psychological empowerment does not have as much impact on Workforce agility_Adaptability as the other two dimensions of agility. It should be noted that Model 3 explains a relatively low variance of 10.7% of the dependent variable, suggesting that other variables may have a more significant impact on Workforce agility_Adaptability.

Our findings support the implicit conceptualization in the literature and suggest that psychological empowerment should be considered an important aspect of an organization's effort to foster workforce agility.

Consistent with previous studies, meaning is strongly related to workforce agility (Sjoberg et al., 1983). A meaningful task motivates employees to be more agile. As individuals who find their work meaningful are intrinsically motivated and satisfied, we can conclude that the more intrinsically motivated and satisfied the employee, the more conducive the climate will be to developing a more agile workforce (Muduli, 2017). Furthermore, the results can encourage leaders to optimize meaning to improve attitude and agile behavior. Leaders should also explore various internal and external sources to promote a sense of meaningful work among employees (Grant & Parker, 2009).

Consistent with prior research (Hamel & Prahalad, 1990; Yusuf et al., 1999), it is found that competence is strongly related to workforce agility. The study's results confirm that employee skills play an important role in making workers truly agile. In other words, employees' high sense of competence can intrinsically motivate them, thus encouraging them to contribute proactively and flexibly to the organization. The findings support the organic perspective that

human beings are intrinsically motivated to develop their interests and skills and achieve their full potential.

We are surprised to find that the impact and self-determination dimensions are less related to workforce agility. This is particularly surprising given that the impact and self-determination dimension is considered key dimensions of agility in much of the literature on this concept (Moller et al., 2006; Muduli, 2017; Wolfe & Robertshaw, 1982).

This observation raises important questions about understanding the notion of agility and how different dimensions of empowerment are related to this notion. While the academic literature often considers impact and self-determination as key dimensions of agility, this study highlights that these dimensions are not as strongly correlated with agility as other dimensions, such as meaning or competence.

These results can be explained by several factors. First, it is possible that the importance of impact and self-determination for agility is overestimated in the literature, and that other dimensions, such as meaning, are actually more important. Additionally, it is possible that the dimensions of impact and self-determination are more difficult to measure or reliably evaluate than other dimensions, which could explain their weak correlation with agility in this study. Thus, it is possible that impact and self-determination in family businesses are less important. These results also underline the importance of considering the different dimensions of empowerment in a nuanced way and not focusing solely on certain dimensions at the expense of others. It is possible that the different dimensions of empowerment interact in complex ways to influence workforce agility, and a deep understanding of these interactions is necessary to develop effective strategies for promoting agility.

Ultimately, these results emphasize the need for further research on the relationship between empowerment and workforce agility, by thoroughly examining the different dimensions of empowerment and their interaction. Managers and decision-makers can use these results to develop more effective strategies to foster workforce agility, focusing on the dimensions of empowerment that are most important for their specific organization.

Overall, the concept of workforce agility has assumed critical importance for organizational success and has gained significant attention in recent years. Companies that possess agile employees enjoy competitive advantages as they are better equipped to navigate crisis situations and swiftly adapt to rapid changes in the economic and business environment. However, it is essential to acknowledge that cultivating and sustaining a highly agile workforce can present challenges for organizations.

Workforce agility is influenced by various factors, including employee motivation, skills, management practices, and organizational culture. To enhance workforce agility, organizations should focus on fostering a culture of continuous learning and innovation, promoting collaboration and communication among employees, and implementing training and development programs to enhance their skills.

However, the process of developing an agile employee is not instantaneous. It requires investments in time and resources to identify the necessary skills and facilitate their development. Additionally, creating a supportive work environment that encourages agility is crucial. Moreover, once the required skills are acquired, ongoing efforts are needed to further develop and reinforce them to ensure sustained agility.

Furthermore, in order to fully harness the advantages of agility, it is essential to understand the mechanisms that connect workforce agility with organizational performance. Ongoing research should continue to explore the relationships between workforce agility, organizational performance, and competitiveness. By doing so, businesses can gain insights that will help them enhance their agility and overall performance.

6. Conclusion

This study examined the impact of psychological empowerment on workforce agility in SMEs in the construction sector. The results have shown that psychological empowerment has a significant influence on workforce agility. Specifically, the dimensions of psychological empowerment, competence, and meaning, have shown a significant positive relationship with workforce agility in terms of resilience, proactivity, and adaptability. On the other hand, the impact and self-determination dimension did not show a strong relationship with workforce agility. Regarding control variables, age, experience, education, and position did not show a significant relationship with workforce agility.

In conclusion, this study confirms the importance of psychological empowerment in improving workforce agility in the workplace. The results highlight the importance of enhancing employees' skills and sense of work meaning to improve their resilience and adaptability. Therefore, companies should consider psychological empowerment as an effective tool for enhancing workforce agility and, consequently, overall company performance. The results of this study can help managers and decision-makers better understand the impact of psychological empowerment on workforce agility and formulate strategies to enhance employees' psychological empowerment. Lastly, this study could also pave the way for future research on the psychological factors influencing workforce agility in organizations.

While this study provides interesting insights into the impact of psychological empowerment on workforce agility in the context of SMEs in the construction sector, it also has certain limitations that are important to acknowledge.

Firstly, the studied sample was relatively small, with only 132 participants, which may limit the generalizability of the results to other contexts or populations. Additionally, the fact that the study was conducted in the construction sector may also limit the scope of the results, as the characteristics of this sector may differ significantly from those of other sectors.

Furthermore, the use of a questionnaire to collect data may also have certain limitations, particularly in terms of response subjectivity or the quality of measuring the studied variables. Moreover, although the study considered control variables such as age, experience, education, and participants' positions, other factors such as stress levels or working conditions could also influence the results.

Finally, while the study identified a significant relationship between psychological empowerment and workforce agility, other factors may also influence this relationship. Therefore, it would be interesting to conduct further studies to delve into these results and better understand the mechanisms at play.

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