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RESEARCH ARTICLE

Rethinking the Building Blocks of Employee Creativity: A Meta-Synthesis of Qualitative Research

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Abstract

Employee creativity refers to the generation of novel and useful ideas by either an individual or a group of individuals who are actively engaged in collaborative endeavors. Organizations can take advantage of new opportunities, maintain their competitive advantage, and adapt to dynamic situations with the help of novel ideas and decisions. Additionally, innovation is closely related to employee creativity, which has a significant impact on market expansion and profitability. Extensive research has been conducted on employee creativity, with a substantial number of studies using a quantitative methodology. The main goal of this study is to create a comprehensive framework that encompasses the factors that impact employee creativity at different levels, based on qualitative findings. An assessment was conducted on 32 qualitative studies through thematic synthesis using the meta-synthesis approach, a qualitative research method that systematically integrates and analyzes the findings of multiple qualitative studies. Through an iterative coding process, related categories and themes across studies were identified and synthesized to generate a detailed understanding of the factors that influence employee creativity. According to the findings, three primary themes, individual-level factors, group-level factors, and organizational-level factors, were identified. This study provides an alternative perspective on the multifaceted nature of employee creativity, providing insights for researchers and practitioners to promote innovation and enhance organizational success.

Keywords

Employee creativity, Meta-synthesis, Qualitative research, Innovation

Introduction

The significance of creativity in maintaining the innovation and competitiveness of organizations is widely acknowledged, particularly considering the fast-paced global economy that demands quicker creative output within narrow time limits (Epstein et al., 2013; Cirella, 2021). The different facets of creativity have been the subject of discussions within the academic and research communities for a long time (Kakko & Inkinen, 2009: 537). Creativity is essential for organizations to survive in today's competitive market since it serves as the foundation for new product development and market expansion (Houghton & DiLiello, 2010).

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Employee creativity is *"the generation of original and practical ideas by a person or by a team of employees working together"* (Amabile & Pillemer, 2012: 4). A variety of individual, social, and environmental factors may affect individual creativity due to its complex and diverse nature (Politis, 2005). The creativity of employees is a crucial factor in enhancing innovation within organizations. According to Ullah et al. (2022), the creative abilities of employees are the catalysts for innovation and the determinants of innovation performance. Employee creativity has the potential to increase work engagement (Zhang & Bartol, 2010) and self-efficacy (Liu et al., 2016). Apart from enhancing innovative work behaviors and employee commitment (Chang et al., 2014), a positive correlation between employee creativity and organizational citizenship behavior exists (Deng & Guan, 2017). Employee creativity is considered a strategic element in achieving organizational success. Shalley and Gilson (2004) suggested that contextual factors could increase creativity by stimulating employees' intrinsic motivation, which leads to cognitive flexibility, risk-taking, and persistence in the face of obstacles. Additionally, organizational culture, climate, resources, structure, and processes are factors that determine employee creativity (Andriopoulos, 2001).

Employee creativity was assessed using qualitative and quantitative research methods in the fields of business and management. To advance knowledge and arrive at comprehensive findings, researchers preferred *"meta"* approaches, which seek to go beyond individual studies and offer a more holistic view. For instance, meta-analytic studies on employee creativity have taken personality traits (Zare & Flinchbaugh, 2019), motivational variables (De Jesus et al., 2013), and innovation (Lee et al., 2020) into consideration. This led to the widespread usage of a meta-analytical approach which relied on quantitative studies that showed the favorability of this *"meta"* strategy toward employee creativity. Kruyen and van Genugten (2017) claimed that almost all studies on creativity used a deductive, quantitative approach, with few exceptions. According to them, the predominance of deductive research raised concerns about the limited practicality of study findings as well as a potential mismatch between academics' and practitioners' understanding of work-related creativity. The process of meta-synthesis involves a combination and incorporation of findings from multiple qualitative research studies on a particular topic (Walsh & Downe, 2005). Given its emphasis on discovery, qualitative research design offers a deeper comprehension of the elements influencing a certain phenomenon which allows for a comprehensive investigation of the factors that contribute to employee creativity by incorporating studies from diverse disciplinary perspectives and methodological approaches. Therefore, this study focused on qualitative studies of employee creativity to synthesize existing knowledge and help scholars and practitioners gain a deeper understanding of the multifaceted nature of employee creativity. These findings can help identify the common themes, factors, and conditions that emerge across different qualitative studies. By gaining an understanding of the factors that determine employee creativity, organizations can then use this knowledge to develop strategies, optimize the work environment, and improve leadership practices to foster employee innovation and creativity.

Theoretical Background

Definition of Employee Creativity

There is widespread recognition that employee creativity entails the generation of new and unique ideas. According to Oldham and Cummings (1996:608), *"a product, idea, or process is unique if it results from the recombination of materials that exist or the introduction of entirely new materials".* Employee creativity is described as the development of novel and useful ideas by an individual or via the joint efforts of a group (Amabile & Pillemer, 2012: 4). Kruyen and van Genugten's (2017: 826) approach to employee creativity focused on the capacity to produce novel and practical ideas that improved work-related processes. Kakko and Inkinen (2009) took the creativity debate further and put forward the idea of *"homo creativus"* in the context of organizational psychology. The authors stated that homo creativus *"connects ideas; sees similarities and differences; has flexibility; has aesthetic taste; is unorthodox; is motivated; is inquisitive; and questions societal norms."*

The phenomenon of employee creativity is complex and multifaceted and is subject to the influence of individual, contextual, and environmental factors (Politis, 2005). Unsworth and Clegg (2010) conceptualized employee creativity as a process of behaviors intended to produce novel phenomena rather than an outcome. Creativity is typically viewed as a mixture of four critical components, known as the four Ps of creativity: *creative person/group, process, place/environment, and product/outcome* (Cirella et al., 2012; Cirella, 2021). Researchers offered various definitions of employee creativity, highlighting distinct aspects of the concept. The componential Model of Creativity involves five stages, which include identifying the problem, preparation, response generation, response validation, and outcome of the decision (Amabile, 1983). The Ecological Systems Model of Creativity Development Theory proposes a similar approach for the steps of creativity, including preparation, incubation, insight, and evaluation (Yeh, 2004). There is a discussion on whether creativity is domain-specific or domain-general which is illustrated in the first approach, the Model of Creativity, assuming a person can exhibit creativity in many domains, whereas the Ecological Systems Model assumes a person's creativity does not necessarily cross over into other domains (Yeh, 2017). Also, it posits that creativity is determined by both personal and social factors (Plucker & Beghetto, 2004).

Employee creativity is crucial for organizations for several reasons. Creative ideas and solutions help organizations adapt to changing environments, seize new opportunities, and stay ahead of the competition. Although innovative behavior and employee creativity are closely associated, there is no clear distinction between the two concepts (Basadur, 2004). For instance, Dorenbosch et al. (2005) proposed that creativity-oriented work behavior was one of the sub-dimensions of innovative work behavior, so employee creativity is a determiner of

innovation, which in turn leads to innovation performance (Ullah et al., 2022). In addition to increasing innovative work behaviors and commitment (Chang et al., 2014), employee creativity is related to organizational citizenship behavior, which includes discretionary, voluntary, and proactive behaviors that workers engage in to enhance the overall welfare and efficiency of their organization (Deng & Guan, 2017). Employee creativity serves as a strategic factor for organizational success.

Antecedents of Employee Creativity

Since creativity is not the sum of individuals' creative processes, distinct contexts, and conditions both promote and limit creativity (Gilson et al., 2019). Initial studies indicated that individuals possessing creative personalities are inclined to exhibit higher levels of creativity in their work settings (Oldham & Cummins, 1996). Kelloway and Barling (2000) suggested that workers possess a range of personality and professional traits, including confidence, perseverance, creativity, risk-taking attitudes, and the ability to synchronize their personal and professional development with the organization's vision. According to Kim et al. (2010), proactive individuals who were eager to take the initiative and make changes to the organizational environment were able to quickly adjust to the demand for creativity in the workplace and produce highly innovative work.

Employee creativity was also investigated on team level. Collective creativity is defined as *"a purposeful set of processes and activities established by a group of individuals working in a specific environment, through which a novel idea, product, service, or procedure is generated"* (Cirella et al., 2012: 289). The association between collective and individual creativity appears to stem from a phenomenon known as *"creative synthesis,"* as described by Harvey (2014). People have the misconception that teamwork is always successful, but research demonstrated that this assumption was incorrect (Staw, 2009). According to Woodman et al. (1993), heterogeneity, diversity, and group composition influence the creative output of a team. The different aspects of team diversity were studied, including the psychological traits of team members (Bouncken et al., 2016), their competencies and experiences, and their functional role diversity (Bell et al., 2011; Lace et al., 2015).

Organizational elements, including the culture, resources, and systems of an organization, also influence employee creativity (Andriopoulos, 2001). Research suggests that more complex jobs with greater autonomy, routines, and challenges, require higher levels of creativity than simple ones (Tierney & Farmer, 2002), indicating that job characteristics are determiners of employee creativity. Mumford et al. (2007) listed the qualities creative leaders must have as identifying challenges, setting the context, developing solutions, expertise, creative thinking, social skills, and organizational knowledge. Similarly, performance evaluation and feedback were proven to be crucial for creativity (Oldham & Cummings, 1996), which resulted

in innovation (Anderson et al., 2014). Additionally, an employee's creativity was positively linked with their involvement in decision-making and manager support for creativity (Zubair et al., 2015).

Meta-Level Approaches to Employee Creativity

Employee creativity was extensively examined, with a predominant utilization of quantitative research methods in most studies. Consequently, meta-analytical approaches relying on quantitative studies were employed to integrate and analyze the findings from multiple investigations. Meta-analysis studies including a combination of quantitative data, which often affected sizes or measurements of the outcome, were gathered from various investigations (Field & Gillet, 2010). In meta-analytical studies, employee creativity was considered alongside personality traits (Zare & Flinchbaugh, 2019), motivational variables (De Jesus et al., 2013), and innovation (Lee et al., 2020). A meta-analysis study by Byron et al. (2010) examined the links between stressors and creativity and emphasized the complex mechanisms between them. Sarooghi et al. (2015) examined the relationship between creativity and innovation according to organizational, cultural, and environmental factors which revealed a positive correlation between creativity and innovation, particularly at the individual level. Liu et al. (2016) focused on the motivational mechanisms that drive employee creativity. The authors concluded that motivation to engage in creative activities was dependent on certain contextual factors. Koh et al. (2019) performed a meta-analysis and developed an integrated model of transformational leadership and creativity. The meta-analytic study by Zare and Flinchbaugh (2019) showed how conscientiousness, openness, and extraversion predicted voice and creativity. In the study by Lee et al. (2020), a synthesis of research on leadership, creativity, and innovation revealed that the strongest links were observed between authentic, empowering, and entrepreneurial leadership styles and creative performance. Acar et al. (2023) conducted a meta-analysis study that showed links between creativity and happiness. Wei et al.'s (2023) meta-analysis discovered that effective relationship- and task-oriented leadership behaviors were positively associated with employee creativity. The prevalence of meta-analytic research based on quantitative studies demonstrates the popularity of the "meta" approach to employee creativity; however, a meta-approach focused on the qualitative findings of employee creativity has been overlooked and is much needed. While meta-analysis is a statistical approach that analyzes quantitative data to produce a statistical evaluation of the study results, meta-synthesis is a qualitative method that seeks to comprehend and explain the extensive textual material gathered from qualitative investigations. Both methods enhance evidence-based practice by offering a more thorough and nuanced comprehension of a certain research inquiry or issue. This present research employs a meta-synthesis methodology to offer a detailed perspective on the antecedents of employee creativity, drawing on previous qualitative studies.

Method

The primary objective of qualitative research is to offer a thorough understanding of human behavior, emotions, attitudes, and experiences. In-depth meanings, experiences, and perspectives of participants in various contexts are obtained by synthesizing the results of qualitative studies (Tong et al., 2012). Meta-synthesis is a qualitative research methodology that is used to synthesize findings obtained from a wide variety of qualitative studies and has been extensively applied by scholars in the field of health sciences for over twenty-five years (Finfgeld-Connett, 2010). It involves synthesizing and integrating the findings of multiple qualitative research studies on a particular topic (Walsh & Downe, 2005). It is a systematic approach that provides a broader and deeper understanding of a research topic by bringing together insights and perspectives from different studies. According to Paterson (2011), there are multiple synthesis terms, such as aggregative method, meta-summary, and thematic synthesis. One commonly utilized method for analyzing data in primary qualitative research is thematic synthesis, which involves the systematic identification and development of themes (Thomas & Harden, 2008). In this study, thematic synthesis was used to capture the similarities between determinants of employee creativity and identify themes across prior qualitative studies.

Drawing on meta-synthesis methods proposed by Hoon (2013) and Walsh and Downe (2005) and using the ENTREQ (Enhancing Transparency in Reporting the Synthesis of Qualitative Research) Statement developed by Tong et al. (2012), the following steps were taken: Framing the meta-synthesis research question, identifying the search approach and locating relevant research, identifying inclusion and exclusion criteria, coding and appraisal of studies, analyzing different conceptualizations, and synthesizing the findings.

Step 1: Framing the Meta-Synthesis Research Question

This study provides a comprehensive look at the determinants of employee creativity. To achieve that aim, the research question that directed the meta-synthesis was: *"Which factors determine employee creativity?"*. Drawing on a conceptual background of employee creativity as the meta-synthesis methodology, thematic synthesis was adopted to find relevant themes regarding the phenomenon.

Step 2: Identifying a Search Approach and Locating Relevant Research

Search engines and databases such as Scopus, Web of Science, and EBSCOhost Business Source Complete, were utilized to locate scholarly articles on the topic of "*employee creativity"* using relevant keywords. Furthermore, the search query included a combination of terms such as *"qualitative," "interview," "case study," "focus group,"* and *"ethnography"* within the title, abstract, and keywords of the research articles. An example of a search query used in this study is as follows:

"(TI=(employee creat) AND AB=(interview*)) AND (TI=(employee creat*) AND (AK=(interview*)) AND (TI=(creativity) AND AB=(interview*)) AND (TI=(creativity) AND AK=(interview*))"*

Step 3: Identifying Inclusion and Exclusion Criteria

The original research articles with qualitative methods, which were written in English and Turkish, were included in the study. To check the appropriateness of the articles utilized for the analysis, we implemented the inclusion criteria outlined by Atkins et al. (2008), which provided a comprehensive framework for assessing qualitative data. The quality criteria used in this study were the qualitative approach of the studies (e.g., focus group, interview, etc.), the existence of an explicit research question, clarification of the researcher's position, sampling procedures, and clear explanations of data analysis.

The search strategy followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol developed by Page et al. (2021), which included four main steps: identification, screening, eligibility, and inclusion. The initial search yielded 430 articles (WoS = 120; Scopus = 187; Ebscohost = 123). The first step included excluding duplicate records and gray literature records such as conference abstracts, book chapters, and reports. Then the titles and abstracts of 143 studies were screened, and 93 were excluded because they did not meet the inclusion criteria. Following the abstract screening, 50 full texts were obtained and comprehensively assessed. Eighteen of the studies failed to meet the quality standards, so a total of 32 studies were included in the synthesizing process.

Toye et al. (2014) discussed the challenges of synthesizing a large number of qualitative studies and recommended using a structured approach to manage the data. Meta-synthesis prioritizes the comprehensiveness and depth of the data rather than aiming for statistical significance. The objective was to incorporate an adequate quantity of qualitative studies that offered different perspectives and insights on the subject being examined. Some qualitative researchers emphasize achieving data saturation instead of selecting a certain number of samples as their goal. This entails including enough research until no additional themes emerges from the data, ensuring a comprehensive understanding of the phenomenon (e.g., Francis et al., 2010; Nye et al., 2016). Prior qualitative syntheses showed that the number of studies included in meta-synthesis ranges widely (e.g., Adams et al., 2023 (N = 26); Lazazzara et al., 2020 (N = 24); Rodrigues et al., 2023 (N = 40); Soral et al., 2022 (N = 39). Therefore, the study sample of 32 qualitative studies was concluded to be adequate for synthesizing.

Step 4: Coding and Appraisal of the Studies

The appraisal of the studies began with setting up a coding sheet for drivers of employee creativity. The extracted data were coded on coding sheets. An expert was included in

the coding process for independent coding and determining the agreement rate. The coding procedure utilized an inductive and iterative approach, as described by Locke (2001). It was determined that the agreement rate was 81% in the calculation made based on the number of consensus and disagreements in the coding form used (Miles & Huberman, 1994). Also, descriptive validity was employed to ensure the accuracy of the data by providing meaningful and precise codes derived from each qualitative study utilized. Furthermore, theoretical validity was sought, relying on the theoretical background of employee creativity (Sandelowski & Barroso, 2007).

Step 5: Analyzing Different Conceptualizations

Initially, a first-order analysis was conducted, wherein data were coded using codes that were based on prior qualitative research. The initial concepts presented were representative of the vocabulary and terminology used by the authors. The process of second-order analysis involved the examination of the initial first-order codes to identify similarities and distinctions, which were then utilized to establish more generalized second-order code groups. Subsequently, the data were integrated with theoretical frameworks, resulting in the formulation of third-order concepts that are employed in this manuscript.

Step 6: Synthesizing Findings

The final stage of the study involved the synthesis of the emerging concepts to establish a systematic approach toward the specificities associated with qualitative research on employee creativity and uncover the factors that preceded employee creativity. The results are presented in the subsequent sections.

Results

Table 1 shows the codes, authors, sample characteristics, and analytic approach of 32 synthesized studies. Five of the studies used the case study technique; four of the studies used the critical incident technique; and two of the studies used the focus group technique. Four of the research samples consisted of supervisors, whereas the remaining samples only collected data from employees. As seen in Table 1, different organizational contexts were taken into consideration in the overall studies.

Table 1
Codes, Authors, Sample Characteristics, and Analytic Approach of Synthesized Studies

Study Code	Author	Sample Characteristics[1] Analytic Approach[2]
S1	De Alencar and De Bruno-Faria (1997)	[1]25 employees from various organizations [2]Interviews
S2	Bukantaitė and Sederevičiūtė-Pačiauskienė (2021)	[1]12 employees and managers from the fashion industry [2] Semi-structured interviews
S3	Cabra et al. (2007)	[1]55 employees from various organizations [2] Critical incident technique, interviews
S4	Gupta and Singh (2012)	[1]52 employees from Indian R&D labs [2] Interviews
S5	Hoff and Öberg (2015)	[1]13 employees from the game and movie sectors [2] Interviews
S6	Jaiswal and Arun (2022)	[1]24 employees from information technology companies [2] Interviews
S7	Laukkanen et al. (2017)	[1]2 organizations from Finland and 2 organizations from the USA [2] Case study, interviews
S8	Lace et al. (2015)	[1]50 employees from various organizations [2] Interviews
S9	Moultrie and Young (2009)	[1]5 companies from the branding and product/industrial design sectors [2] Semi-structured interviews
S10	Nyawo and Schultz (2020)	[1]23 managers from manufacturing companies in Zimbabwe [2] Interviews
S11	Olsson et al. (2019)	[1]21 employees from retail companies in Sweden [2] Semi-structured interviews
S12	Paek et al. (2022)	[1]12 sports employees from the USA [2] Semi-structured interviews
S13	Rampa and Agogue (2021)	[1]70 employees from the energy sector in Canada [2] Semi-structured interviews
S14	Mangnion and Scicluna (2022)	[1]12 nurses [2] Semi-structured interviews
S15	Sherief (2019)	[1]13 public servants [2] In-depth interviews
S16	Tan et al. (2023)	[1] 2 groups of managers and employees from the public sector [2] Focus group study
S17	Unsworth and Clegg (2010)	[1] 65 engineers from two aerospace organizations [2] Interviews
S18	Yekanialibeiglou et al. (2021)	[1] 50 employees from three companies in Sweden [2] Critical incident technique
S19	Han et al. (2017)	[1] 9 employees from virtual teams [2] Interviews
S20	Hemlin and Olsson (2011)	[1] 75 employees from universities and the biomedical industry in Sweden [2] Critical incident technique, interviews
S21	Kruyen and van Genugten (2017)	[1] 43 employees from municipalities in the Netherlands [2] Critical incident technique, interviews

Study Code	Author	Sample Characteristics[1] Analytic Approach[2]
S22	Lee et al. (2019)	[1] 18 restaurant operators in Australia [2] Interviews
S23	Chamakiotis et al. (2013)	[1] 49 participants in 6 virtual teams [2] Interviews
S24	Omilion-Hodges and Ackerman (2018)	[1] 30 employees from the video game industry [2] Semi-structured interviews
S25	Amabile et al. (2004)	[1] 238 employees from 26 project teams in 7 companies [2] Daily diary narratives
S26	Cirella (2021)	[1] 31 employees from two different organizations in Italy [2] Case study, interviews
S27	Raqshin and Nirjar (2012)	[1] Focus group interviews from 3 different organizations in India [2] Case study, semi-structured interviews
S28	Bunduchi (2009)	[1] 10 interviews with R&D team members [2] Case study, semi-structured interviews
S29	Hartmann et al. (2019)	[1] 10 interviews with R&D team members [2] Case study, interviews, field notes, and documents
S30	Bouncken et al. (2016)	[1] 70 interviews with five innovation teams [2] In-depth interviews
S31	Chuang (2007)	[1] 12 high-level managers from 6 organizations in Taiwan [2] In-depth interviews
S32	Ocker (2005)	[1] 10 virtual teams [2] In-depth interviews

After the coding process, three main themes emerged. These themes were individual-level factors, group-level factors, and organizational-level factors.

Theme 1: Individual-Level Factors

Table 2 shows the codes and categories that make up individual-level factors that determine employee creativity. All codes were presented with study identifiers (e.g., S1) to demonstrate which study they were extracted from. Categories under the first theme include personality, attitudes, abilities, skills, and behaviors. All these categories represent individual-level characteristics that influence employee creativity.

The meta-synthesis analysis performed in this study sheds light on a wide range of individual-level drivers that have a significant impact on employee creativity. Among these drivers, openness to employee ideas (Laukkanen et al., 2017) indicates that employees who exhibit a willingness to consider and embrace novel concepts and perspectives are more likely to exhibit higher levels of creativity. Additionally, Mangnion and Scicluna (2022) identified specific dispositions that contribute to creativity, while Lace et al. (2015) noted that a particular mode of thinking can also facilitate creativity by promoting a constructive and open-minded approach. Employees who demonstrate proactive engagement in activities such as idea exploration, diverse perspective-seeking, and experimental approaches are more likely to produce innovative solutions.

Table 2
Theme 1: Individual-Level Factors

Theme 1	Categories	Codes
Individual-Level Factors	Personality	openness to employee ideas (S7), dispositions (S8, S14), a particular style of thinking (S8), openness (S9), dynamism (S9), liveliness (S9), playfulness (S9), humor (S9), risk-taking (S11), mentality (S11), values (S13), problem-solving mindset (S14), emotional intelligence (S12), skepticism (S16), self-confidence (S16), creativity requirement (S17), honest (S19), frank (S19), open minded (S19), respectful (S19), responsible (S19), divergent thinking (S21), reflective capacity (S21), perseverance (S21, S27), awareness (S21), having guts (S21), need for structure and patterns (S21), behavioral skills (S21), self-efficacy (S27), optimism (S27), hope (S27), self-confidence (S27), resilience (S27), future mindedness (S27), risk orientation (S27), employee mindset (S31), cognition (S32), personality (S32)
	Attitudes, Abilities & Skills	Intellectual abilities (S8), skills (S8), staff expertise (S9), creative skills (S13), motivation to innovate (S13, S14), stress management skills (S12), general work motivation (S8, S17, S30), attitudes (S21), cognitive skills (S21), behavioral skills (S21), analytical skills (S21), intrinsic motivation (S21), high task engagement (S23), knowledge (S21), work experience (S21), attitudes toward being open to others' insights (S21), result-oriented attitude (S21), attitude to risk (S28), positive attitudes (S29)
	Behaviors	behaviors (S8), idea generation (S14), being creative (S16), initiate change (S16), challenge status quo (S16), demonstrate concern and enthusiasm (S20), direct conversation (S19), being in contact with others (S21), being proactive (S21), being communicative and persuasive (S21), individual experimentation (S27), taking responsibility (S29), making suggestions visible (S29), making fun of failures (S29)

Theme 2: Group-Level Factors

Table 3 shows the codes and categories that make up group-level factors that determine employee creativity. Categories under the second theme include team composition and team dynamics. The team composition category includes characteristic factors such as team composition, team selection criteria, team member qualities, and team cohesion. The team dynamics category represents relational factors such as inter and intra-team communication, collaboration, team leader-member relations, team culture, and team climate.

Table 3
Theme 2: Group-Level Factors

Theme 2	Categories	Codes
Group-Level Factors	Team Composition	team building (S4), group/team composition (S8, S32), team leaders' vision (S8), role distribution in the team (S8), skill-based team selection (S9), personality-based team selection (S9), team norms (S19), team guidelines (S19), team expertise (S19), team function (S19), team members' past experiences (S30), team members' openness (S30), team members' diversity in cognitive styles (S30), team members' diversity in knowledge (S30), team members' motivational factors (S30), team cohesion (S30, S32), team structure (S32)
	Team Dynamics	colleague support (S1), interpersonal relationships (S1, S16), friendly competition (S8), intra-team communication (S8), debates (S9), teamwork (S10), collaboration (S10, S21), sharing of ideas (S14), trust between leader and team members (S19), team culture (S19, S30), group dynamics (S19), group climate (S20), peer coaching (S24) team atmosphere (S32)

The composition of the group or team was found to be influential in facilitating employee creativity. Factors such as team members' skills (Lace et al., 2015), personality traits (Moultrie & Young, 2009), and diversity in cognitive styles and knowledge (Bouncken et al., 2016) were identified as group-level factors. Skill-based team selection and personality-based team selection played a significant role in assembling teams with complementary skills and different perspectives, enabling a more comprehensive approach to problem-solving and idea generation. Within the team dynamics category, intra-team communication, including debates and open discussions, facilitates the exchange of diverse perspectives and challenges conventional thinking, contributing to creative problem-solving. Team culture (Han et al., 2017), collaboration (Kruyen & van Genugten, 2017), and atmosphere were also elements of team dynamics that influenced employee creativity.

Theme 3: Organizational-Level Factors

Table 4 shows the organizational-level factors that determine employee creativity. Categories under the third theme include organization structure, policies and practices, culture and climate, management and leadership, the physical environment, and external stakeholders.

Factors related to organizational structure highlight the importance of creating an environment that supports idea generation, collaboration, knowledge sharing, resource availability, and technological advancements to foster a creative workforce. Also, the policies and practices category involved recognition, reward policies, systems (Nyawo & Schultz, 2020), training, and development (Cabra et al., 2007), all of which have the potential to enhance employee creativity. Another element of organizational-level factors is culture and climate. In this category, freedom (De Alencar and De Bruno-Faria, 1997), autonomy (Laukkanen et al., 2017), and trust (Omilion-Hodges & Ackerman, 2018) were the factors that reoccurred the most in prior studies. The important drivers of employee creativity were supportive climate, communication, and a sense of belonging.

The meta-synthesis results highlighted key management and leadership-related factors that influenced employee creativity. Effective conflict management, enthusiasm, and structured management systems contributed to a creative environment (Moultrie & Young, 2009). Supervisory support, coaching, encouraging group member collaboration and input could potentially enhance employee creativity. Leadership practices such as actively encouraging employees, creating a safe environment, and promoting employee-generated ideas could stimulate creativity. As seen in Table 4, physical environment factors emphasize the significance of creating a conducive physical environment for promoting creativity. The arrangement of furniture, appropriate lighting, and availability of various spaces for collaboration and concentration played a key role in supporting creative thinking (Hoff & Öberg, 2015). Design elements, such as customized and creative spaces, along with intangible and tangible office

elements, contributed to a stimulating and inspiring workplace atmosphere. The last category is called external stakeholders which includes potential creativity drivers outside of organizations such as customers, competitors, and communities. A visualization of the study findings, first-order concepts, second-order themes, and aggregate dimensions affecting employee creativity are presented in Figure 1.

Table 4
Theme 3: Organizational-Level Factors

Theme 3	Categories	Codes
Organizational-Level Factors	Organization Structure	organizational structure (S1, S8 S11, S31), flexibility (S1), decentralization (S1), social network (S2), knowledge sharing/transfer (S2, S13), access to information (S3), organization size (S8), network structure (S8), strategy (S8), organizational resources (S8, S11, S15, S31), challenging work (S8), expertise (S8), budget (S11), organizational vision (S15), meaningful work (S15), time resources (S3, S8, S14, S17), formal communication (S24), resource availability (S28), technology (S1, 19, S26), up-to-date technology (S19), mobile technology (S19), technology-mediated communication tools (S19), task-related characteristics (S32)
	Policies & Practices	recognition (S1, S3, S4, S25), salaries (S1), benefits (S1), reward policies/systems (S1, S8, S10, S20), training (S1, S3, S9, S10), opportunity to learn (S2), development (S3), knowledge management (S3), encouragement (S3), feedback (S3, S10), financial support (S3), self-confidence building (S3), employee empowerment (S7), functional support (S8), diversity and complexity of processes (S8), idea support (S9), problem solution (S8), benchmarking (S10), processes (S11), collective innovation tools (S13), brainstorming (S16), discussion (S19), career advise (S20), existing rules and regulations (S21), participation (S23), open communication (S28), frequent communication (S28)
	Culture & Climate	freedom (S1, S2, S8, S9, S20), autonomy (S1, S3, S7, S9, S15, S17, S21), organizational support (S1, S3), organizational culture (S8, S31), knowledge-sharing culture (S8), supportive climate (S8), trust (S9, S19, S24), sense of belonging (S10), engagement (S10, S23), entrepreneurship (S11), commitment (S11, S23), freedom to make mistakes (S11), constant improvement (S11), common language (S13), organizational willingness to take risks (S15), diversity (S15), freedom to think (S16), relationship building (S16), cultural support (S17), responsibility (S17), communication (S11, S23), open communication (S19), informal communication (S24), social norm (S19), collaboration (S26), synergy (S11, S26), atmosphere (S11), socialization of employees (S13), organizational climate (S21)
	Management & Leadership	leader support (S1, S4, S21), delegating (S4), consulting (S4), problem-solving (S4), leading by example (S4), inspiring (S4), informing (S4), handling conflict (S20), enthusiasm (S9), management systems (S9), supervisory support (S15), coaching (S16, S23), encourage group member external exchange (S20), provide freedom and responsibility (S20), inquire for group member opinion and expertise (S20), leadership (S11, S21), actively encouraging individual employees (S21), making employees feel safe (S21), asking employees to come up with creative ideas (S21), motivating (21), praising employees with creative ideas (S21), shared leadership (S23), emergent leadership (S23), fostering a spirit of commitment (S23), responsibility (S23), informal leadership (S24), mentoring (S24), positive leader behavior (S25), top management commitment (S28), change agent (S31)

Theme 3	Categories	Codes
	Physical Environment	physical environment (S1), ergonomic tools (S5), furniture (S5), lighting (S5), distraction-free space (S5), space (S5, S18), adjustable space (S5), psychosocial support (S5), private space (S5), customized space (S5), window view (S5), communication space (S5), informal spaces (S5), interior design (S5), spaces for brainstorming (S5), creative spaces (S7), intangible office elements (S18), tangible office elements (S18), spatial layout (S18), facilitating and inspiring physical layout of the workspace (S21)
	External Stakeholders	External stakeholder sources (S22), observing local competitors (S22), asking customer's ideas (S22), observing overseas competitors (S22), competitors (S31), customer focus (S2), customer feedback (S7, S22), customers (S31)

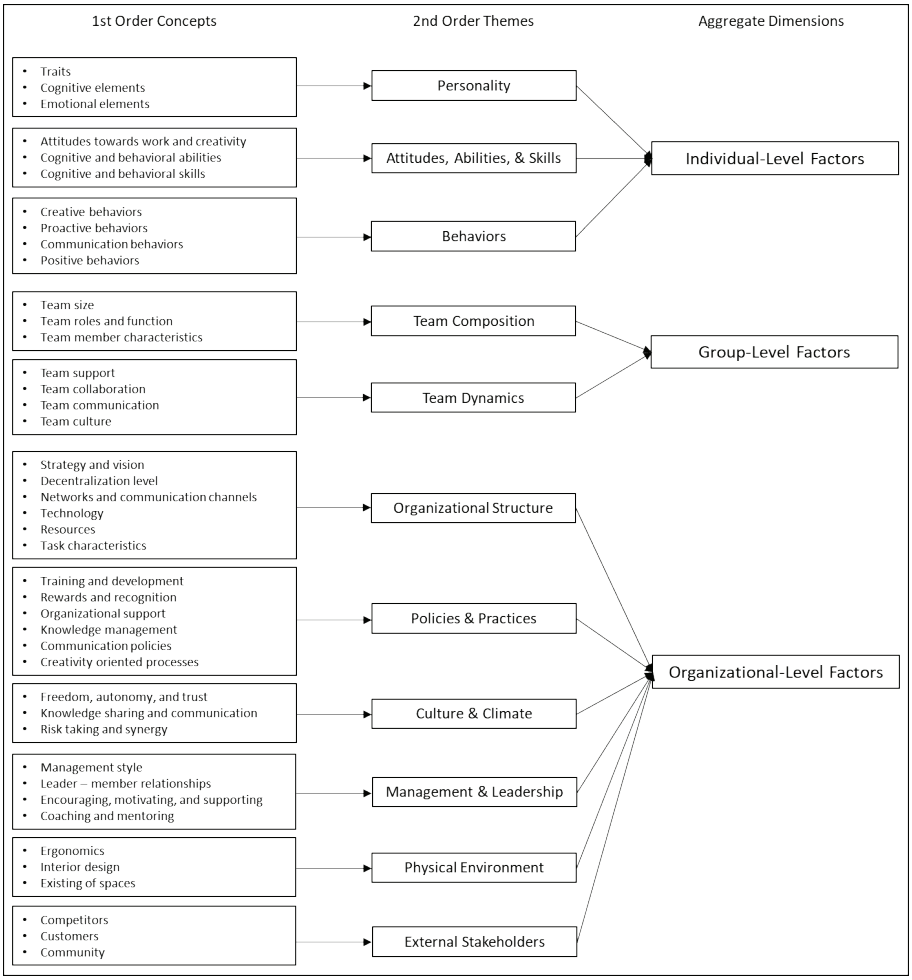

Figure 1. 1st Order Concepts, 2nd Order Themes, and Aggregate Dimensions Effecting Employee Creativity

As seen in Figure 1, first-order concepts are derived from initial codes extracted from thematic synthesis. The second-order themes correspond to the categories that emerged after

initial coding, and aggregate dimensions correspond to the main themes presented in Table 2, Table 3, and Table 4 previously.

Discussion

The process of generating creative ideas and effectively executing them enables an organization to adjust to ever-changing market conditions, capitalize on favorable circumstances, and establish a competitive advantage to ensure its ongoing expansion (Houghton & DiLiello, 2010). This study aimed to combine current knowledge and provide academics and professionals with a greater understanding of the broad spectrum of employee creativity by synthesizing prior qualitative research findings. The study highlights directions for research and provides a comprehensive framework that combines the identified factors to guide future research on employee creativity. By employing the meta-synthesis methodology, a thorough assessment was conducted with 32 qualitative studies, which led to the discovery of the factors that determine employee creativity via thematic synthesis. The findings of the study uncovered three main themes: Individual-level factors, group-level factors, and organizational-level factors. While prior studies attempted to systematically examine data for employee creativity, this study makes several important contributions. One of them is combining exploratory findings to discover different perceptions of employee creativity across industries and work environments. For instance, contrary to the widely held belief of employee creativity, the study by Kruyen and van Genugten (2017) revealed that creativity refers to solving issues more effectively as opposed to producing new ones. This meta-synthesis study makes a theoretical contribution by providing a detailed presentation of factors at the individual, team, and organizational levels that were not addressed in quantitative studies.

Individual-level factors include personality factors, which include traits and cognitive and emotional elements of individuals. Employee attitudes, abilities, and skills involve work motivation, cognitive and behavioral abilities, and skills. The results indicated that the proactiveness and positive behaviors of employees influence creativity at work. According to Amabile and Kramer (2011), an organization must establish an environment that cultivates positive emotions, strong intrinsic motivation, and positive perceptions of colleagues and work to promote an effective inner work life. Organizations should consider utilizing personality tests focused on creativity-related factors to better understand their workers' characteristics and cognitive and emotional components. This could help identify employees' resources and areas for growth, allowing for targeted interventions and training programs to foster employee creativity. Subsequent investigations should concentrate on the formulation of practical models or instruments aimed at evaluating and enhancing personality traits that are associated with creativity. Furthermore, organizations should allocate resources toward training programs aimed at enhancing cognitive and behavioral competencies related to promoting

creativity. This could include initiatives to improve problem-solving abilities, foster critical thinking, promote effective communication, and facilitate collaborative efforts. The scope of these investigations is contingent upon the divergent interpretations of creativity among employees and managers across industries, as well as the multifaceted procedures that it entails.

The findings indicate that group-level factors comprise two categories called team composition and team dynamics. As stated in prior research, just being a team is not enough for individuals to be creative (Woodman et al., 1993). Nevertheless, employee creativity depends on team size, team roles, team member characteristics, support, collaboration, and communication processes within a team. It is believed that these findings will lead managers, especially project-based organizations, to consider what characteristics they need to build more creative teams.

The third and last theme is called organizational-level factors, which include organization structure, policies and practices, culture and climate, management and leadership, the physical environment, and external stakeholders. The findings of this study highlight organizational structure-related factors that contribute to employee creativity. The organizational structure plays a crucial role in facilitating creativity within an organization. Factors such as flexibility, decentralization, and networks positively influence employee creativity by providing an environment that encourages idea generation and collaboration. Technology is an important determinant of employee creativity since it provides the necessary tools for facilitating creative ideas and behaviors (Han et al., 2017). Policies and practices, including training, development, rewards, recognition, knowledge management, and organizational support, were found to be antecedents of employee creativity. In many studies, organizational culture and climate were mentioned (e.g., Lace et al., 2015). According to Moultrie and Young's (2009) findings, the most prominent characteristics that signified the necessity of an autonomous work setting for fostering creativity were freedom and support for ideas. The significance of organizational resources such as innovation time and training were also pointed out by them. Leadership practices such as encouraging, motivating, praising, and making employees feel safe contributed to a culture of creativity (Hemlin & Olsson, 2011). Leaders who encourage group members' external exchange, provide freedom and responsibility, and inquire about group member opinions and expertise create an inclusive and collaborative environment that stimulates creativity. Creating a work environment that promotes psychological safety among employees is crucial. This, in turn, facilitates a willingness to engage in open discussions regarding novel ideas and generate innovative and practical solutions (Han et al., 2017). Through the implementation of these practical recommendations and their further assessment via research, organizations can create an environment that cultivates the creativity of their employees, provides individuals with the ability to present innovative concepts, and promotes a climate of constant learning and growth.

The meta-synthesis methodology was contingent upon the quality and availability of prior research, which may engender biases and constraints that existed in the sample studies. The inclusion criteria and search techniques used to find relevant research may have an impact on the findings. The meta-synthesis procedure entailed the combination and clarification of information from various research contexts, thereby preventing the possibility of subjective evaluations and interpretations by different researchers. The potential for generalizability of the results was constrained due to the variability of contexts, industries, and participant characteristics among the studies included in the meta-synthesis. The inclusion of unpublished or non-English-language studies may be subject to potential publication bias. Due to these limitations, the results of this meta-synthesis should be interpreted with caution, and more research is needed to confirm and expand on them. Despite its limitations, this study provides information about creativity that may be used to develop effective employee engagement strategies. Organizations can adopt initiatives that meet employees' intrinsic motivations, developing a sense of purpose and enthusiasm for their jobs, which can have an advantageous impact on creativity. Moreover, comprehending the impact of team dynamics on creativity can assist team leaders in organizing teams and encouraging cooperation, particularly in project-based companies operating in dynamic environments (Gonzalez, 2022). The study's findings emphasize the significance of diverse teams, efficient communication, and a supportive team culture in promoting innovative concepts. Exploiting drivers of employee creativity could be advantageous for human resource practitioners in several areas, such as recruiting strategies, training and development programs, and the establishment of comprehensive performance assessment systems that recognition ofcreative efforts.

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