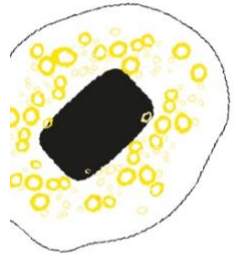**Cultivating Innovation in the Workplace: How Does Innovation Culture Influence Employees' Innovative Work Behavior in Digital Companies in Indonesia?**
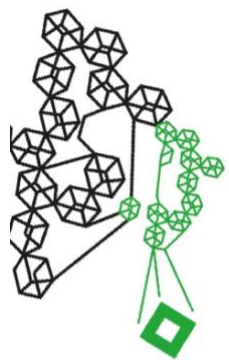
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January 29, 2024

Abstract

Purpose – Organizations rely on continuous improvement and innovation practices to sustain their position in the market, especially for digital companies that provide technology-based products. Individual innovativeness plays a pivotal role in organizational growth. Consequently, organizations are required to foster innovative practices through their organizational culture. Research on organizational culture influencing innovative work behavior (IWB) has gained significant attention. However, studies specifically focusing on innovation culture as one dimension remain limited. This study examines the relationship between innovation culture and IWB in digital companies in Indonesia, exploring the mediating roles of knowledge sharing, job autonomy, psychological safety, and perceived supervisor support.

Methods – A quantitative cross-sectional method was employed, surveying 161 employees across seven digital technology-based companies in Indonesia. A total of 40 items measuring the chosen variables were distributed to the participants. However, only 34 final items were obtained in this study. Data analysis was conducted using SPSS 27. Regression analysis was employed to measure the relationship between innovation culture and IWB. Additionally, the mediating factors were examined using the PROCESS macro.

Results – The findings indicated that innovation culture positively and significantly influenced IWB. Furthermore, knowledge sharing, job autonomy, and psychological safety were found to positively mediate this relationship. However, contrary to existing literature, perceived supervisor support did not emerge as a significant mediator between innovation culture and IWB.

Conclusion – This research contributes to existing literature by validating the direct link between innovation culture and IWB. Specifically, knowledge sharing, job autonomy, and psychological safety were identified as important factors influencing this relationship. Conversely, perceived supervisor support did not significantly emerge as a mediating factor. As a practical implication, organizational leaders should prioritize fostering an innovation culture to enhance individual innovativeness.

Keywords: *Innovation Culture; Innovative Work Behavior; Knowledge Sharing; Job Autonomy; Psychological Safety; Perceived Supervisor Support.*

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1. Introduction

Organizations must innovate to develop new products or services (Farrukh et al., 2023) and maintain a competitive edge in the market (McAdam & Keogh, 2004). The role of innovation in the workplace has increasingly intensified as an essential factor influencing organizational performance, success, and sustainability (Anderson et al., 2014). Organizations must actively seek a process of continuous advancement and innovation in the workplace by leveraging their dynamic capabilities to sustain their market position (Metcalfe & Miles, 2012). Innovation is, therefore, particularly relevant in today's dynamic environment as organizations must adapt and adjust with advanced technology, which becomes a valuable aspect in enhancing organizational adaptability. Creativity and innovation can serve as effective solutions for organizations, whether they provide businesses or services to customers. Innovation enables organizations to adapt to rapid changes in the business environment (Mokhber et al., 2018). In addition, the importance of innovation is not only to reduce the cost of production but also to increase productivity at both organizational and individual levels. Thus, the overall performance of an organization relies on its ability to integrate innovative practices.

Consequently, the success of an organization's hinges on the innovativeness of its employees (Abbas & Raja, 2015; Zhou & Shalley, 2008) as they are the driving force behind the organization. It is imperative for employees to consistently engage in implementing innovative behavior, which in turn contributes to the resilience of the organization. Individual innovativeness plays a significant role in influencing the long-term growth of the organization, with studies indicating that employee innovativeness is crucial for driving overall organizational innovation (Zhang et al., 2021). The innovative behavior of employees serves as a cornerstone for an organization's performance, encompassing the development, adoption, and

implementation of novel ideas and strategies (Kanter, 1983; West & Farr, 1990; Yuan & Woodman, 2010). Therefore, it becomes essential for organizations to cultivate a culture that encourages innovative work behavior among employees (A. Agarwal, 2014) to achieve positive outcomes.

Scott and Bruce (1994) delineate innovative work behavior (IWB) as a multistage process characterized by distinct activities and behaviors at each phase. Over recent decades, there has been a significant increase in research on innovative work behavior. Literature on IWB spans diverse sectors, including education, industry, health, public services, hospitality, finance, and various other service domains, encompassing military and real estate (AlEssa & Durugbo, 2022). Despite its relevance, there is a lack of research on innovative behavior in digital companies. Nevertheless, a comprehensive exploration focusing explicitly on employee innovative work behavior within the digital industry remains an avenue worth investigating, more specifically in Indonesian digital companies.

In the context of innovation, the digital and tech industry stands out due to its dynamic nature and continuous evolution. Tech organizations require their employees to generate and refine ideas to navigate an unpredictable landscape, ensuring their offerings resonate with consumers and address their evolving needs (Dayanti & Yulianti, 2023). The relentless pace of innovation compels enterprises, especially startups and digital firms, to confront challenges tied to global competitiveness, shrinking product lifecycles, technological advancements, and fluctuating customer preferences (Sengupta et al., 2023). Consequently, employees in digital companies are not solely tasked with routine activities; instead, they need to shape innovative behavior and implement cutting-edge technologies to contribute to the growth of the organization. High-tech and digital firms, therefore, need to gain favorable assessment not only

from their domestic investors but also from foreign investors (Lam et al., 2021), aiming to generate more attractiveness in the global market. Investors become primary stakeholders, influencing strategic initiatives and ensuring business sustainability. As a result, digital companies primarily offer technological solutions and services, consistently encouraging employees to exhibit innovative behavior and utilize advanced technology. One practical approach to addressing these challenges and outperforming competitors is by continually engaging with innovation (Sengupta et al., 2023), and, more importantly, by establishing innovative behavior among employees. Hence, it is crucial to understand how digital companies implement and encourage individual levels of innovativeness, leading to positive organizational results.

Despite the myriad outcomes linked to various variables, researchers have extensively explored the antecedents of innovative work behavior (IWB). Previous studies have indicated a positive correlation between innovative behavior and business performance (Jankelová et al., 2021). According to this argument, employees who go beyond their routine tasks are inclined to provide their best effort, leading to organizational success. Additionally, innovative behavior has been linked to a decreased intention to leave an organization (Maqableh et al., 2022). Employees engaging in innovative behavior often find a high sense of satisfaction with their workplace, indicating a positive perception of the organization. Thus, they feel that the organization supports their ideas and innovation. For managerial roles, fostering innovation entails encouraging risk-taking, dynamism, and creativity (Khan et al., 2022). It is noteworthy that by implementing innovative and risk-taking behavior, managers also provide challenging work to their subordinates, thus fostering an innovative environment.

Moreover, scholars have identified organizational and personal factors affecting innovative work behavior. Frequently cited determinants include leadership styles, leader-member exchanges, job satisfaction, organizational fit, and self-efficacy. Among these predictors, researchers mainly focus on the role of leadership styles such as transformational and servant leadership. Additionally, research emphasizes that the organizational climate for innovation is associated with innovative behavior (e.g. Shanker et al., 2017; Xu et al., 2022). When employees experience a positive workplace for innovation and they feel valued, they maintain a higher sense of belonging to the organization (You et al., 2022). In turn, this leads them to be more engaged in innovative behavior. While prior studies have investigated the relationship between organizational culture and innovative behavior, the role of organizational culture, especially an innovation-centric culture, as a determinant has received comparatively less attention.

Organizational culture serves as a catalyst for enhancing innovative performance and promoting employees' creative capabilities. It is widely acknowledged that organizational culture significantly influences innovation (Naranjo-Valencia et al., 2011). Notably, the success of innovations has been associated with the prevailing levels of organizational culture (Khan et al., 2022). Research underscores that organizations fostering an innovative ethos are more likely to inspire innovative behavior among their employees (Abun et al., 2023). Establishing an environment conducive to innovation is pivotal in nurturing innovative behavior. This is because innovation is not exclusive or gifted but rather becomes a shared value and culture of an organization (Kwon & Kim, 2020). Consequently, the endeavor to stimulate innovative behavior should extend beyond individuals, focusing on cultivating an organizational innovation culture (Kwon & Kim, 2020). Hence, this study aims to explore the influence of innovative

organizational culture on employees' innovative performance, with a specific focus on the digital landscape in developing countries like Indonesia.

Furthermore, scholars posit that personal factors play a pivotal role in determining the extent to which employees engage in innovative practices (Quang et al., 2022). However, these factors are often studied in isolation. Firstly, knowledge sharing has been identified as a crucial individual dimension of innovative behavior (Osmanaj et al., 2022). Knowledge sharing occurs when individuals not only deliver information but also incorporate, expand, and, most importantly, translate it into integrated and relevant messages (Akram et al., 2018). They argue that if individuals have the willingness to donate and share knowledge with their colleagues, they are more likely to exhibit innovative behavior. Secondly, Orth and Volmer (2017) observe that job autonomy, synonymous with personal initiative, can foster innovation. To stimulate individual innovativeness, it is necessary to prioritize giving them a sense of freedom in determining the methods they use to complete their tasks (De Spiegelaere et al., 2016). Hence, this allows employees to actively and effectively engage themselves with their activities at work and enhance idea generation.

Thirdly, a heightened sense of psychological safety among employees fosters a greater inclination towards innovative behaviors (Xu et al., 2022). Psychological safety establishes an environment that encourages risk-taking without the fear of negative consequences. Additionally, supervisors who exhibit support and empathy can empower employees to overcome challenges related to innovation (Han et al., 2022). Leaders play a crucial role in creating an environment that promotes innovation. When managers perceive their workplace as safe and supportive, with a culture that values freedom, they are more likely to feel secure and empowered to generate novel ideas without the fear of punishment. This, in turn, encourages individual innovation (Kör

et al., 2021). Managers are thus encouraged to build a work environment that supports the innovation process, aiming to enhance employees' willingness to engage in innovative behavior. Furthermore, managers with enduring and positive relationships with their staff provide assistance by assigning challenging tasks (Javed et al., 2019). Consequently, this study explores four personal factors hypothesized to mediate the relationship between an innovation culture and Individual Work Behavior (IWB): knowledge sharing, job autonomy, psychological safety, and perceived supervisor support.

This study makes a valuable contribution to the field of organizational culture and innovative work behavior. While innovative work behavior has garnered increasing attention, most empirical findings have explored the role of organizational culture and organizational climate in general. However, there remains a scarcity of empirical studies regarding innovation culture as one dimension influencing innovative behavior. On one hand, this study sheds light on and expands the literature on the relationship between innovation culture as an environmental factor and the integration of four personal factors—knowledge sharing, job autonomy, psychological safety, and perceived supervisor support—as mediating mechanisms influencing innovative work behavior (IWB) in Indonesian digital companies. On the other hand, this study offers a comprehensive understanding and practical recommendations for organizations to foster the innovativeness of their employees. Thus, it provides new empirical perspectives on the variables, particularly in the context of digital companies in Indonesia.

Given the aforementioned arguments, the objectives of this study are to address the following research questions:

1. How does innovation culture influence employees' innovative work behavior (IWB) in digital companies in Indonesia?

2. To what extent does knowledge sharing mediate the relationship between innovation culture and employees' innovative work behavior (IWB) in digital companies in Indonesia?

3. To what extent does job autonomy mediate the relationship between innovation culture and employees' innovative work behavior (IWB) in digital companies in Indonesia?

4. To what extent does psychological safety mediate the relationship between innovation culture and employees' innovative work behavior (IWB) in digital companies in Indonesia?

5. To what extent does perceived supervisor support mediate the relationship between innovation culture and employees' innovative work behavior (IWB) in digital companies in Indonesia?

2. Theoretical Framework

2.1 Organizational Culture

Organizational culture is "a collective phenomenon shaped by members' beliefs and social interactions (Schneider, 1987; Trice & Beyer, 1994). It encompasses shared values, mutual understandings, patterns of beliefs, and behavioral expectations (Rousseau, 1990) that individuals within an organization develop over time (Schein, 2010), according to Giberson et al. (2009). The concept that culture is imparted to new employees and passed down through the organization stems from proven practices, becoming embedded in the group's collective memory. In most literature, organizational culture is generally described as values communicated through norms, artifacts, and behavioral patterns (Schein, 2010). O'Reilly et al. (2014) define it as a system of shared principles dictating values and standards and establishing appropriate attitudes and actions primarily influenced by senior management. The significance of values lies in their role as social norms or philosophical constructs guiding actions and creating a comprehensive framework for organizational routines and practices (Hatch, 1993; O'Reilly et al., 1991). For example, leaders communicate values to employees to achieve long-term goals, encouraging behaviors such as innovation. Consequently, employees must align their actions and adhere to norms based on the desired behavior.

In organizational culture literature, scholars have explored the antecedents and outcomes of culture, highlighting its role as an integrating factor that shapes organizational behavior (Giberson et al., 2009). Several studies have indicated a positive relationship between organizational culture and effectiveness, with examples including the works of Gochhayat et al. (2017), Meng & Berger (2019), and Naveed et al. (2022). The research consistently establishes a connection between organizational culture and overall performance, encompassing financial

performance, market valuation, reputation, analysts' recommendations, and employee attitudes (O'Reilly et al., 2014). Additionally, studies suggest a positive correlation between organizational culture and innovations, emphasizing the potential for understanding and leveraging organizational culture to enhance innovation capability and company performance (Uzkurt et al., 2013); Hogan & Coote, 2014). Beyond the organizational level, culture plays a crucial role in influencing desired behavior at the individual level, particularly innovative behavior. Shayah and Zehou (2019) argue that organizational culture significantly stimulates employees' innovative behaviors by fostering an understanding of innovation as a core belief, making employees feel integral to the firm. Supporting this, Astrama et al. (2020) state that organizational culture positively influences employees' innovativeness and overall performance.

Research on organizational culture has been extensively documented, with researchers developing various models to assess it. However, there is a limited understanding of organizational culture models tailored to the innovation process. The concept of innovation culture is dispersed across different literature sources, lacking a clear and comprehensive depiction of the innovation culture model. Instead, innovation is often incorporated as one dimension within the broader organizational culture framework.

2.2 Employees' Innovative Work Behavior

In the literature, the term "innovative behavior" is commonly referred to as innovative work behavior (IWB). Noteworthy scholars like de Jong and den Hartog (2010) and Janssen (2000) have significantly contributed to developing IWB. De Jong and den Hartog (2010) define innovative behavior as a set of actions related to introducing new ideas that benefit the advancement and execution of goals, ultimately improving employee and organizational

performance. In essence, innovative behavior reflects individuals' efforts to initiate and implement ideas in the workplace. This definition suggests that innovation involves generating new ideas and turning them into reality, providing advantages for individuals and their organizations (de Jong & den Hartog, 2010). In the context of individual innovativeness, new ideas represent solutions to pre-existing problems that individuals cannot resolve (Scott & Bruce, 1994). These responses can stem from existing or genuinely novel ideas, potentially involving risks during engagement in IWB (Shih & Susanto, 2017). The risks arise from the uncertainty surrounding novel ideas, specifically questioning their implementation effectiveness.

Innovative work behavior (IWB) is defined as the "creation, introduction, and application of new ideas within a work role, group, or organization to enhance role performance, group dynamics, or organizational outcomes" (Janssen, 2000, p. 288). It involves deliberately applying new and improved ideas, processes, practices, and policies to sustain the organization (Anderson et al., 2014; Janssen, 2000; Kwon & Kim, 2020). This behavior is exhibited by individuals or groups when faced with problem situations, such as generating ideas based on previous experiences or introducing entirely new solutions. Innovative behavior is critical in enhancing organizational performance by enabling improvement procedures (Choi et al., 2021). In modern work, Siregar et al. (2019) describe it as an individual behavior deliberately bringing new and valuable ideas, products, and procedures to the workplace, leading to significant organizational improvements. This can involve creating new routines, streamlining work, introducing new tools, and fostering internal and external collaboration. As Srirahayu et al. (2023) explain, innovation goes beyond providing new technology, products, or services; it also includes functional administrative procedures and processes that significantly improve job efficiency and effectiveness. While scholars acknowledge the significant role of innovative behavior, it is often

studied about job performance, which is typically categorized into two types: in-role and extra-role performance (Kwon & Kim, 2020). In-role performance entails individuals exhibiting prescribed behaviors as part of their job responsibilities. In contrast, extra-role performance refers to voluntary activities that enhance organizational efficiency, though they are not required or rewarded by the organization.

In the literature on implementing employees' innovative work behavior (IWB), scholars emphasize theoretical distinctions among various dimensions associated with stages in the innovation process (de Jong & den Hartog, 2010). Janssen (2000) identifies three stages of innovation: creation, promotion, and implementation of new ideas. An innovative individual initiates the generation of new ideas when faced with challenges, with organizational problems serving as the basis for these challenges. Once ideas are generated, employees promote them within the organization to garner support for transforming these ideas into tangible products, services, processes, or work approaches. Subsequently, after obtaining organizational support, the next step is the implementation of new ideas, where employees put the ideas into action.

Similarly, de Jong and den Hartog (2010) involve four types of IWB: opportunity exploration, idea generation, championing, and application. The first stage, opportunity exploration, aims to identify problems that demand solutions. Second, idea generation involves creating new ideas to enhance a specific problem, developing new products or services, exploring new markets, improving work methods, and solving identified problems. Third, idea championing entails gaining positive influence by persuading allies to adopt the idea. Ultimately, at the application stage, innovative individuals must put the idea into practice, refining existing products or creating new ones. However, individuals may experience different stages of innovation (Shih & Susanto, 2017), acknowledging that innovation unfolds uniquely for each

individual, emphasizing the nuanced nature of innovative behavior influenced by past experiences and other personal traits.

2.3 Innovation Culture

Reflecting on the definition and dimensions of innovative behavior, organizations must cultivate an environment that supports the innovation process. Therefore, examining innovation culture as the antecedent of innovative work behavior (IWB) is noteworthy. Innovation culture can be defined as the way organizations encourage their employees to implement innovation capacity by generating new ideas, taking risks, and supporting growth and personal development (Ghasemzadeh et al., 2019). The term "innovation culture" also refers to an organization's collective system of values and beliefs that promote exploring novel ideas, cultivate innovation, and facilitate innovative behaviors among employees (Sattayaraksa & Boon-itt, 2016). To achieve continuous innovation, organizations must establish a shared value system that supports innovative behavior and open communication (Ghasemzadeh et al., 2019). Organizations that embrace an innovative organizational culture are more likely to explore new ideas, embrace risk-taking, and foster an environment supportive of innovation (O'Reilly et al., 1991).

On the one hand, an innovative culture creates a suitable environment for supporting new ideas and processes, encouraging innovative thinking, and achieving better innovative results (Ghasemzadeh et al., 2019). On the other hand, a firm with a poor innovative environment may discourage independence and flexibility in decision-making, thus hindering employees' ability to be innovative (Ghasemzadeh et al., 2019). Due to its importance, organizations must build a strong culture of innovation to encourage employees' innovativeness, ultimately impacting organizational outcomes.

Scholars in innovation have been tasked with defining various dimensions that constitute innovation culture. Wang and Ahmed (2004) present a comprehensive view of innovativeness, encompassing dimensions such as product, market, process, behavior, and strategic innovation. Their suggested framework integrates an organization's strategic orientation as a crucial factor in optimizing innovation (Wang & Ahmed, 2004), demonstrating that these dimensions assess the capacity for innovation and the focus on future orientation. In a different perspective, Dobni (2008) proposes four dimensions of innovation culture: the intention of innovation, infrastructure to support innovation, employee orientation, and the innovation environment. This multi-dimensional approach suggests that innovativeness emerges from interconnected activities bound by a shared cultural belief (Dobni, 2008). Utilizing multi-dimensional measurements aligns well with providing a comprehensive representation of organizational innovation. Moreover, assessing overall organizational innovativeness involves measuring the creation of products andvaluating fundamental components that influence innovation outcomes, such as innovative behavior, process innovativeness, and strategic innovation orientation (Dobni, 2008).

Innovation culture fosters an open environment within the organization, acting as an innovation engine where members are encouraged to be creative and explore more opportunities for innovation (Ghasemzadeh et al., 2019). While there is an acknowledgment of a positive relationship between an innovative climate and employees' innovative behavior, existing empirical research has primarily focused on investigating the impact of organizational climate on innovations at the organizational and team levels (de Jong & den Hartog, 2010; Shanker et al., 2017). Moreover, culture can stimulate innovative behavior among an organization's members by encouraging them to embrace innovation as a fundamental organizational value and fostering a

commitment to continuous innovation (Ghasemzadeh et al., 2019). This suggests that an innovation culture enhances innovative behavior (Shanker et al., 2017).

Scholars have extensively documented the outcomes of innovation culture, primarily focusing on organizational levels, with less attention given to its impact on the individual level. In particular, research exploring the nuanced influence of innovation culture on innovative behavior within the context of digital companies remains limited and warrants further investigation. This is especially crucial as such investigations may yield different results and implications, particularly in developing countries like Indonesia. Building on the literature mentioned above, this study proposes the following hypotheses:

H1: *Innovation culture positively influences employees' innovative work behavior in digital companies in Indonesia,*

2.4 Knowledge Sharing

Knowledge sharing is the mutual exchange of knowledge and understanding, including information, skills, and competence among individuals (Kmieciak, 2021). It involves sharing information and expertise between those who possess knowledge and those seeking it. This exchange encompasses the transfer of knowledge from the knowledge owners to the recipients (Razmerita et al., 2016; Xu & Suntrayuth, 2022). From a procedural standpoint, the knowledge-sharing process involves two primary processes: (1) knowledge donation, where individuals communicate their intellectual capital to others, and (2) knowledge collection, which entails consulting colleagues to encourage them to share what they have learned (Kmieciak, 2021; van den Hooff & de Ridder, 2004). Within an organization, knowledge sharing among individuals encompasses disseminating implicit and explicit knowledge, aiming to foster knowledge

creation, cultivate organizational knowledge, and yield positive results for the organization (Kmieciak, 2021).

This study considers knowledge sharing as a mediating factor between innovation culture and employees' innovative work behavior (IWB), representing an individual factor. In many companies, especially those with a high level of innovation, knowledge sharing is crucial in cultivating new ideas through the learning process (Ghasemzadeh et al., 2019). The implementation of innovative behavior cannot be achieved individually; it requires communication, cooperation, and the exchange of knowledge and skills among many employees, fostering partnership and collaboration (Kmieciak, 2021; Liu & Phillips, 2011). Research confirms that knowledge sharing can influence individuals to become more creative and innovative in performing tasks (Osmanaj et al., 2022). Similarly, Aulawi et al. (2009) suggest that the extent of knowledge-sharing behavior positively affects individual innovation capability. This is because knowledge-sharing behavior, as explained by socio-technical theory, represents social support and self-efficacy within the organization. Knowledge sharing enables individuals to seek different ideas, build close relationships with others, and encourage learning activities.

When an organization supports a learning environment, employees become more willing to share and exchange ideas with other members (Chang et al., 2017). For instance, an innovative organizational climate in high-tech organizations encourages individuals to acquire new knowledge and skills (Xu & Suntrayuth, 2022). Knowledge sharing facilitates the exchange of information and expertise, enabling employees to address challenges. Through brainstorming, new ideas can be stimulated more efficiently, ultimately enhancing idea generation. Similarly, the innovation culture, which fosters a learning environment, influences employees to exhibit

innovative behavior as the organization typically promotes open communication and trust. Therefore, this study leads to the second hypothesis:

H2: *Knowledge sharing positively mediates the relationship between innovation culture and employees' innovative work behavior in digital companies in Indonesia.*

2.5 Job Autonomy

Job autonomy is "the extent to which employees have a major say in scheduling their work, selecting the equipment they will use, and deciding on procedures to be followed" (Hackman & Lawler, 1971). It is also described as "the extent to which an employee can determine the pace, sequence, and methods to accomplish tasks. Job autonomy differs from freedom; the latter refers to people's opportunities to judge at work and choose which tasks to accomplish" (Volmer et al., 2012). Breaugh (1985) suggests three distinct dimensions of job autonomy: autonomy in choosing work methods, autonomy in determining work schedules, and autonomy in establishing work criteria. Work methods autonomy refers to how individuals determine the procedures and approaches in carrying out tasks. Work scheduling autonomy pertains to employees' authority in establishing work schedules.

Moreover, work criteria autonomy refers to how employees can select their goals. In a more recent study, Morgeson and Humphrey (2006) construct a questionnaire to measure specific dimensions of job autonomy, including the ability to determine work schedules, make decisions, and choose work methods. These proposed dimensions are often considered overlapping; however, many nuances arise. There is a general understanding that job autonomy involves a form of autonomy in work approaches (De Spiegelaere et al., 2016).

A sense of autonomy and freedom, coupled with the infusion of specialized knowledge and information, appears to favor innovative behavior (Krause, 2007, as cited in Shanker et al., 2017). Specifically, when individuals work in an environment that provides a sense of freedom, they are more likely to experience increased autonomy and more significant influence over their ideas and work methods, thereby enhancing their innovation potential (Amabile et al., 1996; Shanker et al., 2017; Si & Wei, 2012). Research suggests that employees are more committed to performing innovative work when they can choose their way to accomplish tasks (Amabile et al., 1996; Hassi et al., 2022). Furthermore, studies show that the primary effect of job autonomy on employees' innovativeness can be attributed to work method autonomy (De Spiegelaere et al., 2016). For instance, to enhance individual innovation, it is crucial to provide autonomy in determining the methods individuals use to complete tasks, encouraging active engagement in idea generation (De Spiegelaere et al., 2016). In other words, job autonomy allows individuals to experiment with new work-related processes and methods (De Spiegelaere et al., 2016; Hassi et al., 2022). It can be expected that an organizational culture that places innovation at its core values could influence how employees perceive their job autonomy, ultimately leading to individual innovativeness. Consequently, this study leads to the third hypothesis:

H3: *Job autonomy positively mediates the relationship between innovation culture and employees' innovative work behavior in digital companies in Indonesia.*

2.6 Psychological Safety

Psychological safety refers to how employees assess the potential consequences of making interpersonal risk decisions (Edmondson, 1999). Research on psychological safety can be examined at the individual, team, and organizational levels (Plomp et al., 2019). At the

organizational level, studies highlight the importance of psychological safety in positively influencing organizational performance (Baer & Frese, 2003). Kark and Carmeli (2009) suggest that an individual's perception of the work environment will likely influence individual behavioral outcomes, particularly regarding risk-taking. When employees assess risks at work, they are more inclined to exhibit learning behavior and make positive improvements (Durrah, 2023), which, in turn, stimulates individuals to be innovative. Moreover, providing a psychologically safe environment, on the one hand, could encourage employees to share information and help others in solving challenging situations. This promotes a culture of innovation and establishes a collective problem-solving environment. On the other hand, power dynamics within the organization may lead individuals to avoid help-seeking behavior (Edmondson, 2004).

Employees who feel psychologically safe are likelier to take the initiative, engage in voice behavior, and participate in proactive actions (Edmondson, 2004). Research suggests that psychological safety can positively influence employees' innovativeness at individual and team levels (Zhu et al., 2022). About innovation culture, psychological safety is influenced by a culture in which employees feel like they are an integral part of the organization. When an organization fosters innovation and embraces diversity, people can experience a psychologically safe environment and are less concerned about their reputation (Yuan & Woodman, 2010). They may also be more inclined to view innovativeness as a desired social image to attain (Yuan & Woodman, 2010). Hence, if employees feel psychologically safe in the organization, they can express their ideas and solutions, influencing their innovative behavior. Thus, this research investigates the fourth hypothesis:

H4: *Psychological safety positively mediates the relationship between innovation culture and employees' innovative work behavior in digital companies in Indonesia.*

2.7 Perceived Supervisor Support

Similar to how employees form overall opinions regarding their perceived value by the organization, they also develop overall perceptions of the extent to which supervisors value their efforts and care about their well-being (Eisenberger et al., 2002). Supervisors are organizational agents tasked with directing and evaluating the performance of their subordinates or team members (Eisenberger et al., 2002). In line with organizational support theory, the study of social exchange within organizations relies on the inherent responsibility of employees to reciprocate favorable treatment received from the organization (Bhatnagar, 2014; Masterson, 2001). According to the literature, it is suggested that perceived supervisor support can foster a desire to assist supervisors in achieving their objectives (Eisenberger et al., 2002). It helps employees achieve standard performance and surpass their usual tasks (Bhatnagar, 2014).

Research shows that when employees perceive high support from their supervisors and colleagues, they develop a positive emotional connection with the organization, leading to innovative behavior (Yang et al., 2020). Similarly, studies demonstrate a favorable relationship between perceived supervisor support and overcoming challenges, suggesting that university students are more inclined to overcome difficulties and challenges when their supervisors provide emotional support (Han et al., 2022). Furthermore, an innovation culture is designed to create a working environment that supports employees' creativity, encourages risk-taking behavior, and rewards employees' innovativeness, ultimately increasing perceived supervisor support (Ekmekcioglu & Öner, 2023). Specifically, supervisor support can optimize the learning

process and enhance innovation capabilities, transforming ideas into innovative solutions (Han et al., 2022). Therefore, it is imperative to note that if employees can establish a supportive environment for innovation and assist their subordinates, it is more likely to enhance their innovation process. Based on the reasoning above, this study leads to the fifth hypothesis:

H5: *Perceived supervisor support positively mediates the relationship between innovation culture and employees' innovative work behavior in digital companies in Indonesia.*

2.8 Conceptual Model

Figure 1.

Conceptual Model
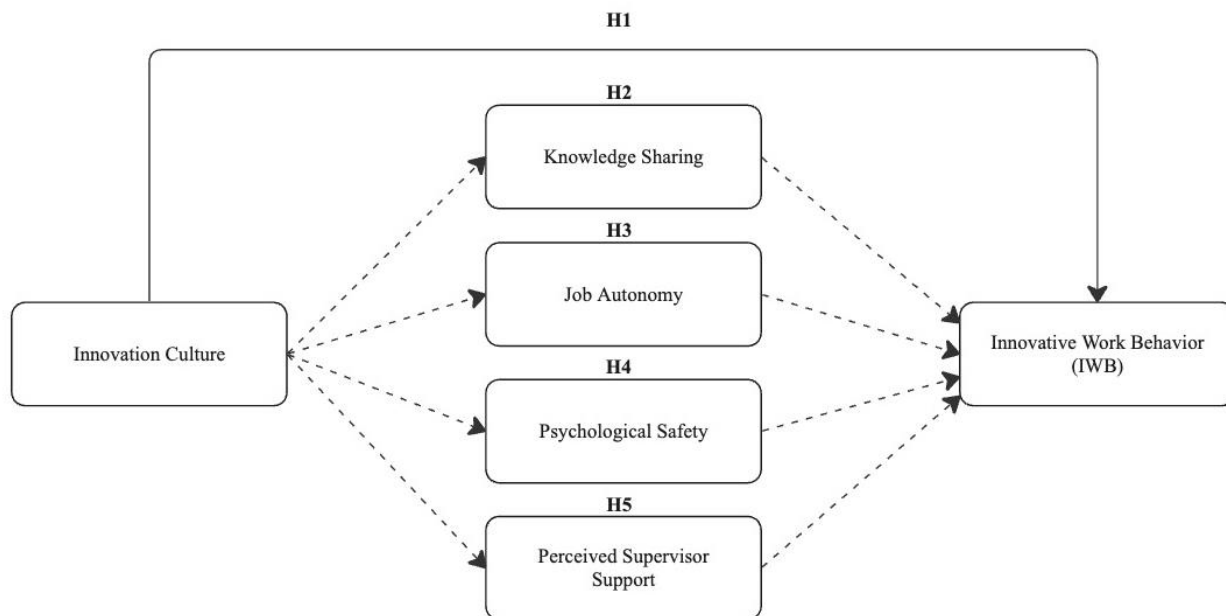
Figure 1 presents the conceptual model in this study. This framework illustrates the proposed hypothesis (H1), which explores the nuanced relationship between innovation culture and employees' innovative work behavior (IWB). The framework also provides a comprehensive understanding by investigating hypothesized mediating variables, such as knowledge sharing (H2), job autonomy (H3), psychological safety (H4), and perceived supervisor support (H5), which can impact the relationship between innovation culture and IWB. Scholars have previously documented a correlation between these variables separately. However, it is crucial to examine innovation culture as the environmental factor, mediated through individual factors, influencing IWB in digital companies specifically in Indonesia.

3. Methods

3.1 Research Design

This study used a quantitative cross-sectional research design to answer the proposed research questions. The data were collected from employees of digital companies in Indonesia. A random sample was chosen as a representative of the population. Before the data collection process, the researcher chose items to measure innovation culture and innovative work behavior (IWB), as well as mediating factors such as knowledge sharing, job autonomy, psychological safety, and perceived supervisor support. Then, the questionnaire was created using the Qualtrics platform provided by the University of Twente. Prior to the data collection, ethical approval was granted by the university's Ethics Committee, allowing the researcher to process and analyze the data.

3.2 Participants

The first step to recruiting participants was to approach some potential organizations that were willing to participate and collaborate in this research. The researcher approached the human capital departments of Indonesian digital companies through email or LinkedIn. Those organizations provide digital technology and platforms as their main products or services. Then, the researcher explained the aims and procedures of the survey and addressed some concerns, such as the project timeline and the expected outcomes that met the organization's needs. If there were no problems, their employees could receive the survey by email, which ran from October 20 to November 20, 2023.

This research was conducted in Indonesian digital companies. In total, 208 participants out of a possible 670 from seven different organizations completed the online questionnaire, resulting an overall response rate of 31%. However, the data from 47 respondents was excluded

because they did not complete the entire questionnaire. Hence, the data of 161 participants were taken into this study.

The collected data consisted of demographic profiles such as companies, gender, age, tenure, educational level, and managerial position. Company A had the highest number with 24% of the total participants, while Company G had the lowest rate with 2% of the total participants. In regard to gender, the majority of the participants were male employees. Relating to age, the participants were aged between 22 and 58 years old (M = 30.6, SD = 6.0). Moreover, the participants have been working for the current organization for the duration of 1 to 12 years (M = 3.1, SD = 2.4). The majority of the participants were bachelor's degree graduates, and the least represented were high school graduates. Furthermore, the majority of the respondents had no leadership position in the current organization. The detailed demographic information is presented in Table 1.

Table 1.

Demographic Respondents

	Categories	Frequency	Percentage (%)
Company	Company A	38	24
	Company B	20	12
	Company C	42	26
	Company D	25	16
	Company E	19	12
	Company F	13	8
	Company G	4	2
Gender	Male	83	52
	Female	62	39
	Prefer not to state	16	10

Age	25 years or less	27	17
	26-30	74	46
	31-35	34	21
	36-40	10	6
	41-45	14	9
	46-50	1	1
	51 years or more	1	1
Tenure	0-3	115	71
	4-7	34	21
	8-11	9	6
	12 years or more	3	2
Education	High School	4	2
	Associate's Degree	7	4
	Bachelor's Degree	132	82
	Master's Degree	18	11
Leadership Position	Yes	57	35
	No	104	64

3.3 Scales and Measurements

To evaluate every construct properly, all the variables were conceptualized into measurable constructs. In this research, a seven-point Likert scale was used to measure every item, ranging from 1 (strongly disagree) to 7 (strongly agree). The scales and items were translated from English to Bahasa Indonesia to facilitate the respondents' interpretation and response. Additionally, the constructs were developed based on the previous research.

3.5.1 Innovation culture

In this study, innovation culture was measured by the desired of organizational level to generate new ideas, develop innovation, and how the organization can facilitate employees'

innovativeness. The measurement scales were adopted from Park et al. (2015) which has five questions such as "risk-taking is encouraged without fear of punishment for mistake" and "creativity and innovation are rewarded".

3.5.2 Employees' innovative work behavior

Employees' innovative work behavior (IWB) was measured using the scale from Janssen (2000) which has been widely used by scholars. There were six items to be addressed such as "create new ideas for improvements" and "mobilize support for innovative ideas". Four items were added from the existing literature to ask the routine job activities. However, these routine job items were only used as the distraction for the respondents, reducing the likelihood of obtaining biased responses.

3.5.3 Knowledge sharing

The mediating variable of knowledge sharing is derived from knowledge collecting and knowledge donating (de Vries et al., 2006; Kmieciak, 2021) The measurement consists of eight questions such as "when I've learned something new, I tell my colleagues about it", "I share information I have with my colleagues", and "I think it is important that my colleagues know what I am doing".

3.5.4 Job autonomy

Job autonomy is measured using the scale from the Work Design Questionnaires (Morgeson & Humphrey, 2006). We choose the decision making and work methods autonomy with total of six questions such as "the job gives me a chance to use my personal initiative or judgment in carrying out the work" and "the job allows me to make a lot of decisions on my own".

3.5.5 Psychological safety

Psychological safety is adopted from Edmondson (2004) which has five questions such as "members of this organization are able to bring up problems and tough issues", "people in this organization sometimes reject others for being different", and "it is safe to take a risk in this organization".

3.5.6 Perceived supervisor support

Perceived supervisor support is adapted using the scale of perceived organizational support, replacing the term organization with supervisor (Eisenberger et al., 2002). This variable has five questions such as "my supervisor strongly considers my goals and values" and "help is available from my supervisor when I have a problem".

3.4 Validity and Reliability Tests

Before conducting factor analysis, the Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy and Bartlett's test were employed to examine whether the obtained data could be used for the factor analysis. In this study, the KMO coefficient was .87 and Bartlett's test was 3539.93 (p = .00), indicating that the data are considered appropriate to perform factor analysis. Then, a factor analysis was conducted to identify underlying constructs using the Principal Component Analysis and the rotation methods using Varimax with Kaizer Normalization. However, it is important to note that not all items loaded in their intended factors, especially psychological safety. Of the 36 items, two were removed as their loadings were less than 0.40 (KS8 and PS5) and might not be relevant for further analysis. Therefore, a scale of 34 final items was obtained. Furthermore, the most commonly used methods to analyze reliability are Cronbach's alpha, in which all scales were above the recommended minimum of 0.7, which suggests that the scales

used in the research are internally reliable (Hair et al., 2010). Nevertheless, researchers have

suggested that a tolerance level can still be retained with an alpha value of .60. Table 2 provides

an overview of the factor analysis.

Table 2.

Factor Analysis

Items		Component						Cronbach's alpha
		1	2	3	4	5	6	
IWB1	I create new ideas for improvements		.84					
IWB2	I mobilize support for innovative ideas		.79					
IWB3	I search out novel working methods		.68					
IWB4	I transform innovative ideas into useful applications		.81					.91
IWB5	I generate original solutions to problems		.68					
IWB6	I introduce innovative ideas		.85					
KS1	When I've learned something new, I tell my colleagues about it	.52	.55					
KS2	I share information I have with my colleagues	.50	.59					
KS3	I think it is important that my colleagues know what I am doing		.77					
KS4	I regularly tell my colleagues what I am doing		.75					.85
KS5	When I need certain knowledge, I ask my colleagues about it		.59					
KS6	I like to be informed of what my colleagues know.		.75					
KS7	I ask my colleagues about their abilities when I need to learn something		.61					
JA1	My job gives me a chance to use my personal initiative or judgment in carrying out the work	.40	.45		.40			
JA2	My job allows me to make a lot of decisions on my own				.77			
JA3	My job provides me with significant autonomy in making decisions				.77			.85
JA4	My job allows me to make decisions about what methods I use to complete my work		.32		.70			
JA5	My job gives me considerable opportunity for independence and freedom in how I do the work		.35		.68			

Item	Statement	F1	F2	F3	F4	F5
JA6	My job allows me to decide on my own how to go about doing my work			**.62**	.35	
PS1	As a member of my organization, I feel that I am able to bring up problems and tough issues	.51	.32		**.42**	
PS2	People in my organization sometimes reject me for being different				**.77**	
PS3	It is safe for me to take a risk in my organization	.42			**.34**	.60
PS4	It is difficult for me to ask other members of my organization for help				**.85**	
PS6	Working with members of my organization, my unique skills and talents are valued and utilized	**.62**				
SS1	My supervisor always considers my goals and values	**.74**				
SS2	Help is available from my supervisor when I have a problem	**.78**				
SS3	My supervisor really cares about my well-being	**.85**				.90
SS4	My supervisor cares about my general satisfaction at work	**.80**				
SS5	My supervisor recognizes my accomplishments at work	**.83**				
IC1	In my organization, risk-taking is encouraged without fear of punishment for mistakes	.39			**.37**	
IC2	In my organization, creativity and innovation are rewarded	.54			**.49**	
IC3	In my organization, managers are receptive to change	.34			**.73**	.83
IC4	In my organization, employees are receptive to change				**.73**	
IC5	In my organization, new practices and ways of doing business are encouraged	.44			**.57**	

IC: Innovation Culture; IWB: Innovative Work Behavior; KS: Knowledge Sharing; JA: Job Autonomy; PS: Psychological Safety; SS: Perceived Supervisor Support.

3.5 Procedure

An initial email was sent to the employees, clearly explaining the study's aims and objectives, and therefore requesting participants to complete the online questionnaire (see Appendix A for the questionnaire). Then, a reminder email was sent to the employees a week

after the first announcement. Participants were explicitly informed that their involvement in the survey was voluntary, ensuring the confidentiality, and granting them the choice to withdraw at any time. Additionally, this presented an incentive in the form of a chance to participate in a draw for a gift card.

The participants started by reading all the information provided, including the consent form. After participants agreed to the information, they were directed to fill out the questionnaire about innovative work behavior, knowledge sharing, job autonomy, psychological safety, perceived supervisor support, and innovation culture. However, it should be pointed out that these variables were not explicitly mentioned on the questionnaire to reduce the information bias. Afterwards, the participants were asked to fill out personal background questions concerning demographic profiles such as company name, age, gender, education, tenure, and leadership position.

3.6 Data Analysis

The technique was used to conduct the data analysis. The researcher utilized a statistical software program SPSS 27 to analyze the data. After all the data had gathered, the researcher calculated the descriptive statistics including the means, median, and standard deviations. The validity and reliability of the items were measured using the factor analysis and Cronbach's alpha. In addition, the regression analysis was examined to analyze the relationship between independent and dependent variables. Furthermore, the mediating variables were tested using the PROCESS macro in SPSS.

4. Results

This study aims to investigate the effect of innovation culture on employees' innovative work behavior (IWB) and the mediating factors of knowledge sharing, job autonomy, psychological safety, and perceived supervisor support. In this section, it presents the descriptive statistics including the means and standard deviation and correlations among variables, then this covers the results of the regression analysis and conditional process analysis using PROCESS macro.

4.1 Correlation and Description of Study Variables

The mean and standard deviation (*SD*) are provided in the study variables. The variable of perceived supervisor support (SS) had the highest value of mean of 5.59, whereas the psychological safety (PS) had the lowest mean of 4.25. The standard deviation ranged between .82 and 1.09 with psychological safety as the highest and the perceived supervisor support as the lowest variable.

A Pearson correlation analysis was conducted to assess the relationship between the variables of innovation culture (IC), innovative work behavior (IWB), knowledge sharing (KS), job autonomy (JA), psychological safety (PS), and perceived supervisor support (SS). The matrix is presented in Table 3. The results of the correlation analysis showed that knowledge sharing ($r = .47, p < .05$), job autonomy ($r = .50, p < .05$), psychological safety ($r = .39, p < .01$), perceived supervisor support ($r = .34, p < .05$), and innovation culture ($r = .39, p < .05$), positively associated with innovative work behavior. These indicated that a higher score on knowledge sharing, job autonomy, psychological safety, perceived supervisor support, and innovation culture was linked to a higher score on IWB. In addition, perceived supervisor support was

highly correlated with innovation culture ($r = .67, p = .01$). Furthermore, no negative

correlations were found in this study.

Table 3.

Pearson Correlation and Descriptive Statistics of Study Variables (N = 161)

Variable	M	SD	IWB	KS	JA	PS	SS	IC
IWB	5.58	.93	-					
KS	5.42	.95	.47**	-				
JA	5.52	.88	.50**	.36**	-			
PS	4.25	.82	.39*	.17*	.50**	-		
SS	5.59	1.09	.34**	.42**	.46**	.38**	-	
IC	5.31	1.05	.39**	.42**	.54**	.34**	.67**	-

IC: Innovation Culture; IWB: Innovative Work Behavior; KS: Knowledge Sharing; JA: Job Autonomy; PS: Psychological Safety; SS: Perceived Supervisor Support.

4.2 Hypotheses Testing

Regression analysis was applied to measure the relationship between the independent and dependent variables. The H1 tests if innovation culture (IC) directly carries as significant impact on employees' innovative work behavior (IWB). The results indicated that IC positively and significantly affects IWB (F = 28.12, $b = .34, p < 0.05$). Hence, H1 is supported. Table 4 provides the summary of the regression results. The results implied that organizations with high levels of innovation culture contribute positively to the individuals' innovative behavior.

Table 4.

Regression Analysis Results

Variable	Innovative Work Behavior				
	b	R^2	F	t	p
Innovation Culture	.34	.15	28.12	5.30	.00

Then, the mediating effects were tested by bootstrap analysis using PROCESS macro model 4 in SPSS. Hypothesis H2 suggested that knowledge sharing (KS) mediates the relationship between innovation culture (IC) and innovative work behavior (IWB). The results indicated that knowledge sharing (KS) positively mediated the relationship between innovation culture and innovative work behavior, b = .12, t = 1.2, CI [.04, .22] (excluding 0). Hence, H2 is supported.

Hypothesis H3 proposed that job autonomy (JA) has a mediating effect on the relationship between innovation culture (IC) and innovative work behavior (IWB). The results revealed that job autonomy (JA) significantly mediates the relationship between innovation culture and innovative work behavior, b = .13, t = 2.4, CI [.5, .22] (excluding 0). Therefore, H3 is confirmed. The results also showed that psychological safety (PS) mediates the relationship between innovation culture and innovative work behavior, b = .6, t = 1.0, CI [.01, .12] (excluding 0). Hence, hypothesis H4 is accepted. In addition, the indirect effect of innovation culture on innovative work behavior through perceived supervisor support (PS) was found not significant, b = -.03, t = -1.0, CI [-.14, .09] (including 0). Therefore, the mediating role of perceived supervisor support did not significantly mediate the relationship between innovation culture and innovative work behavior. Hence, hypothesis H5 is rejected. The results of the bootstrap analysis are presented in Table 5.

Table 5.

Mediation Analysis Results

Variables	Effect	t-Statistics	Confidence Interval		Decision
			Lower Bound	Upper Bound	
Knowledge Sharing	.12	1.2	.04	.22	Accepted
Job Autonomy	.13	2.4	.05	.23	Accepted
Psychological Safety	.06	1.0	.01	.12	Accepted
Perceived Supervisor Support	-.03	-1.0	-.14	.09	Rejected

4.3 Additional Findings

The additional data were examined using PROCESS macro model number 1 to measure the moderating effect, including age, gender, tenure, education, and leadership, on the relationship between innovation culture and innovative work behavior. It was found that male employees were positively associated with individual innovative behavior, $b = .27$, $p = .00$, suggesting a positive moderation effect for male employees. Female employees were associated with a higher level of individual innovative behavior compared to male employees, $b = .55$, $p = .00$ (Table 6). Furthermore, both male and female employees demonstrate statistically significant moderation effects of innovation culture and innovative behavior. Figure 2 illustrates the interaction effect of gender on the relationship between innovation culture and IWB.

Table 6.

Conditional Effect of Gender on Innovation Culture and Innovative Work Behavior (IWB)

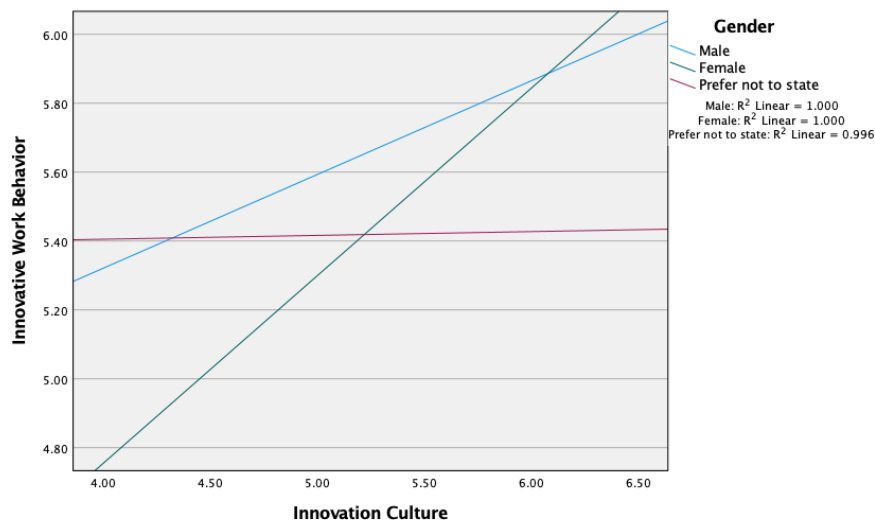|	Effect	SE	t	p	LLCI	ULCI
Male	.27	.09	3.21	.00	.11	.11
Female	.55	.11	4.99	.00	.33	.33

Prefer not to state	.01	.20	.06	.95	-.38	.40

Figure 2.

Interaction Effect of Gender on Innovation Culture and Innovative Work Behavior (IWB)

Then, it was tested whether the age group would moderate the relationship between innovation culture and IWB. It was confirmed that the age group did not significantly moderate the relationship between innovation culture and IWB, $b = -.01$, $p = .22$ (Table 7). This means that the moderating factor of age group on the relationship between innovation culture and IWB was not statistically supported. Figure 3 provides a graph to visualize the relationship between innovation culture and IWB moderated by age group.

Table 7.

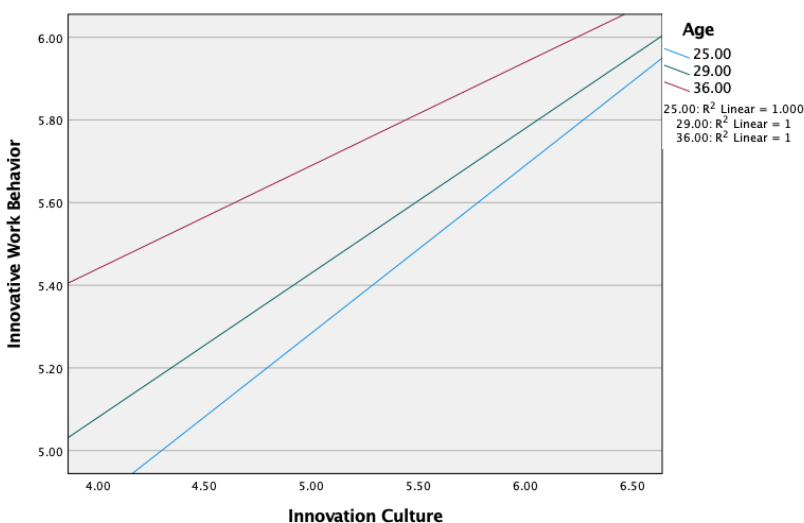*Moderating Effect of Age on Innovation Culture and Innovative Work Behavior (IWB)*

	Effect	SE	t	p	LLCI	ULCI
Constant	.53	2.05	.26	.80	-3.52	4.58
IC	.76	.36	2.12	.04	.05	1.48

Age	.11	.07	1.64	.10	-.02	.24
Interaction	-.01	.01	-1.23	.22	-.04	.01

Figure 3.

Interaction Effect of Age Group on Innovation Culture and Innovative Work Behavior (IWB)

A moderation analysis was also performed to explore the influence of tenure on the relationship between innovation culture and innovative behavior. It was found that tenure did not moderate significantly, $b = -.01$, $p = .82$ (Table 8). This suggests that the relationship between innovation culture and innovative behavior does not vary across different levels of tenure. The graph of the interaction term is provided in Figure 4.

Table 8.

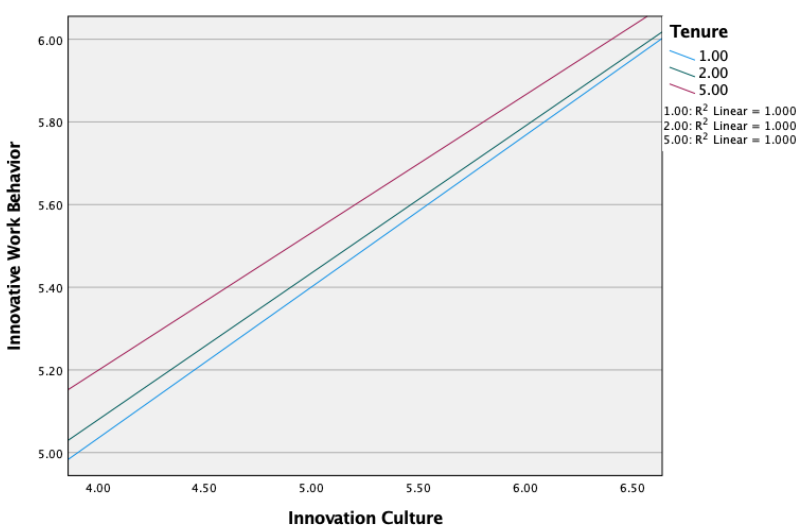*Moderating Effect of Tenure on Innovation Culture and Innovative Work Behavior (IWB)*

	Effect	SE	t	p	LLCI	ULCI
Constant	3.51	.70	5.03	.00	2.13	4.89
IC	.37	.13	2.88	.00	.12	.63

Tenure	.07	.20	.36	.72	-.32	.46
Interaction	-.01	.04	-.21	.82	-.08	.07

Figure 4.

Interaction Effect of Tenure on Innovation Culture and Innovative Work Behavior (IWB)

Then, a moderation analysis was also performed to explore the influence of the education group on the relationship between innovation culture and innovative behavior. It was found that the interaction effect was not statistically significant, $b = .05$, $p = .72$ (Table 9), meaning that education does not significantly moderate the relationship between innovation culture and innovative behavior. The graph of the interaction term is presented in Figure 5.

Table 9.

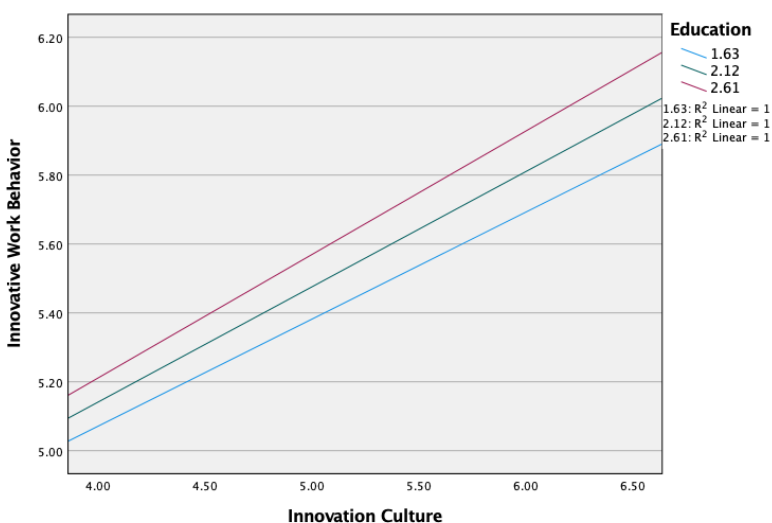*Moderating Effect of Education on Innovation Culture and Innovative Work Behavior (IWB)*

	Effect	SE	t	p	LLCI	ULCI
Constant	3.91	1.63	2.40	.02	.69	7.13
IC	.23	.29	.80	.42	-.34	.80

| Education | -.05 | .77 | -.07 | .95 | -1.58 | 1.47 |
| Interaction | .05 | .14 | .36 | .72 | -.22 | .32 |

Figure 5.

Interaction Effect of Education on Innovation Culture and Innovative Work Behavior (IWB)

Lastly, it was examined whether leadership positions could play a role in shaping innovative behavior. It was revealed that employees who have leadership position, the conditional effect was not statistically significant, $b = .12$, $p = .33$ (Table 10). Contrary to individuals who have no leadership, the conditional effect was statistically significant, $b = .38$, $p = .00$. This suggests that there is a positive relationship between innovation culture and innovative behavior among non-leadership employees. position Figure 6 illustrates the interaction effect of leadership roles on the relationship between innovation culture and IWB.
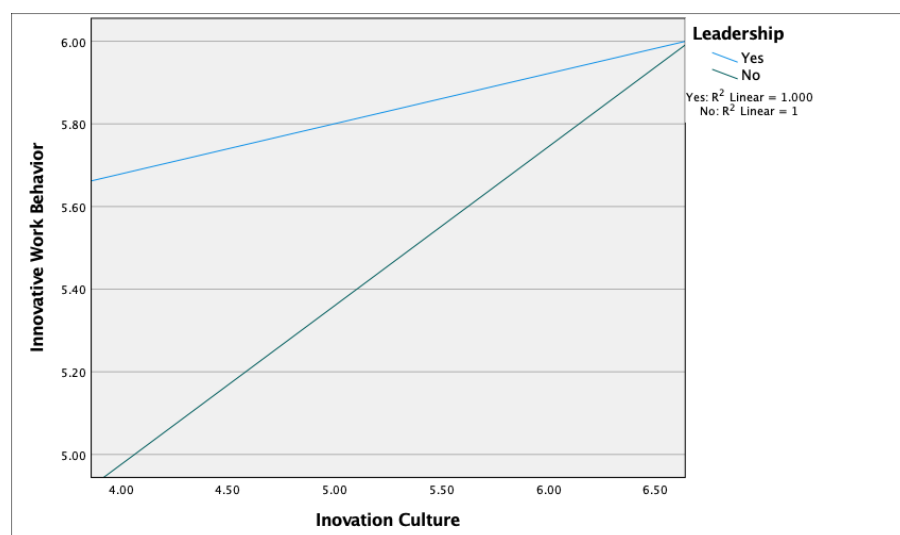
Table 10.

Conditional Effect of Leadership on Innovation Culture and Innovative Work Behavior (IWB)

	Effect	SE	t	p	LLCI	ULCI
Leaders	.12	.13	.96	.34	-.13	.37
Non-leaders	.38	.08	5.11	.00	.24	.53

Figure 6.

Interaction Effect of Leadership on Innovation Culture and Innovative Work Behavior (IWB)

5. Discussion

5.1 Main Findings

Based on the findings presented above, it is confirmed that an innovation culture significantly and positively influences IWB, particularly within the context of digital companies in Indonesia. This aligns with prior research, emphasizing the vital role of an innovation culture in shaping employees' IWB (Shanker et al., 2017; Xu et al., 2022). Consequently, an innovation culture promotes an inclusive and open workspace within the organization, motivating employees to think creatively and explore various possibilities for innovation (Ghasemzadeh et al., 2019). The second hypothesis proposed knowledge sharing as the mediating factor between innovation culture and IWB. As expected, knowledge sharing plays a significant mediating role in this relationship. The results resonate with earlier studies highlighting knowledge sharing's mediating role between organizational innovation climate and IWB (Xu & Suntrayuth, 2022). Osmanaj et al. (2022) further emphasized knowledge sharing's pivotal role in enhancing workplace innovation.

The third hypothesis assumed that the presence of an innovative organizational culture positively influences innovative behavior through the mediating mechanism of job autonomy. It is confirmed that job autonomy acts as a positive mediator between innovation culture and IWB. Previous research also documented that workplace autonomy facilitated individuals to take innovative problem-solving approaches (Suhandiah et al., 2023). Moreover, the fourth hypothesis explored the mediating role of psychological safety in the relationship between innovation culture and IWB. Results indicated a significant mediation of IWB through psychological safety. This finding aligns with prior research suggesting that the relationship between organizational innovation climate and IWB is mediated by psychological safety (Xu &

Suntrayuth, 2022). Accordingly, while innovative-oriented organizations inherently promote an innovation culture, the presence of psychological safety further amplifies employees' innovativeness.

Lastly, it was revealed that perceived supervisor support did not significantly mediate the relationship between innovation culture and IWB. Contrarily, prior research indicated that an innovative environment, where individuals can generate ideas, coupled with general support, positively enhances the innovative behavior of employees (Hammond et al., 2011). One study indicated that a higher degree of academic support from supervisors corresponded with a decreased likelihood of students exploring new ideas, especially in graduate university settings (Han et al., 2022). On the one hand, perceived supervisor support is essential for driving innovative behavior within teams. On the other hand, if the degree of supports excessive, this leads employees feeling lack of independence and overly controlled by the leaders. Moreover, based on the demographic profile, it was revealed that female employees demonstrate a higher level of innovative behavior in comparison to the male employees. Furthermore, employees who have no leadership position were more likely to engage in innovative behavior.

5.2 Theoretical Implications

This study sheds light on the domains of innovation culture and innovative behavior literature. First, although existing research has dedicated considerable attention to innovative behavior as an outcome, most of the studies predominantly focus on the role of organizational culture in a broader perspective. For example, scholars have examined the role of organizational climate (e.g., Shanker et al., 2017; Xu et al., 2022) influencing individual innovation. Hence, this study contributes to the existing literature by delving into the role of innovation culture as one

dimension variable. Furthermore, scholars frequently investigate the role of organizational culture in influencing other organizational outcome including organizational performance and innovation. While these investigations are vital, it is imperative to understand the specific impact of innovation culture on individual innovative work behavior. Hence, the results of this study support the notion that innovation culture could become a pivotal factor influencing innovation at the individual levels.

Second, this study integrates a nuanced exploration of personal factors that could influence how employees exhibit innovative behavior. These mediating factors include knowledge sharing, job autonomy, psychological safety, and perceived supervisor support. The results are consistent with previous studies where knowledge sharing, job autonomy, and psychological safety serve as mediating factors in the relationship between innovation culture and innovative behavior. One possible reason is that generating innovative ideas involves interacting and communicating with other employees within the organization. This underscores the interconnected nature of organizational dynamics, emphasizing the significance of fostering collaborative and open environments for the innovation process.

Contrary to the existing literature, this study shows that perceived supervisor support does not significantly mediate the relationship between innovation culture and IWB. One possible reason for this result is that employees might feel overly controlled by their supervisor. Furthermore, it is also noteworthy to understand that this study focuses on the context of Asian organizations, where power distance and collectivism culture could influence employees to adhere to the instructions and hierarchy set by the supervisors (Xu & Suntrayuth, 2022). When individuals have a different point of view from their supervisors, they often exhibit an unwillingness to disclose their novel ideas because they are concerned that their actions may not

be approved by the supervisors. Therefore, this study extends the existing literature by providing a nuanced understanding of perceived supervisor support as having a non-significant effect on the relationship between innovation culture and innovative work behavior.

5.3 Practical Implications

This study offers practical insights for organizations and managerial roles to grasp the pivotal roles of innovation culture in influencing innovative behavior. Innovation culture stands as an antecedent of IWB. Consequently, organizations should actively foster an environment that promotes creativity and embraces risk-taking behavior. Cultivating such a culture involves supporting employees in brainstorming novel ideas and instituting a reward system to recognize their contributions. Employees who exhibit a proactive attitude towards challenging and pioneering endeavors are more likely to engage in innovative behaviors. Conversely, those resistant to change pose a barrier to innovation. Therefore, organizations should equip their workforce with cutting-edge tools and methodologies. Prioritizing an innovation culture at the foundational level can catalyze employee innovation in the long run. Thus, organizations and managerial levels should be able to embrace creativity and adaptability as valuable culture within the organization.

Knowledge sharing, job autonomy, and psychological safety act as mediating variables between innovation culture and IWB. One actionable takeaway from this is the imperative for organizations to build and enhance their employees' learning culture. As previously emphasized, knowledge sharing fosters a culture where insights and ideas fuel innovativeness. This underscores that while innovation culture is instrumental, the information exchange within the team is equally crucial for enhancing IWB. In doing so, leaders can start establishing knowledge-

sharing platforms that aim to encourage employees to seek and exchange information. Before the weekly meeting, for instance, leaders can ask team members to share their thoughts and information about what they have learned. Additionally, granting job autonomy empowers employees, enabling them to make impactful decisions and thereby spur innovative thinking. As an implication, leaders need to understand that their subordinates have autonomy in doing the tasks, meaning that they have the freedom to use any tools and methods. This autonomy ensures that individuals work based on their own approaches, with leaders primarily offering provision and constructive feedback.

Moreover, nurturing psychological safety ensures employees feel emboldened to voice their insights and perspectives. Leaders and managers should cultivate an environment emphasizing open dialogue, collaboration, risk-taking, and ideation without being punished or fearing mistakes. Furthermore, organizations and leaders must pay careful attention in regard to ensuring perceived supervisor support. Leaders must strike a delicate balance, guiding without overstepping, and ensuring team members feel empowered rather than controlled. On the one hand, aiding individuals accomplish their tasks is crucial, ensuring that they achieve their goals and objectives. On the other hand, if leaders get involved and use their authority to make interventions, employees are more likely to feel overly controlled by their supervisors. Hence, leaders must avoid over-intervention of their team members.

5.4 Limitations

Several limitations were identified for the direction of future research. The primary constraint of this study is its reliance on data reported by individuals themselves. While self-reported data is common in social research, respondents may provide subjective assessments influenced by their perspectives or a desire to conform to social norms. For example, respondents

might describe themselves as innovative individuals to appear more competent as employees. Furthermore, self-reported data might cause individuals to evaluate their organizations based on their subjective opinions. In addition to this limitation, the absence of leaders and peers diminishes the comprehensiveness of the insights. Innovation requires individuals to interact and collaborate among individuals, thus will offer more holistic findings of organizational dynamics.

Secondly, this study employs a cross-sectional survey to assess the relationship between innovation culture and IWB, which compromises the conceptual model. Cross-sectional surveys inherently struggle to establish causality among variables (Ali-Hassan et al., 2015). The study's shortcomings are underscored by the limited participant pool due to recruitment challenges, affecting result generalizability. Thirdly, this study solely focuses on individual innovation levels, neglecting organizational phenomena. Thus, exploring innovation's organizational impact remains essential, meaning it requires an examination within an organizational context.

5.5 Suggestion for Future Research

There are several recommendations for future studies. Firstly, while this research employed a survey for data collection, relying on employees to fill out questionnaires which potentially based on desired norms, it would be beneficial to incorporate feedback from leaders, managers, and peers. Although self-reported data is commonly used in quantitative research, gathering insights from these other perspectives could enhance the depth and reliability of the findings. Specifically, data from peers could further validate employees' innovativeness. Thus, a multi-perspective approach in subsequent research could offer a more comprehensive understanding of employees' innovativeness.

Secondly, this research utilized a cross-sectional survey, limiting its examination to relationships between constructs. A subsequent qualitative or longitudinal study could provide a more profound exploration of the data over time and offer deeper insights into innovative behavior metrics and measurements. An additional recommendation is to broaden the examination of other personal and external factors as potential mediators. These factors might include individual traits, trust, persistence, well-being, and market conditions, offering a more nuanced comprehension of innovative behavior. Crucially, it is vital to view innovative behavior as an antecedent to other variables within organizational dynamics. Adopting this perspective can provide a holistic view of its influence on organizational outcomes and assess its impact on overall organizational performance and innovation.

5.6 Conclusion

This study investigated the influence of innovation culture on innovative behavior and explored the mediating role of personal factors (e.g., knowledge sharing, job autonomy, psychological safety, and perceived supervisor support) in this relationship. The findings underscored the pivotal role of innovation culture in shaping innovative behavior. Notably, knowledge sharing, job autonomy, and psychological safety emerged as significant mediators between innovation culture and innovative behavior. However, the study found that perceived supervisor support did not act as a mediator in this relationship. Consequently, this research sheds light on the significance of innovation culture in influencing employees' innovative behavior. Leaders and organizations are thus encouraged to prioritize the development and sustenance of an innovation culture to bolster individual innovative behaviors. This study also offers practical implications, outlines its limitations, and provides recommendations for future research.

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Appendix A

Questionnaire

Thank you for taking part on this survey. This survey aims to investigate the relationship between **job characteristics and organizational culture.** This survey is undertaken to fulfil the requirement of master's degree of Communication Science at the University of Twente, The Netherlands. Ethical procedures for academic research undertaken from University of Twente requires the respondents to agree to fill the survey and how the data and information will be used.

This consent form is necessary for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. You are allowed to withdraw your participation in this research at any time.

All the data and information collected from you during this questionnaire will be kept strictly confidential and will only be used for the purposes of this research study. Any data collected will be stored securely and accessible only to the research team. Your responses will be anonymized and reported in aggregate form, ensuring that your identity remains confidential.

CONSENT

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I voluntarily agree to take part in this study. [Yes/No]

Please answer the questions by selecting a scale of 1-7 that suits you!

1 = Strongly Disagree
2 = Disagree
3 = Somewhat Disagree
4 = Neither Agree or Disagree
5 = Somewhat Agree
6 = Agree
7 = Strongly Agree

Questions	Value						
	1	2	3	4	5	6	7
How would you characterize yourself as an employee?							
I create new ideas for improvements							
I mobilize support for innovative ideas							
I search out novel working methods							
I transform innovative ideas into useful applications							
I generate original solutions to problems							
I introduce innovative ideas							
I always complete the duties specified in my job description							
I always meet all the formal performance requirements of my job							
I always fulfill all responsibilities required by my job							
I often fail to perform essential duties							
How would you describe the relationship with your colleagues?							
When I've learned something new, I tell my colleagues about it							
I share information I have with my colleagues							
I think it is important that my colleagues know what I am doing							
I regularly tell my colleagues what I am doing							
When I need certain knowledge, I ask my colleagues about it							
I like to be informed of what my colleagues know.							
I ask my colleagues about their abilities when I need to learn something							
When a colleague is good at something, I ask them to teach me how to do it							
How would you describe your job characteristics?							
My job gives me a chance to use my personal initiative or judgment in carrying out the work							
My job allows me to make a lot of decisions on my own							
My job provides me with significant autonomy in making decisions							
My job allows me to make decisions about what methods I use to complete my work							
My job gives me considerable opportunity for independence and freedom in how I do the work							
My job allows me to decide on my own how to go about doing my work							
How would you describe your organization?							
As a member of my organization, I feel that I am able to bring up problems and tough issues							

People in my organization sometimes reject me for being different							
It is safe for me to take a risk in my organization							
It is difficult for me to ask other members of my organization for help							
No one in my organization would deliberately act in a way that undermines my efforts							
Working with members of my organization, my unique skills and talents are valued and utilized							
How would you characterize your supervisor?							
My supervisor always considers my goals and values							
Help is available from my supervisor when I have a problem							
My supervisor really cares about my well-being							
My supervisor cares about my general satisfaction at work							
My supervisor recognizes my accomplishments at work							
To what extent does your organization value and encourage innovation?							
In my organization, risk-taking is encouraged without fear of punishment for mistakes							
In my organization, creativity and innovation are rewarded							
In my organization, managers are receptive to change							
In my organization, employees are receptive to change							
In my organization, new practices and ways of doing business are encouraged							

Now, we would like to know your background.

What is your age? [fill the number]
What is your gender? [male/female/prefer not to state]
How long have you been working in the company in years? [fill the number]
What is your educational level? [Associate Degree/Bachelor's Degree/Master's Degree]
Do you have leadership position? [Yes/No]

Thank you for your participation. If you have any further questions or concerns about this study, please feel free to contact the researcher: mukhsin@student.utwente.nl