Impact Of Digital Leadership on Small Medium Enterprises Resilience: The Mediating Role of Employee Creativity

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Abstract

Survival of Small Medium Enterprises (SMEs) is important in uncertainty and rapid advancement of digitalization nowadays, which leads to significant changes in the business environment. SMEs must be able to be resilient and face turbulence to survive and maintain business continuity. To support this resilience, digital leaders are required to help enterprises transform and lead them to a more promising future. Thus, SMEs have a digital mindset so that they can recognize and exploit opportunities, as well as overcome the challenges of surviving in an increasingly dynamic environment. Based on Social Exchange Theory and Resource Base Theory, this study examines the relationship between digital leadership and SMEs resilience through the mediation of employee creativity. Based on a sample of 179 SMEs from various sectors in Indonesia. The data were analyzed using AMOS-SEM by assessing construct validity and reliability, as well as measurement and structural models. The analysis confirms the effect of digital leadership on SMEs' resilience. The findings support the role of employee creativity as a mediator of SMEs resilience. Expand our understanding of the predictors of SME resilience. The implications for future study are highlighted.

Keyword: digital leadership, employee creativity, SMEs resilience

1. INTRODUCTION

The political, social, economic uncertainty and rapid advancement of digitalization nowadays, which leads to significant changes in the business environment causing particularly in Small Medium Enterprises (SMEs) with new challenges. This has also been enhanced by the current challenging times that COVID-19 has generated (Baudier et al., 2020; Sadeghi et al., 2020), the world is entering a new era where the global community must face multidimensional impacts that affect life and business activities. Almost all aspects of life then require digital means to fulfill needs both in work and in the business environment. Digitalization occurs in various sectors, converting traditional workplaces into digital forms (Cortellazzo et al., 2019). A myriad of business environment has been technologically digitized rapidly (Haddud & McAllen, 2018). Even in companies with low digitalization, employees keep connected to their workplaces via mobile devices, more and more people are working

through virtual teams and knowledge sharing is done through digital platforms (Colbert et al., 2016; Gilson et al., 2015). Competition in the contemporary business world is getting tougher as the 4.0 industrial revolution disrupts various conventional business activities and is led to change in the way we live, work, and think (Scuotto et al., 2022).

A report by Central Bureau of Statistics of Indonesia revealed that in Indonesia in the first year of the Covid-19 pandemic, more than 200 thousand SMEs had to close their businesses (BPS, 2022). In this realm, firms are experiencing challenges, SMEs must be able to resilience and face the turbulence to survive and maintain business continuity. Recognizing the importance of resilience, researchers have conducted research that describes various predictors driving resilience (Vargas-Hernandez and Jimenez, 2017; Blanco, 2018), including knowledge management, creative climate, innovation, employee engagement, environment, and leadership (Mafabi et al., 2012, 2015; Castellacci, 2015; De Carvalho et al., 2016; Sommer et al., 2016; Cooke et al., 2019).

There is a prevailing global consensus that SMEs significantly contribute to the sustainability of the economy. The organization offers services to its customers, employment prospects to the labor force, and contributes to the outflow of funds to the markets. According to McManus et al. (2008), the capacity of SMEs to endure and sustain their activities during a crisis is a crucial element in the recovery of the broader community following a disaster. In order to survive, SMEs must demonstrate the ability to adjust and react to the current state of instability. (Herbane, 2018). In the dynamic and progressive digital environment, the survival of organizations is crucial due to the constantly evolving technologies that result in shifted expectations of customers and stakeholders. Consequently, in order to maintain a competitive edge in the market, organizations must adjust their existing conditions to align with the latest technological advancements. (Erhan et al., 2021). SMEs need to have a digital mindset so that they can recognize and exploit opportunities, as well as overcome the challenges of surviving in an increasingly dynamic environment (Wagner et al.,2019). Digital leadership becomes an important factor to overcome these challenges (Zeike et al., 2019), which makes it one of the main discussions in this article. It can help SMEs to deal with the disruptive changes, making them understand better how they should act in such an environment.

It is widely agreed that digitalization has an impact on leadership roles everywhere, such as in operations that cause disruptive change (Bughin et al., 2013; Sousa & Rocha, 2018; Weiner et al., 2015). Various terms have been used to mention leading in the digital era. Avolio et al. (2000) introduced the concept of e-leadership as a social influence process mediated by Advanced Information Technology to produce a change in attitudes, feelings, thinking,

behaviour, and/or performance with individuals, groups, and/or organizations. On the other hand, Miller (2018) addresses digital leadership as a concept that enhances the lives, well-being, and conditions of others by using broad access to technology. In addition, El Sawy et al. (2016) argue that digital leadership is a leader who managed well in business, the business ecosystem, and the strategic success of digitalization.

Over the past five years, the popularity of leadership and digitalization topic has increased significantly (Cortellazzo et al., 2019). Results of studies in the existing literature show that digital leadership has a great impact on organizations in relation to: innovation in the Indonesian telecommunication industry (Mihardjo et al., 2019), business model innovation (Tahirkheli, 2022), higher well-being in manager (Zeike et al., 2022). However, organizational growth depends on the ability to survive in difficult situations (Lengnick-Hall et al., 2011). While the existing body of literature on leadership provides valuable conceptual insights into the management of capabilities and disruptions, da Silva, Jerónimo, and Vieira (2019) contend that further research is necessary to establish the unique benefits of a leadership-driven environment. Unfortunately, there is little empirical literature that focuses on examining the impact of digital leadership on resilience in organizations. Branicki et al. (2017) suggests that research is needed for greater study of how SMEs achieve resilience and of the role of entrepreneurs in these processes. Thereby, examines organizational resilience in an increasingly turbulent business environment, it is vital to examine how digital leadership affects resilience of organization in SMEs context. This issue is important because it may reveal the transformation process of resilience resources or attributes into resilience outcomes (Duchek, 2020). For the time being, resilience has entered into a strategic setting, because organizations are charged with being adaptive and growing, while facing unprecedented turbulence. Although several organizations have attempted to increase their resilience capacity, many have failed to survive the challenges (Aparna & Sahney, 2022). To address this theoretical gap, this study constructs a theoretical model to test the influence of digital leadership on SMEs resilience, in order to understand the influence of digital leadership on SMEs resilience, and how digital leadership may support the resilience in Indonesian SME.

Survival of an organization is contingent on its capacity to generate novel ideas and provide added value. In summary, creativity is essential for the survival and success of the organization (Anderson et al., 2014). Digital leadership is a key predictor of employee creativity at the micro level, according to research (Zhu et al., 2021). The significance of digital leadership in fostering employee creativity is significant (Wasono & Furinto, 2018; Mihardjo

et al., 2019). But there is little study examining digital leadership as the primary predictor of employee creativity (Zhu et al., 2022).

Amidst the digital economy, it is imperative for leaders to acknowledge the evolving nature of their work environment and the associated demands. According to Bass and Riggio (2006), contemporary leaders are not limited to delegating tasks and overseeing their execution, but also actively participate in fostering an environment that encourages the cultivation of their team members' creative abilities through collaborative efforts and continuous learning. Effective digital leadership entails providing suitable authorization to foster an environment that encourages innovation among team members. The adaptability of team members to changing environments, optimization of work task completion, and stimulation of creativity are influenced by leadership behavior and the fostering of an innovative atmosphere. Furthermore, Creativity is a basic need for resilience, and helps increase organizational resilience capacity (Fernandez-Dıaz et al., 2021).

Digital leadership has primarily been investigated through the lens of social exchange theory (SET). SET views exchange as a social behaviour that may result in both economic and social outcomes (Lambe et al., 2001). Based on SET, digital leadership is predicted to promote creativity. This study also employs the resource-based theory (RBT) to establish the connection between creativity and resilience. According to the RBT, an organization's capacity for resiliency is a vital resource that can be cultivated and nurtured over time. Individuals and organizations are both capable of being resilient to disruptive events (Aparna et al., 2022). Individuals must be resilient if an organization is to become resilient (Lengnick-Hall et al., 2011). Thus, resilience is a resource for both individuals and organizations (Sweetman & Luthans, 2010). Based on SET and RBV, this study proposes that digital leadership influences SMEs resilience through employee creativity.

Based on the theory and literature as well as the phenomena discussed above, the following problems can be developed: Does digital leadership affect SMEs Resilience through the process of creativity? This study is explanatory research, which aims to explain the influence of Digital Leadership on SME Resilience's through creativity by following a quantitative approach with a strong empirical analysis. The objective of the current research is to examine the importance of leadership responsibility in the proficient management of resilience capabilities in SMEs. Through a focus on the capacity of digital leadership to foster creativity within teams, scholars and professionals can augment their understanding of the role of leadership in enhancing resilience and performance.

2. THEORITICAL BACKGROUND

2.1. Digital Leadership and SMEs Resilience

In Indonesia, Tambunan (2008) says that SMEs are companies with less than 100 workers. According to Indonesian Law, small businesses had assets worth between Rp 50 million and Rp 500 million and made between Rp 300 million and Rp 2.5 billion each year. Medium businesses had assets worth between Rp 500 million and Rp 10 billion and made between Rp 2.5 billion and Rp 50 billion each year. Microenterprise is a term for small businesses started and run by low-income people with the help of supporting organizations (Midgley, 2008). Microenterprise is a business with a maximum asset value of Rp 50 million or a maximum annual revenue of Rp 300 million. Microenterprise as an efficient business run by a person or a corporation that meets the law's requirements.

This research analyzes the factors that contribute to the development of organizational resilience in the context of SMEs, with a particular focus on the role that leaders play in this process. SMEs are characterized by their size and their relative lack of formal structural artifacts when compared to larger organizations. Resilience is a multidisciplinary concept (Dubey et al., 2019). Generally, in economics studies, resilience describes the capacity of a firm to respond to and recover from disruptive events (Li et al., 2022). More specific, Lengnick-Hall and Beck (2005) define resilience as a unique combination of cognitive, behavioral, and contextual characteristics that enhance a company's capacity to comprehend its current situation and develop responses that reflect that comprehension. In this paper, we use these definitions which is relevant with our research context.

Previous studies have been conducted by researchers to investigate different factors that serve as precursors to resilience (Vargas-Hernandez & Jimenez, 2017; Blanco, 2018). Resilience has been found to be influenced by leadership as a contributing factor. For example Sommer et al. (2016) employed hierarchical linear modelling to elucidate the impact of leader behaviour on the resilience of team members. The study found a positive correlation between transformational leadership and increased positive affect and decreased negative affect. This, in turn, was linked to higher levels of resilience among team members in times of crisis. Vera et al. (2021) elucidate the impact of positive leadership practices on the development of resilience. The authors provide a positive leadership framework and organizational resilience model as a practical instrument for leaders to set up a social infrastructure that enables them to construct successful companies in the face of challenges.

In today's dynamic environment and rapid advancement of digitalization, a form of leadership is needed that can recognize and exploit opportunities, as well as overcome the

challenges of surviving. Leaders must be able to understand well how the business must act in such an environment to continue to survive in difficult situations. Over the past five years, the popularity of leadership and digitalization topics has increased significantly (Cortellazzo et al., 2019). According to Bowen (2021), digital leadership can be considered as a form of transformative leadership, as it requires organizational change and involves the active participation of users, customers, and external stakeholders. This type of leadership also encompasses the use of digital privacy processes to facilitate interactions. Various terms have been used to mention leading in the digital era. The notion of e-leadership was first proposed by Avolio and Kahai (2010) as a social influence process that occurs within an organizational setting where a substantial portion of work is facilitated by information technology. According to Vought and Xin (2017), the preeminent leadership approaches in e-leadership consist of transformational leadership, shared leadership, transactional leadership, and leader trait theory. E-leadership enables leaders to remain accessible even in geographically dispersed organizations. Narbona (2016) employs the phrase "digital leadership" to denote the human attribute of leadership that is enacted through the utilization of digital tools within the virtual realm. On the other hand, Miller (2018) addresses digital leadership as a concept that enhances the lives, well-being, and conditions of others by using broad access to technology. In addition, El Sawy et al. (2016) argue that digital leadership is a leader who managed well in business, the business ecosystem, and the strategic success of digitalization. The nature of digital leadership is broad and yet to be explored, hence this article views the concept of digital leadership inclusively and in a general manner. Thus, we describe digital leadership by using Murashkin & Tyrväinen (2020) definition, that is as a concept in which the leader exerts digital information technology to make a change in behaviour, attitudes, thinking, feeling, and performance within individuals, groups, and organization.

The extant literature reveals that digital leadership exerts a significant influence on organizational outcomes. The study conducted by Zhu et al. (2022) suggests that digital leadership exhibits a favorable impact on the creativity of employees. Mihardjo et al. (2019) discovered that digital leadership had both direct and indirect effects on the orientation of customer experience in the context of developing business model innovation. The research conducted by Zeike et al. (2019) offers a significant contribution to the understanding of the correlation between digital leadership and the well-being of managers. The goal of Narbona's 2016 study was to look at digital leadership and how leaders have used the Twitter tool to show it. The analysis shows that the leader uses Twitter to teach and that he knows his word can reach a lot of people. Even though it is known that the boss and his followers can talk to

each other on this platform, he has also found that some messages get his followers' attention more than others.

This research endeavors to provide an explanation for the growth of organizational resilience in the context of SMEs, and it explores the function of digital leadership in shaping SME resilience. Several studies (e.g. Hughes et al., 2018; Zhang et al., 2020; Shafi et al., 2020) have looked at leadership from a SET perspective. SET views exchange as a social behaviour that may result in both economic and social outcomes (Lambe et al., 2001). The present investigation also draws upon the resource-based theory as posited by Barney et al. (2001). Consistent with the principles of the resource-based theory (RBT), an organization's capacity to exhibit resilience is a critical resource that can be systematically cultivated and nurtured over time. The capacity to withstand and recover from disruptive circumstances is contingent upon both the individual and the organization (Aparna et al., 2022). It is imperative that its members possess individual resilience in order for an organization to achieve resilience (Lengnick-Hall et al., 2011). Thus, resilience is a resource that can be utilized by both individuals and organizations (Sweetman and Luthans, 2010). Based on SET and RBT, this study proposes that digital leadership influences SMEs resilience.

H1: Digital leadership has a positive and significant effect on SME Resilience.

2.2. Digital Leadership and Employee Creativity

Organizations seeking efficiency must be creative due to rapid socioeconomic changes (Huang, Krasikova, & Liu, 2016; Hughes, Lee, Tian, Newman, & Legood, 2018). Individual factors are the primary source of creativity, and individual creativity is frequently stimulated by a work environment that fosters innovation and practical ideas (Shalley & Gilson, 2004). Stimulating individual creativity is a vital element for firms to remain competitive and survive in the market (Shafi et al., 2020). Several business entities are continuously seeking diverse methods to motivate their staff to engage in creative work and generate novel ideas (Gu, Tang, & Wan, 2015; Liu et al., 2012; Walton, 2003).

According to Anderson et al. (2014), creativity in the workplace pertains to the endeavors aimed at developing and implementing novel and enhanced approaches to accomplish tasks, encompassing the process, outcomes, and products. Baer and Oldham (2006) have defined employee creativity as the process of generating novel and valuable ideas for an organization, encompassing innovative products, services, ideas, and management techniques. In the contemporary digital economy, effective leadership serves as a crucial

determinant of the levels of creativity and innovation exhibited by employees, teams, and organizations.

Leadership is widely acknowledged as a crucial determinant of both employee creativity and organizational innovation (Oldham & Cummings, 1996). Research in this area holds great promise for the development of intriguing theory and impactful policy implications (Hughes et al., 2018). The impact of leadership on creativity has been explored in various studies. Zarei et al. (2022) found that servant leadership is more conducive to creativity in marketing organizations; the impact of green transformational leadership on green creativity has been established by Li et al. (2020). The research conducted by Shang et al. (2019) revealed that the promotion-focused behavior of students serves as a mediator in the correlation between authentic leadership and their creativity. Additionally, Zhang et al. (2020) found that employees who exhibit openness to experience tend to be more creative when their leaders have high expectations of their creativity. Cheng and Yang (2019) discovered that leadership has a positive moderating effect on the relationship between problem identification and the speed of new product development. Shafi et al. (2020) have demonstrated that intrinsic motivation has a positive and significant moderating impact on the relationship between transformational leadership and employee creativity. Transformational leadership style can facilitate the promotion of employee creativity, in conjunction with intrinsic motivation, by inspiring employees to think innovatively. This can result in the generation of compelling business ideas (Rivai et al., 2023).

Zhu et al. (2022) have conducted literature studies that focus on digital leadership as a crucial precursor for forecasting employee creativity and innovation at the micro level. The promotion of employee creativity is significantly influenced by digital leadership, as evidenced by the studies conducted by Wasono and Furinto (2018), Korzynski et al. (2019), and Mihardjo et al. (2019). The existing body of literature on the subject of digital leadership and its potential influence on employee creativity is limited, as noted by Zhu et al. (2022). According to Erhan et al. (2021), empirical evidence indicates that the manner in which employees perceive digital leadership has a valuable and favorable impact on their innovative work behavior. Employees hold favorable perceptions of leaders who possess advanced digital skills, and are more inclined to exhibit innovative behaviors under the guidance of such leaders.

To the best of our understanding, we use SET to explain the influence of digital leadership on creativity. SET views exchange as a social behavior that may result in both economic and social outcomes (Lambe et al., 2001). According to Social exchange theory, when

digital leaders through individualized consideration encourage and pay attention to every employee, it will influence the employees to realize their creative potential and value (Shafi et al., 2020). Consequently, staff members are likely to exhibit an enhanced level of creativity (Amabile, Conti, Coon, Lazenby, & Herron, 1996). In addition, positive feedback may stimulate creative behavior (Putra & Fariz, 2020), because followers seek to repay favorable leader treatment by engaging in in-role and extra-role performance (e.g., Martin, Thomas, Guillaume, Lee, & Epitropaki, 2016). Based on SET, digital leadership is predicted to promote creativity.

H2: Digital leadership has a positive and significant effect on Employee Creativity.

2.3. Creativity and SME Resilience

In the last couple of years, the global landscape has experienced significant and distressing changes, subjecting various entities to a sequence of trials to assess their ability to withstand challenges. Previously, resilience was considered an underlying factor that was not typically taken into account in routine business decision-making. In contemporary times, resilience has emerged as a crucial strategic imperative for organizations, which are required to be flexible and dynamic in the face of uncommon changes. Despite some organizations being able to demonstrate their resilience, many have been unable to meet the obstacles.

Considering Resource-Based Theory (Barney et al, 2001), businesses can leverage competitive advantage through specific resources available to them. In addition. They also classify resources into physical, human and organizational capital resources. The possession of knowledge is a significant form of human capital, wherein knowledge-based resources are linked to the entrepreneurial mindset of business owners and can serve as a valuable means of attaining a competitive edge (Alvarez and Busenitz, 2001). The investigation draws upon the resource-based theory to posit the correlation between the creativity of employees and resilience. Consistent with the resource-based theory, an organization's capacity to exhibit resilience is a crucial resource that can be systematically fostered over time. The capacity to resilient and adapt to a dynamic environment is contingent upon the available resources of both individuals and organizations. Consequently, for an organization to become resilient, its members must possess the resources necessary to become resilient (Lengnick-Hall et al., 2011).

Mafabi et al. (2015) show that creative climate has a significant association with innovation and organisational resilience. Aparna & Sahney (2022) found that creativity significantly improves resilience. Qualitative study by Protogerou et al. (2022) explored more deeply the conceptual framework of firm resilience. One of the important factors leading to

firm resilience is a combination of creativity and entrepreneurial skills. These results emphasize that creativity in companies tends to lead to the ability to survive in very dynamic business situations.

We contend that creativity has a positive effect on an organization's resilience. According to Martinaityte et al. (2019), creativity helps workers come up with solutions to unexpected problems. in addition, the provision of essential knowledge, skills, and abilities to address challenges is an aspect of empowering employees. Employees possessing a varied skill set and exhibiting creativity are frequently motivated by autonomy and adaptability, allowing them to effectively navigate the challenges presented by an unpredictable shock. Furthermore, the recognition by employees of an organization's endeavors towards their professional development can potentially foster a positive impact on their motivation, leading to the generation of innovative solutions to adapt to changing circumstances (Alfes et al., 2019). In conclusion, employees who are responsive to change are an important resource for business resilience.

H3: Employee Creativity has a positive and significant effect on SME Resilience.

2.4. The Mediating Effect of Employee Creativity Between Digital Leadership and SME Resilience

Amidst a progressively volatile corporate environment, workers are prone to experiencing stress, as well as physical and emotional fatigue, in the absence of sufficient resources to support their work. Effective digital leadership involves the provision of adequate resources to enable subordinates to cope with the demands of their job responsibilities. Moreover, digital leaders have the potential to enhance work efficiency, which can assist employees in conserving their energy and avoiding depletion (Petrou et al., 2015). Digital leadership encourages information exchange, resource acquisition, cooperation, and sustainable self-management among organization members (Zhu et al., 2022). Thus, digital leadership may better integrate digital culture and capabilities to use digital technology to add value to the firm and boost employee creativity (Wasono & Furinto, 2018).

Employee creativity also has a positive effect on SME Resilience. First, creativity becomes one of the most attractive resources to overcome ignorance and gain knowledge by developing a new mentality for sustainability (Lozano, 2014). In addition, employee creativity can be the main indicator in achieving goals by producing new products and services and leveraging applied mechanisms that promote social and ecological sustainability (Mitchell & Walinga, 2017). Even though there have been theoretical studies (Lozano, 2014) about the link

between creativity and resilience, there haven't been many empirical studies (Batool et al., 2021). Mohamed et al. (2019) also say that there needs to be more study on the causes and effects of creativity. Therefore, this study proposes that creativity mediates the relationship between digital leadership and SME Resilience. To gain a better understanding, we combine SET and RBV theories to explain the mediating role of creativity.

H4: Employee Creativity mediates the relationship between digital leadership and SME Resilience.

3. METHOD

3.1. Participants and data collection procedure

We surveyed 179 key members from 179 SMEs from various sectors including services, trade in daily needs, food and beverage business, manufacturing, and fashion in West Sumatra, Indonesia. We randomly picked 30% of the participants to contact to confirm their attendance to guarantee the validity of the data collection sources. Any person contacted confirmed that the surveys had been completed. This method was used to provide a sample that would reflect a wide variety in the SME sector. Members of SME were given self-administered questionnaires and provided us with demographic information of the SME and employee. To expand accessibility, questionnaires were also distributed through online surveys using the Google Form.

Following the recommendations of Podsakoff et al. (2003), numerous precautions were taken to control common method bias. A cover letter embedded to the questionnaire clarified the purpose of the research and informed respondents that the findings would be kept strictly confidential and used only for academic research. These measures were intended to minimize the existence of response distortion among employees (Chan, 2009). In order to mitigate evaluation apprehension, the participants were informed that the questionnaire items did not have a definitive right or wrong answer. Furthermore, the Harman's single factor test was employed in order to mitigate the potential impact of common method variance on the findings of the present investigation.

The participants in this study included 66 males (36,9%) and 113 females (63,1%). The average age was dominated by millennials from 20 to 40 years old (56,9%). On average, participants were with their SME for 3.75 years. Regarding their academic qualifications, 4 (2.2%) had an elementary school, 20 (11,2%) had a junior high school, 70 (39,1%) had a senior high school, 21 (11,7%) associate degree, 25 (13,4%) bachelor's degree, 36 (20,1%) master

degree, and 4 (2,2%) Doctoral. Long running business < 3 years 19 (10,6%), 3 to 5 years is 31 (17,3%), 6 to 10 years is 54 (30,2%), 11 to 15 years 26 (14,5%), and > 15 years is 49 (27,4%).

3.2. Measurement

Digital leadership was measured using a six-item scale used to assess digital leadership developed by Zeike et al. (2019). As has been done in several other studies. An example of the item is: "Business owners/Leaders like to use of digital technology." Cronbach's alpha was 0.95. The response format ranged from strongly disagree (1) to strongly agree (5).

Employee Creativity was measured using a four-item scale developed by Baer and Oldham (2006). An example of the item is: "I think there are many creative ideas that can improve working conditions in my business activities." Cronbach's alpha was 0.92. Responses for the scale were on a five-point scale (1 = strongly disagree, 5 = strongly agree).

SME Resilience was measured using a ten-item scale developed by Conor and Davidson (2003). The Connor–Davidson Resilience Scale 10 (CD-RISC 10) are the most dominant scales in measuring resilience because they have the best psychometric properties (Fatoki, 2018). My business can overcome obstacles that come up every time." Cronbach's alpha was 0,95. Responses for the scale were on a five-point scale (1 = strongly disagree, 5 = strongly agree).

3.3. Data analysis

The present study employs the Structural Equation Modeling (SEM) technique for data analysis, utilizing the AMOS software as the primary tool for data processing. Hair (2014) posits that Structural Equation Modeling (SEM) is a variant-based analytical technique that enables the simultaneous evaluation of both the measurement and structural models.

According to Ghozali (2015), three forms of data testing are carried out to assess the measurement model. Initially, the Individual Item Reliability assessment will be conducted. The purpose of this examination is to assess the dependability of each indicator. Indicators with a factor loading value below 0.70 will be excluded from the model. Next, the Internal Consistency test will be conducted. The purpose of this assessment is to evaluate the dependability of a collection of indicators utilized in quantifying the variables under examination. The observed metric pertains to the composite reliability and Cronbach's alpha, with a suggested threshold of > 0.70. The Discriminant Validity test is the final assessment. This experiment is being carried out to determine the magnitude of the disparity between

variables. The present study reports the average variance extracted (AVE) value as a key metric, which was estimated to be greater than 0.50, as per the prescribed criterion. Another requisite that needs to be fulfilled is the determination of the square root of the average variance extracted (AVE) for each variable.

The next stage is to test the Structural Model after assessing the measurements. The structural model was evaluated to determine the causal relationship between the hypothesized variables. Because AMOS does not presume data distribution normality, it employs a nonparametric test to estimate the significance level of each variable connection at a significance level of 0.05. If the p value is less than or equal to 0.05, the hypothesis is considered valid.

4. RESULTS AND DISCUSSION

4.1. Common Method Bias (CMB)

As the design was self-report and all the variables were taken at the same time, Harman's single-factor method was used to see if a single factor explained most of the differences between the measures (Podsakoff et al., 2003). The principal component method was used to do an unrotated factor analysis, which led to the discovery of three factors that explained only 47.38% (50%) of the variance. The results of the factor analysis showed that there was no one major factor. This test proved that there was no evidence of common method variance.

4.2. Measurement model

Prior to testing the structural model, a two-step method proposed by Anderson and Gerbing (1988) was followed. First, a CFA was performed on the full measurement model. In the first test all indicators showed unsatisfactory results. Therefore, indicators that have a low factor loading are excluded from the analysis. Then the test was carried out again and the results presents that measurement three-factor model shows acceptable fit indices (x/df = 2.1, p < 0.000, IFI = 0.945; TLI = 0.93, CFI = 0.94, RMSEA = 0.079, SRMR = 0.039).

Tabel 1 Correlation Analysis

Variabel	Mean	SD	CR	AVE	1	2	3
1. Digital leadership	4,14	0,553	0,95	0,64	**(0,8)**		
2. Employee Creativity	4,32	0,581	0,92	0,67	0,44**	**(0,82)**	
3. SME Resilience	4,02	0,563	0,95	0,54	0,3**	0,43**	**(0,74)**

Notes: n = 179. Values in parentheses on the diagonal are the square roots of the AVE score of each scale. **p < 0.01.

Convergent and discriminant validity was assessed by conducting a CFA for the three-factor full measurement model. The results indicated that all the items loaded significantly on their respective constructs and exceeded 0.5 (ranging from 0.6 to 0.92). AVE for all three constructs above 0.50 (Fornell and Larcker, 1981), indicating convergent validity (Hair al., 2006). Cronbach's alpha and composite reliability (CR) scores estimated construct reliability. Cronbach's alpha and ratings for all constructs are over 0.90, indicating acceptable reliability (Table 1). CR scores are higher than AVE scores for all five constructs, showing convergent validity (Hair et al., 2006). Table 1 shows that the square roots of the AVE scores for each construct were bigger than the correlations between any two components, showing discriminant validity (Hair et al., 2006).

4.3. Structural Model

The study employed structural equation modeling to examine the direct and indirect effects among the variables under investigation. The structural model exhibited satisfactory fit indices (x/df = 2.1, p < 0.000; IFI = 0.94; TLI = 0.93; CFI = 0.94; RMSEA = 0.079; SRMR = 0.039). These results indicate that there is no significant difference between the evaluation of the measurement model and the evaluation of the structural model. As the structural model shows acceptable fit data, it was used as the basis for the evaluation of the research hypotheses.

H1 proposes that Digital leadership has a positive and significant effect on SME Resilience. The results have a significant positive direct impact on SME Resilience (b = 0.593, and p < 0.000). Thus, H1 is supported. Further, H2 proposes that Digital leadership has a positive and significant effect on Employee Creativity. The results of the hypothesis test show that digital leadership influences employee creativity positively and significantly (b = 0,652; p value < 0,000). Therefore, H2 is supported. Moreover, H3 proposes that employee creativity has a positive and significant effect on SME resilience. The test results show that employee creativity influences SME resilience positively and significantly (b = 0,580; p value = 0,000). Thus, H3 supported.

To test H4, the mediating effect of employee creativity in the relationship between digital leadership and SME resilience, researchers followed a procedure based on Baron & Kenny (1986). As explained in hypothesis 1 that digital leadership has a positive and significant effect on SME resilience. Then mediation testing can be continued. If the digital leadership-SME resilience association becomes insignificant, full mediation occurs (supported hypothesis). Partial mediation occurs if the association remains substantial and weaker than

the direct relationship before mediation (supported hypothesis). When mediating factors are included, digital leadership variables and SME resilience remain significant and stronger, yet employee creativity does not mediate (hypothesis not supported). The mediation test shows that digital leadership improves SME resilience by mediating staff creativity (b = 0.229; p value = 0.03). But the connection becomes weaker compared to the direct relationship. Eemployee creativity partially mediates the relationship between digital leadership and SME resilience. Thus, H4 is supported.

Table 2. hypothesis test results

Hipotesis	β	P Value	Result
Digital Leadership ---> SME Resilience (H1)	0,593	***	Supported
Digital Leadership ---> Employee Creativity (H2)	0,652	***	Supported
Employee Creativity ---> SME Resilience (H3)	0,580	***	Supported
Digital Leadership ---> Employee Creativity ---> SME Resilience (H4)	0,229	0,03	Supported

Source: Results of Data Processing

Digital leadership has become an interesting topic in the academic field lately (e.g. Zhu et al., 2022; Benitez et al., 2022; Karippur & Balaramachandran, 2022; Borah et al., 2022; Bowen, 2021; Erhan et al., 2021; Mihardjo et al., 2019; Zeike et al., 2019; Meier et al., 2017; Wasono & Furinto, 2018; El Sawy et al., 2016). This construct is then examined in a variety of different research and industrial contexts. Some researchers develop this concept in the technology industry, some others develop it in the context of organizational change, others focus on the organizational environment supported by information technology, some others apply the concept of organizational behavior that leads to effectiveness and performance, others in the context of the task environment of leadership using the media digital in a virtual world. However, this research is scarce in the context of how digital leadership influences outcomes in small business entities or SMEs. This study then tries to develop digital leadership literature and its impact on SMEs that are specific to topics that are very relevant in the current situation where businesses face an increasingly dynamic and uncertain environment. SMEs must be able to develop creativity in these conditions to maintain existence in their competitive position and as a basis for scaling up business. Who can survive, he is the one who has a great opportunity to develop the business. Using SET and RBV theory, this study explains with an explanatory approach the influence of digital leadership on SME Resilience through creative mediation. In general, the findings show significant results.

First, the study findings confirm the influence of digital leadership on SME resilience in a positive and significant way. This finding verifies that digital leadership is a leadership style that can develop a positive impact on output. These findings are consistent with the

research of Borah et al. (2022), which identified digital leadership as a contextual component that, when applied to social media use, can improve sustainable SME performance. There exists a positive correlation between digital leadership and employee creativity. The level of effectiveness in stimulating employee creativity is positively correlated with the degree of digital leadership exhibited by the leader. The result is consistent with prior studies that assert the significance of digital leadership in fostering employee creativity (Zhu et al., 2022; Mihardjo et al., 2019; Wasono & Furinto, 2018).

Third, employee creativity positively and significantly influences SME resilience. The more organizational support for creativity, the better the organization copes with challenges (Mafabi et al., 2015). Employees creativity is a valuable resource for organizations, as evidenced by empirical research demonstrating its impact on resilience (Aparna et al., 2022). Forth, employee creativity mediates realtionship between digital leadership and SME resilience. When business leaders demonstrate digital leadership, employees increase their productivity and creativity. Moreover, creativity fosters positive emotions, which enable individuals to cope with ambiguity by releasing inner resources (Conner et al., 2018). Positive emotions have been found to encourage individuals to adopt different points of view and expand their cognitive horizons (Aparna et al., 2022). Thus, We believe that creativity is an essential organizational resource that helps discover the hidden individual resources that make resilient organizations.

5. CONCLUSION AND IMPLICATIONS

Digital leadership research is novel because it focuses on the unique challenges and opportunities that arise in the digital age. The rapid pace of technological change has transformed the way organizations operate, and leaders must adapt to these changes to remain competitive. Digital leadership research explores the skills, behaviors, and strategies that are necessary for effective leadership in a digital environment. It also examines the impact of digital technologies on leadership practices and the ways in which leaders can leverage technology to drive innovation and growth. Overall, digital leadership research is important because it helps organizations stay ahead of the curve and navigate the complex and ever-changing digital landscape. The present investigation provides significant perspectives on the field of leadership by examining its influence on resilience.

5.1. Theoretical implication

The study's results support social exchange and resources base theories in numerous ways. First, this study examined the relationship between digital leadership and SME Resilience. Leadership has always been regarded as a key antecedent variable to predict organizational and individual behavior (Zhu et al., 2022). Studies in the existing literature show that digital leadership has a great impact on organizations (Mihardjo et al., 2019; Tahirkheli, 2022; Zeike et al., 2022). However, there is little empirical literature that focuses on examining the impact of digital leadership on resilience in organizations. It is vital to examine how digital leadership affects resilience of SMEs in an increasingly turbulent business environment. This study is a step toward filling this gap by exploring the relationship between digital leadership and SMEs resilience. The results show that digital leadership does improve SMEs resilience, enriching the literature on antecedents of SMEs resilience. Resilience should be a priority strategy for SMEs because currently SMEs are required to be adaptive when faced with unprecedented changes in the business and technological environment.

Second, previous studies have explored the impact of different leaders on creativity. For example, in a recent meta-analysis, the results found that almost all leadership types are correlated with employee creativity behavior (Lee et al.,2020). However, there is little literature that examines digital leadership as the main antecedent to predict employee creativity. According to SET, when the digital leaders through individualized consideration encourage and pay attention to every employee, it will influence the employees to realize their creative potential and value (Shafi et al., 2020). The implementation of digital leadership fosters a work environment that encourages employees to exhibit creativity in effectively accomplishing tasks. The provision of such encouragement from organizational leaders can serve as a catalyst for employees to explore novel cognitive avenues, leading to heightened levels of creativity. As a result, employees will experience a high level of creativity. Employees are encouraged to be more creative when they have the perception that their leaders like the use of digital technology, have the ability to use it, have clear ideas in utilizing technology, and are always updated on the latest technology and encourage members to be enthusiastic about utilizing digital technology as a means of developing a business. In addition, positive exchanges between leaders and followers might lead to creativity and innovation, because members seek to repay favorable leader treatment by engaging in extra-role performance (e.g., Martin, Thomas, Guillaume, Lee, & Epitropaki, 2016).

Third, the study has provided evidence that employee creativy is important for SME resilience. The impetus for creativity is frequently derived from an individual's passion, and it fosters affirmative affect, thereby empowering individuals to confront ambiguity by

accessing their internal resources (Conner et al., 2018). Positive emotions have the ability to induce individuals to adopt varied perspectives and expand their cognitive horizons. It is our belief that creativity constitutes a vital organizational resource that facilitates the unlocking of latent individual resources, which hold particular importance in the context of resilient organizations. (Aparna & Sahney, 2022).

Finally, this study also supports that digital leadership improves non-financial performance indirectly. Muijs's (2011) review mentioned that leadership does not directly influence outcomes. The study has provided evidence that digital leadership is important for both creativity and SME resilience – implying that digital leadership is associated with employee creativity as well as organizational resilience. Thus, good digital leadership is associated with the level of employee creativity in an organization. Another learning point is that digital leadership can be studied as an antecedent for mediators such as creativity as well as an antecedent for organizational resilience. Overall, the study found that creativity has a limited mediation influence on SME resilience because digital leadership also has a direct contribution towards SME resilience. Thus, employee creativity partially mediates the relationship between digital leadership and SME resilience.

5.2. Practical implication

The present study highlights the significant effects of digital leadership, particularly in the current era where enterprises are increasingly dependent on digital interconnectivity. Research has demonstrated that the implementation of digital leadership is a crucial factor in enhancing the ability of SMEs to effectively carry out important daily operations and improve overall business resilience. In light of potential market opportunities, it is advisable for SMEs to develop proficient digital leaders who can effectively navigate technology adoption. Additionally, providing technological assistance to these leaders may prove beneficial (Khaw et al., 2022). The acquisition and analysis of data are crucial components of decision-making processes in the context of digital transformation. As per the works of Verhoef et al. (2021) and McAfee et al. (2012), companies must gather and assess data to devise efficacious solutions. In order to achieve financial success and flourish in the digital economy, it is imperative for enterprises to effectively develop their digital resources, as noted by Verhoef et al. (2021) and Teece (2012). Digital resources can aid in the identification of customers' requirements and expectations, as well as reveal potential market gaps (Davenport et al., 2012; Chanias et al., 2019).

Digital leadership allows SMEs to evaluate the market and engage with stakeholders in a proactive manner, thereby enhancing their ability to promptly and efficiently respond to digital challenges and market fluctuations. According to McAfee et al. (2012), companies need leaders who possess digital expertise and are proficient in handling data. These individuals should be capable of evaluating the industry, devising innovative approaches to identify prospects, and predicting the requirements of customers. Executives can respond to market fluctuations and technological disturbances with greater efficiency and tenacity. The concept of digital leadership encompasses several key elements, including fostering creativity, promoting team satisfaction and effectiveness, leveraging industry changes and new ideas, responding to business demands, and developing resilience.

Base on Amabile's (1997) research, the social aspect pertains to workplace elements that can foster creativity, including supervisors who promote the creation of novel ideas, top management that supports innovation via a well-defined vision that encourages creativity and by providing suitable recognition for innovative work, methods for generating new ideas, and standards of actively exchanging ideas throughout the organization. Organizations must establish a work environment that fosters creative and innovative behavior, which can be linked to the degree of organizational resilience.

5.3. Limitation and future research

Similar to any research, the current investigation is also subject to certain constraints. The utilization of cross-sectional data in the study limits the authors' ability to establish a causal relationship between the variables. Due to the use of CMB-adjusted composites in the study's analysis, we believe the results to be at least devoid of method bias. Future studies research should employ or integrate diverse methodologies for data gathering (Johan et al., 2022). Furthermore, it should be noted that the factors of digital leadership and employee creativity alone do not fully account for the variability observed in the resilience of SMEs. Thus, there exist additional predictor variables that contribute to the overall resilience of organizations. The aforementioned predictors encompass networking, resource capacity, knowledge sharing, social capital, innovation, and risk management. In the future, further studies might look into the impact of said variables on the resilience of organizations. Moreover, the longitudinal methodology is a reliable approach for examining causal relationships between variables. The study's utilization of a limited sample size may have had an impact on the statistical power and variance of the correlations, regression coefficients, and

mediation outcomes. A study with a larger sample size is necessary, which could encompass a broader public sector or undertake a comparison with the private sector.

REFERENCES

Alfes, K., Shantz, A.D., Bailey, C., Conway, E., Monks, K. and Fu, N. (2019), "Perceived human resource system strength and employee reactions toward change: revisiting human resource's remit as change agent", Human Resource Management, Vol. 58 No. 3, pp. 239-252.

Alvarez, S.A., Busenitz, L.W., 2001. The entrepreneurship of resource-based theory. J. Manag. 27 (6), 755–775.

Amabile, T.M. (1997), "Motivating creativity in organisations: on doing what you love and loving what you do", California Management Review, Vol. 40 No. 1.

Amabile, T.M., Conti, R., Coon, H., Lazenby, J. and Herron, M. (1996), "Assessing the work environment for creativity", Academy of Management Journal, Vol. 39 No. 5, pp. 1154-1184.

Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", Psychological Bulletin, Vol. 103 No. 3, pp. 411-423.

Anderson, N., Potocnik, K. and Zhou, J. (2014), "Innovation and creativity in organizations: a state-ofthe-science review, prospective commentary, and guiding framework", Journal of Management, Vol. 40 No. 5, pp. 1297-1333.

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. Journal of Management, 40(5), 1297–1333.

Aparna , S.M & Sahney, Sangeeta. (2022). Examining resilience: the role of creativity-oriented high-performance work practices and role clarity. Journal of Organizational Change Management. Vol. 35 No. 7, pp. 1047-1060.

Avolio, B. J., Kahai, S., & Dodge, G. E. (2000). E-leadership: implications for theory, research, and practice. Leader. Q. 11, 615–668.

Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: re-examining transformations in leadership source and transmission. Leader. Q. 25, 105–131.

Baer, M., & Oldham, G. R. (2006). The curvilinear relation between experienced creative time pressure and creativity: Moderating effects of openness to experience and support for creativity. Journal of Applied Psychology, 91(4), 963–970.

Barney, Jay & Wright, Mike & Ketchen, David. (2001). The Resource-Based View of the Firm. Journal of Management. 27.

Baron, Reuben M. & Kenny, David A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. Journal of Pe~nality and Social Psychology. Vol. 51, No. 6, 1173-1182.

Bass, B. M., & Riggio, R. E. (2006). Transformational leadership (2nd ed.). Lawrence Erlbaum Associates Publishers.

Batool, Fatima., Mohammad, Jihad & Awang, S. Rahmah. (2021). The effect of servant leadership on organisational sustainability: the parallel mediation role of creativity

and psychological resilience. Leadership & Organization Development Journal. Vol. 43 No. 1, pp. 71-95.

Baudier, P., Kondrateva, G., Ammi, C., Chang, V., Schiavone, F., 2020. Patients' perceptions of teleconsultation during COVID-19: a cross-national study. Technol. Forecast. Soc. Change.

Benitez, J., Arenas, A., Castillo, A. and Esteves, J., 2022. Impact of digital leadership capability on innovation performance: The role of platform digitization capability. Information & Management, 59(2), p.103590.

Blanco, J.M.M. (2018), "Organizational resilience. how learning sustains organizations in crisis, disaster, and breakdown by D. Christopher Kayes", The Learning Organization, Vol. 25 No. 2, pp. 143-146.

Blanco, J.M.M. (2018), "Organizational resilience. how learning sustains organizations in crisis, disaster, and breakdown by D. Christopher Kayes", The Learning Organization, Vol. 25 No. 2, pp. 143-146.

Borah, P.S., Iqbal, S. and Akhtar, S., 2022. Linking social media usage and SME's sustainable performance: The role of digital leadership and innovation capabilities. Technology in Society, 68, p.101900.

Bowen, G., 2021. Digital leadership, ethics, and challenges. In Strategy, Leadership, and AI in the Cyber Ecosystem (pp. 23-39). Academic Press.

BPS. (2022). Statistik Indonesia dalam infografis. Badan Pusat Statistik Indonesia.

Branicki, L.J., Sullivan-Taylor, B. and Livschitz, S.R. (2018), "How entrepreneurial resilience generates resilient SMEs", International Journal of Entrepreneurial Behavior & Research, Vol. 24 No. 7, pp. 1244-1263

Bughin, J., Chui, M. & Manyika, J. (2013). Ten IT-enabled business trends for the decade ahead. McKinsey Quarterly.

Castellacci, F. (2015), "Institutional voids or organizational resilience? Business groups, innovation, and market development in Latin America", World Development, Vol. 70, pp. 43-58.

Chan, D. (2009). "So why ask me? Are self-report data really that bad?", in Lance, C.E. and Vandenberg, R.J. (Eds), Statistical and Methodological Myths and Urban Legends, Routledge, New York, NY, pp. 309-336.

Cheng, Cong & Yang, Monica. (2019). Creative process engagement and new product performance: The role of new product development speed and leadership encouragement of creativity. Journal of Business Research. Volume 99, Pages 215-225.

Colbert, A., Yee, N. & George, G. (2016). The Digital Workforce and the Workplace of the Future. Academy of Management Journal, 59(3), pp.731-739.

Conner, T.S., DeYoung, C.G. and Silvia, P.J. (2018), "Everyday creative activity as a path to flourishing", The Journal of Positive Psychology, Vol. 13 No. 2, pp. 181-189.

Connor, Kathryn M., and Davidson, Jonathan R.T. (2003). Development Of A New Resilience Scale: The Connor-Davidson Resilience Scale (Cd-Risc). Depression And Anxiety. Volume 18 Page 76–82.

Cooke, F.L., Cooper, B., Bartram, T., Wang, J. and Mei, H. (2019), "Mapping the relationships between high-performance work systems, employee resilience and engagement: a

study of the banking industry in China", The International Journal of Human Resource Management, Vol. 30 No. 8, pp. 1239-1260.

Cortellazzo, L., Bruni, E. & Zampieri, R. (2019). The Role of Leadership in a Digitalized World: A review. Frontiers in Psychology, 10.

Costanza, D.P., Blacksmith, N., Coats, M.R., Severt, J.B. and DeCostanza, A.H. (2015), "The effect of adaptive organizational culture on long-term survival", Journal of Business and Psychology, Vol. 31 No. 3, pp. 361-381.

da Silva, F. P., Jerónimo, H. M., & Vieira, P. R. (2019). Leadership competencies revisited: A causal configuration analysis of success in the requirements phase of information systems projects. Journal of Business Research, 101(January), 688–696.

David J. Hughes, Allan Lee, Amy Wei Tian, Alex Newman, Alison Legood. (2018). Leadership, creativity, and innovation: A critical review and practical recommendations. The Leadership Quarterly. Volume 29, Issue 5, Pages 549-569.

De Carvalho, A.O., Ribeiro, I., Cirani, C.B.S. and Cintra, R.F. (2016), "Organizational resilience: a comparative study between innovative and non-innovative companies based on the finansial performance analysis", International Journal of Innovation, Vol. 4 No. 1, pp. 58-69.

Dipta. (2017), Indonesia SME Strategy, ILO/OECD Workshop for Policy Makers on Productivity and Working Conditions in SMEs, Jakarta.

Dubey, R., Gunasekaran, A., Childe, S. J., Fosso Wamba, S., Roubaud, D., & Foropon, C. (2019). Empirical investigation of data analytics capability and organizational flexibility as complements to supply chain resilience. International Journal of Production Research, 59(1), 110–128.

Duchek, S. (2020), "Organizational resilience: a capability-based conceptualization", Business Research, Vol. 13 No. 1, pp. 215-246.

El Sawy, O., Amsinck, H., Kraemmergaard, P. & Vinther, A. (2016). How LEGO Built the Foundations and Enterprise Capabilities for Digital Leadership. MIS Quarterly Executive.

Erhan, T., Uzunbacak, H.H. and Aydin, E. (2022), "From conventional to digital leadership: exploring digitalization of leadership and innovative work behavior", Management Research Review, Vol. 45 No. 11, pp. 1524-1543

Fatoki, Olawale. 2018. "The Impact of Entrepreneurial Resilience on the Success of Small and Medium Enterprises in South Africa" Sustainability 10, no. 7: 2527

Fernandez-Dıaz, J.R., Gutierrez-Ortega, M., Llamas-Salguero, F. and Canton-Mayo, I. (2021), "Creativity and resilience as predictors of career success", Sustainability, Vol. 13 No. 8, p. 4489.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", Journal of Marketing Research, Vol. 18 No. 1, pp. 39-50.

Ghozali, I. (2015). Partial Least Squares: Concepts, Techniques and Applications Using the SmartPLS 3.0 Program. Semarang: Diponegoro University Publishing Agency.

Gilson, L. L., Maynard, M. T., Jones Young, N. C., Vartiainen, M., and Hakonen, M. (2015). Virtual teams research: 10 years, 10 themes, and 10 opportunities. J. Manag. 41, 1313–1337.

Gordon Bowen. (2021). Digital leadership, ethics, and challenges. Strategy, Leadership, and AI in the Cyber Ecosystem. Pages 23-39.

Gu, Q., Tang, L. P., & Wan, J. (2015). Does moral leadership enhance employee creativity? Employee identification with leader and leaderemember exchange (LMX) in the Chinese context. Journal of Business Ethics, 126(3), 513e529.

Haddud, A., & McAllen, D. (2018). "Digital workplace management: exploring aspects related to culture, innovation, and leadership," in Proceedings of the Portland International Conference on Management of Engineering and Technology, PICMET 2018 (Honolulu: HI), 1–6.

Herbane, B. (2018), "Rethinking organizational resilience and strategic renewal in SMEs", Entrepreneurship and Regional Development, Vol. 31 Nos 5-6, pp. 476-495.

Huang, L., Krasikova, D. V., & Liu, D. (2016). I can do it, so can you: The role of leader creative self - efficacy in facilitating follower creativity. Organizational Behavior and Human Decision Processes, 132,49–62.

Hughes, D. J., Lee, A., Tian, A. W., Newman, A., & Legood, A. (2018). Leadership, creativity, and innovation: A critical review and practical recommendations. The Leadership Quarterly, 29, 549–569.

Johan, A. P., Lukviarman, Niki & Putra, R. E. (2022). Continuous intention to use e-wallets in Indonesia: The impact of e-wallets features. Innovative Marketing, 18(4), 74-85. doi: http://dx.doi.org/10.21511/im

Juan Narbona (2016) Digital leadership, Twitter and Pope Francis, Church, Communication and Culture, 1:1, 90-109.

Karippur, N.K. and Balaramachandran, P.R., 2022. Antecedents of effective digital leadership of enterprises in Asia Pacific. Australasian Journal of Information Systems, 26.

Khaw, T.Y., Teoh, A.P., Abdul Khalid, S.N. and Letchmunan, S., 2022. The impact of digital leadership on sustainable performance: A systematic literature review. Journal of Management Development, 41(9/10), pp.514-534.

Lambe, C. & Wittmann, C. & Spekman, Robert. (2001). Social Exchange Theory and Research on Business-to-Business Relational Exchange. Journal of Business-to-business Marketing. Vol. 8. Page 1-36.

Lee, A., Legood, A., Hughes, D., Tian, A. W., Newman, A., and Knight, C. (2020). Leadership, creativity and innovation: a meta-analytic review. Eur. J. Work Organ. Psychol. 29, 1–35

Lengnick-Hall, C. A., & Beck, T. E. (2005). Adaptive fit versus robust transformation: How organizations respond to environmental change. Journal of Management, 31(5), 738–757.

Lengnick-Hall, Cynthia. A., Beck, Tammy. E., Lengnick-Hall, Mark. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. Human Resource Management Review, Volume 21, Issue 3, Pages 243-255.

Li, Lixu., Wang, Zhiqiang., Ya, Fei., Chen, Lujie., Zhan, Yuanzhu. (2022). Digital technology deployment and firm resilience: Evidence from the COVID-19 pandemic. Industrial Marketing Management. Volume 105, Pages 190-199.

Li, Wenjing, Bhutto, T. Ahmed, Xuhui, Wang., Maitlo, Qamaruddin., Zafar, A. Ullah, Bhutto, N. Ahmed. (2020). Unlocking employees' green creativity: The effects of green transformational leadership, green intrinsic, and extrinsic motivation. Journal of Cleaner Production. Volume 255.

Liu, D., Liao, H., & Loi, R. (2012). The dark side of leadership: A three-level investigation of the cascading effect of abusive supervision on employee creativity Academy of Management Journal, 55(5), 1187e1212.

Lozano, R. (2014). Creativity and organizational learning as means to foster sustainability. Sustainable Development. Vol. 22 No. 3, pp. 205-216.

Mafabi, S., Munene, J. and Ntayi, J. (2012), "Knowledge management and organizational resilience: organizational innovation as a mediator in Uganda parastatals", Journal of Strategy and Management, Vol. 5 No. 1, pp. 57-80.

Mafabi, S., Munene, J.C. and Ahiauzu, A. (2015), "Creative climate and organizational resilience: the mediating role of innovation", International Journal of Organizational Analysis, Vol. 23 No. 4, pp. 564-587.

Martin, R., Thomas, G., Guillaume, Y., Lee, A., & Epitropaki, O. (2016). Leader-member exchange (LMX) and performance: A meta-analytic review. Personnel Psychology, 69, 67–121.

Martinaityte, I., Sacramento, C. and Aryee, S. (2019). Delighting the customer: creativity-oriented high-performance work systems, frontline employee creative performance, and customer satisfaction, Journal of Management, Vol. 45 No. 2, pp. 728-751.

Meier, C., Sachs, S., Stutz, C. and McSorley, V. (2017). Establishing a digital leadership barometer for small and medium enterprises (SME). In Management challenges in a network economy: Proceedings of the MakeLearn and TIIM International Conference 2017 (pp. 103-109).

McAfee, A., Brynjolfsson, E., Davenport, T.H., Patil, D.J. and Barton, D. (2012), "Big data: the management revolution", Harvard Business Review, Vol. 90 No. 10, pp. 60-68.

McManus, S., Seville, E., Vargo, J. and Brunsdon, D. (2008), "Facilitated process for improving organizational resilience", Natural Hazards Review, Vol. 9 No. 2, pp. 81-90.

Midgley, J. (2008), "Microenterprise, global poverty and social development", International Social Work, Vol. 51 No. 4, pp. 467-479.

Mihardjo, Leonardus & Sasmoko, Sasmoko & Alamsjah, Firdaus & Djap, Elidjen. (2019). Digital leadership role in developing business model innovation and customer experience orientation in industry 4.0. Management Science Letters. 9. 1749–1762.

Miller, C. L. (2018). Digital Leadership: Using the Internet and Social Media To Improve the Lives, Well-Being and Circumstances of Others," Journal of Family & Consumer Sciences, vol. 110, no. 1, pp. 45-48.

Miller, C., (2018). Digital Leadership: Using the Internet and Social Media to Improve the Lives, Well-Being and Circumstances of Others. Journal of Family & Consumer Sciences, 110(1), pp.45-48.

Mitchell, I.K. and Walinga, J. (2017). The creative imperative: the role of creativity, creative problem solving and insight as key drivers for sustainability. Journal of Cleaner Production. Vol. 140, pp. 1872-1884.

Mohamed, M.S., Khalifa, G.S., Al-Shibami, A.H., Alrajawi, I. and Isaac, O. (2019), "The Mediation Effect of Innovation on the relationship between Creativity and organizational productivity: an empirical study within public sector organizations in the UAE", Journal of Engineering and Applied Sciences, Vol. 14 No. 10, pp. 3234-3242.

Muijs, D. (2011), "Leadership and organisational performance: from research to prescription?", International Journal of Educational Management, Vol. 25 No. 1, pp. 45-60.

Murashkin, M., & Tyrväinen, J. (2020). Adapting To The New Normal: A Qualitative Study of Digital Leadership in Crisis.

Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. Academy of Management Journal, 39, 607–634.

Petrou, P., Demerouti, E., and Schaufeli, W. B. (2015). Job crafting in changing organizations: antecedents and implications for exhaustion and performance. J. Occup. Health Psychol. 20:470.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. Journal of Applied Psychology, Vol. 88 No. 5, pp. 879-903.

Protogerou, Aimilia., Kontolaimou, Alexandra., & Caloghirou, Yannis. (2022). Creative industries and resilience in times of crisis: the role of firm and entrepreneurial team characteristics. International Journal of Entrepreneurial Behavior & Research. Vol. 28 No. 4, pp. 1075-1105.

Putra, R. E. & Fariz, M., 2020. The moderating role of openness to experience: Influence of nostalgia on purchase intention. Jurnal Kajian Manajemen Bisnis, 9(2), pp.67-79. doi: https://doi.org/10.24036/jkmb.10980300

Rivai, H. A., Putra, R.E., Lukito, H. and Handika, R.F., 2023. Impact of Success Expectations, Motivation and Team Behavior on Entrepreneurship Learning Outcomes in Higher Education. Jurnal Manajemen Universitas Bung Hatta, 18(1), pp.1-19. doi: https://doi.org/10.37301/jmubh.v18i1.20870

Sadeghi, J.K., Struckell, E., Ojha, D., Nowicki, D., 2020. Absorptive capacity and disaster immunity: the mediating role of information quality and change management capability. J. Knowl. Manag.

Sawy, Omar & Amsinck, H. & Kræmmergaard, Pernille & Vinther, A.L. (2016). How LEGO built the foundations and enterprise capabilities for digital leadership. 15. 141-166.

Scuotto, Veronica., Magni, Domitilla., Palladino, Rosa., & Nicotra, Melita. (2022). Triggering disruptive technology absorptive capacity by CIOs. Explorative research on a micro-foundation lens. Technological Forecasting & Social Change 174

Shafi, Mohsin., Zoya, Zheng Lei, Xiaoting Song, Md Nazirul Islam Sarker. (2020). The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation. Asia Pacific Management Review. Volume 25, Issue 3, Pages 166-176.

Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. The Leadership Quarterly, 15(1), 33–53.

Sommer, S.A., Howell, J.M. and Hadley, C.N. (2016), "Keeping positive and building strength", Group & Organization Management, Vol. 41 No. 2, pp. 172-202.

Sommer, Sue A., Jane M. Howell and Constance Noonan Hadley. "Keeping Positive and Building Strength." Group & Organization Management 41 (2016): 172 – 202

Sousa, M. J., & Rocha, Á. (2018). Skills for disruptive digital business. J. Business Res. 94, 257–263.

Sweetman, D. and Luthans, F. (2010), "The power of positive psychology: psychological capital and work engagement", inWork Engagement: A Handbook of Essential Theory and Research, pp. 54-68.

Tahirkheli, S. Khan. (2022). e-Leadership theory – A more than ever virtually connected world needs a virtually theorized leadership in a globally cross-cultural network space. Social Sciences & Humanities Open, Volume 6, Issue 1.

Tambunan, T. (2008), "SME development, economic growth, and government intervention in a developing country: the Indonesian story", Journal of International Entrepreneurship, Vol. 6 No. 4, pp. 147-167.

Tambunan, T. (2019), "Recent evidence of the development of micro, small and medium enterprises in Indonesia", Journal of Global Entrepreneurship Research, Vol. 9 No. 1.

Vargas-Hernandez, J.G. and Jimenez, R.A. (2017), "Organizational learning and resilience for effective organizational development", International Journal of Advanced Scientific Research and Development, Vol. 4 Special Issue. 1, pp. 1-20.

Vargas-Hernandez, J.G. and Jimenez, R.A. (2017), "Organizational learning and resilience for effective organizational development", International Journal of Advanced Scientific Research and Development, Vol. 4 Special Issue. 1, pp. 1-20.

Vera, Dusya., Samba, Codou.,Kong, D. Tony., Maldonado, Tiffany. (2021). Resilience as thriving: The role of positive leadership practices. Organizational Dynamics. Volume 50, Issue 2.

Verhoef, P.C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J.Q., Fabian, N. and Haenlein, M. (2021), "Digital transformation: a multidisciplinary reflection and research agenda", Journal of Business Research, Vol. 122, pp. 889-901.

Vought, & Xin, W. (2017). E-Leadership in practice: The components of transformational leadership in virtual business environments. Education Doctoral. Paper 323.

Wagner, M., Heil, F., Hellweg, L. and Schmedt, D. (2019), "Working in the digital age: not an easy but a thrilling one for organizations, leaders and employees", in Krüssel, P. (Ed.), Future Telco Successful Positioning of Network Operators in the Digital Age, Springer, Cham, pp. 395-410.

Walton, A. P. (2003). The impact of interpersonal factors on creativity. Internasional Journal of Entrepreneurial Behavior & Research, 9(4), 146e162.

Wasono, Leonardus W & Furinto, Asnan. (2018). The effect of digital leadership and innovation management for incumbent telecommunication company in the digital disruptive era. International Journal of Engineering & Technology. Volume 7 (2.29), 125-130.

Wasono, Leonardus. W. & Furinto, Asnan. (2018). The effect of digital leadership and innovation management for incumbent telecommunication company in the digital disruptive era. International Journal of Engineering & Technology. Vol. 7 (2.29) Page 125-130.

Weiner, J., Balijepally, V., & Tanniru, M. (2015). Integrating strategic and operational decision-making using data-driven dashboards: the case of St. Joseph mercy Oakland hospital. J. Health Management. 60, 319–330.

Yufan Shang, Melody P.M. Chong, Jun Xu, Xiji Zhu. (2019). Authentic leadership and creativity in China: The role of students' regulatory-focused behaviors and supervisors' power sources. Thinking Skills and Creativity. Volume 34.

Zarei, Mohammad., Supphellen, Magne & Bagozzi, Richard P. (2022). Servant leadership in marketing: A critical review and a model of creativity-effects. Journal of Business Research. Volume 153, Pages 172-184.

Zeike, Sabrina., Bradbury, Katherine., Lindert, Lara., and Pfaff, Holger. (2019). Digital Leadership Skills and Associations with Psychological Well-Being. Int. J. Environ. Res. Public Health. Vol. 16(14).

Zhang, Wengang., Xu, Feng., & Sun, Baiqing. (2020). Are open individuals more creative? The interaction effects of leadership factors on creativity. Personality and Individual Differences. Volume 163.

Zhu J, Zhang B, Xie M and Cao Q (2022) Digital Leadership and Employee Creativity: The Role of Employee Job Crafting and Person-Organization Fit. Front. Psychol. 13:827057.

Zhu, Jian., Zhang, Bin., Xie, Mingxing & Cao, Qiuju. (2022). Digital Leadership and Employee Creativity: The Role of Employee Job Crafting and Person-Organization Fit. Frontiers in Psychology. Vol. 13.