



Digital Leadership, Digital Literacy, and Psychological Safety: Employee Innovation at BRI Batulicin

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ABSTRACT

Under stringent regulatory restrictions, the banking industry must innovate, yet little is known about the psychological factors that support innovation in risk-averse environments. This study explores how digital leadership shapes technology vision, empowers teams through data, and normalizes experimentation. Using a qualitative approach, semi-structured interviews were conducted with six participants: one manager, two customer support representatives, two account officers, and one teller. Credibility is strengthened through role triangulation and member checking. Thematic analysis, combining deductive and inductive coding, examines leadership practices that build psychological safety and stimulate innovation within a compliance-driven culture. Findings indicate that employees with strong digital literacy adapt more effectively to new technologies. Those working in psychologically safe environments feel comfortable expressing ideas and are less afraid of making mistakes. The study concludes that psychological safety, digital leadership, and digital literacy positively influence employee innovation at Bank BRI Batulicin. Without compromising risk management, the study offers practical recommendations on work design and leadership development, providing insight into how innovation can thrive in highly regulated industries.

Keywords: *Digital Leadership, Digital Literacy, Innovation Work Behavior, Psychological Safety.*

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1. | INTRODUCTION

Digitalization is a defining feature of the contemporary global era, and society is transitioning into a new stage where digital production will rule (Wang et al., 2025). Additionally, digitalization has emerged as a key force behind organizational and company expansion, notably in the banking industry (Duan et al., 2019). In the face of stringent laws and rapid digital transformation, the banking industry must continue to innovate (Gaviyau & Godi, 2025). Internal modernization, operational efficiency, and data-driven improvements to the client experience are examples of digital transformation in the banking industry (Raimo et al., 2020). However, compared to other businesses that are thought to be more flexible, innovation in the banking sector is less seamless due to the extremely complicated regulatory environment. Therefore, to manage change under regulatory pressure, leadership that is flexible and tech-savvy is required.

In light of recent events, leadership is essential. A key factor in an organization's success is its leadership. The ability to steer a business toward accomplishing its objectives and creating a long-lasting competitive advantage is referred to as leadership. A business needs to have technological systems and products that facilitate and speed up production, communication, and cost reduction in order to gain a sustainable competitive edge. It also needs to be able to make the best use of these systems and products (Tulungen et al., 2022). Digital leadership is one idea in leadership that is thought to be able to handle changes in this digital age. Digital competence and digital culture go hand in hand to form digital leadership. Digital leadership, also referred to as Leadership 4.0, is a quick, cross-hierarchical, team-oriented, collaborative approach with a strong emphasis on innovation, according to Orben & Okellar (2018) in Nurisman & Alifah (2024). It creates an environment that permits talent to freely express creativity and possess the personal competence of a leader. The most crucial traits for a leader are a mentality and the capacity to use innovative techniques and tools, including design thinking. Digital leadership is defined by El Sawy et al. (2016) in Tagscherer & Carbon (2023) as an action taken by leaders to guarantee the strategic success of digitalization for an organization and its business environment. The findings of a study by Wang et al. (2025) demonstrate that digital leadership influences employee innovative behavior by fostering greater employee empowerment, trust, and collaboration.

In addition to the critical role that leadership plays, innovation also depends on individual competencies. Digital literacy is the competency in question. Employee digital literacy is essential for achieving innovation, claim Gusti et al. (2023). Three abilities are included in digital literacy: social, cognitive, and technical. The vital application of digital technology requires these three. People will find it easier to use current digital technology if they have a greater level of digital literacy (van Laar et al., 2019). The Ministry of Communication and Information Technology also acknowledges the value of digital connectivity in fostering corporate development. In the banking industry, digital literacy is essential for fostering the growth of digital banks and offering clients advantages and convenience.

One of the most crucial elements in employee creativity, aside from leadership and digital proficiency, is psychological safety. Psychological safety, as defined by Edmondson (1999) in Dewi et al. (2023), is the conviction held by each member of a team or work unit that they can create a secure atmosphere for interpersonal hazards. Empowerment, where a person feels secure in their own ability to bring change and good performance to the business, is necessary

to produce innovative persons (Uguy et al., 2024). This is consistent with how psychological safety affects a business. Because they encourage everyone to be proactive by asking questions, seeking feedback to correct mistakes, and making everyone willing to ask for help from those around them without fear of judgment, companies with high psychological safety will be able to develop innovative individuals or employees. Similarly, Baswara (2023) asserts that without psychological safety, people cannot be creative or innovative. The natural tendency to defend oneself in dangerous situations can inhibit an individual's ability to be creative. In a setting that guarantees psychological safety, people no longer concentrate their energies on self-defence, which allows creativity to flow. According to research by Choi et al. (2021), psychological safety has a good and significant impact on individual innovation through balanced communication within the organization, trust in teams and leaders, and individual work engagement.

One of the biggest banks in Indonesia is Bank Rakyat Indonesia (BRI). The BRI Bank Batulicin Branch is one of the technology-based innovations that BRI has continued to develop in recent years to reach people in rural locations. Other innovations include BRImo, the Qlola system, and the digitization of micro-services. But there are obstacles in the way of its execution, such as stringent rules established by business executives. As a result, employees find it challenging to innovate. Then, there is a scientific gap, specifically the paucity of studies examining the combined effects of digital leadership, digital literacy, and psychological safety on employee innovation. They are indeed relevant in this instance and worth studying. In order to determine how digital leadership, digital literacy, and psychological safety can impact employee creativity at the BRI Bank Batulicin Branch Office, this study was conducted.

2. | LITERATURE REVIEW

Digital Leadership

Digital leadership, as defined by Avoloio and Kahai (2000) in Permana et al. (2023), is an interactive interaction between leaders and members of an organization that is conducted remotely via digital media, eliminating the necessity for in-person meetings and offering flexibility in terms of time and location. Digital leadership, in another sense, is a process of social influence mediated by information technology that results in changes in attitudes, feelings, thoughts, behavior, and/or performance in individuals, groups, and organizations, according to research by Figueroa et al. (2025). Digital leadership, according to Karakose et al. (2022), is the capacity of leaders to lead their teams and organizations in a digital environment by utilizing digital tools and technology, including the internet of things.

According to Siagian et al. (2021), digital leadership is characterized by several key traits. One of these is strong communication proficiency, which involves using digital media to collaborate effectively with other staff members. Competence in social media platforms such as Instagram, Twitter, Discord, and Line can enhance communication across the organization. Digital leadership also requires the capacity for collaboration and critical thinking. In the digital era, leaders can work and communicate without being constrained by time, place, or cultural norms, eliminating the need for constant in-person supervision. Through information technology, they can interact with many employees efficiently and effectively. Another important trait is the ability to manage and supervise digital activities. Public sector leaders, in particular, must be capable of overseeing digital tasks carried out by staff members. Additionally, digital leaders must be adaptable in their use of time, responding quickly to

technological changes. This flexibility enables both leaders and employees to keep pace with rapid advancements while continuing to meet organizational objectives.

Digital Literacy

English is the source of literacy, which is defined as the capacity to read and write. UNESCO defines literacy as the capacity to recognize, comprehend, interpret, produce, communicate, compute, and utilize written and printed materials in a variety of circumstances. "Literacy is the ability of individuals to read, write, and process information," according to the Indonesian Dictionary (KBBI). In KBBI, "digital" refers to numbers in a certain numbering scheme. To demonstrate proficiency in a certain area, literacy is typically paired with other syllables. Digital literacy is defined as the capacity to read, write, and process information in a certain numeral system.

Digital literacy, according to Naufal's (2021) research, is the capacity to access, comprehend, and apply knowledge from a variety of digital sources. In his 1997 book *Digital Literacy*, Paul Gilster defines digital literacy as the capacity to comprehend and use information in a variety of formats from a vast array of computer-accessible sources (Veronika et al., 2022). According to Devri Suherdi's book *The Role of Digital Literacy in the Pandemic Era* (2021), digital literacy is also the ability of users to use digital media, including the internet, communication tools, and so on.

Digital literacy is shaped by several key factors. One of these is functional proficiency, which refers to the technical abilities required to operate various digital tools effectively. A crucial aspect of this proficiency is the ability to adapt and learn new technologies as they emerge. The focus lies on understanding the potential of digital tools and knowing how to use them efficiently. Another factor is interaction and communication, which involve exchanging ideas, building shared understanding, and engaging in meaningful collaboration. Effective teamwork is essential, especially for younger users who continuously learn to create and collaborate through digital technologies. Critical thinking also plays an important role, as it involves evaluating, processing, and modifying ideas, data, and information to broaden one's perspective. This skill reflects a person's ability to use logic when assessing digital tools and navigating digital environments.

Psychology Safety

Dewi et al. (2023) cite Edmondson (1999) as saying that psychological safety is a feeling of perceived safety when committing a mistake when no one else is around. According to Khan et al. (2024), psychological safety is an inadvertent error that has no personal repercussions. In contrast, psychological safety, as defined by E.H. Schen and Bennis (1965), is an attitude that remains constant in the face of organizational problems.

As stated by Edmondson (2016) in Baswara (2023), psychological safety is influenced by three primary aspects. At the interpersonal level, psychological safety is shaped by how individuals interact with others and interpret their social environment. When people possess proper etiquette and understand social expectations, they feel more comfortable and confident in evaluating their own performance. At the intrapersonal level, psychological safety is associated with personal concerns, such as the fear of damaging relationships with superiors. Research shows that receiving constructive feedback can enhance one's sense of psychological safety by reducing these worries. At the intuitive level, psychological safety is strengthened when an institution creates a culture that prioritizes individual needs. When organizational

norms support and value employees, they are more likely to feel emotionally secure and confident in expressing themselves.

Employee Innovation

Innovative work behavior is defined as individual conduct that results in the development and implementation of novel concepts, methods, products, or processes that are advantageous to the business. Employees that exhibit new work practices will be able to produce the best possible job output, which will help the company win the competition. Using various techniques to problem-solving and coming up with innovative ideas for the company's advancement are two ways to achieve innovative work behavior.

In Choi et al. (2021), Yuan and Woodman define innovative work behavior as an individual's actions to demonstrate, encourage, and use novel concepts inside their business or work group. "Innovative work behavior is renewal, discovery, something new, whether in the form of ideas, methods, tools, products, or others," according to Robins in Fatonah and Helmi (2021). This renewal differs from what has previously been known or existing. Innovative conduct, according to Jansen, is a conscious attempt to identify, disseminate, and incorporate ideas into the parameters of tasks, work groups, and organizations in order to benefit and enhance the company. Innovative work behavior is defined by Kleysen and Street in Figueroa et al. (2025) as the collective behaviors of individuals that result in the creation, introduction, and use of something novel and lucrative at all organizational levels.

Employee innovation is influenced by several key factors. External elements include competitive pressure, which can enhance employee performance and encourage inventive behavior as individuals and organizations strive to stay ahead. Political and social pressures also play a role, as organizations must consistently deliver positive outcomes to maintain government support. This expectation drives both leaders and staff to innovate continually in order to achieve improved and adaptive results.

Internal elements are equally important. Positive leadership interactions with superiors can motivate employees to adopt creative work practices, especially when the relationship is characterized by mutual respect and trust. When employees believe their creative efforts will contribute to better performance, they are more likely to engage in innovative behaviors. Communication within coworker groups also supports innovation. Strong, collaborative relationships among colleagues increase the likelihood of generating and implementing new ideas, creating an environment where creative work habits can thrive.

3. | RESEARCH METHOD

This study employs a qualitative methodology. By selecting one BRI office branch, specifically BRI Batulicin, the research for this study is conducted in Banjarmasin. The sample in this research adopts a purposive sampling technique with the criteria of a sample that has expertise in digital leadership and innovation in the workplace. Six individuals fit the bill based on these criteria: one teller oversees the operational use of face-to-face digital transaction systems, two customer service representatives are in charge of managing customer portfolios and implementing digital systems in the credit and financing process, and one operational manager is in charge of coordinating operational activities in the branch.

Semi-structured interviews were used to acquire the data for this study. Interviews take place in person and last between forty-five and sixty minutes. Following the interviews, the results are verbatim transcribed and recorded for analysis. Combining deductive and inductive

analysis, theme analysis was used to examine this study. Theories pertaining to digital leadership, digital literacy, psychological security, and employee innovation serve as the foundation for deductive analysis. The outcomes of interviews with narrated participants served as the basis for the inductive analysis.

4. | RESULTS

Digital Leadership

Nearly all respondents believed that the leadership style at the BRI Batulicin branch resembles digital leadership, according to interviews conducted with five employees and one manager at the branch office. Leaders at the BRI Batulicin branch actively participate in the digitization and education process and function as role models. In addition to offering normative direction, leaders exhibit flexibility and interest in the new technologies being used in the workplace. The following outcomes were gathered from the interview with the Operational Manager (M1):

We are constantly reminded that digitization involves more than simply equipment; it also involves mindset. I therefore make an effort to lead by example for my coworkers. I use Brimo if the staff does. Every time an update comes out, we all examine it together.

"For direction, I will definitely direct them according to the SOP that applies in the company," the operational manager continued. "But of course, there will be implementation issues, and the only way to resolve them is through discussion. If the staff encounters difficulties, they can communicate them to the supervisor, who will then communicate them to me, and we will find a solution in accordance with the rules that apply at BRI, because we have to operate to the SOP."

Employees perceive the effects of putting hands-on digital leadership into practice. With this strategy, employees can freely and fearlessly share ideas with executives. As seen in the following customer service 1 (S5) statement:

"Yes, we can notify the supervisor directly if there is a system issue. As long as we report the issue in a kind manner, there is no risk of making a mistake. In actuality, it is advantageous when we are informed right away of an issue because it may be promptly fixed.

It is clear from the description that staff creativity is facilitated by the digital trust that BRI Batulicin has established. Since there is no pressure to criticize them, leaders give direction so that staff members have the courage to try and are not scared of making mistakes. Employees benefit from this leadership since it might inspire them to keep coming up with new ideas when their bosses follow suit. Employees will be inspired to follow suit on their own when they see that their leaders are proficient with technology and processes, which will subsequently inspire fresh concepts that develop into innovations for the business. This study supports Wang et al. (2025), who claimed that by fostering cooperation and teamwork among leaders and employees, digital leadership can build trust among members.

Digital Literacy

According to interviews, branch managers' initiative to provide training contributed to the rise in digital literacy as much as the rules put in place by the corporate office. This was stated by Account Officer 1 (S1): "Typically, internal training takes place every three months. Usually, every division is involved. We also have a special Q&A section for questions about the system.

Since we are the ones putting the system into place, we must first comprehend it, said Account Officer 2 (S2). It does require some initial adjustment, but it happens quickly. Because we receive thorough instructions on how to utilize the application system, every employee in this office becomes accustomed to it fast. For instance, we often watch a video to learn how to use the BRIImo app, and the manager then visits us to demonstrate how to use it.

It is evident from the above interview results that BRI bank workers have a high degree of digital literacy. The statements given by employees demonstrate this. As seen by their quick adaptability to integrating digital technologies at BRI Bank Batulicin, staff members at the branch office exhibit a high degree of digital literacy. This study agrees with van Laar et al. (2019), who claimed that literacy includes cognitive, social, and technical abilities. In order to solve challenges and become a source of creativity that propels the company forward, bank workers need to possess these three crucial qualities.

Psychological Safety

Procedural mistakes may be seen as major infractions in a rigorous financial system, which could result in penalties. Interviews, however, reveal that the leadership of the BRI Batulicin branch has effectively established a psychologically secure workplace where staff members may voice their thoughts, offer suggestions, and test out new procedures without worrying about the consequences.

Open communication and respectful interactions with all employees are the first steps toward a sense of security. When they encounter technological issues or system malfunctions, employees feel safe knowing that help is available. Employee trust is increased, and each division performs better as a result. "If we make a data input error, we discuss it together," stated Account Officer 1 (S1). We don't condemn and condemn ourselves right away. To help us learn from our missteps, our leaders always carry out assessments.

"The leadership never gets too angry about system errors," a customer service agent (S2) continued. We all collaborate to get answers since they are more focused on doing so.

Teller 2 (S4): "I occasionally talk to my boss about security-related topics before researching online problems such client data breaches. Well, in order to assess, we always update that. Yes, we always appreciate any feedback I provide, even though we haven't gotten any complaints like that.

According to the operational manager (M1), "I always encourage my employees to share any ideas they may have." As long as the goal is to further the company, we can talk about them.

Based on informant interview data, it was discovered that BRI Batulicin's workplace may promote psychological safety. Workers are encouraged to keep improving and are not penalized for mistakes. It has been demonstrated that this kind of setting can encourage confidence in bringing fresh ideas to an organization (van Laar et al., 2019). Dewi et al. (2023) use Edmondson's (1999) thesis, which states that psychological security fosters innovation in a company. Employees who work in a supportive environment will be more willing to take chances and own up to their mistakes.

Innovative Work Behavior

Several tangible projects started by staff members at BRI Batulicin demonstrate innovative work practices. These breakthroughs are incremental advancements rather than significant, game-changing shifts.

Second Account Officer (S2). On Instagram, we produced basic promotional material. Many clients expressed interest after seeing the outcomes, despite the management's initial reluctance. They are now being urged to keep going.

"I appreciate it when staff have ideas," a manager (M1) stated. While not all ideas can be put into action right once, we assist them in doing so provided they are feasible and adhere to legal requirements.

According to the findings of informant interviews, BRI Batulicin's innovative conduct is the consequence of a positive interplay of psychological security, digital leadership, and digital literacy. Because they think their boss is encouraging and that their colleagues don't hesitate to share their thoughts, employees are more likely to generate original ideas. In an organization, ideas and solutions come from its employees. Employees innovate value to improve service and work efficiency rather than only following instructions.

These findings confirm the idea put forth by De Jong and Den Hartog (2010) in Uguy et al. (2024), who claimed that contextual, social, and cognitive processes in which leadership style and environmental support are critical are responsible for the emergence of innovative work behavior.

5. | DISCUSSION

The Relationship between Digital Leadership and Innovative Work Behavior

The study's findings suggest that the BRI Batulicin branch's digital leadership plays a significant role in promoting creative staff behavior. As demonstrated by their attempts to acquaint staff members with the system and offer digital training prior to implementation, leaders set an example and actively engage in the usage of new technologies. According to Tagscherer & Carbon's (2023) digital leadership thesis, successful digital leaders are able to align their technological know-how, comprehension of employee demands, and strategic vision. According to research by Wang et al. (2025), digital leadership fosters innovative work behavior through three primary mechanisms: (1) giving employees autonomy and trust; (2) fostering open communication that lowers hierarchical distance; and (3) encouraging the investigation of novel concepts.

The Relationship between Digital Literacy and Innovative Work Behavior

According to the findings of other studies, implementing employee innovation requires a high level of digital literacy from employees. Strong digital abilities will help employees adjust to technology faster, which can influence innovation in the workplace. This study supports that of van Laar et al. (2019), who found that digital literacy is composed of three essential components: technical skills, social skills that pertain to the interaction between online and face-to-face communication, and cognitive skills that include evaluation, problem-solving, and critical thinking. These three components show how individual creativity has grown in a digital workplace.

Enhancing digital literacy can boost self-esteem and motivate staff members to try new things, which may lead to system enhancement suggestions. Workers who are well-versed in the system's operation will be able to innovate faster than those who are not. For organizational digital learning, regular internal company training is also essential. Employee comprehension of digital technology can be strengthened and expanded through training, which can improve cross-functional cooperation.

The Role of Psychological Safety as a Mediator between Leadership and Innovation

Employee creativity and leadership are mediated by psychological safety. Because psychological safety begins with open communication patterns, positive interpersonal interactions, and a humanistic leadership style between executives and staff, psychological security in a bank decides the bravery to demonstrate new innovations. Errors happen frequently, therefore managers should not just concentrate on achieving positive outcomes but also provide staff members the freedom to make mistakes and grow from them. Leaders who allow their staff to grow when they make errors foster a safe workplace free from the threat of reprimands or evaluations. At BRI Batulicin, this took place. Leaders will not provide negative punishment to employees who make mistakes since there is a learning area if they make mistakes.

According to Edmondson's (1999) thesis, psychological security is the state in which people feel welcomed and at ease, which in turn gives them the courage to take chances as a team. An employee made a data entry error at BRI Batulicin, but the management chose not to issue a severe penalty and instead encouraged staff members to continue taking part in the assessment. This type of leadership style demonstrates that BRI Batulicin leaders allow employees to make mistakes and view them as a necessary component of the learning process. Employees are reminded of necessary and acceptable work practices as a result of this incidence. Research by Choi et al. (2021) supports this study by demonstrating how employees' perception of security can encourage confidence and innovative ideas. To put it another way, psychological safety serves as the cornerstone that makes it possible for digital literacy and leadership to promote creative behavior at their best.

6. | CONCLUSION

The study's conclusion is that BRI Batulicin's leadership is visionary and interactive, which gives staff members the confidence to collaborate and be creative. In addition to assisting staff members adjust to a digital-based work system, digital literacy at BRI Batulicin has enabled the organization to establish a safe environment that encourages innovation and openness in all aspects of life. The very small number of samples used in this study means that the information gathered is not comprehensive, and the research was limited to the BRI Batulicin branch. The addition of a research location is advised for future studies in order to employ quantitative research and compare one location with another.

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The authors declare that there is no conflict of interest.

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Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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