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THE ROLE OF LEADERSHIP STYLES AND EMPLOYEE BEHAVIORAL ELEMENTS IN FOSTERING INNOVATION

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This dissertation, written by Russell Edmund Kaufman, and entitled The Role of Leadership Styles and Employee Behavioral Elements in Fostering Innovation, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Florida International University, 2023

DEDICATION

This dissertation is dedicated to the memory of my grandfather, Dr. Thomas W. Casstevens, whose unwavering support made this accomplishment possible. Though he passed away before witnessing its completion, his inspiration and encouragement will forever be cherished.

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ABSTRACT OF THE DISSERTATION

THE ROLE OF LEADERSHIP STYLES AND EMPLOYEE BEHAVIORAL ELEMENTS IN FOSTERING INNOVATION

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Innovative behavior is an essential factor in ensuring a competitive edge and it has great importance for the growth of companies. A leader's ability to correctly develop strategies and products based on innovation provides an efficient tool for an organization to increase profits and compete in the marketplace. Support for innovation must emanate from the highest levels of the organization, and the employees must embrace and act on it.

This research investigates the perceived effects of transactional and transformational leadership styles and their interaction with employee behavioral elements leading to their affect on innovation behavior within the organization. Focusing on innovation as an everyday phenomenon in which employees exhibit proactive problem-solving and implement proactive ideas. Companies continue to increase productivity, not solely by big new ideas; but, by incremental efficiency produced by these innovation behaviors.

This study sheds light on the importance of employee behavioral elements and leadership styles in promoting innovation within organizations. The results show that a

sense of power among employees positively impacts innovation, while emotional exhaustion has a negative impact. Transactional leadership was found to have a positive impact while also mitigating the negative impact of employee exhaustion. However, it is important to note that transactional leadership may not be effective in all contexts, and it may hinder innovation in employees with low exhaustion. These findings emphasize the crucial role of leadership in fostering a positive and supportive environment enabling innovation to thrive and highlight the need for organizations to consider the impact of employee behavioral elements and leadership styles on innovation.

Keywords:

Sense of Power, Self-identity, Subjective Norms, Employee Exhaustion, Transactional Leadership, Transformational Leadership, Innovation

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CHAPTER I: INTRODUCTION

Introduction

Scholars have established the importance of universal innovation throughout an organization as a vital strategy for long-term success (Seshadri & Tripathy, 2006). The cornerstone of sustained financial prosperity and business growth can be found in its employees. As employees use new ideas they tend to lead to the advancement and refinements of new processes, products and services. Sir Timothy John Berners-Lee worked on developing what has become the foundation of the world-wide-web and developed the communication Hypertext Transfer Protocol (HTTP) in 1989. This served as the foundation of client-server interactions and currently serves as the primary protocol for the majority of web-based applications. On April 26, 2017 Sir Tim Berners-Lee said, "When I invented the web, I didn't have to ask anyone for permission, and neither did America's successful internet entrepreneurs when they started their businesses." This quote encapsulates this research's intent because innovative ideas that develop over time must have the appropriate environment and leadership for them to come to fruition.

The pace of change confronting organizations today has amplified the need for innovation. Good leaders work effectively in rapidly changing environments by helping make sense of the challenges encountered. Knowledge alone will not suffice in providing improved business performance; but, the inclusion of innovation, serving a mediating role, will boost business performance. (Byukusenge & Munene, 2017). "Transactional leaders can effectively contribute to the organizational culture and expect to produce a positive and significant effect on innovative work behavior" (Kahn et al., 2020, p. 13). Transformational and transactional styles influence organizational culture positively and

provide opportunities for the performance of additional employee behaviors. This indicates that leadership styles shape the innovative behavior of their subordinates to provide improved opportunities for the organization.

While leadership styles may vary, they directly and indirectly moderate these behavioral interactions and innovation behaviors among employees. They play a crucial role in moderating the interactions among employees' behavior and innovation behaviors, both directly and indirectly. The study's findings provide a comprehensive understanding of these interactions and offer insights for future research, indicating that an employee's sense of power and emotional exhaustion significantly impact their innovation behaviors. The results of this research not only explored the interaction from a holistic approach, but provided paths for future research and offered clear support that an employee's sense of power and emotional exhaustion impact their innovation behaviors.

Existing research directs attention to the concepts centered around employee performance and the assumption that the person needs to be aligned with the right job (Parker & Williams, 2006). This trend overlooks the importance of proactive behavior as an antecedent to performance. When the precursors to performance are reviewed, they emphasize passive behaviors. Since broadly proactive behaviors are associated with taking the initiative to improve the work being completed, they tend to be novel ideas within the organization. For an idea to be proactive, the implementation must go beyond coming up with a creative idea. It involves communicating the idea with colleagues and sharing the innovation throughout the organization while working to implement those innovations (Ng et al., 2010).

Employee innovation can help companies better meet the needs and wants of its customers, leading to increased customer satisfaction. Qihoo 360 Technology Co. Ltd. is a Chinese internet security company that offers a variety of products and services, including antivirus software, web browsers, mobile applications, search engines, and online advertising platforms. Qihoo 360 made a great effort to improve products, obtain user feedback based on users' product requirements, and conduct constant micro-innovation (Wang et al., 2019). Because of these improvements, the organization could advance existing technologies and products, thus meeting and surpassing its users' expectations. Qihoo 360 has become one of the largest internet companies in China, since its founding in 2005, with a market capitalization of over $30 billion as of 2021 and over 30,000 employees across its various business units.

This exploratory research intends to better understand the impact of leadership styles on an employee's sense of power, self-identity, subjective norms, and emotional exhaustion on innovative behavior. To enhance our comprehension of how different leadership styles affect the interaction of the behavioral elements, two fundamental research questions arise:

Q1: How does a sense of power, self-identity, subjective norms and emotional exhaustion impact employee innovation behaviors?

Q2: What is the relationship between leadership style and employee behavioral elements and their influence on innovation behaviors?

The purpose of this study is to understand leadership and employee behavioral elements impact on the employee's innovation. Scholars have established the importance of innovation throughout an organization as a vital strategy for long-term success

(Seshadri & Tripathy, 2006). The cornerstone of sustained financial prosperity and business growth can be found in its employees. As employees use new ideas, they tend to lead to the advancement and refinements of new processes, products and services. Since broadly proactive behaviors are associated with taking the initiative to improve the work being completed, they tend to be novel ideas within the organization. For an idea to be proactive, the implementation must go beyond coming up with a creative idea. It involves communicating the idea with colleagues and sharing the innovation throughout the organization while working to implement those innovations (Ng et al., 2010).

Employee innovation presents a critical strategy for long-term success in any organization, and employee innovation plays a significant role in achieving this goal. This research highlights the importance of leadership styles and employee behavioral elements on innovation behaviors. The findings emphasize the need for organizations to create an appropriate environment for innovation and provide effective leadership to encourage and support innovative ideas from employees. This study offers valuable insights into the relationship between leadership style, employee behavioral elements, and innovation behaviors, which can be helpful for organizations seeking to enhance their innovative capacity. By implementing proactive behaviors and encouraging employees to share and implement innovative ideas, organizations can better meet the needs and expectations of their customers, leading to increased customer satisfaction and business growth.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

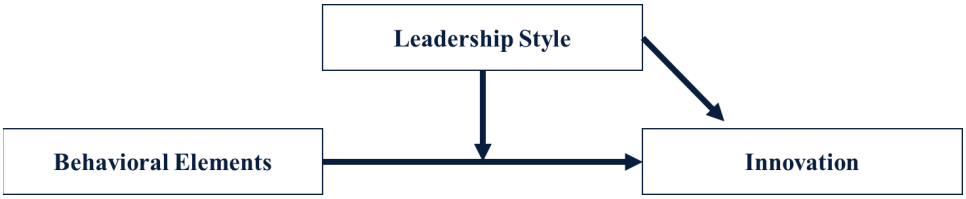
The study aimed to measure employees' innovation behaviors, defined as small-scale innovations that can significantly impact the organization. To do this, four independent variables were identified that comprise behavior elements that impact innovation.

With these variables focusing on the individual employee, including their authority and self-identity. The authority of an employee refers to the level of control they have over their work, while self-identity refers to the sense of individuality and personal identity an employee has in their work. The other two variables focus on the work environment characteristics, including subjective norms and burnout. Subjective norms refer to the perceived social pressure to behave in a particular way, while burnout refers to the emotional exhaustion an employee experiences due to their work.

Leadership has been shown to impact employee behavior significantly, and in this study, it is measured by two different leadership styles: transactional and transformational. Transactional leadership focuses on rewards and punishments to motivate employees, while transformational leadership focuses on inspiring and empowering employees to reach their full potential.

The behaviors that makeup micro-innovation is defined as proactive idea implementation and problem-solving. The theoretical model shown in Figure 1 (on page 6) provides an overview of how these elements interact at a macro level. The model represents the relationships between individual employee behavioral characteristics, leadership styles, and their impact on innovation behaviors.

Figure 1. Theoretical Model



By examining these relationships, the study provides insights into how organizations can encourage and support innovation within their teams, leading to improved performance and a more dynamic and adaptive organizational culture.

Behavioral Research

In 2001, Werbel and Johnson investigated the person/group fit; the selected applicants were broken into work teams and suggested that the effective use of person-group fit creates more cohesive work units and more effective teams. Their proposed method and their developed model show the effective use of groups to generate a coherent work team. The environmental culture with personal values and the environmental demands with personal abilities are needed for effective organizational performance. Should one exist without the other, it is expected to lead to dysfunctional groups because of a lack of cohesiveness or lack of abilities needed to perform essential group functions (Werbel & Johnson, 2001). The importance of identifying a cohesive team provides insight into how self-identity and perceived power impacts institutional logic. This process suggests three types of fit: person to the job, person to a group, and person to the organization (Werbel & Johnson, 2001). The four behavioral constructs identified in this research (sense of power, self-identity, subjective norms, and emotional exhaustion) encapsulate the relationship described by Werbel & Johnson. The variables

also show why continued research is needed should organizational leaders desire to develop a stronger innovative environment.

There is a large volume of research indicating the relationship between psychosocial work characteristics impacting an employee's well-being. Feldt et al., 2000, noted that "those who reported a good organizational climate had a stronger SOC [sense of coherence], which was also related to a low level of psychosomatic symptoms and emotional exhaustion" (p. 471). The inverse was also observed in their research; when the organizational environment deteriorated, SOC also weakened, and this increased emotional exhaustion from the staff. This would suggest that the elements forming workplace unity are dynamic and need to be broken into constructs, including an individual's emotional state. Employees who engage in shared decision-making strengthen an employee's manageability because the support and guidance from colleagues or managers are present. Leadership's contributory and essential function seems to be intertwined with employee performance.

Institutions today function in dynamic and changing environments, and established practices may lose their efficiency. In order to respond to these challenges, organizations must change their methods, policies and strategies. Employee innovations contribute significantly to these internal processes because they often know the organization's strengths and weaknesses. Research has shown that workers with a high sense of power within a working unit tend to pursue openness to change values leading to organizational contributions (Seppälä et al., 2012). Organizational citizenship behavior (OCB) encompasses this type of employee idea development and implementation, which

are intended to improve the function within the organization and are being measured as part of sense of power.

In Bock et al.'s (2005) worked to develop an understanding of the factors contributing to knowledge sharing. "Effective knowledge sharing cannot be forced or mandated" (Bock et al., 2005, p. 101). One of the factors leading to knowledge sharing in the article was the construct of subjective norms. Bock et al.'s research indicated support for the hypothesis that the greater the subjective norm, the greater intention of knowledge sharing which may lead to greater innovation.

Education has been a means to having higher-status occupations and an enriching work environment. Using data from a 2005 United States working adults survey, Schieman and Plickert (2008) explored the relevance of education and personal control by describing how education connects primarily to the resources of higher levels of occupational status and work conditions. Individuals with higher educational levels tend to enjoy more schedule control, challenging, enjoyable and enriching work, which fully contributes to occupation-based differences in personal control (Schieman & Plickert, 2008). However, they found that education-based differences in personal control remain. To further help explain why education increases personal control, they identified the socialization benefits of education by discovering that the sense of trust mediates the education-control association. Schieman and Plickert's research provides two insights that need to be understood when exploring employee innovation. First, education does not directly contribute to the sense of power or emotional exhaustion within the workplace. Also, it suggests that education may provide an individual with a position of standing but does not link to innovation directly.

Wilk and Moynihan's (2005) paper underscores the importance of studying supervisors' both the positive and negative effects of their leadership on their subordinate's emotional exhaustion. They investigated this interaction from the conservation of resources model to bridge the gap between the individual's psychological mindset and environment to determine the impact on emotional exhaustion. The authors found that supervisors perceived as being stricter in regulating emotional displays were associated with higher levels of emotional exhaustion among workers. Emotional exhaustion is a type of burnout characterized by feelings of emotional fatigue, cynicism, and reduced efficacy in one's job. This finding suggests that supervisors who are overly strict in regulating emotional displays may create a stressful work environment that can lead to burnout among their subordinates. The implications of these findings are important for both managers and employees.

Managers need to be aware of how their display rule regulation practices can impact their subordinates' well-being and take steps to create a supportive work environment. A display rule refers to the societal or organizational expectations that dictate how individuals should express or suppress their emotions in social interactions. This might involve providing training on emotional regulation skills, giving workers more autonomy over their emotional displays, and being more flexible in enforcing display rules. This indicates that employees need to be aware of their emotional regulation skills and seek support if they are experiencing burnout or other negative consequences of workplace stress.

Wilk and Moynihan's (2005) study was based on a single sample of workers in a customer service call center, which may limit the generalizability of the findings to other

types of work settings or industries. Additionally, the study does not provide a clear causal explanation for the relationship between display rule regulation and emotional exhaustion, leaving the possibility of alternative explanations or confounding variables open.

Researchers should investigate more than just implementing technology and its intended purpose (Beaudry et al., 2020). They argue that while previous research has primarily focused on technological factors, user behavior plays a critical role in determining the success or failure of IT initiatives. IT solutions are implemented to improve a desired management objective, such as decreasing operational costs and improving customer service. When a solution is deployed, there is a level of reticence toward accepting and using it. Once employees embrace the solution, deviation, and optimizations will transpire. Employees will take advantage, leading to "quality improvement and process innovation to increase efficiency and effectiveness" (Beaudry et al., 2020, p. 15).

They make a case for the need to broaden the scope of IT research beyond technological factors to include user behavior. They provide a comprehensive framework for understanding and addressing the impact of user behavior on IT outcomes, which can inform future research in this area. The authors also highlight the practical implications of their findings for organizations seeking to improve IT initiatives, which can have significant implications for business performance and competitiveness—indicating that organizational leadership also impacts the interactions of the employee behavioral elements. While historically power was conceptual and operational definitions of power over the control over a valued resource (Anderson et al., 2012). In modern office

environments, resources are not essentially what is being controlled by power, but rather power is a psychological state. Employee sense of power is often clear within social contexts; for example, individuals who believe that they can get their way in a group also believe that they can influence fellow group members' attitudes and opinions. Power, in other words, is a person's perception of one's ability to influence others, indicating that power is not merely the control over people based on one's position.

In Bacharach et al.'s 2002 paper, they investigate the cause leading employees to develop a drinking problem. They measured employee power as a "function of the employer's dependance on the employee" (Bacharach et al., 2002, p. 644). The authors found that employees who reported higher levels of job demands, job insecurity, and lack of control over work were more likely to engage in problem drinking. This is consistent with previous research that has linked work-related stressors to increased risk of alcohol use disorders. Perceived power is one of the artifacts being measured to determine employees' sense of power in this study. This perspective allows one to explore the aspect of the work experience and its impact on an action taken by the employee. Another element of Bacharach et al.'s model was the incorporation of coworkers and their association with norms. They also framed critical artifacts that will be incorporated into this paper's exploration of innovation behaviors.

The authors also found managerial control moderated the relationship between work-related risk factors and problem drinking. Specifically, employees who perceived their managers as controlling were more likely to engage in problem drinking in response to work-related stressors. This suggests that how managers interact with their employees

can influence their drinking behavior and that supportive managerial practices may help reduce the risk of problem drinking among employees.

Overall, the Bacharach et al. (2002) study suggests that addressing work-related stressors and promoting supportive managerial practices may be essential for reducing the risk of problem drinking among employees and fostering a more innovative and productive work environment. Employers can help encourage creativity, collaboration, and innovation among their workforce by creating a supportive work environment where employees feel valued and empowered.

Leadership effect is contingent on the type of leader and the type of employee stressors. Transactional leaders tend to weaken the negative impact of stressors and perceptions; by underscoring agreement and underpinning the importance of meeting the guidelines and expectations that have been defined. “As long as they put forth the effort and get the job done, they will be rewarded” (Zhang et al., 2014, p. 679). In contrast, transformational leaders enhance the positive effects leading to better performance. Also, transformational leaders provided a less threatening environment which would suggest an increase in the relationship of subjective norms. This indicates that understanding leadership’s impact on innovation may have a positive effect on different employee behavioral elements.

Types of Leadership Styles

As the business world continues to evolve rapidly, it becomes increasingly important to gain a competitive advantage. Understanding how management can influence the innovative behavior of employees has the potential to provide a competitive

edge. Since employees are the ones who come up with and execute innovative ideas, it is not surprising that a critical focus for leadership research and practice is how to encourage innovative behavior in employees.

Since the 1970s, multiple organizational leadership theories and designations have been suggested, such as transformational, charismatic, or inspirational (Howell & Avolio, 1993). Much of the research at the time centered around transactional leadership, which embraces a leader-follower relationship constructed on a series of interactions or bargains between both parties; with transformational leadership centering around charisma, intellectual stimulation, and individualized reflection with a focus on long-term organizational goals. Leaders who displayed less management by exception and reduced contingent reward but more individualized consideration, intellectual stimulation and charisma tended to improve the achievement of business goals (Howell & Avolio, 1993). Transformational leaders were more likely to find acceptance in organizational units with receptivity to change and a propensity for risk-taking because of their charismatic and personality traits. In contrast, in organizational units restrained by traditions and practices, leaders who challenge the status quo may be viewed as too disturbing and unsuitable for the stability of the existing organization (Bass & Avolio, 1990). The level of support for innovation is likely to be improved by transformational leadership and may be mitigated by transactional leadership. However, it should be noted that this view of innovation is that it is something "macro" in nature rather than "micro".

Established tools have been developed by investigating "transactional" and "transformational" leadership, which have historically been two key styles in organizational leadership. The Multifactor Leadership Questionnaire (MLQ) identifies

the intended leadership style based on employee responses. For example, the participant would be asked to answer using a scale from strongly disagree to strongly agree regarding their supervisor's transformational leadership; a sample item representing this would be: "Specifies the importance of having a strong sense of purpose." A sample item representing transactional leader behavior would be "makes clear what one can expect to receive when performance goals are achieved." Reliabilities for transformational and transactional leadership scales were found in this research to be .767 and .757, respectively.

In Dr. Dong I. Jung's 2001 article "Transformational and Transactional Leadership and Their Effects on Creativity in Groups," a post-experiment questionnaire was administered to verify the intended leadership. Group members' perceptions of leadership styles were measured using items based on the Multifactor Leadership Questionnaire. Two confederates in the study were used to determine if the survey captured the leadership styles correctly. Participants in the transformational leadership condition perceived their confederate leader as significantly more transformational than transactional, with the inverse being true as well. This indicated that the MLQ reporting measure provides accurate responses and appropriately captures the leadership style.

Leadership impacts the individual, group, and organization in different ways. "Transformational leadership provides workers with the motivation, the support and the intellectual stimulation to be innovative" (Bryant, 2003, p. 39). Transformational leaders are active leaders with four distinguishing characteristics: charisma, inspiration, intellectual stimulation, and individualized consideration (Bass, 1985). Charisma is the extent of pride, faith and respect leaders encourage their workers to have in themselves,

their leaders, and their organizations. Inspiration is the ability to motivate followers primarily through communicating high expectations.

In contrast, transactional leaders focus on the details and goals by leveraging rules and policies. Transactional leaders have three main qualities. First, they work with their team to establish clear and specific goals while ensuring employees receive the rewards they were promised to achieve those goals. Secondly, they offer rewards or promises in exchange for employee efforts. Finally, they are willing to address their workers' immediate needs and self-interests as long as it does not interfere with completing tasks (Bryant, 2003).

Pieterse et al. (2010) investigated the relationships between transformational and transactional leadership styles, psychological empowerment, and innovative behavior among employees in a Netherland's government agency. The study found that transformational leadership was positively related to innovative behavior, while transactional leadership was negatively related. Transformational leaders focus on inspiring employees to go beyond their job requirements and take risks, while transactional leaders focus more on clarifying expectations and giving feedback about these expectations. The study also found that psychological empowerment moderated the relationship between transformational leadership and innovative behavior. Specifically, employees who felt more empowered were more likely to engage in innovative behavior when their leaders displayed transformational leadership behaviors.

Transactional leadership can be argued to be less effective in promoting innovative behavior because it is more focused on in-role performance and less on encouraging novel activities. However, Pieterse et al.'s research suggests that

transactional leadership encourages innovation when employees have a high sense of power. In other words, when employees feel empowered, they may be more willing to take risks and engage in innovative behaviors, even when their leaders focus on in-role performance - behaviors related to job performance determined in the work environment.

Overall, the Pieterse et al. (2010) study highlights the importance of leadership styles and psychological empowerment in promoting innovative behavior among employees. Management development programs could be useful for helping leaders to understand the impact of their leadership styles on employees and the psychological implications of their actions.

In 2012, Aryee et al. investigated transformational leadership, innovative behavior, and task performance in a company in China. This research indicated that transformational leadership could, directly and indirectly, impact innovative behavior. However, this research used "intrinsic motivation" as a measurement of innovation. This looks at the employees drive to engage in activities for their own sake rather than for some external reward or outcome. In other words, it is a type of motivation that comes from within an individual rather than external factors such as rewards or punishments. Intrinsic motivation is driven by an individual's interests, enjoyment, and satisfaction with the activity. Employees contribute to effectiveness through job performance, and individuals are more likely to feel psychologically committed to their employers and respond with positive behaviors leading to better performance (Ng et al., 2010).

However, motivation may not indicate innovation but rather heightened in-role behavior. Breaking down the employee behavioral factors to determine the interaction associated with transformational leadership would help establish the interaction and

determine the other factors that could contribute. As Zhang et al. 2014 noted, "transformational leadership over the last two decades has overshadowed transactional leadership" (p. 692). Also, a border lens should be taken to thoroughly investigate leadership's interaction with employee behaviors leading to innovation.

Gaining a competitive advantage in the rapidly evolving business world is crucial, and understanding how management can influence innovative behavior is essential to achieving this. Leadership styles, such as transactional and transformational, have been the focus of extensive research, with transformational leadership being found to encourage innovative behavior more so than transactional leadership. While transactional leadership may focus more on in-role performance, it may still encourage innovation when employees have a high sense of power.

Innovation Research

Innovation represents a change in the existing conditions based on new things and ideas. When discovering something completely new, it is conceptualized as radical innovation, and when it is framed as an improvement on something, it is referred to as incremental innovation. Implementing innovation is not just a leader's actions and behaviors; however, it is not enough to be creative or come up with new ideas; implementing those ideas is the key aspect of the innovation process (Oke et al., 2009). "Leadership has been viewed as a social process that takes place in a group context in which the leader influences his or her followers' behaviors so that desired organizational goals are met" (Oke et al., 2009, p. 65). Since leadership alone would not be able to derive innovation, the subordinates must accomplish the actions. This highlights the

importance of understanding innovation from the bottom up – from the employee perspective, indicating an employee self-reporting measure would provide a reasonable means to capture innovation.

Developing an innovation mindset can help an organization focus on the future and not the past. Thomas D. Kuczmarski stated, "you know a company with an innovation mindset when you see the way employees interact with one another" (Kuczmarski, 1996, p. 7). Because the employees "exude self-confidence," have a "healthy self-esteem," and "believe in their own capabilities". These elements work to construct an employee's self-identity. He also noted that leaders must monitor themselves not only with their words but also with their actions.

Disruptive innovation theory has been studied and provides a business model and organizational challenges that allow for exploiting the marketplace (Dan & Chieh, 2008). Disruptive innovation has been framed around the understanding that it was intended to identify new participants in a market that offers a lower-cost, simpler, and more convenient product or service, eventually displacing established competitors. Some researchers have misused the theory "to describe any situation in which an industry is shaken up and previously successful incumbents stumble" (Christensen et al., 2013, p. 4). It is evident that this type of innovation is framed at the market level and not the individual person or employee. "Although the research focus to date has well studied the internal and external challenges of exploiting disruptive technology, there is still some room for future improvement in different aspects which is natural for all theory building processes" (Dan & Chieh, 2008, p. 412).

In Dan & Chieh's (2008) article, they put forth a series of potential inhibitors and enablers of disruptive innovation. Senior managers have high involvement and decision-making relating to disruptive innovation projects, as well as middle managers. The middle managers have been identified to "shape at lower levels of hierarchical organizations" (p. 407). This indicates leadership at multiple levels and organizational norms shape the potential and strength of innovation.

The process of disruption in a market typically involves four stages. First, a new player enters the market with a product or service that meets the needs of an underserved customer group. This offering is more straightforward and cheaper than what is currently available. Second, the new entrant gains traction and grows in popularity and market share. At this stage, incumbent firms may not see the new player as a threat and continue to focus on their existing customers. Third, the new entrant encroaches on the incumbent's territory, and they may try to imitate the new offering but often cannot do so effectively. Fourth, if the new entrant can continue to improve its offering and expand its market share, it may ultimately displace the incumbent firms and become the market leader.

These innovations often involve major technological or scientific breakthroughs and can have a profound impact on the way people live and work. When new products, technologies, or business practices fall within a regulator's jurisdiction but do not fit within their existing frameworks, they face "regulatory disruption." It is often suggested that regulators take a cautious approach in these situations. However, this hesitation can lead to suboptimal regulation over time and can be challenging to overcome without a significant external event. To address this issue, regulators can use temporary

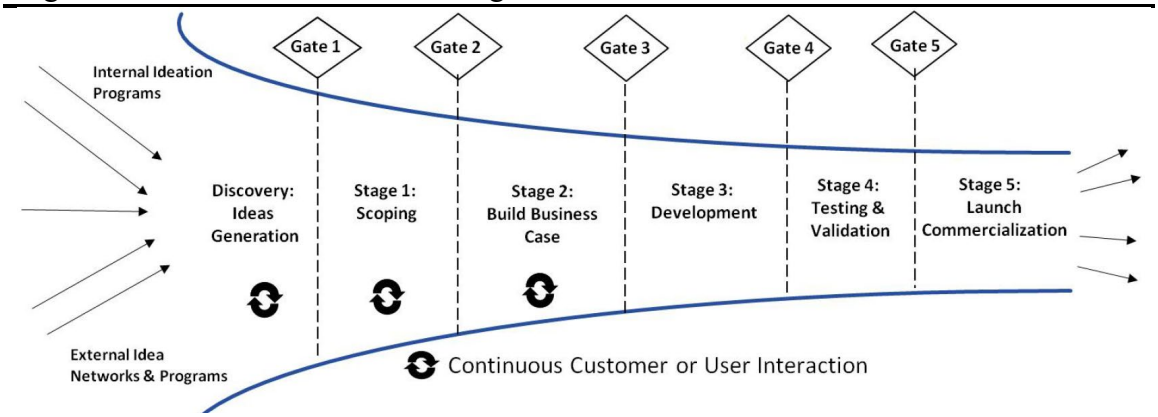
experimental rules, set expiration dates for regulations, or establish rulemaking deadlines. Additionally, citizen lawsuits or private rights of action may help to address under-enforcement by regulators who may be stretched for resources when facing new industries or products within their jurisdictions (Cortez, 2014). With Disruptive innovation focusing on the market impacts of an organization or the firm's entry into the marketplace. This could be the result of radical innovation which involves the development of new products or services that are significantly different from anything that has come before.

Radical innovation involves the development of entirely new products or services that are significantly different from anything that has come before. These innovations often involve major technological or scientific breakthroughs and can have a profound impact on the way people live and work. A high intensity of lead-user characteristics displayed by a user positively impacts the user's likelihood that they will develop commercially attractive innovation. When high benefits are associated with innovation likelihood, and when positioned ahead of the trend, it is associated with innovation attractiveness (Franke et al., 2006). Radical innovation can guide the development of new technologies or products that are significantly different from anything that has come before and have the potential to revolutionize entire industries.

Incremental innovation, on the other hand, involves small, incremental improvements to an existing product or service. These improvements may be in the form of new features, better performance or increased efficiency. These improvements can come from a variety of sources, including customer feedback, technological advancements, or new innovations from the company's own research and development

team. Incremental innovation can be less risky and less expensive than other forms of innovation since it builds on an existing product or service and does not require the development of an entirely new concept. Making it an important characteristic that organizational leaders can enhance.

Figure 2. Incremental Innovation Stage-Gate Process Model



(Edgett, 2015, p. 3)

Several models, including the Stage-Gate process (Figure 2), can describe the incremental innovation process. This model includes five main stages: 1) Idea generation and scoping, where ideas for new or improved products are collected; 2) Business case screening, where the ideas are evaluated to determine which are worth pursuing; 3) Development, where a prototype of the chosen idea is created; 4) Testing, where the prototype is tested for performance and specifications; and 5) Commercialization, where the successful prototype is scaled up and made available to customers. The Stage-Gate process is typically carried out by a team of experts who assess each idea's potential value and feasibility.

The Stage-Gate model for Incremental innovation can guide the development of new products or improvements to existing products in a systematic and structured way. Organizations that are more decentralized and larger tend to introduce new products

(Ettlie et al., 1984). Incremental innovation processes that lead to new products appear to depend on more traditional structural arrangements and market-oriented strategies.

Mario Coccia's study from 2017 explored the sources of radical and incremental innovations in competitive markets, proposing a model that links the emergence of important problems with their solutions. The study analyzed the factors that drive technological change, specifically in the development of anticancer drugs. It showed that both radical and incremental innovations could be driven by a simultaneous evolution of significant problems and efforts to solve them within the context of technological evolution. The study highlights the importance of understanding the general forces that shape technological change. Hence, the approach here has main elements of complementarity with established frameworks. The similarity between radical and incremental innovation is that both the problem-driven framework and the stage-gate (Figure 2) model support cooperation, collaboration and communication in organizations between stakeholders, managers and other project experts.

Researchers have studied the innovation process and have proposed normative strategies for these different types of innovation. However, it is not always clear what the differences are between these types of innovation, and whether it is important to classify them in a specific way. Some have explored whether it matters how innovations are labeled, or whether it is more important to focus on the process of innovation itself (Garcia & Calantone, 2002). No matter, centralization of decision-making is necessary for a radical process of adoption along with the movement away from organizational complexity and toward more organizational generalists (Ettlie et al., 1984). This would

suggest that improved support of top managers in the innovation process and employee behavior elements are necessary to initiate and sustain innovation within an organization.

Micro-innovation is a type of innovation characterized by its small scale and low level of risk. These innovations may involve incremental improvements to existing products or processes or the introduction of new technologies or practices on a limited basis. While micro-innovations may not have significant long-term impacts on the organization or industry, they can still help address specific problems or improve efficiency. As such, micro-innovation can help organizations stay competitive and responsive to changing market conditions.

For example, shifts in the market environment and technological conditions in China are encouraging small and mid-size enterprises (SMEs) to adopt more collaborative and locally-focused approaches to innovation, leading to disruptions in the original paradigm and market through applying technology (Zhou et al., 2017). The accumulation of small, incremental changes, known as micro-innovation, demonstrates the vitality and competitiveness of these innovation-driven SMEs in this transitional period.

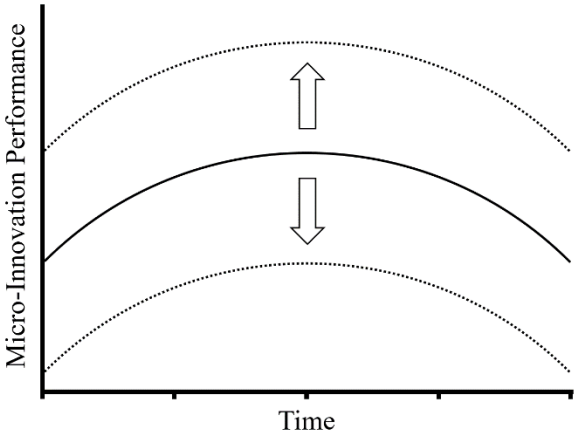
The impact of micro-innovation on a company's innovation performance depends on the type of micro-innovation being implemented. Imitative micro-innovation may have a short-term positive impact, but if it is pursued excessively, it can negatively affect innovation performance. This relationship between imitative micro-innovation and innovation performance is thought to follow an "inverted U-shaped curve", according to Haans et al. (2016). As a result, ongoing micro-innovation, which focuses on continually

improving the production process and enhancing product performance, has more significant potential to drive long-term improvement in innovation performance.

This additional complexity may impact researchers in terms of theoretical development, hypothesizing and empirical testing. Although the value of micro-innovation can be emphasized in conceptual analysis, systematic research on this topic can be challenging due to several methodological issues. For example, it can be difficult to identify, compare and evaluate different types of innovation because they are often subtle. In particular, micro-innovations that involve changes to the actions, surroundings and employee views may be harder to assess than more tangible modifications to equipment and environments (Hyysalo, 2009).

To address this, micro-innovation will not be broken down into sub-factors and is constructed based on a snapshot in time. Instead, it will be investigated as a holistic construct because the impact on micro-innovation from employee behavior elements would increase or decrease the overall y-axis of the inverted U-shaped curve and provide a quantifiable result for analysis as demonstrated in Figure 3.

Figure 3. Micro-Innovation Inverted Interaction Curve



This encompassing innovative behavior may involve identifying and addressing new user needs that would be detected and impact innovation performance. Research has shown that different types of micro-innovation can have varying levels of impact on innovation performance, so organizations must carefully consider which types to pursue. Imitative micro-innovation, ongoing micro-innovation, and autonomous micro-innovation each have distinct characteristics and can work together to support the sustainable growth of the enterprise and improve innovation performance (Zhou et al., 2017).

Micro-innovation is distinct from incremental and radical innovation in multiple ways. It tends to be subtle and adaptive. Products are developed based on previous versions or similar products; thus, degrees of innovation are incremental rather than radical. Organizations must iterate each step to produce the best outcomes continuously, and each new version must be short of obtaining feedback from users and improving products immediately (Yang et al., 2016). This process involves a continuous loop of iteration and improvement, in which each new version is quickly tested with users to gather feedback and inform further development. As such, micro-innovation requires close communication and collaboration between the product and its users.

Innovation is essential for organizations to remain competitive in a constantly changing market environment. It is ultimately the process of introducing something new, whether an entirely new product, service, or minor improvement. The appropriate leadership style must be applied to correctly develop and engage innovation within an organization. Developing an innovation mindset among employees is essential as it helps the organization focus on the future and be open to new possibilities.

Disruptive innovation theory helps identify new entrants offering a lower-cost, simpler, and more convenient product or service, eventually displacing established competitors. However, it is important to note that this type of innovation is framed at the market level, not the person or employee. Radical innovation involves developing entirely new products or services significantly different from before, while incremental or micro-innovation involves minor improvements to existing products or services.

Organizations can use different processes and tools to manage innovation, such as the Stage-Gate model, which includes five stages: idea generation, idea screening, concept development, testing, and implementation. To foster innovation, leaders must create a culture that encourages creativity, risk-taking, and learning from failure. Understanding the employee behavioral elements and the type of leadership needed to deliver innovation within the organization is crucial for its growth and success.

CHAPTER III: HYPOTHESES DEVELOPMENT & METHODOLOGY

Hypotheses

Sense of Power (SP)

Sense of power in the workplace centers around an individual's perception of their ability to control or influence events and decisions within their work environment. An employee with a high sense of power may feel confident in their ability to shape their own work experiences and the direction of their organization, while someone with a low sense of power may feel less able to affect change and more at the mercy of external forces. Job autonomy is a particularly important antecedent that relates to proactive behavior (Parker, Williams, & Turner, 2006). An employee needs the ability to act on their ideas and address problems; otherwise, no innovative behaviors would be exhibited.

H1: Greater the employee's Sense of Power will lead to higher innovation.

Self-Identity (SI)

Examining the interaction of self-identity in the workplace requires an integrated model that incorporates communication and change as underlying principles. Ocasio et al. emphasize the importance of communication in institutional logic, demonstrating the link between specific instances of communication and the emergence of institutional behaviors that were previously implicit. The construction and manipulation of self-identity within organizations are explored by Creed, Scully, and Austin (2002), who argue that employees use legitimating accounts tailored to fit the social context and norms of the organization. Symbols such as clothing are used to signal identity and affiliation with particular groups, influencing perceived competence and legitimacy in the

workplace. These findings suggest that leadership styles may impact the interaction between self-identity and innovation at work.

Faik et al. (2020) apply an affordance-based institutional logics perspective to understand the role of information technology (IT) in shaping social change. Their research highlights how IT can provide affordances that enable individuals and organizations to challenge existing institutional logics and norms, leading to social and cultural transformation. The study emphasizes the importance of recognizing the institutional context and power dynamics that reinforce or challenge existing norms. Strong self-identity and perceptions of empowerment may lead individuals to engage in innovative behaviors in the workplace.

Self-identity is a complex and dynamic construct that is influenced by personal and social factors, including communication, leadership styles, and the affordances of IT. Organizations that understand the interplay of these factors can create a more inclusive and supportive work environment that fosters greater employee engagement and innovation.

H2: The higher an employee's Self-Identity, the more significant their innovation.

Subjective Norms (SN)

Subjective norms can influence an individual's actions, especially if they are strong enough to override personal attitudes or values. These norms may be derived from a person's relationships with coworkers, supervisors, or the organization's culture. If a person believes that the people around them expect or desire a specific behavior, they may be more likely to engage in that behavior themselves. When cultural values and

norms are effectively used in the work environment, this may lead to innovative behaviors (Weintraub & McKee, 2019).

H3: Positive Subjective Norms in the workplace will cause an increase in employee innovation.

Emotional Exhaustion (EE)

The conservation of resources theory describes a process in which stressors and job demands require adaptive responses from employees that may lead to pressure in the form of emotional exhaustion. This theory "postulates that interpersonal job demands include role ambiguity and conflict, role overload, inadequate resources to perform the job, and unremitting demands from clients or other people in the work environment" (Wilk & Moynihan, 2005, p. 918). When employees encounter job demands and stressors that require adaptive responses, they may experience pressure and emotional exhaustion, leading to adverse outcomes such as burnout and reduced job satisfaction. In addition to the interpersonal job demands mentioned earlier, this theory also highlights the importance of resources for employees, such as social support, job autonomy, and skill variety, as these resources can help to buffer the harmful effects of stressors and job demands (Hobfoll, 1989). Research has shown that organizations that provide sufficient resources and support for employees are more likely to have resilient employees who can perform well under pressure (Halbesleben & Buckley, 2004).

H4: The higher employee emotional exhaustion will negatively impact innovation.

Leadership

Leadership can have a significant impact on innovation within an organization. Studies have found that transformational leadership has a "significant effect" on innovative work behaviors, while transactional leadership has received "less attention" concerning innovation (Khan et al., 2020). Both transformational and transactional leadership will be explored. Influential leaders can create a culture of innovation by encouraging risk-taking, embracing failure as a learning opportunity and providing employees with the resources and support needed to pursue new ideas. They can also model innovative behavior, demonstrating a willingness to challenge the status quo and think creatively.

In addition, leaders can play a critical role in setting the organization's strategic direction and defining the priorities and goals that drive innovation efforts. They can also ensure that transparent processes are in place for identifying, evaluating and implementing new ideas. On the other hand, leaders who are not supportive of innovation or discourage risk-taking and creativity can stifle innovation within the organization. Therefore, leadership style would impact the strength of innovation in the work environment.

H5: Stronger Transactional Leadership will increase employee innovation.

H6: Stronger Transformational Leadership will increase employee innovation.

Moderating Role of Transactional Leadership Style

Transactional leadership focuses on establishing clear goals and expectations for team members and providing rewards or consequences based on their performance. Transactional leaders typically are more concerned with maintaining the status quo and ensuring that team members meet specific targets or objectives.

Research has shown that transactional leadership can have a negative impact on employee innovation. Employees who feel they are being evaluated and rewarded based on their ability to meet specific goals and targets may be less likely to take risks or think creatively. They may fear being punished for failure or deviating from established expectations. In contrast, overworked employees may thrive under this leadership style because it establishes order and processes.

H7a: As Transactional Leadership increases, the relationship between Emotional Exhaustion and Innovation yields an increase in innovation.

H7b: As the value of Transactional Leadership increases, the relationship between Subjective Norms and Innovation will weaken.

H7c: As the value of Transactional Leadership increases, the relationship between Self-Identity and Innovation will weaken.

H7d: As the value of Transactional Leadership increases, the relationship between Sense of Power and Innovation will weaken.

Moderating Role of Transformational Leadership Style

Transformational leadership is a leadership style that focuses on inspiring and motivating team members to achieve their full potential and contribute to the

organization's overall success. Transformational leaders strive to create a vision for the team or organization and help team members see how their work fits that vision. They also work to develop the skills and abilities of team members and encourage them to take on new challenges and think creatively.

Research has generally found that transformational leadership can positively impact employee innovation. Employees who feel inspired and motivated by their leaders are more likely to be engaged in their work and willing to take on new challenges. Transformational leaders also create a culture of trust and collaboration within the team or organization, which can foster a sense of openness and willingness to share new ideas and take risks. As a result, employees in transformational leadership environments may be more likely to feel empowered to be creative and innovative in their work. In contrast, employees who feel burned out may feel overt pressure, hindering their innovation performance.

H8a: Transformational leadership will reduce the relationship between Emotional Exhaustion and Innovation also increases.

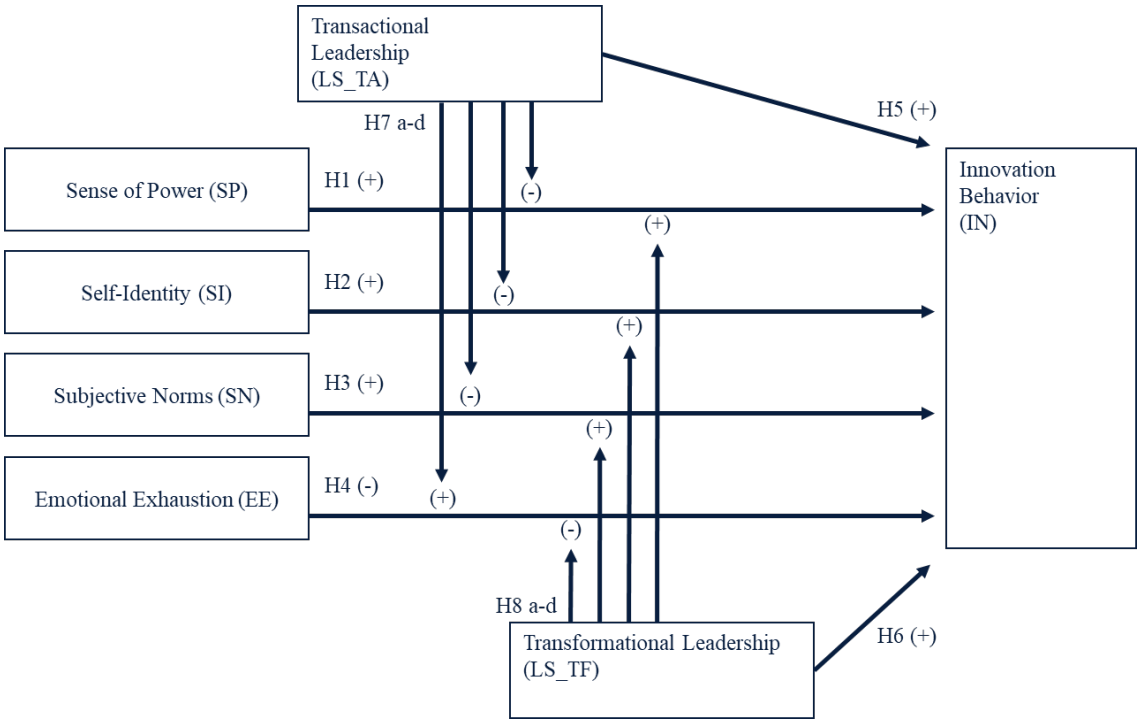
H8b: As the value of Transformational Leadership increases, the relationship between Subjective Norms and Innovation will weaken.

H8c: As the value of Transformational Leadership increases, the relationship between Self-Identity and Innovation will weaken.

H8d: As the value of Transformational Leadership increases, the relationship between Sense of Power and Innovation will weaken.

Conceptual Research Model

Figure 4. Conceptual Research Model



Construct Measures

Self-Identity is centered around an "individual's store societally prominent institutional logics in their minds as schemas. When these schemas are primed, it increases the likelihood that an individual will adopt motives associated with the logic and behave in ways consistent with these motives" (Thornton et al., 2015, p. 13). Culture, perceived reputation, and belief in business success play a role in contests over organizations' social construction and people's standing within them (Creed et al., 2002). It should be noted that some researchers have incorporated family status and spiritual beliefs as part of self-identity. However, they do not have an association and have shown no link to the "I.T. phenomenon" (Faik et al., 2020). At the same time, it is important

with this measure to ensure and capture an individual's characteristics. Such as personality traits, skills, and network characteristics, which can influence adaptation behaviors (Bala & Venkatesh, 2016). To that end, the participant's family status and spiritual beliefs will not be incorporated into the variable Self-identity.

Employees with less differentiation may become dysfunctional under stress and thus suffer more psychological and physical symptoms such as alcoholism, anxiety, and depression (Skowron & Friedlander, 1998). These elements build an individual's chronic anxiety and are captured as part of employee exhaustion and subjective norms. Over time, individuals can adapt during a psychological adjustment period, with highly differentiated individuals believed to demonstrate better psychological adjustment to changing environments. There is a level of satisfaction within the employee's identity. For example, when couples exhibit marital satisfaction, they show less emotional reactivity than those with low satisfaction, which leads to distress (Skowron & Friedlander, 1998).

The construct of a sense of power is comprised of multiple artifacts. The first is Max Weber's Bureaucratic domination comprising the employees' place within the organization and their sense of organizational loyalty. This comprises the level to which the employees have a clearly defined role and expectations for which they are solely responsible (Byrkjeflot, 2018; Faik et al., 2020; Thornton et al., 2012). When an employee feels that they impact the organization's operations, it can increase their sense of power (Bacharach et al., 2002).

Professional associations and positions of authority are sources that determine power in an organization (Thornton et al., 2012). By measuring a subject's perceived

place in an organization, how active they are in professional associations, and their alignment with the organization's goals will establish their engagement and ability to have a level of psychological safety with their decisions. Anderson et al. (2012) used questions in four samples with a complete total of 744 participants. The questions were designed to measure participants' sense of power in their salient relationships. This measure produced Cronbach's alpha scores ranging from .82 to .85. which indicated good internal consistency.

The construct of subjective norms has been developed to identify those elements because, without them, there would be limited actions toward developing and implementing new ideas. Capturing the established belief around sharing knowledge and whether employees have the motivation to act on it or not. In an organization, employee attitudes affect individuals' intentions to share knowledge and the organizational climate. Normative beliefs on knowledge sharing help establish the level of belief in sharing job knowledge within the organization, as well as, their motivations to comply with the willingness to share job knowledge within the organization (Bock et al., 2005). In the context of this study, subjective norms refer to the perceived expectations and beliefs of others in the workplace regarding innovation behavior.

Employees are ultimately used to producing new ideas and new products. It is this responsibility that is framed in multiple facets. First, radical innovation denotes significant changes that occur in a product, process and organization. While incremental innovation is framed on the basis that there are steps or upgrades to each innovation. Innovation is derived from having an idea and acting on it, and research has suggested that innovation related behaviors are increasingly important for improving organizational

productivity (Ng et al., 2010). This study explores innovation, which is comprised of small tasks performed by employees that account for and can comprise incremental innovation. These micro steps happen in most organizations because of employees' proactive ideas and problem-solving skills. Working to identify antecedents that frame an employee's experience can help improve the activation of these behaviors.

Assumptions and Delimitations

Based on the importance of innovation, there is a lack of agreement on how best to study this artifact. Some research puts forth that "structural characteristics of the organization, such as size and complexity, strongly affect the organization's innovative behavior" (Baldridge and Burnham, 1975, p. 165). Organization theorists have given increasing attention to the environment in which an organization functions; but that lens seems to have been shown to be dated. With the Covid pandemic impacting businesses, many sent employees home to work, and their productivity early on went up, and then it seemed to have leveled off. As noted in Tracy Brower's January 2021 Forbes article, "we're hearing a lot of people are now hitting a wall. They are tired, fed up and burned out" (para. 5). That indicates that employee exhaustion does shape employee work behavior. While this research encompasses most elements from both employee and organizational traits, not all elements are incorporated and could be expanded on in further studies.

Employee behaviors can also be categorized by in-role and ex-role. This study works to capture both; however, it is framed from the employee perspective, and the two types are measured collectively. The differentiation was outside the scope of this research

and was not investigated. Nevertheless, it does suggest another aspect for additional research by breaking down the type of innovation behaviors to their corresponding roles. Since the response in this study is self-reported, a future study could further investigate the phenomenon at the macro level (individual relationships) between supervisor and employee or at a macro level by investigating industry patterns.

Research Methodology

This study examined how different personal and organizational factors can impact an employee's behavior toward innovation. An anonymous online survey was constructed and deployed using Amazon Mechanical Turk with questions primarily based on existing research, which was then downloaded into the statistical software for evaluation. The survey consisted of questions based on previous research and was designed to gather information on the variables of interest, such as an employee's authority, self-identity, subjective norms, employee exhaustion, and leadership style.

Amazon Mechanical Turk (MTurk) is a crowdsourcing platform that provides researchers access to a large pool of participants from diverse backgrounds, ages, and locations. MTurk has become increasingly popular as a tool for survey-oriented research, and many researchers in various disciplines, including business, have used MTurk to conduct their studies. For instance, Parra et al. (2022) conducted a study on the effects of individuals' big five personality traits on remote work exhaustion using MTurk as a source for survey participants. Similarly, Gupta et al. (2023) explored the effects of political beliefs and cultural values on fake news believability. Parra et al. (2021) also

used MTurk while investigating the likelihood of questioning AI-based recommendations due to perceived racial/gender bias using MTurk participants.

Daly and Nataraajan (2015) found MTurk to be a valuable platform for longitudinal research in the business discipline while noting that researchers should carefully consider the challenges and limitations of using this platform when designing their studies. They noted that researchers expecting to use MTurk should include attention checks to ensure participant engagement, monitor data quality closely, and provide extra incentives for continued participation in the event of a longitudinal study. Nevertheless, they demonstrated that not only is MTurk demographically diverse but that the data obtained is of high quality.

These studies demonstrate that MTurk is an increasingly popular and effective platform for collecting data and presents several advantages over traditional methods, including cost-effectiveness, speed of data collection, and access to a large and diverse pool of participants. As a result, Amazon MTurk was leveraged to obtain quality participants in both the pilot and primary data collection of this research.

The methodology used in this research study is a survey-based approach and was conducted to investigate the impact of various factors on employees' innovation behaviors in organizations. In the deployed anonymous online survey, appropriate attention checks were inserted. Once collected, the data was then downloaded into statistical software for evaluation. The internal consistency of the measures was checked using Cronbach's alpha, and descriptive statistics were derived from calculating the model indicators' means, standard deviations, and variance. The study then used structural equation modeling to test the hypotheses and establish the relationships

between the variables. The theoretical model presented in the study provides an overview of how the various elements interact to influence innovation behaviors.

Population and Sample

The Bureau of Labor Statistics is a government agency that provides data on employment, wages, and other labor market indicators. The November 2022 Employment Situation News Release reported that the adult (≥18-years-old) working population within the United States was estimated at 136,470,000. This information was used to determine the sample size for the study being described.

This study was carried out using a digital survey instrument which was posted online. The participants were required to be of working age (18-65) and located in the United States of America. Any participant who completed the questionnaire received financial compensation in the amount of $1.00 and was only able to complete the survey once. This study was advertised by leveraging an online tool (Amazon Mechanical Turk) that also facilitated the disbursement of payment to the participants.

A quantitative approach was chosen to collect data from working adults across the United States of America. The survey instrument was developed based on proven research measures and made available to respondents using the internet. This method allowed for collecting enough data and provided a survey conversion rate of 80.25% resulting in 390 valid responses.

The margin of error is a measure of how much the sample results may differ from the actual population value. In this case, the margin of error relative to the population is estimated to be 5% and holds a 95% confidence level relative to the United States

working population. This means that if the survey were conducted multiple times, the results would be within 5% of the actual population value 95% of the time.

Pilot Studies

An initial informed pilot test of the survey was conducted utilizing six participants to determine the feasibility of the more extensive study. The participants received a document providing an overview of the research to assist with their understanding of the study. They were then asked to complete an online survey that was also provided. The feedback was overall positive, with comments like: “Very well written! The topic is exceptional and needed.” One respondent stated that the concept of this research reminded them of the “Methods of Teaching,” where educators are expected to consider the individual student’s emotional state, the classroom setting, and then adapt their teaching style to improve student performance. The average informed pilot survey completion time was approximately 10 minutes. The six respondents ranged in age from their mid-30s to their late 60s, with three being male and three being female. Respondent educational level: All reported having a college degree, with one holding a master’s degree, one currently is a doctoral candidate and two have doctoral degrees.

A pilot study was then undertaken by leveraging Amazon Mechanical Turk and was able to collect 116 responses. Twenty-five (25) were removed because they did not finish the survey or failed the attention checks. This provided 91 usable responses for the pilot, of which 48 (or 52.7%) were men and 43 (or 47.3%) were women. In Table 1 are the descriptives of all the items used in the pilot study and the reliabilities at the construct

level. Overall, these results suggest that the measurement instrument used in the pilot study was reliable and had good construct validity.

The pilot study indicated a factor structure that is valid for measuring the seven main factors: Emotional Exhaustion (EE), Innovation Behaviors (IN), Transactional Leadership Style (LS_TA), Transformational Leadership Style (LS_TF), Self-Identity (SI), Subjective Norms (SN), and Sense of Power (SP). Table 1 shows the descriptive statistics of the pilot data and provides an overview containing the item code, the mean, standard deviation, and alpha score for the measures retained in the pilot.

Table 1. Pilot Data Descriptive Statics

Construct Name and Reference	Item Code	Mean	Std. Deviation	Alpha
Sense of Power	SP_1	5.44	1.231	0.766
Anderson et al. (2012)	SP_2	4.24	1.791	
	SP_3	5.33	1.193	
	SP_4	4.67	1.770	
	SP_5	5.04	1.577	
	SP_6	4.05	1.864	
	SP_7	3.97	1.876	
	SP_8	5.20	1.310	
Innovation Behaviors	IN_1	4.76	1.797	0.945
Åmo & Kolvereid (2005)	IN_2	4.58	1.764	
	IN_3	4.78	1.737	
	IN_4	4.80	1.772	
	IN_5	4.73	1.904	
Emotional Exhaustion	EE_1	4.40	2.092	0.941
Maslach & Jackson (1981).;	EE_2	4.65	2.243	
Wilk & Moynihan (2005)	EE_3	4.51	2.228	
	EE_4	4.20	2.197	
	EE_5	4.35	2.268	
	EE_6	4.11	2.213	

Self-Identity	SI_1	5.47	1.129	0.820
Skowron & Friedlander (1998)	SI_2	5.25	1.296	
	SI_3	5.24	1.417	
	SI_4	4.96	1.374	
	SI_5	5.05	1.448	
	SI_6	5.29	1.369	
	SI_8	4.92	1.408	
	SI_9	5.10	1.461	
	SI_10	4.04	1.801	
	SI_11	5.22	1.323	
	SI_12	5.10	1.248	
Subjective Norms	SN_1	4.77	1.620	0.732
Bock et al. (2005)	SN_2	4.91	1.532	
	SN_3	5.04	1.475	
	SN_4	5.32	1.460	
	SN_5	5.24	1.311	
	SN_6	5.37	1.226	
Transformational Leadership	LS_TF_01	3.04	0.942	0.855
Style	LS_TF_02	3.19	1.032	
Factors based on the	LS_TF_03	3.23	1.076	
Multifactor Leadership	LS_TF_04	3.24	1.047	
Questionnaire.	LS_TF_05	3.35	1.149	
	LS_TF_06	3.33	0.989	
	LS_TF_07	3.44	0.885	
	LS_TF_08	3.43	0.968	
Transactional Leadership	LS_TA_01	3.42	1.044	0.592
Style	LS_TA_02	3.10	0.967	
Factors based on the	LS_TA_03	3.45	0.946	
Multifactor Leadership	LS_TA_04	3.44	0.945	
Questionnaire.	LS_TA_05	3.26	0.976	
	LS_TA_06	3.14	0.961	
	LS_TA_07	3.10	1.001	
	LS_TA_08	3.84	2.217	

Note: SI_7 is not included because it was used as an attention check during data collection.
(n=91)

The pilot data and outcomes were removed from the research data before further collection since the results of the informed pilot and pilot are not intended to be published or disseminated. As with the Pilot, the final survey was delivered in Qualtrics and subsequently advertise for respondents on Amazon Mechanical Turk (MTurk). In Amazon MTurk, the qualifications were set as: location must be the United States of America, a participant must have a history of approved responses greater than 95% on previous surveys and they must have been approved by more than 50 other MTurk postings. The MTurk Worker ID was used to flag those who participated in the pilot study and were thus excluded from the main studies' data collection.

Given the relatively limited sample size of the pilot data, all constructs were retained for the main study. This was to ensure the robustness of the results. The descriptive statistics of the entire dataset will be evaluated after completing the collection, as the sample size will be larger. This will allow for a more comprehensive assessment of the data and help minimize the potential impact of any outliers or anomalies in the data.

Measurements

For the final study, all measures from the pilot study were retained and used in the main study. This includes utilizing the same instruments and protocols for data collection as well as maintaining adherence to the study's design. The majority of questions were presented on a Likert scale, and results were downloaded from Qualtrics and subsequently imported into SPSS Version 27. The only noted change from the pilot was that the main study was set to capture 450 respondents in MTurk.

For the main study, 486 Qualtrics survey responses were collected. The incomplete responses (24), those that failed the attention checks (68), and duplicate IP addresses (4) were removed. The average completion time reported in Qualtrics was around 8 minutes. Ultimately, this provided 390 (80.25%) valid responses to be retained for final analysis.

While the data was in SPSS, demographic and analytics were run. Out of the 390 valid responses, the majority (≈65%) identified themselves as male, with approximately 35% reporting as female (Table 2). Approximately 90% of the total responses had at least a four-year college degree, and 24% stated they held a graduate degree; with the entire educational breakdown provided in Table 3.

Table 2. Gender Breakdown

	N	%
Male	254	65.1
Female	136	34.9
Total	390	100.0

Table 3. Highest Educational Level

	N	%
High School or GED	21	5.4%
Some college	11	2.8%
2-year Degree	9	2.3%
4-year Degree	257	65.9%
Masters	83	21.3%
Professional degree	8	2.1%
Doctorate	1	0.3%

Leveraging the North American Industry Classification System (NAICS), used by Federal statistical agencies within the United States of America, provided a standard for classifying the type of organizations. Applying the NAICS classification, the highest category with respondents was Information, of which 109 (27.9%) reported being in that field. Table 4 displays the NAICS breakdown and the corresponding number of

respondents; their position level within their organization can be seen in Table 5, which shows the most prominent group being Managers, with 209 (53.6%) reporting as such.

Table 4. Industry Classification

	N	%
Information	109	27.90%
Manufacturing	55	14.10%
Finance and Insurance	41	10.50%
Data Processing Services	25	6.40%
Management of Companies and Enterprises	24	6.20%
Healthcare and Social Assistance	23	5.90%
Construction	20	5.10%
Professional, Scientific, and Technical Services	19	4.90%
Administrative and Support Services	18	4.60%
Retail Trade	12	3.10%
Real Estate and Rental Leasing	8	2.10%
Wholesale Trade	8	2.10%
Utilities	7	1.80%
Education	6	1.50%
Agriculture, Forestry, Hunting, and Fishing	4	1.00%
Mining	4	1.00%
Transportation and Warehousing	3	0.80%
Arts, Entertainment, and Recreation	2	0.50%
Other Services	1	0.30%
Public Administration	1	0.30%

Table 5. Position

	N	%
Intern	5	1.3%
Support staff	50	12.8%
Manager	209	53.6%
Director	27	6.9%
Executive	83	21.3%
Student	2	0.5%
Faculty	7	1.8%
Other	7	1.8%

Descriptive statistics provide a snapshot of the data and can help identify any outliers or patterns that may be relevant to the analysis. They were then calculated to understand the data distribution and provide an overview of the means, standard deviations, and variances of the model indicators. These statistics have been compiled in Table 6 below.

Table 6. Descriptive Statistics

Construct		N	Mean	SD	Variance
Emotional Exhaustion	EE_1	390	2.92	1.529	2.338
Maslach & Jackson (1981);	EE_2	390	3.01	1.549	2.398
Wilk & Moynihan (2005)	EE_3	390	3.00	1.600	2.560
	EE_4	390	3.02	1.671	2.791
	EE_5	390	3.05	1.672	2.797
	EE_6	390	3.12	1.771	3.136
Innovation Behaviors	IN_1	390	5.28	1.431	2.049
Åmo & Kolvereid (2005)	IN_2	390	5.25	1.529	2.339
	IN_3	390	5.50	1.375	1.891
	IN_4	390	5.34	1.431	2.049
	IN_5	390	5.34	1.444	2.086
Transactional Leadership Style	LS_TA_01	390	3.51	0.953	0.909
Factors based on the Multifactor	LS_TA_02	390	3.45	0.933	0.870
Leadership Questionnaire.	LS_TA_03	390	3.50	0.866	0.749
	LS_TA_04	390	3.49	0.934	0.873
	LS_TA_05	390	3.38	0.956	0.915
	LS_TA_06	390	3.35	0.973	0.947
	LS_TA_07	390	3.32	1.028	1.057
	LS_TA_08	390	4.12	2.314	5.357
Transformational Leadership	LS_TF_01	390	3.41	0.786	0.617
Style	LS_TF_02	390	3.42	0.950	0.902
Factors based on the Multifactor	LS_TF_03	390	3.42	0.944	0.891
Leadership Questionnaire.	LS_TF_04	390	3.50	0.969	0.940
	LS_TF_05	390	3.49	0.956	0.914
	LS_TF_06	390	3.54	0.897	0.805

	LS_TF_07	390	3.52	0.928	0.862
	LS_TF_08	390	3.49	0.903	0.816
Self-Identity	SI_1	390	5.26	1.202	1.444
Skowron & Friedlander (1998)	SI_2	390	5.30	1.322	1.747
	SI_3	390	5.05	1.469	2.157
	SI_4	390	5.19	1.302	1.695
	SI_5	390	5.09	1.373	1.884
	SI_6	390	5.25	1.435	2.060
	SI_8	390	5.12	1.321	1.744
Subjective Norms	SN_1	390	5.37	1.289	1.662
Bock et al. (2005)	SN_2	390	5.36	1.306	1.706
	SN_3	390	5.47	1.255	1.576
	SN_4	390	5.51	1.254	1.572
	SN_5	390	5.51	1.191	1.418
	SN_6	390	5.48	1.258	1.582
Sense of Power	SP_1	390	5.47	1.131	1.278
Anderson et al. (2012)	SP_2	390	2.73	1.460	2.132
	SP_3	390	5.49	1.223	1.495
	SP_4	390	2.69	1.362	1.855
	SP_5	390	5.47	1.290	1.664
	SP_6	390	2.94	1.563	2.444
	SP_7	390	2.81	1.500	2.250
	SP_8	390	5.50	1.184	1.402
	Valid N	390			

Note: SI_7 is not included because it was used as an attention check during data collection.

Once the frequencies had been computed for age, education, gender, industry, and position, the descriptive statistics were extracted and the data was imported into SmartPLS version 4. This allowed us to conduct a multivariate analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationship between the variables.

Structural equation modeling (SEM) was used because of its ability to handle missing data and measurement errors which is common in innovation research. SEM was used to examine the relationship between network diversity and innovation in a sample of high-tech firms (Reagans & McEvily, 2003). The authors found that network diversity had a positive effect on innovation. This type of relationship would have been difficult to discern through other statistical methods.

Another advantage of SEM is its ability to test for multiple causal relationships simultaneously. SEM was used to examine the relationships between organizational characteristics, such as size and age, and innovation in a sample of firms (Autio, Sapienza, & Almeida, 2000). They found that size and age had a negative effect on innovation, suggesting that larger, older firms may be less innovative.

SEM also allows for examining latent variables, which are unobserved variables inferred from a set of observed indicators. In a study (Liu, 2016), SEM was used to examine the relationship between employee empowerment and organizational innovation in Chinese firms. The author found that employee empowerment positively affected organizational innovation, directly and indirectly, through its influence on employee creativity.

Thus, SEM is a valuable tool for studying employee innovation due to its ability to test for multiple causal relationships at once, examine latent variables and handle missing data and measurement errors. Overall, it is well suited to provide a deeper understanding of the factors that influence the successful development and implementation of new ideas and technologies within an organization.

CHAPTER IV: MAIN STUDY DATA ANALYSIS AND RESULTS

Data Analysis

Based on the Research Model (Figure 4), the path diagram was created in SmartPLS, showing the interactions and relationships between the hypnotized variables (Figure 5). The measures in this model were determined to be reflective in nature because they share a unified construct. Confirmatory Factor Analysis (CFA) was used to confirm the validity of the latent variable measures. Construct reliabilities were reviewed, using a factor weighting scheme, the outer loadings for each latent variable. First, items that presented weak loadings (≤.6) and items used in the survey as attention checks were removed. For example, LS_TA_08's highest loading was .491 and was thus removed. The CFA also indicated, that all measures for emotional exhaustion had strong loadings of >.8 and provided a high Cronbach's alpha score of 0.919. Because of this, all items for emotional exhaustion were retained.

During the evaluation of self-identity and subjective norms, it was found that both constructs had high cross-loadings. Simultaneously removing multiple factors made it difficult to determine the specific contribution of each. Therefore, a step-by-step evaluation and review were performed after each removal. In the unredacted CFA, the average variance between self-identity and subjective norms for SI_2, SI_4, SI_11, and SI_12 was found to be .155. These items were removed individually along with SN_1, SN_3, and SN_5, which helped to resolve the cross-loading between these two constructs and ultimately resulted in good Cronbach's alpha scores. Similarly, there was a need to address the cross-loadings between Transactional and Transformation Leadership styles, LS_TA_01, LS_TA_03, and LS_TA_04 were removed from Transactional measures, and

LS_TF_01, LS_TF_07, and LS_TF_08 were removed from Transformation Leadership measures.

Variables with strong cross-loadings were removed, while the vast majority of loadings retained were greater than .7. Table 7 shows the remaining cross loading values, with Table 8 showing reliability and correlations. When assessing convergent validity and determining if the measure evaluates the intended construct, a satisfactory average variance extracted (AVE) must be higher than .5. Transactional Leadership had the lowest AVE of .759. Indicating all seven constructs have good effects with a minimal correlation between constructs.

Table 7. Discriminant Validity (Cross loadings)

	EE	IN	LS_TA	LS_TF	SI	SN	SP
EE_3	**0.870**	-0.367	-0.236	-0.034	-0.327	-0.234	-0.329
EE_1	**0.851**	-0.392	-0.225	-0.046	-0.360	-0.167	-0.303
EE_6	**0.844**	-0.392	-0.200	-0.005	-0.281	-0.140	-0.276
EE_4	**0.840**	-0.352	-0.189	-0.017	-0.350	-0.210	-0.281
EE_2	**0.838**	-0.384	-0.238	-0.060	-0.319	-0.273	-0.333
EE_5	**0.816**	-0.297	-0.153	-0.037	-0.333	-0.227	-0.318
IN_5	-0.368	**0.872**	0.311	0.278	0.405	0.401	0.572
IN_4	-0.360	**0.866**	0.332	0.309	0.347	0.359	0.559
IN_2	-0.405	**0.864**	0.355	0.361	0.359	0.407	0.545
IN_3	-0.339	**0.789**	0.249	0.208	0.315	0.295	0.483
LS_TA_05	-0.173	0.314	**0.789**	0.395	0.190	0.226	0.204
LS_TA_06	-0.216	0.300	**0.761**	0.314	0.179	0.220	0.192
LS_TA_07	-0.214	0.274	**0.752**	0.333	0.214	0.207	0.175
LS_TA_02	-0.142	0.222	**0.733**	0.353	0.213	0.201	0.186
LS_TF_04	-0.075	0.286	0.288	**0.781**	0.180	0.254	0.300
LS_TF_05	0.032	0.250	0.336	**0.728**	0.193	0.251	0.295
LS_TF_02	-0.048	0.247	0.365	**0.705**	0.200	0.252	0.233
LS_TF_03	-0.061	0.252	0.331	**0.700**	0.219	0.198	0.277
LS_TF_06	0.031	0.191	0.347	**0.678**	0.298	0.275	0.288
SI_8	-0.358	0.384	0.251	0.234	**0.874**	0.530	0.460
SI_6	-0.275	0.371	0.179	0.254	**0.796**	0.498	0.413

SI_5	-0.377	0.291	0.211	0.190	**0.794**	0.469	0.421
SI_3	-0.209	0.263	0.175	0.258	**0.679**	0.346	0.345
SN_6	-0.198	0.356	0.230	0.255	0.502	**0.821**	0.450
SN_2	-0.196	0.336	0.248	0.303	0.437	**0.810**	0.394
SN_4	-0.203	0.364	0.211	0.269	0.499	**0.805**	0.459
SP_3	-0.323	0.550	0.243	0.309	0.446	0.427	**0.834**
SP_8	-0.299	0.557	0.181	0.299	0.392	0.433	**0.821**
SP_1	-0.244	0.407	0.173	0.331	0.424	0.438	**0.750**

Note: Corresponding values are in bold. The items missing were dropped due to high cross-loadings, see pages 46-47.

Table 8. Reliability and Correlations

	α	AVE	EE	IN	LS_TA	LS_TF	SI	SN	SP
EE	0.919	0.711	**0.843**						
IN	0.870	0.720	-0.435	**0.848**					
LS_TA	0.757	0.576	-0.248	0.370	**0.759**				
LS_TF	0.767	0.517	-0.039	0.345	0.459	**0.719**			
SI	0.797	0.623	-0.388	0.422	0.260	0.295	**0.789**		
SN	0.742	0.659	-0.245	0.434	0.282	0.339	0.591	**0.812**	
SP	0.726	0.644	-0.363	0.637	0.250	0.386	0.521	0.536	**0.802**

Note: α = Cronbach alpha; AVE = Average Variance Extracted; Corresponding discriminant validity (Fornell-Larcker Criterion) values are in bold.

The internal consistency of the measures used in the study was assessed using Cronbach's alpha. This statistical technique measures the reliability of a set of measures and is expressed as a coefficient between 0 and 1. Results showed that all measures had a good to excellent internal consistency with a value greater than .7. The measure of Innovation (IN) had a good coefficient of .87, while the measure of Emotional Exhaustion (EE) had an excellent coefficient of .919. This indicates that the measures used in the study were reliable and consistent in measuring their corresponding construct.

Findings

The model was evaluated for its predictive ability based on the size of the R^2 value, which accounted for 0.601 (60.1%) of the variance in Innovation (IN). To test the hypotheses, the significance and relevance of the structural model relationships were assessed using a bootstrapping procedure, with 5,000 subsamples using a fixed seed, and incorporated in the two-tail t-test. Four of the six main hypotheses were supported, and three of the eight moderating hypotheses were also supported.

The results suggest that the model can explain a relatively large portion of the variation in Innovation and the proposed relationships between some of the behavioral elements and innovation. The study also indicates that leadership styles moderate the relationships in the model. Overall, the results can be seen in Figure 5 with the model results in Table 9.

Figure 5. Research Model with Results

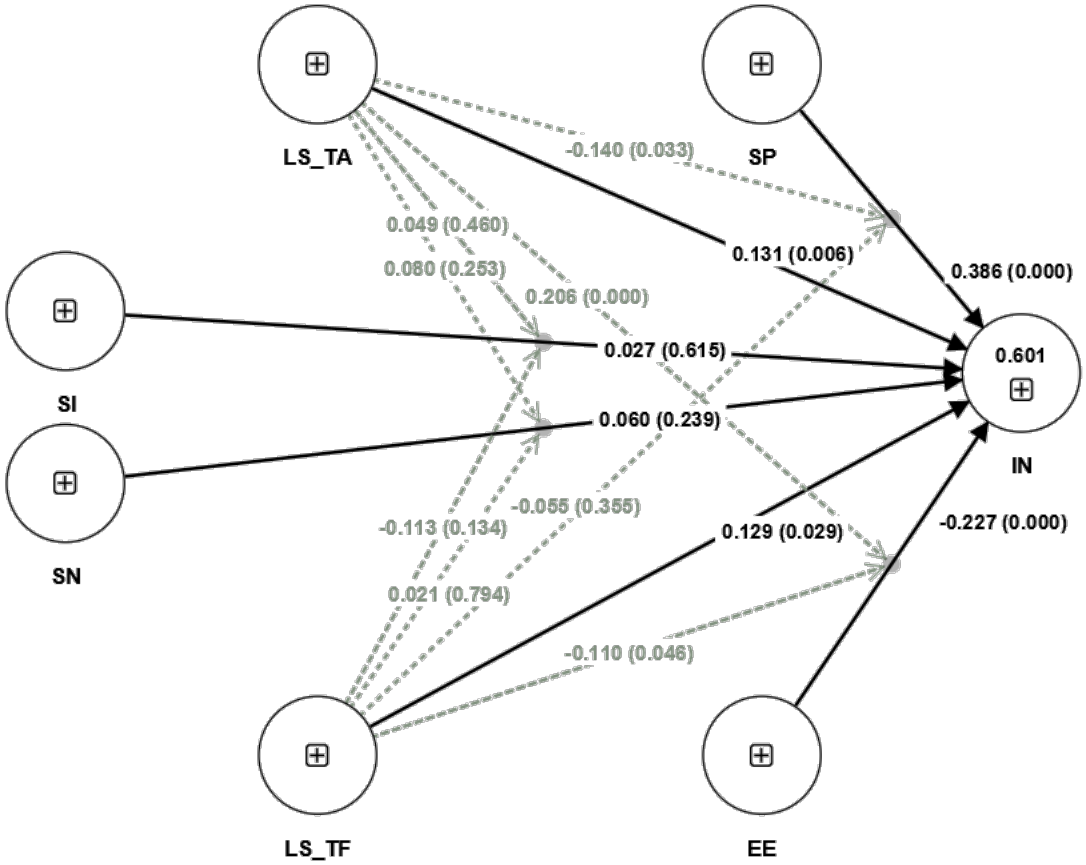


Table 9. Model Results

Path[a]	β	t	P[b]
SP → IN	0.386	8.090	<.001
SI → IN	0.027	0.503	ns
SN → IN	0.060	1.178	ns
EE → IN	-0.227	3.984	<.001
LS_TA → IN	0.131	2.731	<.010
LS_TF → IN	0.129	2.178	<.050
LS_TA x EE → IN	0.206	4.098	<.001
LS_TA x SN → IN	0.080	1.144	ns
LS_TA x SI → IN	0.049	0.740	ns
LS_TA x SP → IN	-0.140	2.133	<.050
LS_TF x EE → IN	-0.110	1.992	<.010
LS_TF x SN → IN	0.021	0.261	ns
LS_TF x SI → IN	-0.113	1.499	ns
LS_TF x SP → IN	-0.055	0.925	ns

a) Note: EE= Employee Exhaustion; IN=Innovation; LS_TA=Transactional Leadership; LS_TF= Transformational Leadership; SI=Self-identity; SN=Subjective Norms; SP=Sense of Power;
b) Note: ns = Not Significant (p>.050)

This study aimed to investigate employee behavioral elements and the impact of leadership style interaction on micro-innovation. The first hypothesis (H1) proposed that the stronger an employee's sense of power it would positively impact their innovation. This relationship was supported and indicated that when employees feel a sense of power, they may feel more empowered to take ownership of their work and to suggest new ideas or ways of doing things. A sense of power can lead to greater autonomy, fostering creativity and the willingness to think outside the box and may establish a more motivated workforce to contribute to the organization's success. Employees with a sense of power may be more likely to advocate for their ideas and persuade others to support their innovative proposals. Overall, a stronger sense of power among employees can create a more positive and supportive environment for innovation to thrive.

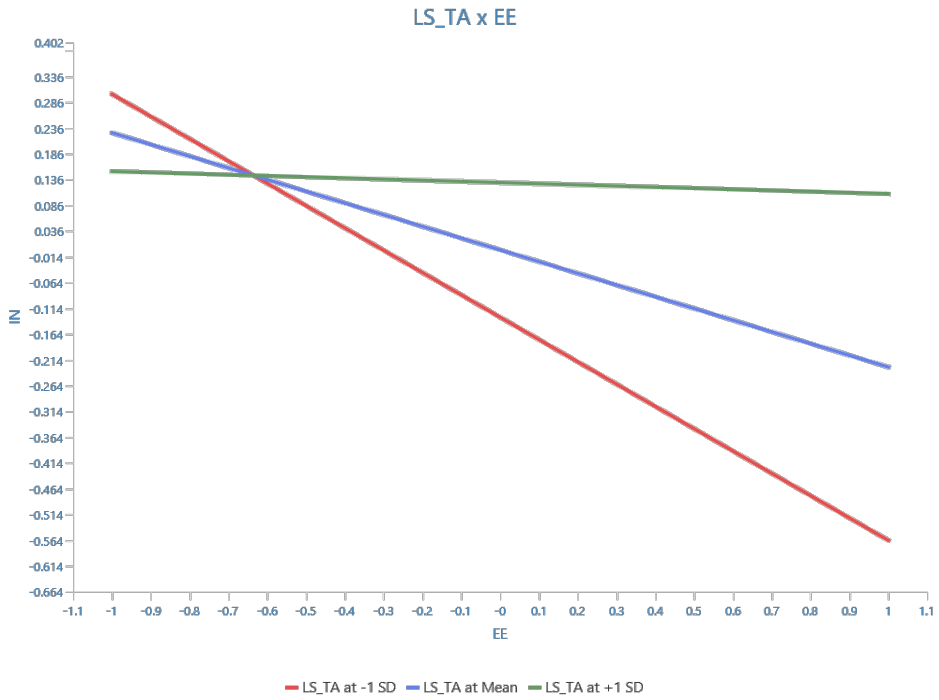
Employee emotional exhaustion was hypothesized (H4) to have a negative impact on innovation, which was supported. This might stem from decreased motivation and cognitive functioning. When employees feel exhausted, they may need more energy or focus to generate new ideas or approach problems creatively. Additionally, exhaustion can lead to negative emotions and a decreased ability to cope with challenges, further hindering innovation.

Transactional leadership was shown to impact innovation, as hypothesized (H5), positively. Transactional leadership is a style of leadership that focuses on the exchange of rewards for the achievement of specific goals or tasks. This was also found to mitigate

the relationship between employee exhaustion and innovation, as hypothesized in H7a, as visible in the slope analysis in Figure 6. This might be due to the structure that transactional leaders proved, which causes the exhaustion experienced by an employee. However, it is important to note that transactional leadership may only be effective in some situations, and it may be necessary to use a different leadership style to foster innovation in certain contexts. As indicated in Figure 6, transactional leadership may hinder innovation in employees with low exhaustion. In addition, the transactional leadership style reduced the impact of an employee's sense of power and innovation. This hypothesis (H7d) was supported because a structured leadership style reduces employees' sense of power, as seen in the slope analysis shown in Figure 7.

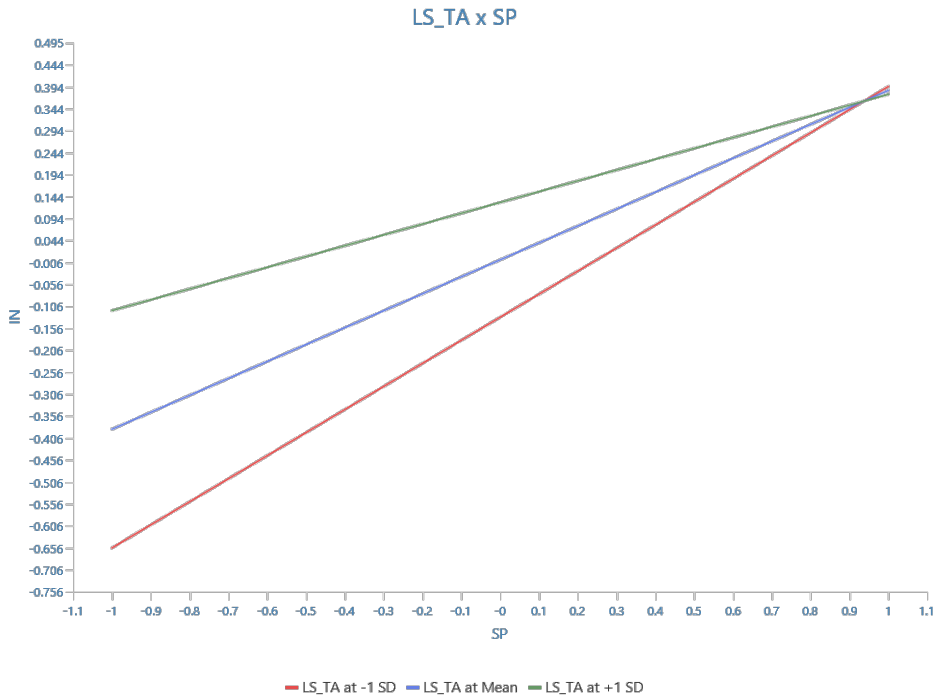
This study sheds light on the important role of employee behavioral elements and leadership style in promoting or hindering innovation in the workplace. The findings suggest that a stronger sense of power among employees can foster creativity and innovation, while emotional exhaustion can have a negative impact on innovation. Transactional leadership can positively impact innovation and mitigate the adverse effects of employee exhaustion on innovation. However, it is crucial to consider the situational context and the potential trade-offs of using a structured leadership style. These insights can help organizations better understand how to cultivate a culture of innovation and effectively utilize leadership styles to promote employee well-being and organizational success. Future research can build on these findings by examining other behavioral factors and leadership styles that may impact innovation in different contexts.

Figure 6. Slope Analysis: Transactional Leadership on Employee Exhaustion and Innovation



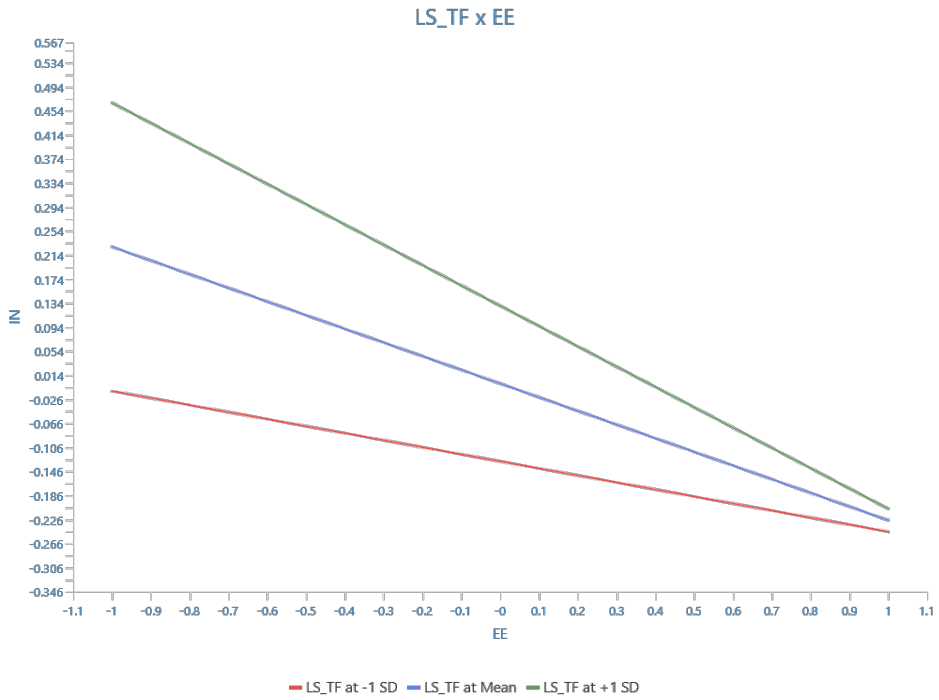
Transformational leadership style was found to increase innovation, as proposed in H6. This leadership style focuses on inspiring and motivating employees to achieve their full potential and positively impact the organization. This leadership style improved innovation by encouraging open communication and collaboration, creating an environment where new ideas can be freely shared and developed. Transformational leaders also empower their employees to take ownership of their work and make decisions, which can foster a sense of ownership and creativity among team members.

Figure 7. Slope Analysis: Transactional Leadership on Employee Sense of Power and Innovation



By creating a supportive and nurturing work culture, transformational leaders may reduce the adverse effects of emotional exhaustion on innovation and encourage employees to be more creative and productive, as hypothesized in H8d. Additionally, transformational leaders often set challenging goals and encourage employees to think outside the box to achieve them, stimulating creativity and driving innovation. This dynamic may also encourage employees to take breaks and prioritize self-care, mitigating exhaustion from setting in. This can be seen in Figure 8, which shows that when Employee Exhaustion is low transformational leadership has a significant impact, and as exhaustion increases, the strength of transformational leadership declines.

Figure 8. Slope Analysis: Transformational Leadership on Employee Exhaustion and Innovation



The results of the SEM analysis, as shown in Table 10, provide insights into the relationships between the variables under study. The table displays the standardized coefficients (β), which represent the strength and direction of the relationships between the variables. The p-values in Table 10 indicate the statistical significance of the relationships, with values below the .05 level indicating a significant relationship.

Table 10 summarizes the results of this study which examined the relationship between behavioral elements and innovation. Hypotheses H1 and H4 were supported, indicating that a greater sense of power for employees and lower emotional exhaustion are positively associated with higher levels of innovation. Hypotheses H5 and H6 were also supported, with stronger transactional and transformational leadership styles found to increase innovation. The results for H7a and H8a indicate that transactional and transformational leadership can strengthen or weaken the relationship between emotional

exhaustion and innovation. However, the results for H2, H3, H7b, H7c, H7d, H8b, H8c, and H8d were not significant (ns). The β values in the right-most column represent the strength of the relationships between the independent and dependent variables.

Table 10. Hypothesis Summary

	Hypothesis	Results	β
H1	Greater the employee's Sense of Power will lead to higher innovation.	Supported	0.386***
H2	The higher an employee's Self-Identity, the more significant their innovation.	Not Supported	0.027
H3	Positive Subjective Norms in the workplace will cause an increase in innovation.	Not Supported	0.060
H4	The higher employee Emotional Exhaustion will negatively impact innovation.	Supported	-0.227***
H5	Stronger Transactional Leadership will increase innovation.	Supported	0.131**
H6	Stronger Transformational Leadership will increase innovation.	Supported	0.129*
H7a	As Transactional Leadership increases, the relationship between Emotional Exhaustion and Innovation yields an increase in innovation.	Supported	0.206***
H7b	As the value of Transactional Leadership increases, the relationship between Subjective Norms and Innovation will weaken.	Not Supported	0.080
H7c	As the value of Transactional Leadership increases, the relationship between Self-Identity and Innovation will weaken.	Not Supported	0.049
H7d	As the value of Transactional Leadership increases, the relationship between Sense of Power and Innovation will weaken.	Supported	-0.140*
H8a	Transformational leadership will reduce the relationship between Emotional Exhaustion and Innovation also increases.	Supported	-0.110*
H8b	As the value of Transformational Leadership increases, the relationship between Subjective Norms and Innovation will weaken.	Not Supported	0.021

H8c	As the value of Transformational Leadership increases, the relationship between Self-Identity and Innovation will weaken.	Not Supported	-0.113
H8d	As the value of Transformational Leadership increases, the relationship between Sense of Power and Innovation will weaken.	Not Supported	-0.055

Note: *p<.05; **p<.01; ***p<.001

According to the Hypothesis Summary (Table 10), the results for H2 showed that the higher an employee's self-identity did not significantly impact their innovation behaviors ($\beta = 0.027$, ns). This suggests that while self-identity is an important aspect of an individual's personality and self-concept, it may not play a significant role in their ability to be innovative at work.

However, it is important to note that this study is just one piece of evidence and may not represent the entire United States working population. The reason for self-identity not impacting innovation in this study could be due to various factors such as the nature of the work, organizational culture, lack of opportunities to express oneself, or employees not perceiving the connection between their self-identity and work. Further research may be necessary to determine the exact reasons for self-identity's lack of effect on innovation.

Similarly, the results for H3 showed that positive subjective norms in the workplace did not lead to an increase in innovation ($\beta = 0.060$, ns). This suggests that while a positive work environment and supportive colleagues can be important for employee collaboration and satisfaction, it may not directly impact their ability to generate and implement new ideas in the workplace.

CHAPTER V: SUMMARY, IMPLICATIONS, AND OUTCOMES

Summary of Findings

This research aimed to explore the effect of leadership on an employee's sense of power, self-identity, subjective norms, and emotional exhaustion, on innovation which posed two main questions:

Q1: How does a sense of power, self-identity, subjective norms and emotional exhaustion impact employee innovation behaviors?

The sense of power, self-identity, subjective norms and emotional exhaustion of employees can significantly impact their innovation behaviors in the workplace. The results showed that a greater sense of power leads to higher innovation, while high emotional exhaustion has a negative impact. An employee's self-identity and subjective norms may also influence their innovation behaviors, although the impact was found to be not significant in all cases.

Q2: What is the relationship between leadership style and employee behavioral elements and their influence on innovation behaviors?

The relationship between leadership style and employee behavioral elements and their influence on innovation behaviors was also investigated in the study. Transactional and transformational leadership styles were identified and measured, and their impact on employees' self-identity, sense of power, subjective norms, and emotional exhaustion was explored. Both transactional and transformational leadership styles were found to increase innovation.

The effect of leadership styles on the relationship between behavioral elements and innovation behaviors was complex and variable. For example, as transactional

leadership increased, the relationship between emotional exhaustion and innovation decreased (except when emotional exhaustion was low), while the relationship between a sense of power and innovation weakened. As transformational leadership increased, the relationship between emotional exhaustion and innovation was reduced in a parallel manner.

Theoretical Implications

The results of this study provide further evidence of the importance surrounding the psychological aspects in the work environment and how they can influence employee innovation behaviors. The findings highlight the need for additional research to focus on promoting a positive work environment that supports employee well-being and engagement. It also recognizes leadership's role in these psychological factors and how it shapes employee innovation behaviors.

Studying employee innovation and leadership styles from a theoretical research perspective is crucial because it helps us understand the underlying mechanisms that drive organizational innovation. By examining the factors influencing employee innovation, we can gain insights into developing a more inclusive and accurate model to capture the appropriate antecedents of employee innovation. Additionally, by understanding the role of leadership styles in shaping employee behavior, organizations could leverage the most effective one to promote innovation.

Employee innovation has a positive impact on employee motivation and engagement. When employees feel that their ideas and contributions are valued and can make a real difference within the organization, they are more likely to be motivated and

engaged in their work. The positive effects of this can be seen in improved employee retention and reduced turnover. A study by Scott and Bruce (1994) found that organizations that foster a culture of employee innovation tend to have higher levels of employee motivation and engagement than those that do not.

A growing body of research has revealed the impact of various psychological factors, including power, self-identity, subjective norms, and emotional exhaustion, on the likelihood of employees engaging in innovative behaviors. A study by Avolio, Walumbwa, and Weber (2009) found that transformational leadership, characterized by inspiring and motivating followers, was positively related to employee creativity and innovative behavior. In contrast, research has framed transactional leadership based on its emphasis on reward and punishment, which has been suggested to harm employee innovation. However, when reviewing the behavioral elements and leadership from this research, there is an indication that the strength of transactional leadership may positively impact employee innovation under certain circumstances. This interaction exposes a path for further research.

It is important to note that employee innovation cannot be forced or mandated. Instead, organizations must create the right conditions and culture to support it. This includes providing employees with the resources and support they need to generate and develop new ideas and creating a culture that values and rewards innovation (Chen, 2018). Additionally, managers must be willing to take risks and support employees who propose new ideas, even if they are unconventional or untested.

While transactional leadership is a widely researched leadership style that emphasizes rewards and punishments to motivate followers, this approach centers on

exchanging resources, where leaders reward or punish employees based on their performance or behavior. Transactional leaders focus on maintaining the status quo and ensuring employees meet established goals and objectives.

Research has shown that transactional leadership can positively and negatively affect employee well-being. Transactional leaders provide clear expectations and goals, which can reduce ambiguity and uncertainty in the workplace. The emphasis on rewards and punishments can create a stressful work environment, increasing employee exhaustion. This research found that transactional leaders can create a supportive work environment that promotes creativity and innovation. Moreover, these leaders can use rewards to motivate employees and recognize their contributions which may enhance innovation with segments of employees where exhaustion is high.

Employee exhaustion is a critical issue in today's workplace, and it can lead to various adverse outcomes, including decreased job satisfaction, productivity, and increased turnover intentions. Exhausted employees may lack the energy and motivation required for innovation, hindering organizational performance.

Most research has marginalized the transactional leadership style as a means to enable innovation. This research has brought that into question by indicating that it could serve as a mechanism to mitigate employee exhaustion. By understanding this interaction, leaders can design practices that promote employee well-being and foster innovation. The importance of understanding the complexities of this relationship between leadership style, employee exhaustion, and their interaction with innovation would require additional research. Further research will be needed to explore this relationship and its underlying mechanisms using a more extensive longitudinal study.

Discussion of Practical Implications

The importance of employee innovation in organizations cannot be overstated. It is widely recognized as a crucial driver of organizational growth and competitiveness in today's rapidly changing business environment. In today's highly competitive business environment, innovation has become a crucial factor in determining the success or failure of a company (Kuratko, 2018). Employee innovation refers to the process of generating new ideas and implementing them within the organization. It encompasses a wide range of activities, including product development, process improvement and organizational change. Innovation is essential for the growth and development of any organization (Gunday et al., 2011). Innovation is not just about developing new ideas; it involves effectively and efficiently implementing them to achieve business objectives (Amabile, 1997). Innovation plays a critical role in the survival and growth of businesses, and organizations must create an environment that fosters innovation.

Employee innovation can lead to the development of new products, services, and efficiencies that can differentiate an organization from its competitors, resulting in increased market share and revenue growth. Companies that encourage and support employee innovation have been shown to be more likely to introduce new products and services that customers receive well (Amabile & Khaire, 2008). When employees are encouraged to develop new ideas and ways of doing things, they are more engaged and motivated. By introducing new products or services or improving existing ones, organizations can increase their revenue streams and gain a competitive advantage. It can lead to the development of new products or services that can generate new revenue streams. For example, the introduction of the iPhone by Apple Inc. was a significant

innovation that transformed the telecommunications industry and created a new revenue stream for the company (Christensen, 1997).

Another vital benefit of employee innovation is that it can improve efficiency and productivity within the organization. Organizations can streamline their operations and reduce costs by encouraging employees to identify and address inefficiencies and bottlenecks in existing processes. They are also more likely to find ways to streamline processes and reduce waste, leading to increased productivity and efficiency (Damanpour, 1991). For example, implementing lean manufacturing processes has helped organizations reduce waste and increase productivity (Damanpour, 1991). Innovation can lead to improved processes and increased efficiency and leaders that can implement and build appropriate leadership styles and instill in employees a sense of power will help cultivate innovation.

Innovation can enhance a company's reputation in the marketplace. Organizations known for their innovative practices are more attractive to customers, investors, and potential employees. For example, the rise of e-commerce has disrupted traditional brick-and-mortar retail businesses, and organizations that have been able to innovate and adapt to this new environment have been more successful (Gunday et al., 2011). Organizations that foster a culture of employee innovation tend to have higher levels of productivity and efficiency than those that do not (George & Zhou, 2002). This is particularly important in today's global economy, where organizations must constantly strive to improve their competitiveness to survive. One of the significant benefits of innovation in the workplace is the ability to adapt to changes in the market. Organizations that innovate and adapt to disruptive changes are more likely to survive and thrive long-term (Siggelkow, 2002).

It should be noted that innovation can be time-consuming, and it may take some time to see the benefits of new initiatives. However, fostering a culture of innovation in the workplace can be challenging. It requires a willingness to take risks, a culture that values experimentation, and a willingness to fail. Employees may hesitate to try new things or feel threatened by new technologies or processes. Organizations must create a culture that encourages innovation and empower employees to experiment and take risks (Kuratko, 2018). Another challenge is the cost of innovation. Implementing new ideas or technologies can be expensive, and organizations must be willing to invest in research and development to stay competitive (Davila et al., 2013). Ultimately, it is vital to have a straightforward process in place for capturing and evaluating new ideas (Siggelkow, 2002).

Innovation is essential for the growth and success of any organization. It enables organizations to stay competitive in a rapidly changing business environment, improve efficiency, and increase productivity. Furthermore, fostering a culture of innovation can lead to increased employee engagement and satisfaction. Organizations that invest in innovation tend to have higher growth rates and are more likely to be profitable. It is crucial for organizations to create an environment that encourages innovation and to establish a clear process for capturing and evaluating new ideas.

The results of this research provide further evidence of the importance of the psychological aspects of work and how they can impact innovation behaviors. The results showed a significant relationship between a sense of power, emotional exhaustion, and innovation behaviors. For example, the results showed that employees with a strong sense of power were more likely to engage in innovative behaviors at work. This study also

showed that emotional exhaustion was negatively associated with innovation behaviors. Employees who reported high levels of emotional exhaustion were less likely to engage in innovative behaviors at work. This highlights the importance of workplace wellness programs and strategies to help employees manage stress and maintain their well-being.

Leaders in organizations are central to creating cultures, systems, and structures that stimulate innovation and knowledge sharing. Transactional and transformational leaders can provide commitment as a foundation for managing organizations. First, managers can make their organizations more effective and create a competitive advantage by intentionally supporting innovation. Second, by using an appropriate blend of transformational and transactional leadership styles, managers can increase an organization's levels of innovation. Third, managers that effectively manage employee exhaustion will have higher employee innovation behaviors. Finally, businesses that manage innovation among their employees will create sustainable competitive advantages. As the importance of innovation continues to grow, organizations will turn increasingly to their leaders to improve innovation effectively and sustainably. The results of this study can aid managers in designing their organizations for continuous innovation performance, helping maintain a competitive advantage.

Moreover, studying employee innovation and leadership styles can provide a deeper understanding of the development of training programs, provide additional research and expand strategies that promote innovation. Organizations can develop targeted interventions that address specific areas of need by identifying the factors that support and hinder employee innovation. This can help organizations build a workforce that is equipped to tackle complex challenges and contribute to long-term success.

Limitations and Suggestions for Future Research

Understanding what motivates employees to engage in innovation and the specific factors influencing their behavior could help organizations foster a culture of innovation and continuous improvement. One limitation of the study was that it used an online cross-sectional survey which does not allow comprehensive conclusions regarding causality, nor does it fully capture the dynamic nature of the relationship between employee behaviors, leadership styles, and innovation behaviors. Replicating the findings using different methods, such as in a laboratory or field experiment, as well as longitudinal designs, may prove valuable. The additional investigation related to innovation sub-factors and their antecedents of employee behaviors elements may provide insightful results.

Researchers could expand this study to examine the role of technology and how it impacts innovative behaviors. Technology has become increasingly intertwined with business processes and its impact on employee innovation deserves further investigation. Researchers could explore how different technological tools, platforms, and digital environments facilitate or hinder employee innovation behaviors. By examining the relationship between technology and innovation, researchers can better understand how technology influences the ideation, creativity, and implementation processes within organizations. This could involve investigating the extent to which technology enhances information sharing, collaboration, and resource access, thereby promoting innovation. Additionally, exploring potential challenges and technological barriers, such as information overload, communication breakdowns, or resistance to change, may provide a more nuanced understanding of its impact on innovation behaviors.

Future research could also investigate the mechanisms through which leadership styles influence innovative behaviors and whether these mechanisms vary across cultures, specifically around self-identity and subjective norms. They comprise elements of workplace culture, but understanding their interaction with employee innovation may provide valuable insight. In Gupta et al. (2022), the researchers used an embedded topic modeling analysis to identify the major themes in reviews and examine their relationship to organizational culture. They also found that the topics of communication, training and development, and compensation and benefits are essential in shaping employee perceptions. Taking a deeper look into the antecedents of self-identity and subjective norms related to organizational cultures, such as job satisfaction, work-life balance, and teamwork, may provide additional understanding.

Investigating the effectiveness of leadership training and interventions in promoting innovative thinking and behaviors, among employees, would contribute to practical implications for organizations. This could involve evaluating the impact of specific leadership development initiatives on innovation outcomes and identifying the key components that drive successful innovation leadership.

Another limitation of the study was the predominance of participants, who identified themselves as working in the Information sector (27.9%), based on the North American Industry Classification System (NAICS), which could have introduced a bias in the findings. Therefore, future research should include a more diverse sample of participants across various industries to investigate how industry type may impact employee innovation. This would allow for a more comprehensive understanding of the factors influencing innovative behaviors in different organizational contexts.

Finally, the study's sample size and setting might be additional areas for improvement. The limited number of viable responses (n=390) does not capture the entire population of the United States of America. Moving from the pilot to the main study indicated improvements with a more extensive data set. Since the participants in the study were limited to those in the United States, this may have limited the generalizability of the findings with regard to other nations. Future research should seek to replicate and extend the study in other countries to investigate whether the results hold.

Organizations can better design strategies and interventions to encourage and support innovation within their teams. This can include providing resources and tools, promoting a culture of experimentation and risk-taking, and offering recognition and rewards for innovations. Additionally, they can encourage collaboration and knowledge sharing among team members and offer continuous learning and skill development opportunities. By taking these steps, organizations strive to empower their teams and implement appropriate leadership styles to foster innovation, leading to improved performance and increased success in an ever-changing business landscape.

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APPENDIX

Appendix 1: Construct Foundation and Measurement Tool

Sense of Power

Questions derived from Anderson et al., 2012, and present on a 7-point Likert scale.

Indicate your level of agreement to the following statements:

1. I can get coworkers to listen to what I say.
2. At work my wishes do not carry much weight. – *reverse coded*
3. I can get coworkers to do what I want.
4. At work even if I voice them, my views have little sway. – *reverse coded*
5. At work I think I have a great deal of power.
6. At work my ideas and opinions are often ignored. – *reverse coded*
7. At work even when I try, I am not able to get my way. – *reverse coded*
8. At work if I want to, I get to make the decisions.

Self-Identity

Questions based on Skowron & Friedlander, 1998 and present on a 7-point Likert scale.

Please read each statement carefully and decide how much the statement is generally true of you on a 1 (not at all) to 6 (very) scale. If you believe that an item does not pertain to you, please answer the item according to your best guess about what your thoughts and feelings would be in that situation.

1. I tend to remain pretty calm even under stress.
2. No matter what happens in my life, I know that I'll never lose my sense of who I am.
3. I usually do not change my behavior simply to please another person.
4. When I am having an argument with someone, I can separate my thoughts about the issue from my feelings about the person.
5. There's no point in getting upset about things I cannot change.
6. I'm fairly self-accepting.
7. I am able to say no to others even when I feel pressured by them.
8. I'm less concerned that others approve of me than I am about doing what I think is right.
9. My self-esteem really depends on how others think of me. – *reverse coded*

10. I usually do what I believe is right regardless of what others say.
11. I tend to feel pretty stable under stress.

Subjective-Norms

Questions based on Bock et al., 2005.

All measures employ a 7-point Likert scale from "very frequently" to "very rarely" or "extremely likely" to "extremely unlikely".

1. My CEO thinks that I should share my knowledge with other members of the organization.
2. My boss thinks that I should share my knowledge with other members of that organization.
3. My colleagues think I should share my knowledge with other members of the organization.
4. Generally speaking, I try to follow the CEO's policy and intention.
5. Generally speaking, I accept and carry out my boss's decision even though it is different from mine.
6. Generally speaking, I respect and put into practice my colleague's decisions.

Emotional Exhaustion

Questions based on Maslach & Jackson, 1981.

Maslach & Jackson, 1981 article cited in Wilk & Moynihan, 2005, titled "The measurement of experienced burnout," used an original nine-question measure. Based on Cronbach alpha scores presented, the top six were retained and used. The six questions were presented on a 7-point Likert scale to determine the extent to which employees feel drained and overwhelmed by their work:

1. I feel emotionally drained from my work.
2. I feel used up at the end of the day.
3. I feel fatigued when I get up in the morning and have to face another day on the job.
4. I feel burned out from my work.
5. I feel frustrated by my job.
6. I feel like I'm at the end of my rope.

Leadership Style – Transformational

Factors based on the Multifactor Leadership Questionnaire with questions selected to determine transformational or transactional leadership. Used under permission from Mind Garden, Inc. Statements presented on a 5-point Likert scale.

Judge how frequently each statement fits your supervisor. Use the following rating scale:

1. Talks about their most important values and beliefs
2. Instills pride in me for being associated with him/her
3. Specifies the importance of having a strong sense of purpose
4. Goes beyond self-interest for the good of the group
5. Acts in ways that builds my respect
6. Considers the moral and ethical consequences of decisions
7. Displays a sense of power and confidence
8. Emphasizes the importance of having a collective sense of mission

Leadership Style – Transactional

Factors based on the Multifactor Leadership Questionnaire with questions selected to determine transformational or transactional leadership. Used under permission from Mind Garden, Inc. Statements presented on a 5-point Likert scale.

Judge how frequently each statement fits your supervisor. Use the following rating scale:

1. Provides me with assistance in exchange for my efforts
2. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards
3. Discusses in specific terms who is responsible for achieving performance targets
4. Makes clear what one can expect to receive when performance goals are achieved
5. Concentrates his/her full attention on dealing with mistakes, complaints, and failures
6. Keeps track of all mistakes
7. Directs my attention toward failures to meet standards
8. Expresses satisfaction when I meet expectations

Innovation

Questions based on Åmo & Kolvereid's 2005, and presented on a 7-point Likert scale. Åmo & Kolvereid's 2005 article published in the *Journal of Enterprising Culture* with a total of 772 responses, this measure provided a Cronbach's alpha=.91 showing excellent internal consistency. Innovation behavior measure below used a 5-point Likert scale: (from 1 = very little extent to 5 = very large extent):

1. To which extent do you contribute to new product development in the organization where you are employed?
2. To which extent do you contribute to the development of new product-market combinations in the organization where you are employed?
3. To which extent do you contribute to development projects in the organization where you are employed?
4. To which extent do you contribute to the development of new venture ideas in the organization where you are employed?
5. To which extent do you contribute to the development of new markets for the organization where you are employed?

Appendix 2: Mind Garden License

Multifactor Leadership Questionnaire™

Instrument (Leader and Rater Form)

and Scoring Guide (Form 5X-Short)

by Bruce Avolio and Bernard Bass

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To Whom It May Concern,

The above-named person has made a license purchase from Mind Garden, Inc. and has permission to administer the following copyrighted instrument up to that quantity purchased:

Multifactor Leadership Questionnaire

The three sample items only from this instrument as specified below may be included in your thesis or dissertation. Any other use must receive prior written permission from Mind Garden. The entire instrument may not be included or reproduced at any time in any other published material. Please understand that disclosing more than we have authorized will compromise the integrity and value of the test.

Citation of the instrument must include the applicable copyright statement listed below.
Sample Items:

As a leader ... .

I talk optimistically about the future.
I spend time teaching and coaching.
I avoid making decisions.

The person I am rating... .

Talks optimistically about the future.
Spends time teaching and coaching.
Avoids making decisions

Sincerely,

Robert Most
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Appendix 3: Online Consent Form

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ADULT ONLINE CONSENT TO PARTICIPATE IN A RESEARCH STUDY

The Impact of Employee Behavioral Elements and Leadership Style on Micro-Innovation

SUMMARY INFORMATION

Things you should know about this study:

- **Purpose:** This exploratory research is intended to better understand how employee behavioral elements of sense of power, self-identity, subjective norms, and emotional exhaustion impact micro-innovation behaviors and determine the relationship between leadership style and employee behavioral elements.
- **Procedures**: If you choose to participate, you will be asked to answer questions in an honest manner. The survey questions will be present over multiple webpages. Once complete, you will see a thank you message.
- **Duration:** This will take about 15 minutes to complete.
- **Risks**: The main risk or discomfort from this research would be the normal discomfort one might experience when focusing on a computer screen for the survey duration.
- **Benefits:** Participants recruited online through Amazon Mechanical Turk will receive $1 after all answers are verified as valid and complete. This research can inform scholars and facilitate academic research understanding the factors that influence micro-innovation behavior.
- **Alternatives:** There are no known alternatives available to you other than not taking part in this study.
- **Participation:** Taking part in this research project is voluntary.

Please carefully read the entire document before agreeing to participate.

PURPOSE OF THE STUDY

This study aims to better understand the factors that influence micro-innovation behavior.

NUMBER OF STUDY PARTICIPANTS

If you decide to be in this study, you will be one of around 400 participants taking part in this research study.

Page 1 of 3

DURATION OF THE STUDY

A participant would need to spend an estimated 15 minutes answering multiple-choice questions. The majority of questions will be presented on a Likert scale and there will be some demographic questions. There is no follow-up information needed.

PROCEDURES

If you agree to be in the study, we will ask you to do the following things:

1. This survey can be started at any time convenient to the participant.
2. No personal information or identifiable information will be collected.
3. Before beginning, the participant must check that they consent to participate.
4. The survey consists multiple-choice questions that will be broken up with about ten on each page.
5. Once done with each set of questions, click the button at the bottom of the webpage to advance on to the next set of questions.
6. Once all questions have been answered, an Amazon M-Turk code will be provided.

RISKS AND/OR DISCOMFORTS

The main risk or discomfort from this research would be: The normal discomfort one might experience when focusing on a computer screen for the survey duration and being presented with questions that may make them feel uncomfortable.

BENEFITS

The study has the following possible benefits to you:
Participants recruited online through Amazon Mechanical Turk will receive $1 after all answers are verified as valid and complete. The societal benefit of this research is to understand management's impact on employee micro-innovation behaviors. This research will enable businesses to better understand their employees and help drive innovation.

ALTERNATIVES

There are no known alternatives available to you other than not taking part in this study.

CONFIDENTIALITY

The records of this study will be kept private and will be protected to the fullest extent provided by law. In any sort of report that might publish, it will not include any information that would make it possible to identify you. Research records will be stored securely, and only the researcher's team will have access to the records. However, your records may be inspected by authorized University or other agents who will also keep the information confidential. All participants will be assigned a random number for identification, and this number does not identify the subject in any way.

COMPENSATION & COSTS

For Participants recruited online through Amazon Mechanical Turk, you will receive a payment of $1 after all answers are verified as valid and complete for your participation. There are no costs to you for participating in this study.

RIGHT TO DECLINE OR WITHDRAW

Your participation in this study is voluntary. You are free to participate in the study or withdraw your consent at any time during the study. The investigator reserves the right to remove you without your consent at such time that he/she feels it is in the best interest.

RESEARCHER CONTACT INFORMATION

If you have any questions about the purpose, procedures, or any other issues relating to this research study you may email Russell E. Kaufman (russell.kaufman1@fiu.edu) at Florida International University.

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

PARTICIPANT AGREEMENT

I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions I have about this study, and they have been answered for me. By clicking on the "consent to participate" button below, I am providing my informed consent.

(Insert Consent to Participate Button Here on the Website)
Target URL: https://fiu.qualtrics.com/jfe/form/SV_e8V0zw0HMY6BUgK

VITA

RUSSELL EDMUND KAUFMAN

Born in Rochester Hills, Michigan

EDUCATION

2003 - 2008	Associate in Arts Broward College, Fort Lauderdale, Florida
2008 - 2012	Bachelor of Arts Florida Atlantic University, Boca Raton, Florida
2013 - 2014	Master of Science Florida International University, Miami, Florida
2023	Fellowship at the New Leadership Academy University of Utah, Salt Lake City, Utah

PROFESSIONAL EXPERIENCES

2003 - 2014	Technology Specialist Broward County Public Schools, Fort Lauderdale, Florida
2014 - 2016	Manager of Campus Network Services Miami Dade College, Miami, Florida
2016 - 2018	Director of Campus Network Services Miami Dade College, Miami, Florida
2016 - Present	Adjunct Professor, School of Engineering and Technology Miami Dade College, Miami, Florida
2018 - Present	Adjunct Professor, Computer Science and Information Technology Broward College, Fort Lauderdale, Florida
2018 - Present	Chief Information Officer for the Kendall Campus Miami Dade College, Miami, Florida
2022 - Present	Trustee The Lillie A. Schwarck Charitable Scholarship Trust, Iowa