

KNOWLEDGE SHARING AS KEY DRIVER TO ARISE THE INNOVATIVE WORK BEHAVIOR OF UNIVERSITY ACADEMIC STAFF IN INDONESIA

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Abstract

This study aims to examine the direct effect of job stress and transformational leadership on innovative work behavior. Furthermore, the purpose of this study is to investigate the role of knowledge sharing as a moderator in the relationship between job stress and transformational leadership on innovative work behavior. The data in this study were collected from 2,277 respondents who are teaching staff at higher education institutions in Indonesia. This study adopts a structural equation model approach with partial least squares testing (SEM-PLS) as a data analysis technique. This research proves that job stress and transformational leadership have a significant direct effect on innovative work behavior. This study also found that the link between job stress and transformational leadership and innovative work behavior is significantly mediated by knowledge sharing. The conclusion of this research reveals that knowledge sharing is a key driver of innovative work behavior among university academic staff in Indonesia. It is important to create a collaborative and supportive work environment, fosters creativity and innovation, and enables academic staff to stay up-to-date with the latest trends and developments in their field.

Keywords: Innovative Work Behavior; Knowledge Sharing; Job Stress; Transformational Leadership.

JEL Classification: M12, M14, D83

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INTRODUCTION

The professional world is particularly vulnerable to the upheaval that modern technological developments unleash. As a result of the upheaval factors like volatility, uncertainty, complexity, and ambiguity (VUCA) will be higher than usual. That's why it's crucial for businesses and their employees to be agile thinkers and quick movers in order to thrive in today's dynamic marketplace. To thrive in this new setting, it is crucial for both employers and employees to develop VUCA-competent mindsets and skill sets. In addition, the ability to pursue ongoing education and

professional development is crucial for both employers and employees to adapt to the ever-changing dynamics of the workplace (Bani-Melhem et al., 2020). To achieve this goal, one must possess the mental fortitude to accept the reality of change and the flexibility to adjust accordingly (Al-Husseini et al., 2021). To be successful, businesses and their employees must be able to adapt quickly, creatively, and effectively to those new circumstances (Kucharska & Erickson, 2020; Le & Lei, 2019). So that companies may thrive in this uncharted territory, companies need to acquire a VUCA-

competent mentality and set of abilities. In order to do this, one must have the wisdom to know that change is constant and the flexibility to adjust as needed (Alam et al., 2020; Arsawan et al., 2022).

Technological developments, which are said by many to make human life easier, actually increase the pressures of life, especially for workers (Abdelwahed et al., 2022; Vu, 2022). When workers are under pressure, their ability to get things done can be reduced. In particular, they have difficulty making decisions, are unable to focus, and are unmotivated, all of which contribute to poor performance and unexpected mistakes (Abdelwahed et al., 2022; Sidin et al., 2021). Employees' ability to think creatively is hampered by stress, which ultimately reduces productivity and morale (Alqudah et al., 2022; Muis et al., 2021). Employees' emotional and mental reserves are drained under pressure, resulting in an increased workload resulting from a dramatic improvement in work situations and increased job expectations. More resources are required under these circumstances (Dorta-Afonso et al., 2023; Muis et al., 2021). As a result, workers cannot do their jobs properly, like finding creative solutions to problems. Extreme anxiety reduces people's ability to think creatively at work (Rafique et al., 2022; Sudibjo & Prameswari, 2021).

Previous studies have also found that work stress does not have a significant effect on innovative work behavior, as is the result of Rafique et al. (2022) research. In addition, previous studies have also found that transformational leadership has a significant contribution to innovative work behavior, as is the result of Sudibyo & Prameswari (2021) research. Work-related stress, remote work stress, office stress, and other types of stress are the main factors affecting work productivity (Montani & Staglianò, 2021; Rafique et al., 2022). Research on stress and innovative work behavior has been seen as minimal in the past, and only a few of those that do

exist show contradictory results. Similarly, no previous research has examined how the stress caused by a disaster event outside an organization affects the creative output of its staff (Bednall et al., 2018; Rafique et al., 2022). Thus, innovative work behavior can become a top priority in efforts to close research gaps on human resource productivity. Innovation is very important in all fields of the economy because of the disruption that is happening today, especially in the education system (Al-Husseini et al., 2021). Organizational success is a by-product of innovation based on innovative work behavior from individuals, which in turn requires the participation of all employees (Arsawan et al., 2022; Kucharska & Erickson, 2020). Prior research has mostly focused on the public sector, and it is difficult to extrapolate findings from that field to the private sector because of the inherent differences between the two types of organizations (Bednall et al., 2018; Le & Lei, 2019). The literature hasn't paid much attention to environment variables, and there's even less research on innovative work behavior (IWB) when there's a disruption (Bednall et al., 2018; Rafique et al., 2022).

Therefore, this study seeks to examine the elements that influence IWB today, including job stress (JS) and transformative leadership (TL). Transformational leadership (TL) can be interpreted as a method in which leaders inspire subordinates to act in ways that further the goals and interests of the organization (Bednall et al., 2018; Rafique et al., 2022). The experience of a person forced to deviate from his or her own normal or desired performance at work due to unexpected limitations contrasts with the definition of job stress (Montani & Staglianò, 2021). Knowledge Sharing (KNS) is also given special attention in this study. This is because KNS can be used to provide information and knowledge related to tasks to other people so that they can complete the job better (Bag et al., 2021). KNS is considered to be the main mediator in the rela-

tionship between JS and TL towards IWB (Rafique et al., 2022). According to transactional stress theory, stress at work and its impact can be reduced by adopting coping mechanisms such as KNS. KNS has also been assessed as a basis for innovation and is proven to be able to increase the efficiency of research and development in organizations.

The purpose of this research is to explore the role of knowledge sharing in fostering innovative work behavior among university academic staff in Indonesia. The study aims to identify the factors that promote knowledge sharing among academic staff, the impact of knowledge sharing on innovative work behavior, and the barriers to effective knowledge sharing in the Indonesian university context. This research will contribute to the body of knowledge on the relationship between knowledge sharing and innovative work behavior in the academic context. The study findings will be of significant benefit to university administrators and educators, who can use the results to design policies and practices that promote a culture of knowledge sharing and innovation among academic staff. Additionally, the study will provide insights into the unique challenges and opportunities for knowledge sharing in the Indonesian university context, which can be used to inform future research and interventions in the region. Ultimately, this research will benefit the academic community in Indonesia, by promoting a culture of collaboration, creativity, and innovation among academic staff, which can lead to improved teaching, research, and problem-solving outcomes.

LITERATURE REVIEW

Job Stress and Innovative Work Behavior

The psychological notion of stress has become the main focus of many studies, especially stress that causes anxiety. Such anxiety can lead to physical and mental exhaustion, which in turn increases other problems, including hypertension, sleep

difficulties, personal dysfunction, muscle rigidity, and diabetes, which result in chronic stress (Rafique et al., 2022). When workers experience stress, businesses can be directly affected by their circumstances (Dorta-Afonso et al., 2023; Han et al., 2022). Stress in the workplace has been shown to have a direct impact on productivity as it influences employee attitudes and actions (Dorta-Afonso et al., 2023; Qalati et al., 2022). According to the findings of several studies, stress in the workplace has both indirect and direct harmful effects on the mental and physical health of workers, which in turn undermines business productivity (Bani-Melhem et al., 2020; Kucharska & Erickson, 2020). Limited research has shown conflicting results on the topics of job stress and innovative work behavior. The causes of employee stress determine whether it can trigger or inhibit innovation and creativity (Rafique et al., 2022). Employees can see if stress can be beneficial in the face of adversity, such as a strict goal to meet (Bednall et al., 2018). While some studies link job stress to decreased creativity on the job, others show no correlation between stress and new ideas.

In addition, not many studies have examined the relationship between work stress and technological disruption, which prompted this research to dig deeper into this topic. Technological disruption is an exogenous stress event that has the potential to cause feelings of hopelessness, anxiety, and resentment among workers, all of which have the potential to paralyze the ability to think creatively at work (Baden-Fuller & Haefliger, 2013; Kim, Lee, C.-Y., & Cho, 2016). Employees often use unhealthy coping mechanisms and can drain their energy when under pressure at work, such as spending too much time worrying or staying up late. In this case, the first hypothesis can be formulated in this study:

H1: Job Stress has a significant effect on Innovative Work Behavior.

Transformational Leadership and Innovative Work Behavior

Research on transformational leadership (TL) has grown over the last two decades due to the consensus that TL is a key factor in driving organizational innovation (Usmanova et al., 2020). Various studies support the idea of a significant correlation between TL and IWB. When people are inspired by TL, they are more willing to go further for the greater good of their company, and they are more likely to adopt new approaches to address the challenges of their work environment (Afsar et al., 2019). Various studies have also examined how transformational leaders motivate their followers to help them achieve their business goals through the use of IWB (Anderson et al., 2004; Bani-Melhem et al., 2018). They spoke in detail about the ways in which TL fostered critical thinking and encouraged workers to find new solutions to difficult challenges, and how TL became a strong advocate for revolution, change, and reform (Alam et al., 2020). The process from idea to execution is long and full of conflicts between management and stakeholders. The apprehension of the originator of the idea is compounded by the fact that credit for the successful implementation of the idea can go either to the immediate supervisor or to the head of the department (Ghani Al-Saffar & Obeidat, 2020).

So, it is thought that TL gets people to do creative things by giving them a strong sense of a shared vision and tying their futures to the future of the organization (Rafique et al., 2022). When leaders and employees trust each other, employees are more likely to be motivated by factors other than external rewards and punishments to consistently pursue new and creative solutions to a problem (Montani & Staglianò, 2021). As a result, several studies have looked at the correlation between TL and IWB; however, this analysis was not carried out in a post-disaster setting, which could place additional pressure on transformational leaders (Le & Lei, 2019).

For this reason, this research looks at how TL can increase worker IWB, focusing on exponential disruption contexts. From this explanation, we can come up with the second hypothesis for this study, which is as follows:

H2: Transformational Leadership has a significant effect on Innovative Work Behavior.

Transformational Leadership and Knowledge Sharing

Information management can be defined as a set of practices that organizations use to generate, disseminate, and apply knowledge for competitive advantage (Siegel et al., 2022). The Knowledge Sharing Structure (KNS) is the backbone of any successful knowledge management system (Rafique et al., 2022). In order to carry out their work and achieve organizational goals, workers can benefit from and contribute to the creation of new knowledge through the process of sharing knowledge (Choi, 2016; Desouza & Awazu, 2006). Applying existing knowledge to provide better products or services is the main responsibility of every company (Kwahk & Park, 2016). Gaining new information and honing existing skills is the best way to gain an edge in business (Alavi & Leidner, 2001).

In today's strict environment, a company's ability to thrive and survive must be linked directly to the process of gathering and applying its knowledge (Cerchione et al., 2016; Gunasekaran & Ngai, 2007). However, with the help of transformational leaders, such scenarios can be changed, because TL can provide individual attention and advocacy for the needs and wants of their workers, which can inspire employees to participate in innovative problem solving (Durst & Bruns, 2018). Previous studies have shown that TL is a strong predictor of various situations and conditions. Leaders who improve organizational performance do so by fostering an environment of collaboration and inspiration among their employees. A conducive

KNS environment is fostered, and people's habits are influenced by TL (Coyte et al., 2012). Also, people are more open to sharing knowledge and developing new ideas under TL.

In addition, KNS behavior fosters synergy in the company, as knowledge is shared between leaders and followers to increase the capabilities of both parties, which leads to the creation of new information and an increase in the pace of creativity (Fong et al., 2018; Le & Lei, 2019). Previous research has shown that transformational leadership is most effective at instilling trust and developing a knowledge-centered culture, both of which drive KNS behavior in business. TL then played a more vital role in helping KNS survive stressful situations (Ali et al., 2020; Kucharska & Erickson, 2020). Although it has previously been concluded that there is a correlation between TL and KNS, this is the first study to specifically examine this correlation in the context of technological disruption (Tønnessen et al., 2021). Therefore, based on this study, it is proposed that TL is a possible predictor of KNS in organizations to cope with extra-organizational circumstances. Therefore, the third hypothesis can be formulated in this study, namely as follows:

H3: Transformational Leadership has a significant effect on Knowledge Sharing.

Job Stress and Knowledge Sharing

It's common knowledge that prolonged mental or emotional strain lowers performance in the workplace (Ghani Al-Saffar & Obeidat, 2020; Rasheed et al., 2020). In the workplace, stress has a negative impact on both the mental and physical health of workers, which in turn reduces output (Kucharska & Erickson, 2020). Errors and accidents are more likely to occur when stress levels are high, which can have a detrimental influence on production. Access to social support networks and other resources, as well as regular breaks during the workday, can help employees deal with stress and increase their productivity (Zhao

et al., 2016). Companies also have an obligation to provide stress management and resilience training to staff members, allowing them to enter the workforce with a healthy dose of confidence and the tools they need to succeed (Le & Lei, 2019; Razmerita et al., 2016).

Understanding the importance of knowledge as a strategic asset is essential in today's information-based economy (Rafique et al., 2022). This is crucial in today's fast-paced business world, where organizations must constantly innovate in order to stay ahead of the competition. Information sharing has become a standard practice at most companies (Choi, 2016). To guarantee that information is being shared efficiently inside the company, management should encourage open lines of communication and teamwork (Kwahk & Park, 2016). The capacity of contributors to come up with fresh ideas is greatly boosted when they are able to converse with one another and digest information in a way that is easily absorbable (Darroch, 2005). Very few research has been conducted on the topic, and the results have indicated conflicting conclusions on how workplace stress affects employees' propensity to share what they've learned (Cerchione et al., 2016). Employees' ability to think creatively can be either boosted or stunted by stress, depending on the kind of stress they're experiencing (Arsawan et al., 2022). During the last stages of a significant project, when stress levels are high, some employees may be asked to engage in trials aimed at seeing if they perform better under these conditions.

Employees realize that stress may lower productivity and this sort of severe circumstance includes, for example, the sudden loss of a job or a catastrophic workplace catastrophe. While some research suggests that stress in the workplace might dampen creative problem-solving skills, other studies have found the opposite to be true. This study was driven by a dearth of literature on the topic of technology's impact on

stress in the workplace. Therefore, this study formulates a hypothesis as follows:

H4: Job Stress has a significant effect on Knowledge Sharing

Knowledge Sharing and Innovative Work Behavior

The value of knowledge can be recognized as a strategic asset in facing the challenges posed by a knowledge-based economy (Rafique et al., 2022). Gaining an edge in the market requires companies to manage, store, and disseminate their collective knowledge effectively. KNS norms have been established in most workplaces (Kwahk & Park, 2016). Because of this, leaders have a better chance of getting constructive feedback, which can then be used to inform a more holistic approach to solving problems (Alavi & Leidner, 2001). Next, employee relations in the knowledge-sharing process first translate the knowledge into a form that is easy to understand; this ability enhances the ability of contributors to generate new ideas, which is the basis of IWB (Darroch, 2005; Desouza & Awazu, 2006).

Employee IWBs are developed, and organizational performance is enhanced as a result of increased communication and trust made possible by KNS (Al-Husseini et al., 2021). KNS encourages mental processes that help workers accept new perspectives and offer suggestions for overcoming obstacles at work (Rafique et al., 2022). People are more likely to take innovative actions if they have access to information, resources, and concepts relevant to the workplace (Kucharska & Erickson, 2020). Previous studies have proven that KNS increases IWB among workers (Arsawan et al., 2022). However, some researchers see KNS as a fragile, risky, and potentially unstable process, and some argue that KNS has no direct correlation with organizational performance. This discrepancy requires additional evidence of the relationship between KNS and IWB. Therefore, the fourth

hypothesis in this study can be structured as follows:

H5: Knowledge Sharing has a significant impact on Innovative Work Behavior

The Role of Mediating Knowledge Sharing in the Relationship between JS and IWB

Worry, moodiness, and anger in the workplace that are triggered by emotional states such as stress can stifle workers' ability to think creatively (Montani & Staglianò, 2021). However, crisis situations can actually encourage a person to increase their creativity, disrupt their normal thought processes, and accelerate the discovery of new points of view, offering fertile ground for the development of original ideas (Arsawan et al., 2022). This research shows one thing that can reduce the negative impact of stress on productivity in the workplace. The hypothesis states that when employees engage in adaptive coping behaviors, they are more likely to be willing to engage in change-oriented challenges that facilitate organizational success. A dynamic KNS delivery mechanism can be a key component that motivates people to take action to prevent and deal with stress caused by changes in the work environment due to disruption (Le & Lei, 2019). Extensive theoretical and empirical evidence supports the use of KNS to encourage creativity in the workplace (Bednall et al., 2018). KNS is also seen as being able to combine a number of processes that stimulate creative thinking within an organization (Khalili, 2016). Employees who are active in KNS are more likely to care about developing and implementing work innovation concepts (Elrehail et al., 2018).

KNS mediating effects on the relationship between predictors and outcomes have also been investigated (Alam et al., 2020; Ghani Al-Saffar & Obeidat, 2020). This research is considered quite unique because there are very few other studies that examine the role of KNS as a mediator between JS and IWB. This frees

employees' minds to focus on the challenging situation at hand and to look at themselves to see if their viewpoint is consistent with the status quo, which in turn allows them to better see potential gaps for adaptation (Montani & Staglianò, 2021). This research shows that when workers are under pressure, they try to find new ways of thinking that lead to the development of new approaches to the challenges posed by technological disruption. According to this explanation, it can be hypothesized that high KNS can increase IWB in response to stress. Thus, the following hypotheses can be proposed in this study:

H6: Knowledge sharing has a significant mediating effect on the relationship between Job Stress and Innovative Work Behavior

Mediating role of Knowledge Sharing in Relationship between TL and IWB

Companies need knowledge as a starting point for creating new and fresh ideas. In this regard, leaders have an important role to play in creating a KNS environment where they are more likely to accept new ideas to implement for better performance (Bednall et al., 2018; Montani & Staglianò, 2021). TL is better equipped to identify and adapt to common problems in KNS management, where workers are involved in multiple KNS (Montani & Staglianò, 2021; Rafique et al., 2022). Moreover, the KNS ecosystem mechanism is always re-evaluating current challenges and developing new approaches to address them (Arsawan et al., 2022; Le & Lei, 2019). With KNS, workers are better able to anticipate difficulties and develop new approaches to overcome them.

In terms of knowledge management and innovation, TL is seen as a powerful persuasive tool (Al-Husseini et al., 2021; Arsawan et al., 2022; Kucharska & Erickson, 2020; Le & Lei, 2019). Organizations that are able to utilize knowledge to shape organizational innovation, such as by finding and implementing solutions to problems more quickly and

adapting more easily to new circumstances, tend to be more productive and resilient over time (Ghani Al-Saffar & Obeidat, 2020; Usmanova et al., 2020). Individuals who network with other individuals by drawing on their experiences, the influence of their peers, the media they consume, and the bonds they form with those around them can broaden their horizons and acquire new information (Elrehail et al., 2018; Rafique et al., 2022; Sudibjo & Prameswari, 2021). Furthermore, this theory explains how and why knowledge is constructed in social contexts characterized by active and reciprocal relationships between people, places, and actions (Arsawan et al., 2022; Sudibjo & Prameswari, 2021). Social Cognitive Theory (SCT) says that people must constantly organize their knowledge through the exchange, recombination, and transformation of information in order to come up with new ideas (Rafique et al., 2022).

The essence of KNS is the mutual sharing of knowledge and experience, as well as a high sense of duty (Bednall et al., 2018; Rafique et al., 2022). The Knowledge-Based View (KBV) concept emphasizes that KNS is an intangible asset that is very important for maintaining competitiveness and increasing productivity in the modern workplace (Arsawan et al., 2022; Le & Lei, 2019). The two parts of KNS cover knowledge sharing and knowledge acquisition. Employee knowledge can develop when employees inspire one another to advise each other and share ideas (Ghani Al-Saffar & Obeidat, 2020; Usmanova et al., 2020). Employees can engage in knowledge-sharing contexts when they share expertise with their peers. Therefore, KNS can increase people's enjoyment of their work, which in turn inspires new ideas at work. Workers under TL have a strong desire to learn so that they can improve their IWB by sharing important information with their co-workers.

In addition, workers who invest in developing their skills and knowledge have a

willingness to share with their co-workers (Arsawan et al., 2022; Kucharska & Erickson, 2020; Le & Lei, 2019). Employees can also increase an individual's knowledge base by drawing on the skills and knowledge of colleagues (Al-Husseini et al., 2021; Ghani Al-Saffar & Obeidat, 2020; Usmanova et al., 2020). This is a result of TL's ability to develop a shared vision. In this way, KNS can facilitate better inter-departmental communication and facilitate outsourcing, planning, and organization, which are important to improving the quality of employees (Elrehail et al., 2018; Rafique et al., 2022; Sudibjo & Prameswari, 2021). Many predictors and outcome measures have been subjected to mediation analysis (Afsar et al., 2019; Elrehail et al., 2018; Kucharska & Erickson, 2020; Montani & Staglianò, 2021; Rafique et al., 2022; Sudibjo & Prameswari, 2021). However, there is a lack of previous research that did not examine the effect of KNS as a mediator between TL and IWB in disruption situations; therefore, this study proposes the sixth hypothesis as follows:

H7: Knowledge sharing has a significant mediating effect between Transformational Leadership and Innovative Work Behavior.

From the hypotheses put forward, a conceptual framework for this study can be compiled which is described in [Figure 1](#).

RESEARCH METHODS

Population, Sample and Sampling Technique

This study uses data collected from academic staff at several universities in four different provinces in Indonesia (East Java, Central Java, West Java, and South Sulawesi). Educators are prioritized because they are seen as the most significant and major innovators in the field of education. In addition, educational progress is even more important for a sustainable future. It is generally agreed that innovation in education is critical to a country's economic and social well-being. Ten members of the teaching staff with a combined total of at least 10 years of teaching experience were interviewed in this study, as they could be considered subject matter experts. These teaching staff were briefed on the aims of the research and contributed to the final form of the questionnaire. Information was collected from November 2022 to December 2022.

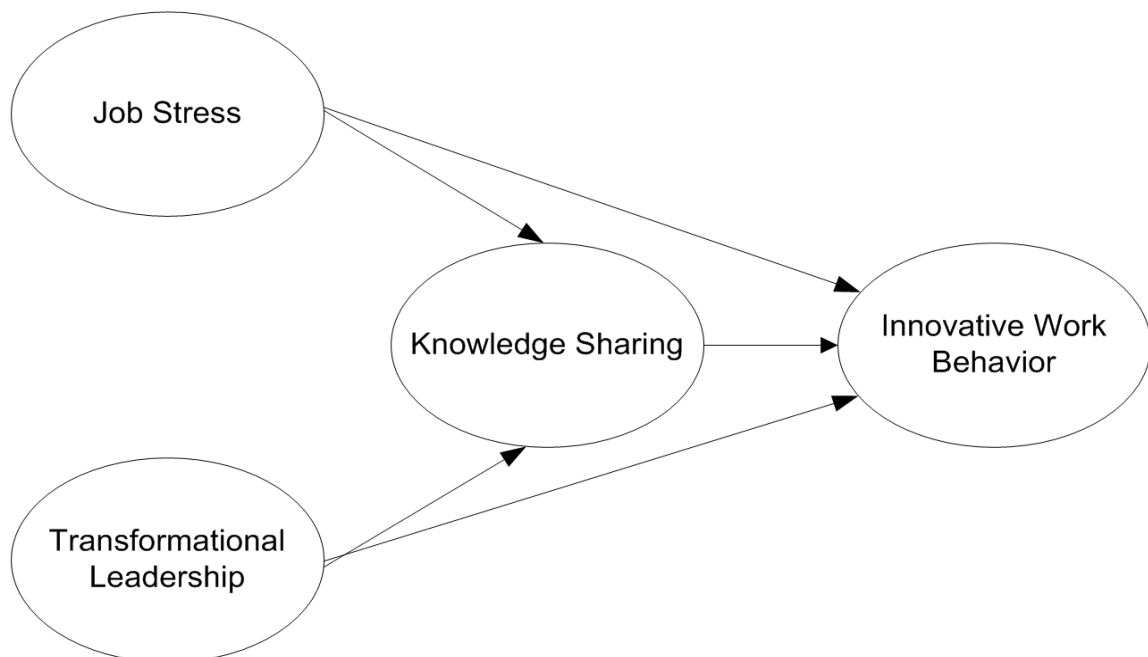


Figure 1. Conceptual Framework

This study adopted a self-administered online questionnaire with a convenience sampling strategy to collect information. Two native Indonesian speakers and one native English speaker worked together to create and translate the questionnaires. This study was also preceded by a pilot study to ensure the questionnaire was reliable and valid before collecting all the data for the main test. Respondents were assured that their anonymity was strictly maintained and the data collected complied with all applicable ethical standards. This research questionnaire adopted a five-point Likert scale, with one section measuring respondent characteristics and the other measuring research variables (1 for strongly disagree to 5 for strongly agree).

Measurement

The models were modified somewhat to suit the setting of the whole analysis after being adopted from earlier studies and published material. This study adopts the model resulting from the research of Rafique et al. (2022) for the Innovative Work Behavior construct; research by Al-Husseini et al. (2021) for the Knowledge Sharing construct; Bani-Melhem's research (2020) for the Job Stress construct; and Bednall's (2018) research for the transformational leadership construct to test the model developed in this study.

This study used a Likert scale for the survey, with responses ranging from "strongly disagree" (none) to "strongly agree" (five). This research can determine the ability of the variables under investigation. After testing the data, construct validity can be evaluated with the help of Smart-PLS software to test convergent validity and discriminant validity. The adoption of the approach requiring a factor loading value of 0.5 indicates that the unit estimation parameter that measures comparative progress has predictive ability by calculating the perceptions of respondents. This can be shown by factoring in items that have a high value. Research instruments can be said to be

reliable if they reveal information that can be trusted and is in accordance with the actual situation. Therefore, this study uses the approach of Cronbach's alpha, which calculates the coefficient values that vary from 0 to 1. If the resulting coefficient values are less than 0.6, then the constructs and indicators cannot be said to have a good level of reliability.

RESULT AND DISCUSSION

Respondent Profile

The demographic profile of the respondents in this study is shown in [Table 1](#). This study processed information from data collected from a total of 2,277 respondents, who were dominated by women as much as 55% of all respondents. The education level of the respondents was dominated by respondents with a Master Degree education level of 54% with the majority having work experience of less than 5 years of 36%. Respondents who came from East Java dominated the respondent's province of origin as much as 52%.

Measurement Model

In an effort to examine the relationship between the indicators and the constructs they represent, this study tested a measurement model. The testing of this measurement model includes two stages, namely the testing of discriminant validity and convergent validity. Convergent validity can be tested using three stages, which include indicator validity, construct reliability, and the results of the Average Variance Extracted (AVE).

The results of measuring the validity of the indicators are explained in the factor loading value. An indicator can be said to have validity if the T-statistic value of the indicator is greater than 2.0 and the factor loading value obtained is greater than 0.5. An indicator can be removed from the outer model if the T-statistic value obtained is less than 2.0 and the loading factor value is less than 0.5, so it must be re-run. The loading factor explains the

level of correlation between the constructs and the indicators. If the indicator has a high correlation with the construct, it can be said that the indicator has a good level of validity. The results of the significance test of the loading factor with the T-statistic value are shown in [Table 2](#). It can be explained that it appears that the loading factor of all indicators has a T-statistic value of more than 2.0 and a P-value of less than 0.010. These findings indicate that all indicators in this study have significant validity.

After that, further testing was carried out to measure convergent validity, namely construct reliability testing by examining the results of Cronbach's alpha or composite reliability. The criteria for being called reliable are if the value of Cronbach's alpha or composite reliability is greater than 0.70. It can be seen in [Table 3](#) that all constructs have a Cronbach's alpha value and a composite reliability of more than 0.70. Therefore, all the constructs in this study can be assessed as having significant reliability. In addition, it can be seen that the AVE output to measure convergent validity. If the AVE value is greater than 0.5, it can be concluded that the research construct has good convergent validity. In

[Table 3](#), it can be seen that all research constructs meet the AVE requirements.

A further step to test the measurement model is discriminant validity testing, which is carried out in two stages, including cross-loading values and comparing the AVE value with the squared correlation value between constructs. Cross-loading has the criterion that each indicator must have the highest correlation value with its construct compared to other constructs. The results of the calculation of cross loadings can be seen in [Table 4](#). It can be seen in [Table 4](#) that the correlations of IWB1, IWB2, IWB3, IWB4, IWB5, and IWB6 have the highest correlation values with the construct, namely innovative work behavior, compared to the other constructs. Likewise, other indicators also have the highest correlation value with the construct itself compared to other constructs. It can be interpreted that the measurement model in this study has adequate discriminant validity. After that, it can be compared between the AVE root constructs with the correlation between the constructs, which can be seen in [Table 5](#). It can be seen that each construct has a greater AVE root value than the correlation between the constructs.

Table 1. Respondent Demographic Profiles

Demographic Profiles		Frequency	Percentages
Gender	Male	1,021	45%
	Female	1,256	55%
Education Level	Master Degree	1,240	54%
	Doctoral Degree	1,037	46%
Experience	Less than 5 years	810	36%
	5 to 10 years	707	31%
	11 to 15 years	610	27%
	More than 15 years	150	7%
Province	East Java	1,190	52%
	Central Java	585	26%
	West Java	307	13%
	South Sulawesi	195	9%

Source: Data Processed (2022)

Structural Model

After the measurement model can be tested, then the structural model can be tested. Testing this structural model includes assessing the significance of path relationships based on the hypotheses that have been proposed and observing the value of R^2 . The results of testing the significance of the path relationship can be seen in [Table 6](#). It can be seen in [Table 6](#) that all the hypotheses proposed or all the relationships between the variables studied have proven to be significant. This is indicated by a T-statistic value that is greater than 2.0 with a P-value less than the specified significance level, which is 0.01. Thus, all the hypotheses of this study can be accepted.

The results of calculating R^2 and Adjusted R^2 are then displayed in [Table 7](#). [Table 8](#) shows the results of testing the indirect effect or the influence of mediating variables in the relationship between exogenous variables and their endogenous variables. It can be seen that the T-statistical value of each indirect effect is greater than 2.0 with a P-value less than the specified significance level, which is 0.01. Therefore, the hypothesis that mentions the alleged significance of the effect of mediation in this study can be accepted. It also can be seen in [Figure 2](#) about the results of the structural model testing which shows that all the hypotheses put forward in this study are acceptable.

Table 2. Outer Loadings

Outer Loadings	Original Sample (O)	T Statistics ((O/STDEV))	P Values	Results
IWB1 ←Innovative Work Behavior	0.865	116.856	0.000	Significant
IWB2 ←Innovative Work Behavior	0.887	132.920	0.000	Significant
IWB3 ←Innovative Work Behavior	0.885	129.166	0.000	Significant
IWB4 ←Innovative Work Behavior	0.879	136.286	0.000	Significant
IWB5 ←Innovative Work Behavior	0.882	130.695	0.000	Significant
IWB6 ←Innovative Work Behavior	0.889	144.191	0.000	Significant
JS1 ←Job Stress	0.891	152.132	0.000	Significant
JS2 ←Job Stress	0.898	167.006	0.000	Significant
JS3 ←Job Stress	0.920	217.242	0.000	Significant
JS4 ←Job Stress	0.906	169.156	0.000	Significant
JS5 ←Job Stress	0.910	179.743	0.000	Significant
JS6 ←Job Stress	0.899	142.890	0.000	Significant
KNS1 ←Knowledge Sharing	0.882	128.405	0.000	Significant
KNS2 ←Knowledge Sharing	0.881	115.214	0.000	Significant
KNS3 ←Knowledge Sharing	0.907	164.472	0.000	Significant
KNS4 ←Knowledge Sharing	0.891	134.126	0.000	Significant
KNS5 ←Knowledge Sharing	0.909	183.994	0.000	Significant
KNS6 ←Knowledge Sharing	0.878	133.998	0.000	Significant
TL1 ←Transformational Leadership	0.887	139.848	0.000	Significant
TL2 ←Transformational Leadership	0.911	139.073	0.000	Significant
TL3 ←Transformational Leadership	0.910	163.054	0.000	Significant
TL4 ←Transformational Leadership	0.926	242.534	0.000	Significant
TL5 ←Transformational Leadership	0.885	125.570	0.000	Significant
TL6 ←Transformational Leadership	0.878	115.648	0.000	Significant

Source: Data Processed (2022)

Table 3. Construct Validity and Reliability

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Innovative Work Behaviors	0.942	0.943	0.954	0.777
Job Stress	0.955	0.955	0.964	0.817
Knowledge Sharing	0.948	0.949	0.959	0.795
Transformational Leadership	0.953	0.953	0.962	0.809

Source: Data Processed (2022)

Table 4. Cross Loadings

Indicators	Innovative Work Behaviors	Job Stress	Knowledge Sharing	Transformational Leadership
IWB1	0.865	0.749	0.768	0.732
IWB2	0.887	0.754	0.771	0.749
IWB3	0.885	0.767	0.801	0.754
IWB4	0.879	0.759	0.785	0.728
IWB5	0.882	0.768	0.822	0.742
IWB6	0.889	0.792	0.835	0.761
JS1	0.785	0.891	0.837	0.802
JS2	0.798	0.898	0.842	0.821
JS3	0.796	0.920	0.821	0.823
JS4	0.764	0.906	0.799	0.796
JS5	0.784	0.910	0.805	0.821
JS6	0.782	0.899	0.803	0.825
KNS1	0.845	0.809	0.882	0.764
KNS2	0.781	0.765	0.881	0.741
KNS3	0.818	0.796	0.907	0.765
KNS4	0.801	0.794	0.891	0.766
KNS5	0.800	0.820	0.909	0.788
KNS6	0.795	0.853	0.878	0.805
TL1	0.744	0.817	0.778	0.887
TL2	0.763	0.824	0.788	0.911
TL3	0.779	0.821	0.799	0.910
TL4	0.785	0.833	0.808	0.926
TL5	0.746	0.784	0.744	0.885
TL6	0.742	0.784	0.752	0.878

Source: Data Processed (2022)

Table 5. Latent Variable Correlations

Variables	IWB	JS	KS	TL	AVE	AVE ROOT
Innovative Work Behaviors	1.000				0.777	0.881
Job Stress	0.868	1.000			0.817	0.904
Knowledge Sharing	0.905	0.903	1.000		0.795	0.892
Transformational Leadership	0.845	0.901	0.866	1.000	0.809	0.899

Source: Data Processed (2022)

Table 6. Path Coefficient

Hypotheses	Original Sample (O)	T Statistics (O/STDEV)	P Values	Result
Job Stress → Innovative Work Behavior	0.162	5.212	0.000	Significant
Job Stress → Knowledge Sharing	0.665	25.496	0.000	Significant
Knowledge Sharing → Innovative Work Behavior	0.614	21.638	0.000	Significant
Transformational Leadership → Innovative Work Behavior	0.168	6.518	0.000	Significant
Transformational Leadership → Knowledge Sharing	0.266	9.536	0.000	Significant

Source: Data Processed (2022)

Table 7. R² and Adjusted R²

Variables	R ²	Adjusted R ²
Innovative Work Behaviors	0.838	0.838
Knowledge Sharing	0.832	0.832

Source: Data Processed (2022)

Table 8. Specific Indirect Effects

Hypotheses	Original Sample (O)	T Statistics (O/STDEV)	P Values	Result
Transformational Leadership → Knowledge Sharing → Innovative Work Behavior	0.163	8.656	0.000	Significant
Job Stress → Knowledge Sharing → Innovative Work Behavior	0.408	16.677	0.000	Significant

Source: Data Processed (2022)

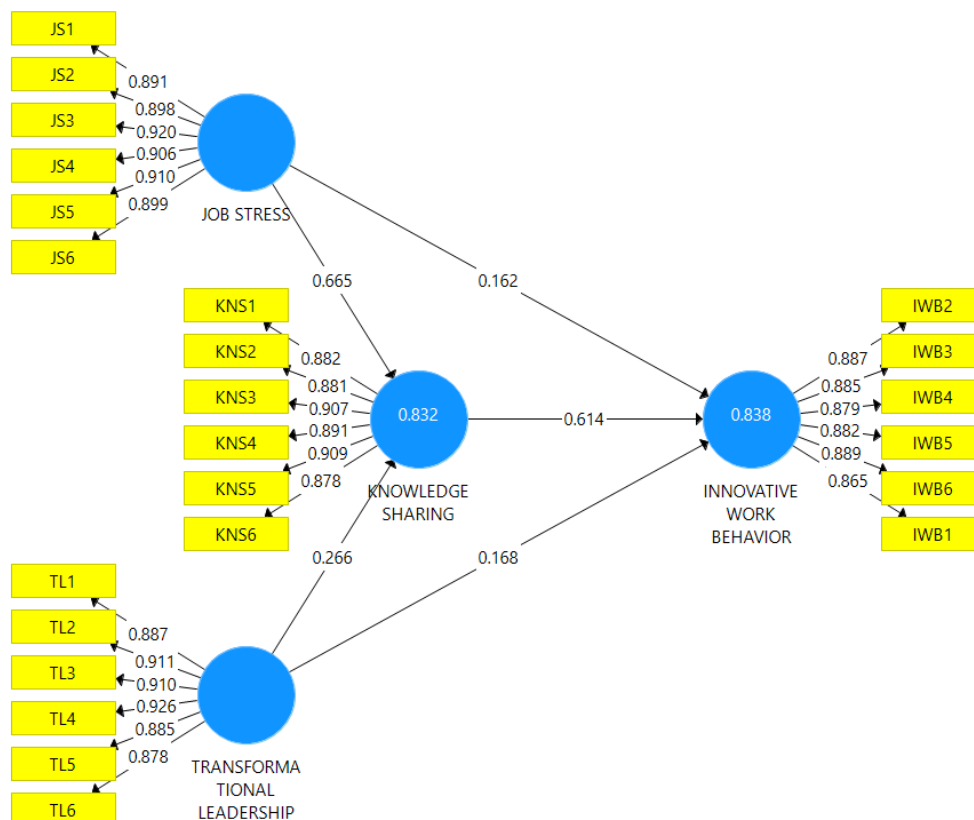


Figure 2. PLS-Algorithm Estimated Results

DISCUSSION

This research was conducted to examine the factors that can influence innovative work behavior, especially for teaching staff. This research succeeded in proving that there is a significant direct effect of job stress on innovative work behavior and transformational leadership on innovative work behavior. Furthermore, this study demonstrates that knowledge sharing plays an important mediating role in the relationship between job stress and innovative work behavior, as well as transformational leadership and innovative work behavior.

Researchers and practitioners can also benefit from the in-depth findings of this study in terms of practical implications. Given the findings of this study, all components of human resources in organizations must periodically evaluate their resistance to work stress. IWBs of staff may also benefit from identifying stressors in the workplace. The results of this study extend the reach of previous research on crisis management and contribute new knowledge to the field of stress management by suggesting that workers' cognitive rigidity caused by crises can stifle creativity unless companies adopt a KNS approach. The findings of this study indicate that KNS is a coping mechanism that can increase employee creativity, especially in disruptive situations, where cognitive thinking has a significant impact. So, companies can encourage KNS among employees to help them deal with difficult situations and respond to emergencies.

It can be said that KNS focuses on efforts to gain and convey new insights and understandings to one another. Business leaders can get more feedback from their staff members, whose opinions are critical to the success of their decisions. Therefore, management must prioritize the mastery of information and communication technology, network expansion, and the exchange of information and employee skills to promote the KNS environment. To help support increased creativity regardless of the demands of the office, it is also a good

idea to have casual talks, coaching sessions, and brainstorming sessions.

This study highlights the importance of TL in academia, particularly in the context of a pandemic, where leaders are under a high sense of responsibility. Therefore, higher education institutions must encourage the growth of transformational leaders who can motivate their teams to excel through innovative problem-solving approaches. With direction from the top like that, everyone feels confident in their ability to contribute to the team's overall success. Furthermore, leaders who make significant changes are those who create an environment in which employees feel comfortable sharing ideas and information openly.

Knowledge sharing plays a critical role in improving innovative work behavior because it allows individuals to access and utilize the knowledge and expertise of others. When individuals share their knowledge and expertise with others, it creates a collaborative and supportive work environment that fosters creativity, learning, and innovation. Innovative work behavior is characterized by the ability to generate new and useful ideas, approaches, and solutions. By sharing their knowledge and expertise, individuals can gain new perspectives and insights that can inspire and inform their work, leading to the creation of more innovative solutions.

Knowledge sharing also facilitates the transfer of knowledge and skills from more experienced individuals to those who are less experienced, which can help to develop the knowledge and expertise of the entire team. This process not only enhances the knowledge and skills of individuals but also enables them to work more effectively as a team, resulting in improved overall performance. Moreover, knowledge sharing can help to identify gaps in knowledge and areas for improvement, which can be addressed through further research, training, or collaboration. This process can lead to the creation of new knowledge, methodologies, and practices, which can further enhance innovative

work behavior. Overall, knowledge sharing is essential for improving innovative work behavior because it creates a culture of collaboration, facilitates the transfer of knowledge and expertise, inspires new ideas, and leads to the development of new knowledge and practices.

CONCLUSION AND RECOMMENDATION

This research was conducted with the aim of examining the determinants that can influence innovative work behavior. This research proves that job stress and transformational leadership can have a significant effect on innovative work behavior. In addition, this research also proves that knowledge sharing has a mediating role in the relationship between job stress and innovative work behavior and the relationship between transformational leadership and innovative work behavior. This research can also be seen as an initial initiation to study job stress related to the innovative work behaviors and abilities of academic staff in developing countries such as Indonesia.

The findings from this study provide crucial theoretical and empirical input. This study proposes a detailed model to investigate the contradictory analysis of how work stress affects innovative work behavior. In addition, as far as the review of previous studies goes, it can be said that this research is the first study to examine how KNS mediates the relationship between JS and IWB and how KNS mediates the relationship between TL and IWB. This research can be said to be unique in examining these concepts outside the context of conventional organizational activities. In addition, the findings of this study reveal how PJS can invigorate staff to face adversity, develop resilience in the face of adversity, think creatively, and generate new approaches to achieving goals.

Furthermore, KNS is a major factor in increasing the IWB of staff. According to the findings of this study, workers' intrinsic

motivation is greater when KNS behavior is more dominant. This study's findings are consistent with the previous one, which found that transformational leadership is more important than other leadership styles in improving idea generation skills, even in the face of disaster events.

This research was conducted to examine the determinants that can affect innovative work behavior and produce a number of valuable findings. Nevertheless, this research has various limitations, including limitations in the variable aspect, the measurement model aspect, the respondent aspect, and the data analysis technique aspect. Therefore, a number of further research activities are needed to overcome the limitations of this research.

In terms of variables, this research only examines the determinants that can influence innovative work behavior but is limited to the variables of job stress, transformational leadership, and knowledge sharing. On the other hand, there are many other antecedents that can influence innovative work behavior. Therefore, this study suggests that future research activities examine variables other than the ones studied in this study. Then, in the aspect of the measurement model, or outer model, this study found that the indicators used in this study can be used as a good measurement model for each variable. Even so, there are still many other indicators that could be better included in a measurement model. Therefore, this study suggests future research be able to expand the measurement model beyond the one used in this study.

This study adopted the SEM-PLS data analysis technique to examine the relationship between the variables in this study and produce meaningful findings. However, there is a possibility that there are data analysis techniques other than SEM-PLS that can test hypotheses with more precise results. Therefore, this study suggests future research be able to use other data analysis techniques that can provide more precise results. In the aspect of unit

analysis or respondents, this study was limited to teaching staff at universities in Indonesia to examine the factors that influence innovative work behavior. In order to increase the ability to generalize research results, this study suggests future research collect data from other types of respondents.

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