10.31341/jios.47.2.11
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UDC 001.891:005.94
Original Scientific Paper

The Impact of Organizational Support and Employee Attitude to Innovative Work Behavior Mediating Role of Psychologic Empowerment

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Abstract

Concerning the human aspect of organizational sustainability, this study aims to comprehensively examine organizational support (OS), employee attitude (EA), psychological empowerment (PE), and innovative work behavior (IWB). This study analyzes the relationship between OS, EA, and IWB in flexible manufacturing systems (FMS) and focuses on PE's role as a mediator between OS and EA. By dividing OS into perceived supervisor support (PSS) and procedural justice (PJ) and dividing EA into a sense of belonging (SB) and sense of awe (SA). A questionnaire was used to survey 341 participants from 23 teams employed in 9 large manufacturing enterprises in Indonesia. Eight Hypotheses were examined with Structural Equation Modeling (SEM). Results demonstrated that OS significantly affects EA and IWB, and PE mediates OS and EA through IWB. In this article, we seek to empirically test the entire belonging dimension of the OS as it relates to EA and IWB. These variables were chosen because they have well-documented pragmatic value for organizations. They also have reliable and valid relationships with various organizational support concepts. Future studies should include more variables for determining OS and EA to provide further context for organizational sustainability studies, particularly in FMS-transitioning industries.

Keywords: Organizational Support; Employee Attitude; Perceived Supervisor Support; Procedural Justice; Psychological Empowerment; Innovative Work Behavior

1. Introduction

Indonesia aims to transition from commodity-based sectors to manufacturing-based industries. In 2016, an integrated industrial estate was established as an economic zone

for technology and manufacturing. This initiative aimed to attract investments in the information, communication, and technology sectors to enhance automation and digital manufacturing technologies. Additionally, it sought to promote the adoption of flexible manufacturing systems (FMS). The primary objective of intelligent manufacturing systems is to expedite innovative processes, with FMS catalyzing achieving this goal [1]. The FMS process strategically assigns both human and machine resources [2],[3] to optimize operational efficiency and minimize product costs [4],[5]. The transition to FMS necessitates manufacturing enterprises to update their knowledge by assimilating information through learning [6]. This transition also requires effective communication of information to workers [7]. To successfully navigate the complexities of the FMS transition, IWB is crucial, particularly in significant changes and the organization's commitment to ongoing learning [8]. Therefore, it is important to recognize and embrace the challenging and inspiring nature of the complex task at hand. Furthermore, the concept of Individual Work Behavior (IWB) encompasses the capacity of workers to generate novel ideas, develop innovative processes, establish effective practices, and devise efficient procedures at the individual, group, and organizational levels [9].

Organizational issues, as a precursor to IWB, have attracted substantial attention in the recent two decades [10]. Considering the relevance of IWB, organizational experts focused their attention on elements that determine IWB. Such element includes organizational support (OS) [11], while organizational support is regarded as a critical predictor of employee attitude (EA) [12]. [13] state that OS stimulates employee inventiveness and, in turn, leads to the IWB of the employees. OS positively promotes EA, particularly creativity and IWB [14]. According to [15], EA is the attitude of workers who feel loyal to the organization. [16] characterizes EA as a successful response to the entire organization and the level of attachment or loyalty workers feel to the organization. As a result, the technique of fair organization should be positively associated with the worker's PE. Empirical studies by [17] show that psychological empowerment (PE) influences the association between team autonomy and IWB. [18] observed psychological capital moderating the connection between PE & EA. In addition, PE enhances the possibility of workers influencing outcomes as a prerequisite for innovative achievements [19].

A conceptual framework was established to elucidate the interconnections among operating systems (OS), enterprise architecture (EA), process efficiency (PE), and individual well-being (IWB). The division of organizational support (OS) into perceived supervisor support (PSS) and procedural justice (PJ) has been established [20]. Similarly, the division of employee attitudes (EA) into a sense of belonging (SB) and a sense of awe (SA) has been identified as indicators [21]. Supervisory treatment is bestowed upon workers as a manifestation of organizational support, suggesting a positive relationship between perceived supervisory support and organizational support [22]. The concept of PJ demonstrates a logical correlation with the outcome, emphasizing the methodologies employed [23], and establishing a connection with the SET's techniques, mechanisms, and procedural components inside the organizational framework [24]. Employees not receiving the promised job perks may express disappointment, leading to diminished respect towards the business and a lack

of organizational awe. Based on the scholarly fields of psychology and organizational behavior, the notion of SB holds significant importance in forecasting the favorable conduct exhibited by employees [25].

Nevertheless, the comprehensive utilization of these preceding factors and interactive whiteboards (IWB) in empirical studies has not been extensively explored, resulting in a limited comprehension of how various relational tie ideas encompassed within the same organizational support (OS) dimension affect employee attitudes (EA) and innovative work behavior (IWB). The social exchange theory (SET) posits that there exists a reciprocal interaction between employers and employees [26],[27]. It also offers theoretical support for understanding the connection between organizational support (OS), creativity, and innovative work behavior (IWB) [28]. Likewise, the operating system (OS) empowers employees to initiate innovative work behavior (IWB) by producing and implementing novel ideas, as well as by accomplishing duties in more advanced and improved manners [29]. Previous studies [30],[31],[32],[18],[17] have identified four dimensions (OS, EA, PE, and IWB) as being pertinent to organizational sustainability. However, a lack of comprehensive research examines these four constructs concurrently. Hence, this research undertakes a complete analysis of the OS, EA, PE, and IWB concerning the human aspect of organizational sustainability. It also highlights the increasing significance of IWB in manufacturing-based industries.

Our research primarily emphasizes belonging within the context of IWB, intending to make three noteworthy contributions. Initially, our objective is to differentiate the three concepts encompassed within the empirical aspects of PSS, PJ, SA, and IWB. Although the individual constructs in question have each undergone distinct and thorough methods for developing measures, we offer a comprehensive examination of these variables, which is crucial for empirically evaluating the proposed theoretical model. Furthermore, our objective is to empirically examine the comprehensive belonging component within OS, specifically concerning EA and IWB. These factors were selected based on their practical significance for organizations and their proven and credible associations with SET [26]. Finally, we offer PE as a mediating factor between OS and EA through IWB. The study conducted by [33] demonstrated that the construct of PE mediates the association between empowering leadership and worker creativity. This finding is noteworthy as worker creativity has been identified as a substantial predictor of performance. The study demonstrates empowering leadership through utilizing PSS and fostering workers' creativity, resulting in improved employee performance as measured by the IWB [13]. Consequently, conducting empirical tests to examine the associations involving these variables serves as a crucial means of validating the OS and EA model of the IWB. We further expand upon previous research findings by elucidating the nature of the association between each predictor and outcomes and their relative relevance.

2. Conceptual Framework

2.1. Organizational Support

Social exchange theory (SET) is the predominant framework utilized to analyze interpersonal relationships within the context of the workplace [26]. According to the author [34], the concepts of SET and social structure provide a framework for understanding the dynamic development of the social system. The author argues that these concepts should not be simplified or attributed solely to individual actions. SET has been employed to construct an inclusive framework for elucidating the process of knowledge transfer between individuals and knowledge sources [35], [36], as well as the interaction between an individual and others with the expectation of reciprocation [27]. SET is crucial in comprehending the functioning of an organization's operating system, as it elucidates workers' perception regarding the organization's provision of care, support, and attachment. This perception, in turn, has a significant impact on the performance of workers [37]. To adhere to SET compliance [26] [34] and OS compliance [37], it is imperative for organizations to offer support to their employees, thereby providing them with increased motivation to exert greater effort and achieve enhanced performance. OS within an organization has the potential to elicit a range of positive emotions among workers. These emotions are derived from the support and understanding provided by colleagues and superiors and the recognition of their abilities [38]. The work experience in OS incorporates two indicators, they are perceived supervisory support (PSS) and procedural justice (PJ) [20]. PSS is a construct that encompasses the overall perception of employees regarding the extent to which their supervisors appreciate and acknowledge their contributions, as well as demonstrate care and consideration for their well-being [39].

Organizational justice refers to the subjective opinion of employees regarding the fairness of treatment inside the workplace, which in turn has a favorable impact on their influence, attitudes, and conduct [42]. The study examines four organizational justice models: distributive justice, interpersonal justice, informational justice, and procedural justice (PJ). PJ is utilized as one of the markers of OS in this particular investigation [43]. PJ is used to denote an individual's perspective of the factors inside a social system that govern the distribution of resources in the decision-making processes of organizations [46]. The statement above exhibits a reasonable correlation with the outcome, emphasizing the procedures undertaken [23], and establishing a link with the methodologies, mechanisms, and process components of SET inside organizational system [24].

2.2. Employee Attitude

Workers who trust the organization, value workers' contributions, and care about the welfare of workers have a greater attachment to the organization and will invest more in the performance of workers, subsequently defined as OS [20]. [58] concluded that *supervisory support*, another form of OS, is essential in work environment structure, developing workers in career planning, performance appraisal, and promotion.

Workers view supervisors as competent when they create an attractive work environment, have common goals, and have high worker performance satisfaction [59]. [60] claim that effective supervisor-worker interaction will facilitate EA. According to [15], EA is the attitude of workers who feel devoted to the organization. [16] describes EA as an effective response to the entire organization and the level of attachment or loyalty workers feel to the organization. Workers with low EA will work as an obligation, do not prioritize the vision and mission of the organization, and only care about their success over the success of the organization as a whole. Less committed individuals also tend to see themselves as outsiders and not as long-term members of organizations. Employee performance in a wide range of organizations is positively influenced by a Sense of Belonging (SB) and a Sense of Awe (SA) as EA indicators [21]. SB is a commitment that bonds individuals to groups or communities even when facing challenges [61]. According to the disciplines of psychology and organizational behavior, SB is an important concept that predicts the positive behavior of workers [25].

2.3. Psychological Empowerment

Psychological empowerment (PE) is the increased involvement of individuals in a team that affects work results and is necessary for innovative outcomes [19]. [17] concludes PE results from an individual's perception (cognition) of competence, meaning, self-determination, and the ability to influence organizational outcomes. The PE construct provides a mechanism to illustrate how a team's contribution can innovatively affect project outcomes. Studies previously demonstrated that PE improves organizational performance through motivation, positive attitudes, and worker initiative to respond to changing and competitive work environments [76] or through developing valuable and inimitable human resources [77].

2.4. Innovative Work Behavior

IWB is a systematic introduction to generating and applying new ideas and behaviors required to adopt ideas to improve personal and organizational performance [53]. [72] see IWB as a gradual process in which individuals face difficulties and produce ideas that lead to problem solutions with creativity and support from the work environment. Innovation is the successful execution of innovative ideas. To demonstrate the IWB, workers require a strong perception of management and supervisor support in the form of freedom in the workplace and availability of resources [54]. IWB gathers role behaviors in the workplace to communicate and build support [55] and individual role behaviors that explain personal fulfillment, adaptability, risk-taking, and courage [56]. [57] illustrates the importance of IWB in enhancing performance in a highly competitive environment that benefits the organization. Researchers, therefore, assume that the OS comprises particular psychological qualities that can increase the IWB of workers. In addition, the OS's SET architecture implies that this view promotes a feeling of obligation to modify behaviors that support corporate goals. IWB is one such positive behavior.

3. Hypotheses

3.1. Organizational Justice and Innovative Work Behavior

Workers receive supervisory treatment as an indication of organizational support, meaning that perceived supervisory support leads to OS [22]. When supervisors use techniques that contribute to a supportive climate, organizational performance improves through workers' emotional connection to the organization [40]. Suppose the PSS perceived by workers tends to be damaging through a significant relationship between abusive supervision and poor accountability. Work behavior will be negative, and organizational performance will diminish [41]. [47] conducted an empirical study that related PJ to pleasant sentiments in workers, which can affect IWB. [48] study the major influence of organizational justice through four aspects, one of which is PJ on innovation and IWB, and establish a strong association between PJ and IWB. According to empirical investigations by [49],[50],[51], PJ has a considerable and beneficial direct and indirect effect on the IWB. In other words, when individuals believe that businesses care and provide fair treatment, they will feel more obligation to do their work successfully and engage in idea generation, development, and work-related applications. [52] argue that with such rapid and enormous changes, IWB acts as a durable competitive advantage for organizations, giving companies long-term viability and success. According to the description above, the researcher suggested a hypothesis:

H1 PSS has a positive influence on IWB

H2 PJ has a positive influence on IWB

3.2. Employee Attitude and Innovative Work Behavior

PJ is an additional measure of OS [22], linked to employees' experience of good emotions [62]. Employees who do not receive the promised job perks may experience disappointment, leading to diminished respect towards the organization and a lack of sense of awe (SA). SA can be defined as a multifaceted emotional reaction to stimuli that are visually or perceptually expanding, requiring cognitive adaptation. [64] convey two dimensions of SA: its *vastness* and the need for accommodation. As stated by [63], vastness does not rely on tangible measures, as it can encompass any encounter or sense beyond an individual's boundaries. Accommodation pertains to cognitive processes when individuals encounter external experiences that cannot be readily assimilated into existing mental frameworks. Based on the description above, the authors put out a hypothesis:

H3 PSS has a positive influence on SB.

H4 PJ has a positive influence on SA.

As complex emotional attitudes, SB, SA & IWB encompass a range of antecedents that arise from a comprehensive comprehension of a certain subject [65]. SB is crucial to an individual's holistic psychological well-being. Employees who experience a sense of psychological safety, are more likely to exert significant autonomy and engage in creative and innovative behaviors. Upon acknowledging the

advantages of this form of identification, senior management will exhibit more significant endorsement towards employees who surpass their job description to produce novel ideas and spearhead innovative projects. Consequently, this will result in high worker motivation and satisfaction [66]. Hence, top management has to guarantee experience a sense of pride in their affiliation with the organization and are motivated to contribute towards its achievements actively. Undoubtedly, a prosperous organization can foster strong SB among its team.

Furthermore, besides its favorable impact on job performance, implementing SB benefits emotional and physical well-being in the workplace enhances stress resilience, and fosters a greater willingness to embrace change. On the other hand, SA impacts cognitive functions, as evidenced by experimental studies that demonstrate how induced SA can result in feelings of uncertainty [67]. This uncertainty arises from cues that need individuals to adapt or accommodate their behavior [68]. SA, in this context, represents good emotions [69],[67]. Therefore, the phenomenon of SA has been found to enhance individuals' sense of interpersonal connection and has the potential to contribute to increased levels of job satisfaction [70].

Utilizing IWB facilitates individuals in generating innovative and promising ideas and effectively executing these novel ideas in practical settings [71]. IWB refers to the outcomes, recommendations, and execution of employees' ideas for work-related activities that contribute positively to organizational performance [73]. According to [74], organizations that do not engage in innovation may decrease their capacity to effectively compete with other entities and face the possibility of abandoning the market. According to previous research, organizations that persist in their efforts to innovate have the potential to attain enhanced levels of organizational performance [75]. Based on the analysis mentioned above, the authors put up the subsequent hypothesis:

H5 SB has a positive influence on IWB

H6 SA has a positive influence on IWB

3.3. Psychological Empowerment as Mediating Role

There appears to be no significant correlation between workers' perceptions of PJ and PE. However, prior research findings indicate an association, wherein PJ potentially enhances perceptions of PE, may exist. For instance, the presence of socio-political support, the availability of information and resources, and the establishment of a participative work environment, all of which are believed to be associated with PJ, exhibit a positive correlation with PE [78]. Consequently, there should be a favorable correlation between the process of organizing a fair and the level of employee performance evaluation. Workers who feel empowered perceive themselves as having authority over the work environment, autonomy, and proficiency [79]. Consequently, they are more likely to engage in proactive learning activities that contribute to the overall success of the organization [80]. This will facilitate the development of a more positive SB and SA orientation within the EA.

In general, PJ Implementation in the workplace enables employees to engage in the best practice known as PE, which has been shown to enhance worker productivity

and organizational performance [81]. The study by [82] revealed that empowering leadership directly and indirectly affects PE through self-leadership. This empowerment was positively associated with increased job satisfaction and enhanced creative performance. The study conducted by [83] identified the mediating function of PE in the relationship between empowering leadership and the successful implementation of job responsibilities. The study conducted by [33] shows that the construct of PE mediates the association between empowering leadership and worker creativity.

Furthermore, worker creativity was a substantial predictor of worker performance. The concept of empowering leadership in this study is operationalized through the construct of PSS, which refers to the supervisor's disposition to facilitate and encourage employees to fulfill their duties and obligations. Based on the considerations above, the final hypothesis within the framework of this study can be posited as follows:

H7 PE mediates the relationship between PSS and SB

H8 PE mediates the relationship between PJ and SA

4. The Research Method

4.1. The Aim and Importance of the Research

The objective of this study is to ascertain the existence of a correlation between organizational support and innovative work behavior, as well as between employee attitude and innovative work behavior. Additionally, the study aims to explore the potential mediating function of psychological empowerment in this relationship, as illustrated in Figure 1.

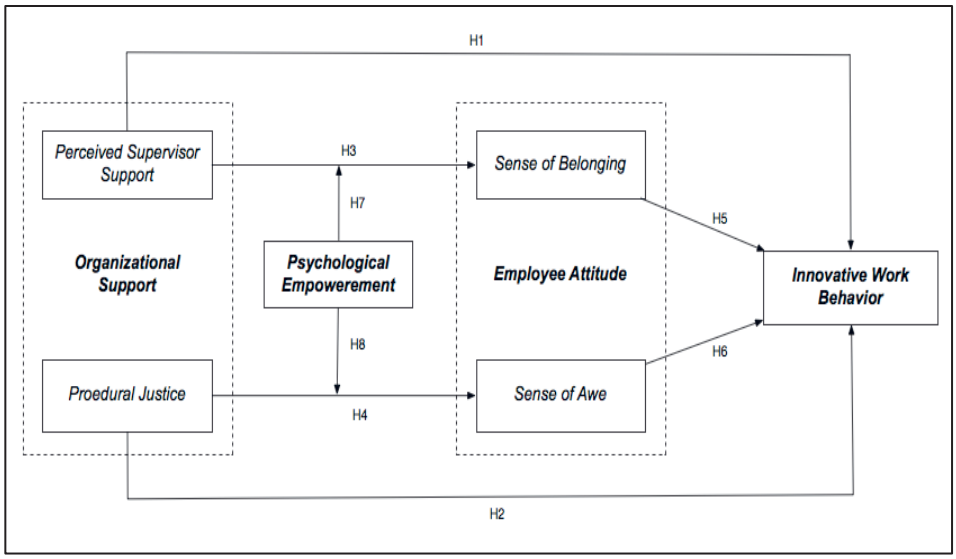

Figure 1. Theoretical Framework

4.2. Universe and Sample

Concentrations and exact measurements are utilized to examine a specific collection of recognized antecedent variables [84][85]. The present study was conducted inside an industrial estate with 15 tenant firms, categorized into five clusters: chemical, energy, metal, electronic, and supporting and logistics. A pilot study was conducted by employees of the major chemical cluster tenant companies, involving the distribution of ten questionnaires to evaluate its efficacy [86]. The pilot study's findings did not demonstrate any significant level of complexity. A survey selected nine tenant companies, including 380 respondents involved in 23 team works. The research team sought authorization from these organizations' management to distribute questionnaires containing information about the study's objectives, which were developed in Indonesian. These firms facilitate researcher access to workers and enable direct communication during the data gathering. Questionnaires are commonly employed in psychology as a general research approach to mitigate bias by effectively segregating predictor factors and criteria [87]. A total of 380 questionnaires were distributed, of which 365 were collected. Additionally, 15 questions were deemed invalid due to incompleteness and excluded from the analysis. Out of the initial sample of 341 questionnaires, 86 percent were successfully validated and included in the data analysis.

The demographic characteristics of the respondents indicate that most participants, comprising 36 percent, fell within the age range of 26-30 years. Additionally, 29 percent of the respondents were aged between 31-35 years, while 19 percent fell within the age range of 36-40 years. A smaller proportion, 9 percent or 30 individuals, were aged between 41-45 years. The remaining 8 percent of respondents were aged between 45-50 years. The distribution of education levels among the participants was as follows: 35 percent had completed education up to senior high school, 39 percent had completed high school education, and 27 percent had attained a college education level. According to the poll, most workers (63 percent) reported an average monthly pay of less than 4,750,000 rupiah. A smaller proportion of workers (20 percent) indicated a salary range between 4,750,000 and 5,500,000 rupiahs, while a minority (17 percent) reported earning above 5,500,000 rupiahs. Most respondents (n=173) reported a maximum work length of 3 to 4 years. This was followed by a work term of 5 to 6 years, reported by 116 respondents. Additionally, 53 respondents indicated a work period of 1 to 2 years.

4.3. Data Collection Tools

The variables were assessed via a 5-point Likert scale and demonstrated robust construct validity. [88] employed a set of five questions to assess PSS. These items included statements such as "*the supervisor demonstrates a profound understanding of the challenges faced by employees*," "*the supervisor displays confidence in managing subordinates*," and "*the supervisor is dependable in offering valuable guidance to workers*." (Cronbach's α =.904). PJ underwent evaluation using a set of four items [89]. For instance, one of the questions stated, "*The continuous execution of salary and wage procedures involves the participation of all employees*"

(Cronbach's α = .891). The concept of PE was created by [79] and is characterized by four key elements: meaning, choice, self-efficacy, and impact. An illustrative item of the impact dimension is "*I possess a noteworthy level of influence over the occurrences within my unit*" (Cronbach's α =.897). The evaluation of EA was conducted using a scale consisting of six items, which were then divided into two sub-dimensions: SB and SA [90]. The authors developed a set of four measures to assess an individual's SB in the workplace. One of the items inquired about the likelihood of the individual's long-term commitment to a company, with a calculated Cronbach's α coefficient of .872. According to the literature, the concept of SA can be understood through two distinct dimensions: the vastness and the need for accommodation [64]. An illustration of SA items can be observed in the question, "*In what manner does the work system of the company pertain to you?*", "*How does the organization enforce and regulate the work behavior of its employees?*" (Cronbach's α =.794). The assessment of IWB encompassed four dimensions: opportunity, idea production, championing, and application. An illustrative remark from the study indicates that organizations actively encourage employees to generate innovative ideas [91]. (Cronbach's α=.866).

5. Findings

5.1. Confirmatory Factor Analyses

We used the AMOS v.23 computer program to assess validity and reliability of our measurement model through confirmatory factor analysis using a combination of statistics, including CMIN, GFI, AGFI, CFI, NFI, TLI and RMSEA. Accepted criteria for relative chi-square (CMIN) <5 and GFI, AGFI, CFI, NFI, and TLI values >.9 [92][93] and RMSEA <.08 [93]. Two measurement models were examined to determine the best fit for our data. The first model assumed that all constructs were distinct by allowing measure items for each construct to load on their separate factor. All items loaded on the intended factor, and the model met our criteria for a good fit: CMIN = 269.950, GFI = .937, AGFI = .919, CFI = .989, NFI = .949, TLI = .987, RMSEA = .027. The results of this confirmatory factor analysis are reported in **Error! R eference source not found.**.
shows all the items' factor loadings were more than 0.5, and their AVE was more than the recommended value of 0.5 [94]. Therefore, none of the items were deleted. Thus, it can be concluded that all the items have adequate convergent validity [95]. Similarly,
also showed that all the constructs' reliability was higher than 0.7, which meets the cut-off value [95][96].

5.2. Measurement Model

The measurement model (**Error! Reference source not found.**) was used in this s tudy to examine the relationship between the independent, mediator, and dependent

variables. The measurement model is the second level of analysis in structural equation modeling, which is considered part of data preparation. As the analysis of measurement model using AMOS reveals that the model is fit, whereas goodness of model fit is achieved as the following chi-square (CMIN) = 269.950 (df = 215), relative chi-square (CMIN/df) = 1.256, AGFI = .919, GFI = .937, CFI = .989, NFI = .949.

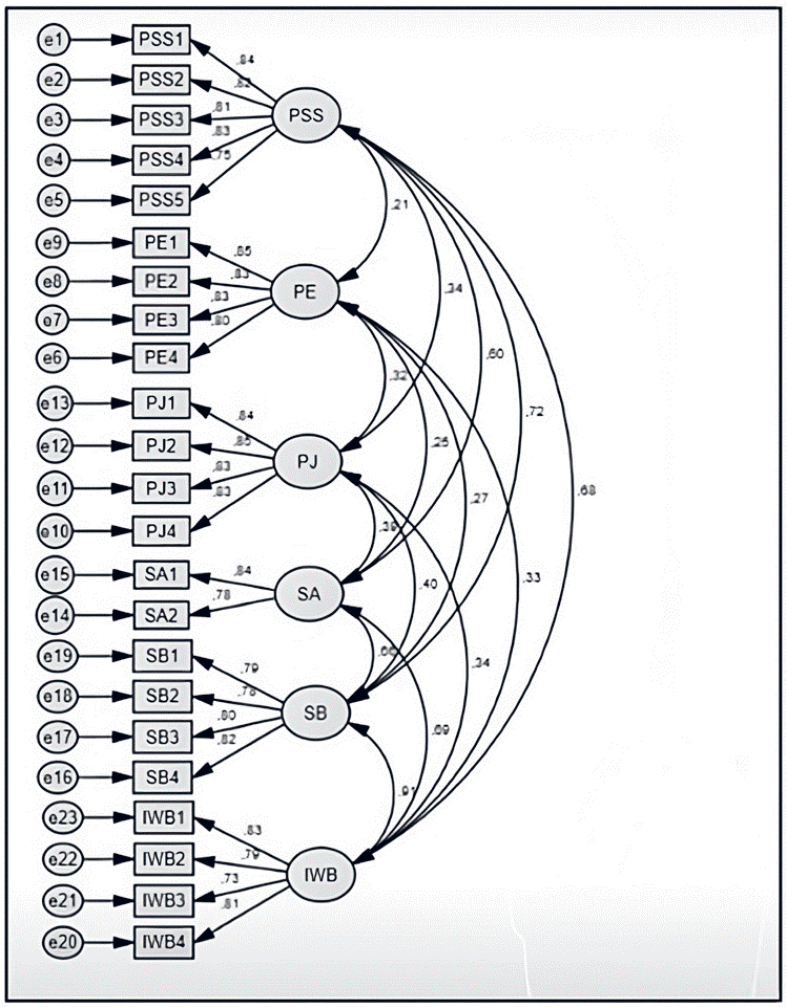

Figure 2. Hypothesized Structural Equation Model with Standardized Factor Loading

5.3. Discriminant Validity

The discriminant validity of the study revealed the extent of the distinction between the constructs in the measurement model. Table 2 below depicts the CFA results summary for discriminant validity. Based on the table, thus, the discriminant validity is achieved when a diagonal value in bold is higher than the values in its row

and column. Therefore, all the constructs in the measurement model exhibit sufficient discriminant validity [93]. In addition, all the correlation (r^2) values between the constructs were less than the recommended correlation value of 0.9 [95].

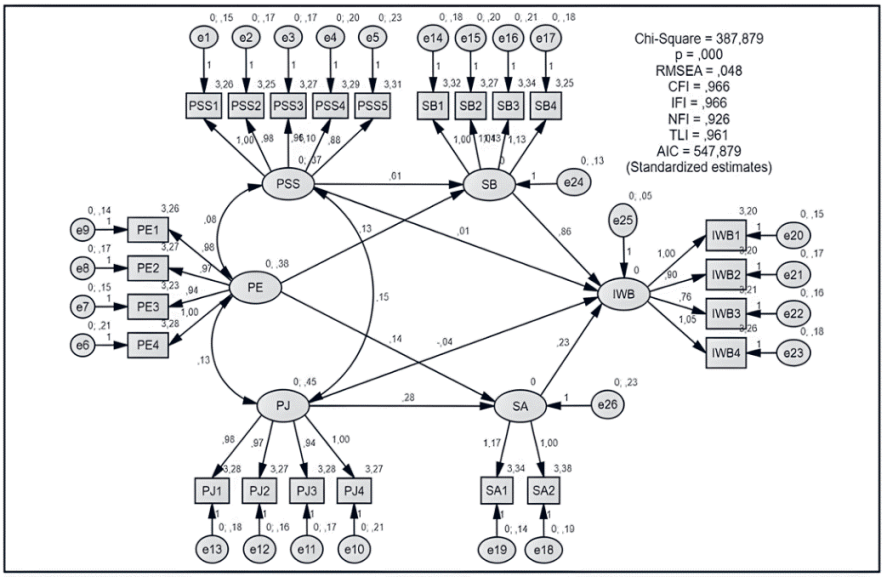

Figure 3. Measurement Model

Construct	Indicator	Factor Loading	Mean	SD	CR	AVE
Perceived Supervisor Support	PSS1	0,842	3,26	0,722	0,818	0,518
	PSS2	0,821	3,25	0,728		
	PSS3	0,812	3,27	0,715		
	PSS4	0,083	3,29	0,816		
	PSS5	0,736	3,31	0,717		
Psychological Empowerment	PE1	0,850	3,26	0,714	0,898	0,687
	PE2	0,831	3,27	0,725		
	PE3	0,836	3,23	0,699		
	PE4	0,797	3,28	0,773		
Procedural Justice	PJ1	0,838	3,28	0,783	0,9047	0,704
	PJ2	0,857	3,27	0,761		
	PJ3	0,835	3,28	0,756		
	PJ4	0,825	3,27	0,815		
Sense of Awe	SA1	0,840	3,34	0,729	0,785	0,647
	SA2	0,767	3,38	0,687		

Construct	Indicator	Factor Loading	Mean	SD	CR	AVE
Sense of Belonging	SB1	0,000	3,32	0,686	0,735	0,480
	SB2	0,780	3,27	0,714		
	SB3	0,800	3,34	0,761		
	SB4	0,820	3,25	0,738		
Innovative Work Behavior	IWB1	0,832	3,2	0,69	0,868	0,623
	IWB2	0,814	3,2	0,658		
	IWB3	0,702	3,21	0,593		
	IWB4	0,803	3,26	0,734		

Table 1. Factors Loading, AVE & Construct Reliability

Constructs	PSS	PE	PJ	SA	SB	IWB
PSS	**0,518**					
PE	0,046	**0,687**				
PJ	0,116	0,101	**0,704**			
SA	0,358	0,062	0,151	**0,647**		
SB	0,516	0,074	0,161	0,441	**0,480**	
IWB	0,462	0,108	0,116	0,477	0,349	**0,623**
The square root of AVE of each construct (on the diagonal) and correlation coefficient (on the off-diagonal)						

Table 2. Discriminant Validity

5.4. Structural Equation Modeling (SEM) Analysis

Structural equation modeling determines the influence of PSS, PJ, SA, and SB on IWB moderated by PE. Maximum likelihood estimation (MLE) is used to estimate the model. This model is estimated using the following criteria: p = .000, RMSEA = .048, CFI = .966, and IFI =.966. The hypotheses of the direct relationship between constructs are presented in Table 3. There were eight hypotheses tested; two were hypotheses using moderation variables. Six hypotheses are accepted, they are H1, H2, H3, H4, H5, and H6, with each CR > 1.98.

Hypothesis	Path	B	C.R.	P	Decision
H1	PSS → IWB	0.28	4.601	0.645	Accepted
H2	PJ → IWB	0.43	5.891	0.112	Accepted
H3	PSS → SB	0.61	10.998	***	Accepted
H4	PJ → SA	0.28	3.021	0.003	Accepted

H5	SB → IWB	0.86	10.548	***	Accepted
H6	SA → IWB	0.23	4.018	***	Accepted

Table 3. Path Co-efficient Result

5.5. Mediation Analysis

This study aims to determine the influence of PE moderation in relationships of PSS, PJ, SB, and SA. The effect of PE moderation on PSS variables on SB was analyzed through the interaction between PSS and PE, as was the impact of PE moderation on PJ variables on SA through PJ and PE interactions. [97] state 4 (four) statistical methods for SEM analysis involving interaction variables, [98][99][100][101]. This study uses [101] method through 4 stages: compiling CFA to the *goodness of fit* by the process of centering variables the effect of multicollinearity, forming moderation variables (formula 1) by multiplying the summation of moderation variable indicators by the summary of exogenous variable indicators to creates interaction effects.

$$Interaction\ Effects\ = (\sum x_1 + x_2 + \ldots + x_3) \times \sum z_1 + z_2 + \ldots + z_p)$$

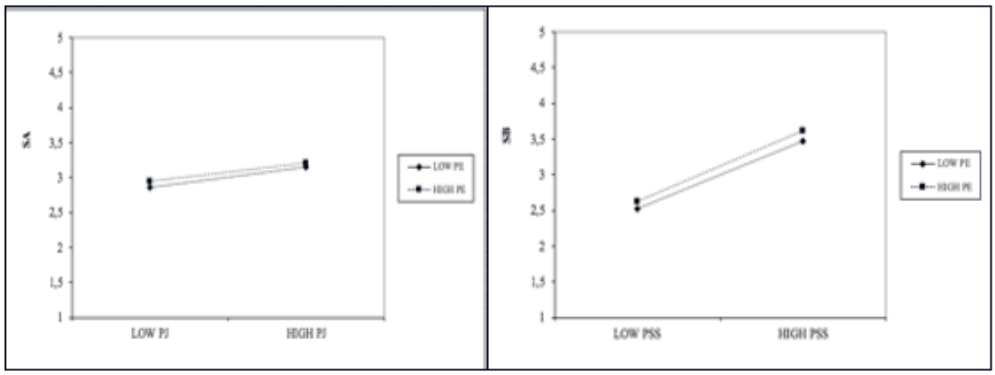

Figure 4. Interaction Effect

For the model to be identified, LF/ variance weighting is carried out for interaction variables, then creating a structural model & evaluating the goodness of fit. The PE moderation test on PSS and SB variables according to predetermined criteria, p-value = .000, RMSEA = .016, CFI = .998, IFI = .966, AGFI = 0.953, with CR>1.96 showing that there is an indirect influence of PSS on SB through PE moderation. While the PE moderation test on PJ and SA variables corresponds to the established criteria, p-value = .003, RMSEA = .000, CFI = .988, IFI = .976, AGFI = .973, with CR>1.96 indicating an indirect influence of PJ on SA through PE moderation. It can be concluded that PE moderation influences the relationship between PSS, PJ, SB, and SA. Thus, hypotheses H7 and H8 are accepted. Visually, shows the role of the PE moderation variable, with PJ and PSS on the X-axis and SA and SB on the Y-axis. The graph of the relationship between PJ and SA with PE as a moderation shows that the higher the

PJ value, the higher the SA value, with PE at high and low. Meanwhile, on the graph of the relationship between PSS and SB, at high and Low PE, the higher the PSS value, the higher the SB value linearly.

6. Discussion

Organizational Support and Innovative Work Behavior

Based on an extensive investigation into frontline employees, authors have identified four essential indicators that must be incorporated into FMS. According to statistical analysis, IWB is influenced by OS through PSS, as shown by hypothesis **H1**. The present findings are consistent with the results reported in prior research [54]. When employees see that their organization provides personal support, they develop a greater sense of organizational connection, enabling them to offer innovative ideas during work execution. The association between PSS and IWB can be elucidated in greater detail by reference to a study conducted by [102]. This study highlights several factors contributing to this link: high power distance, collectivism, and low uncertainty avoidance. High power distance is a phenomenon in which employees perceive their superiors as significant individuals who possess the power to grant or withhold essential resources required for the advancement, safeguarding, and execution of novel concepts within the organizational setting [103][104]. Based on an estimated individualism score of 14, which suggests that Indonesia is primarily a collectivist-oriented society, it is probable that workers in this context would prioritize obtaining approval from all relevant stakeholders, particularly supervisors and employers, before initiating any novel undertakings. Moreover, due to a low level of uncertainty avoidance, the activity of IWB is regarded as a behavior that involves taking risks [105]. The supervisor's assistance is critical as it collectively enables workers to bear the burden of failure or uncertainty.

Another indicator of IWB, OS through PJ, impacts IWB **(H2)**. Previous empirical research has investigated correlation between PJ and IWB concerning EA [106][51]. Findings indicate that the organization's sincere endeavors to ensure fairness in decision-making, also known as PJ, favorably impact employee engagement. The individuals engaged in the task are strongly inclined towards disseminating work-related knowledge and demonstrate considerable dedication to IWB. This conduct ultimately has a favorable impact on the firm's long-term viability and environmental stewardship. Organizational justice encompasses the establishment of equitable norms and regulations, the cultivation of fairness within the organizational context, and the consideration of the outcomes gained by employees, all of which are fundamental elements inside a corporation [107]. The statement posits that employees are more likely to perceive their contributions as being fairly acknowledged when they perceive the organization as being mindful of providing equitable treatment, particularly concerning organizational justice, including procedural justice. According to previous research, employees are likely to exhibit higher motivation levels when sharing their ideas with the organization and implementing them [47].

Organizational Support dan Eandoyee Attitude

Based on the findings, it was determined that there is a relationship between PSS and SB **(H3)**. According to [108], it may be inferred that OS provides positive or mitigated negative stimuli. Therefore, employees have the potential to experience job happiness. SB is necessary in psychology and organizational behavior, as it predicts several good worker behaviors [25]. When employees have job satisfaction, they are more likely to adapt to the required work demands and develop a sense of organizational identity, also known as SB. This adjustment process can subsequently enhance the employee's motivation.

The study's findings demonstrated a significant correlation between PJ and SA, providing empirical support for **H4**. The significance of PJ in the workplace for facilitating interaction among intelligent systems and influencing worker behavior and EA has been demonstrated in previous study [109]. This research emphasizes the allocation of duties as a means of promoting human-machine-human interactions rather than relying solely on training methods. It can be inferred that a certain degree of resemblance exists in values, standards, and personalities or a profound level of likeness within a psychological contract between supervisors and workers [110]. When a business demonstrates adherence to equitable practices, as facilitated by supervisors, it signifies the organization's concern for its employees and proactive efforts to help them, fostering a sense of support among workers. According to [111], this view will contribute to the cultivation of trust within the organization and enhance the situational awareness of employees.

Sense of Belonging, Sense of Awe and Innovative Work Behavior

The findings of the previous studies on the antecedents of IWB, through EA with SB **(H5)** and SA **(H6)** indicators, demonstrated a solid and favorable impact on IWB. **[112]** suggest a correlation between servant leadership, strong acceptance, and the development of satisfied workers who voted to contribute towards achieving organizational objectives. Employees with SB are likely to exhibit a favorable demeanor, proactive behavior, commitment, and productivity [113]. Furthermore, it is expected to novel concepts and suggestions to the organization. According to previous research [111], workers are more likely to engage in innovative behavior when they perceive high supervisor support.

Psychological empowerment as moderating variable

The present study showed that PE moderated the relationship between PSS and SB **(H7)** and between PSS and SA **(H8)**. The findings indicated that persons who experienced PE reported feeling influenced and having a sense of control over their actions [114]. Scholars have posited that employees who experience a sense of empowerment are likelier to exhibit heightened involvement with their work and demonstrate proactive behavior within the workplace [115]. According to research findings, individuals who encounter PE tend to engage in vocal activities, including identifying issues and providing feedback to enhance the organization's overall functioning [116]. According to empirical research, evidence suggests levels of creativity when they experience psychological empowerment [117]. [118] revealed a

positive relationship between PE and the level of engagement in the creative process, leading to an enhancement in creativity. Additionally, the study consistently found a positive correlation between empowerment and worker performance [119]. PE is negatively related to voluntary turnover of workers, so workers who feel empowered are more likely to stay with the team or organization for a more extended period [120], thus allowing greater possibilities for the group to accumulate performance benefits.

7. Conclusions & Practical Implications

The findings of this research possess numerous theoretical and practical ramifications. This scholarly paper examines the impact of OS and EA on frontline employees who utilize IWB within the framework of FMS. Our study revealed a significant relationship between PSS and SB, indicating that PSS exerted a noteworthy effect on SB. Furthermore, our findings also demonstrated that SB greatly impacted PSS, suggesting a reciprocal relationship between the two variables. In addition to moderating the relationship between PSS and SB, PE was found to have a significant influence on SA through the mediating role of PJ. Subsequently, the implementation of SA yielded a substantial and beneficial impact on integrating IWB and the influence of PE moderating transition from PJ to SA. The findings above contribute to understanding how organizational support impacts EA and offer insights for frontline supervisors and production managers to enhance workers' IWB.

Regarding practical implications, SB impacts IWB, necessitating the provision of support from production managers to foster a sense of attachment among workers. This attachment is expected to serve as a motivational factor, encouraging workers to contribute innovative and creative ideas to the organization. Supervisors and managers must exhibit fairness in their decision-making processes. By doing so, employees are more likely to enhance their perspective of their social exchange relationship and perceive their contributions as valuable to the organization. Consequently, this fosters an environment that promotes increased organizational citizenship behavior. The PE construct is a moderating factor in the relationship between OS and EA.

Consequently, while distributing rewards, such as enhancing procedural assistance, management must prioritize fairness since disregarding may result in adverse consequences. This resource is a practical manual for industrial and other organizations, guiding the importance of prioritizing and enhancing human resources operations. The main focus of this study pertains to the relationship between organizational support and employee attitude in fostering innovative work behavior, with the moderating influence of psychological empowerment. This research aims to enhance organizational support and assess employee attitude as an initial measure in developing innovative work behavior.

8. Limitation and Future Research

This study had several limitations, as with any other research endeavor. This study primarily examined innovative work behavior as one of the factors contributing to the

development of organizational support and employee attitude. Examining the remaining components contributing to the formation of innovative work behavior may have yielded a more comprehensive comprehension of the significance of organizational support, employee attitude, and psychological empowerment in fostering innovative work behavior. Furthermore, the research framework utilized in this study has been implemented in firms working within industrial parks in Indonesia. Indonesia is classified as a developing nation, and the proposed model has the potential to be applicable in various geographical contexts and developing countries that share comparable socio-economic systems and cultural characteristics. The present study does not directly address the function of awe and belongingness as mediators, which can be seen as limitations in the research. Subsequent investigations could potentially explore the significance of the experience of awe and sense of belonging.

It is recommended that future research incorporate this dataset in conjunction with other variables about the establishment of organizational support and employee attitudes. Additionally, it is important to elucidate the role of psychological empowerment as a moderator in applying these variables and their influence on innovative work behavior. In addition, future research can assess innovative work behavior by utilizing appraisal reports and including supervisors' perspectives.

Credit Authorship Contribution Statements

Nimas A. Pratiwi: Writing – Original draft, conceptualization, data curation, formal analysis, methodology, project administration, sophie lythreatis: formal analysis. **April K. Susilo**: Writing – review & editing, writing – original draft, conceptualization, methodology, writing – review & editing. **Siti Fatimah**: Writing – review & editing, writing – original draft, data curation.

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