

Innovative Work Behavior Shaped by Learning Organization and Employee Engagement as Mediating Variable: A Case Study on Manufacturing Corporation

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Abstract: This study aimed to examine and analyze the innovative work behavior formed by learning organization and employee engagement in manufacturing companies in Indonesia. The study also aimed to examine the mediating effect of employee engagement. The survey was conducted on 254 employee learners who work in automotive manufacturing companies in Indonesia. The data were analyzed by using the structural equation modeling technique (Structural Equation Modeling) using the AMOS program. The results show that learning organization has a positive direct or indirect effect on innovative work behavior. More interestingly, employee engagement partially mediates the relationship between organizational learning and innovative work behavior. This study contributes to the growing literature on how Human Resources managers in manufacturing companies promote innovative work behavior among their employees through learning organization and by strengthening employee engagement. The findings of this study can contribute to the literature on Human Resource Management in manufacturing companies, especially in Indonesia.

1 INTRODUCTION

The current business situation which is marked by volatility, uncertainty, complexity, and ambiguity (VUCA) coupled with the Covid-19 pandemic can disrupt the continuity of companies' business. It is companies that are able to adapt quickly that can maintain long term sustainability. Therefore, a good strategy is needed to face various challenges from competitors and current global condition. Based on the Global Innovation Index (GII) issued by the World Economic Forum in 2021 (<https://www.weforum.org>), Indonesia's rank has dropped from 85 in 2020 to 87 in 2021. The rank in the market sophistication area is already good, however the business sophistication area is still lacking. Thus, it can be interpreted that Indonesia is an attractive place to sell products, but since domestic businesses are not able to take advantage of and balance the already sophisticated market, this opportunity is exploited by external parties instead.

The existence of a company is determined by its ability to innovate that based on its employees' ideas. Therefore, company leaders need to create a conducive environment to motivate their employees

to practice innovative work behavior, which in turn will give birth to more innovation. Innovative Work Behavior (IWB) is inseparable 1 from innovation itself. Innovation is one of the changes that have specificity; it involves the application of a new idea in the development of a product, process, or service. Thus, all innovations implies change, but not all changes involve new ideas or lead to real improvements. Innovations can range from small improvements to radical breakthroughs (Robbins & Judge, 2014).

Innovative work behavior is the behavior of an individual which is aimed at introducing and adding new and useful ideas, processes, and products into their work environment (Mura et al., 2012) . Employee's innovative behavior refers to the initiation process and the existence of an intention to introduce new ideas that can be used in solving problems. This behavior leads to the improvement of products, services or processes; improving the quality of goods and services or the effectiveness of a process; emergence of ideas (creativity); and the application of a work group or an organization. Innovative behavior requires time investment and takes up formal work time; involves risks that can

affect reputation and friendship, or cause loss of job; and requires proactivity, namely the behavior of being a pioneer, striving to lead rather than follow, and the initiative to take one's own steps. HRM practices and systems are expected to build a supportive environment within a company so that social interaction and interdependence are formed among employees while carrying out their duties. Social interaction and interdependence will form informal learning activities and an interactive atmosphere. This situation will shape innovative behavior at the individual level and subsequently build innovation in the company (Shipton et al., 2016).

Organizations currently rely more on empowerment and delegation to their employees by giving them the authority to make important decisions in their work so that only few management processes rely on top-down command and control. Empowerment is shown by grouping employees into teams (Wagner & Hollenbeck, 2010). Thus, a learning organization is a necessity. Learning organization is characterized by full employee involvement in the learning process, which is carried out collaboratively, aimed at collective change, towards the formation of values or principles that are shared by all members or between members (Watkins & Marsick, 1992). The core principle of learning organization is to place people as a whole in the organization to continuously learn, transform, and change towards shared values and principles among members (Ivanko, 2013).

Learning organization is important, because every organization needs to reorganize, restructure and design management to achieve success, through a learning process, not just for survival; Skilled employees in the labor market become increasingly scarce in the labor market because educational institutions do not sufficiently provide the necessary knowledge, so the organization itself needs to educate its employees; knowledge increases; global competition intensifies; the learning process is needed to achieve breakthrough in responding to technological advances; and learning processes are needed by organizations to adapt to change. (Marquardt, 2002). Learning in organizations includes a learning process to improve performance and business goals (performance base and business); emphasize effective learning (learning how to learn); a process of problem solving in the work environment; an opportunity to develop knowledge, skills, attitudes and behaviors; and part of the job.

Engaged employees are indicated by their psychological involvement in work, connection to

their work, and commitment to complete the job (Dessler, 2020). While Macey et al. (2009) stated that engagement is the feeling of a person who has a sense of purpose and focused energy, shows strong initiative, adaptability, effort, and persistence towards organizational goals; an engaged employee will release psychic energy and behavioral energy.

Unfortunately, we observe that the literature related to learning organization and innovative work behavior in manufacturing companies is still limited, especially those related to the relationship between learning organization, employee engagement, and innovative work behavior. Mura, et al. (2012) suggested for the study of innovative work behavior to consider all important variables that influence it from individual, group, and organizational aspects. Considering the importance of innovation produced by employees who use their knowledge at work, research that uncovers innovative work behavior among employees in manufacturing companies becomes important to study. This research has three main objectives which in the future will contribute to the literature on Human Resource Management and Organizational Behavior in the context of organizational development. First, to analyze the influence of learning organization and employee engagement which are thought to be the main factors that will determine the realization of innovative work behavior among employees. Second, the influence of learning organization in shaping employee engagement. Lastly, to look at the role of employee engagement in strengthening the influence of learning organizations on innovative work behavior.

This research paper follows the following structure; a literature review related to learning organization, employee engagement, and innovative work behavior as the basis for formulating hypotheses; methodology section describing in detail how this research is organized; results section describing the findings, discussions, and implications both theoretically and practically; conclusions and limitations and suggestions for further research.

2 LITERATURE REVIEW

2.1 Learning Organization and Innovative Work Behavior

Innovative work behavior is based on knowledge, in this case it can be developed through the involvement of all work units in the learning process and being able to manage the knowledge produced by the organization, so that it can be seen that learning

organizations provide wider opportunities in shaping their employees to behave innovatively. Learning organizations have a direction of continuous learning so the learning process is designed in a work environment. Employees can learn while working, help each other in learning, provide opportunities to learn and respect employees who are willing to learn, so the overall learning organization will encourage and reward employees for innovative behavior.

Innovative work behavior begins with the formation of a positive role of energy and pleasure that encourages innovative behavior in an environment that values learning (Park et al., 2014). This is confirmed by Song et al. (2018) that learning in an organization will lead to results in the form of changes in the organization, namely increasing organizational capabilities in terms of performance, knowledge acquisition, and behavior. Learning organization is thought to be able to increase its capabilities in shaping innovative work behavior.

Empirically, it has been proven that learning organization has a positive effect on innovation/innovative work behavior (Hussein et al., 2016; Ugurluoglu et al., 2013; Nadeem et al., 2018). Learning is a fairly strong predictor of innovative work behavior (Molodchik et al., 2016). Hence, we can hypothesize that.

H1. Learning organization has a positive effect on innovative work behavior.

2.2 Employee Engagement and Innovative Work Behavior

Employees who are engaged with their work will work with pleasure, which increases the emotional connection with their work, with their colleagues, and with their organization. They will actively engage in their role to perform well by presenting their self both physically, cognitively, and emotionally during work (Kahn, 1990). Employee engagement will ultimately provide tangible performance outcomes, namely increased productivity; and intangible assets including brand equity, customer satisfaction and loyalty, innovation, and lower risk. In the end, the visible work results and invisible assets are intended to provide added value for shareholders (Macey et al., 2009). Employee engagement forms individual outcomes (attitudes, job satisfaction, commitment, and retention) which will result in performance in the form of in-role and extra-role behavior, forming team performance, team innovation, organizational performance, financial returns and others. Overall they form the competitive advantage of the organization (Albrecht et al., 2015).

A conducive working atmosphere created by the organization will make employees work with a sense of pleasure and their self fully involved in the work in the innovation process; employees will utilize their potential and that of the organization to provide the best results (Nadeem et al., 2018). Job design directs the occurrence of innovative work behavior and engagement plays an important role as a buffer from the pressure experienced by employees in shaping innovative behavior (De Spiegelaere et al., 2015).

Empirical results prove that work engagement has a positive effect on innovative work behavior (Hosseini & Shirazi, 2021 and Park et al., 2014). A number of other studies have also proven the positive influence of employee engagement on innovative work behavior (De Spiegelaere et al., 2012, 2015; Nadeem et al., 2018; Contreras et al., 2020; Karkoulian et al., 2020). Hence, we can hypothesize that

H2. Employee engagement has a positive effect on innovative work behavior.

2.3 Learning Organization and Employee Engagement

A learning organization is a place where people continuously develop their capacity to create the results they really want, new and widespread thinking patterns are fostered, everyone is free to have aspirations, and people learn to learn together continuously. Learning organization is characterized by full employee involvement in the learning process, which is carried out collaboratively and directed towards collective change. The core principle of a learning organization is to place people as a whole in the organization to continuously learn, transform, and change. In this case, a learning organization creates an atmosphere for the formation of an engaging situation, where individual employees are willing to spend their energy and time to think and work outside of their routine to be able to perform well.

Organizations need to consider that the components of a learning organization can be aligned with the formation of employee engagement, which is aimed at supporting the formation of innovative work behavior (Park et al., 2014). Employee engagement is a situation that is created because employees and their organization are attached to each other by a learning process within their organization to make continuous improvements and take action to develop themselves. So, the success of a company as a learning organization will contribute to the formation of employee engagement (Bedarkar & Pandita, 2014).

Empirical results have proven the positive influence of learning organization on engagement (Song et al., 2018, Hosseini & Shirazi, 2021, Nadeem et al. 2018; and Park et al., 2014). Hence, we can hypothesize that .

H3. Learning organization has a positive effect on employee engagement.

2.4 Employee Engagement as a Mediator between Learning Organization and Innovative Work Behavior

The role of employee engagement as a mediator between learning organization and innovative work behavior is explained as follows: first, the effect of learning organization on innovative work behavior has been investigated by Park et al. (2014); Song et al. (2018); Hussein et al. (2016); Ugurluoglu et al. (2013); Nadeem et al.(2018); and Molodchik (2016); second, the effect of employee engagement on innovative work behavior has been proven by Albrecht (2015); Nadeem et al. (2018); De Spiegelaere et al. (2015); De Spiegelaere et al. (2012) Hosseini & Shirazi (2021); Park et al. (2014); Lin & Lee (2017); and Contreras et al. (2020); third, the research of Song et al. (2018) and Hosseini and Shirazi (2021) have proven that there is a direct positive effect of learning organization on work engagement; lastly, employee/work engagement has been proven to play a role as a mediator between learning organization and innovative work behavior (Nadeem et al., 2018; Park et al., 2014; Hosseini & Shirazi, 2021).

Considering the three patterns of relationship above, it can be presumed that the effect of learning organization on innovative work behavior can work through the formation of employee engagement. In this case, it can be explained that the core principle of a learning organization is to place people as a whole in the organization to continuously learn, transform, and change. In this case, a learning organization creates an atmosphere for the formation of an engaging situation, where individual employees are willing to spend their energy and time to think and work to be able to perform well more than merely fulfilling their routine. Furthermore, employee engagement will lead to special work behavior in the form of trying to meet or exceed certain performance standards, seeking the best work results through themselves, producing something new for the organization, either in the form of ideas, processes (procedures/methods), and new products. Hence, we can hypothesize that.

H4. The positive influence of learning organization. on innovative work behavior is mediated by employee engagement

3 METHODOLOGY

Sample and data collection

To achieve the research objectives, sample and data were collected from 254 respondents that work in automotive manufacturing companies in Indonesia who utilize their knowledge as an asset at work.

Data were analyzed using a structural equation model (SEM) as presented in Figure 1.

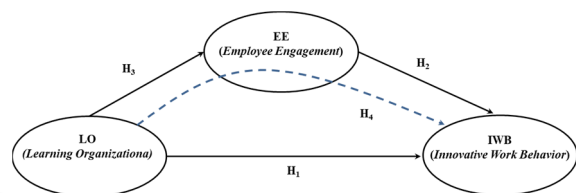


Figure 1: Proposed Research Model.

3.1 Measurement

Innovative work behavior is measured through four dimensions/indicators such as “Generating new ideas” which are formed based on Scott & Bruce (1994), Janssen (2000), De Spiegelaere et al. (2012), Prieto & Perez-Santana (2014), and M. Li et al. (2017). Each response was recorded using a five-point Likert scale with a range of 1 = never to 5 = always.

Measuring the learning organization, we compiled six dimensions/indicators such as “Providing learning opportunities” which was formed based on Senge (1990), Watkins & Marsick (1997), and Moilanen (2005). A five-point Likert scale with a range (1 = never to 5 = always) was used to record respondents' answers.

Responses to employee engagement were recorded using a five-point Likert scale (1 = never to 5 = always). Measurement was done through three dimensions/indicators, such as “Putting one's mind completely on work and organization” compiled by Shuck et al. (2014, 2017) and Macey et al. (2009).

Validity and reliability. To ensure validity, we calculate the loading factor using confirmatory factor analysis (CFA), all indicators indicate validity, for example: loading factor “Realizing new ideas” (0.958); loading factor “Utilizing the learning system” (0.821); loading factor “Put thought completely on work and organization” (0.962). We

then calculated reliability using composite reliability (CR) as can be seen in Table 1.

Fit models. To determine the validity of the proposed model, we calculated the statistical model fit using a confirmatory factor analysis model based on structural equation modeling. For the fit model, the measurement results of the full model shows Chi-square 174.743 with $p\text{-value } 0.052 > 0.05$; Root Mean Square Error of Approximation (RMSEA) $0.028 < 0.08$; Goodness of Fit Index (GFI) $0.934 > 0.90$; and Tucker Lewis Index (TLI) $0.992 > 0.090$. Based on the criteria, the model shows a good fit (Hair Jr. et al., 2019).

4 RESULT

4.1 Descriptive Statistics

The mean, standard deviation, and correlation coefficients have been calculated for the variables in this study and are presented in Table 1. The correlation coefficient shows that there is a positive and significant relationship between the variables of learning organization, employee engagement, and innovative work behavior.

Table 1: Descriptive Statistics.

Variables	mean	Standard Deviation	Correlation	
			IWB	LO
Innovative work behavior (IWB)	3,654	0.699		
Learning Organization (LO)	3,647	0.680	0.455*	
Employee engagement (EE)	3,642	0.679	0.765*	0.481*

Source: Primary data and author's calculations; *significance level < 0.05

The results of hypothesis testing (Table 2) show that learning organization has a direct effect on innovative work behavior ($p \text{ IWB, LO} = 0.112$; $cr = 2.190$; $p\text{-value} = 0.029$) with innovative work behavior (H1); employee engagement ($p \text{ IWB, EE} = 0.635$; $cr = 9.967$; $p\text{-value} = 0.000$) is found to have a positive effect on innovative work behavior (H2); There is a direct positive and significant effect between learning organization ($p \text{ EE, LO} = 0.355$; $cr = 6.007$; $p\text{-value} = 0.000$) and employee engagement (H3).

Next, we examine the mediation of employee engagement on the relationship between learning organization and innovative work behavior by first ensuring that the requirements as recommended by Hair Jr. et al. (2019) are met. First, the individual relationship is statistically significant, namely (a) the relationship between exogenous and endogenous variables is significant; (b) the relationship between exogenous variables and mediators is significant; (c) the relationship between mediators and endogenous variables is significant; and second, (a) estimate the initial model which is only a direct relationship between exogenous and endogenous variables and (b) estimate the second model that includes mediating variables; determine whether they mediate partially, fully, or do not mediate the relationship between exogenous and endogenous variables. Through the bootstrapping method using AMOS, the indirect correlation coefficient between learning organization and innovative work behavior through employee engagement is obtained as 0.226 with $p\text{-value} = 0.009$ (H4).

Overall, the results of the study show a significant positive direct relationship between learning organization and employee engagement with innovative work behavior; there is a direct positive effect between learning organization and employee engagement; employee engagement partially mediates the relationship between learning organization and innovative work behavior.

Table 2: Hypothesis test results.

Variables	Hypotheses	Direct effects (Standardized)	SE	CR
Endogenous variable IWB				
Learning Organization (LO) (LO IWB)	H1	0.112*	0.056	2.190
Employee engagement (EE) (EE IWB)	H2	0.635***	0.053	9.967
Endogenous variable EE				
Learning Organization (LO) (LO EE)	H3	0.355***	0.077	6.007
Indirect effects (Standardized)				
EE as mediator (LO EE IWB)	H4	0.226**		

5 DISCUSSION

Innovation is the most important factor for organizations to maintain the companies' existence in the long term (Wagner & Hollenbeck, 2010). Organizations that are able to continuously improve their learning capacity, carry out transformations, involve all work units in the learning process, and are able to manage knowledge created by internal organizations can accelerate the realization of employees' innovative work behaviors. Employees

who are engaged with their work and organization, armed with knowledge based on a desire beyond what is formally required to, will voluntarily provide useful outcomes in the form of ideas, processes (procedures/methods) and new products to their work posts, work units, and organizations.

To confirm, research on the effect of learning organization and employee engagement on innovative work behavior needs to be explored and discussed. Likewise, the mediating effect of employee engagement on innovative work behavior needs to be investigated. To achieve the research objectives, data were collected from a number of respondents who work in automotive manufacturing companies in Indonesia. Four hypotheses were conceptualized based on the literature review, the first aimed at examining the direct effect of learning organization on innovative work behavior, the second the effect of employee engagement on innovative work behavior, the third the effect of learning organization on employee engagement, and lastly the indirect effect of learning organization on innovative work behavior with employee engagement as a mediator. The study found that the four hypotheses were proven and accepted.

We found that learning organization has a direct positive effect on innovative work behavior which strengthens the results of previous research by Park et al. (2014); Song et al. (2018); Hussein et al., (2016); Ugurluoglu et al., (2013); Nadeem et al.,(2018); and Molodchick et al. (2016). The application of learning organization in the PDCA learning cycle in the company, found (1) Plan: translate strategy into operational terms; (2) Do: motivate and engage people for doing operational plans; (3) Check: test products for compliance with specifications and precision (test validity); (4) Action: learn things that are the source of problems and corrective actions that have been taken, as well as adoption, use unexpected situations to further strengthen the next preventive or corrective actions against methods or ways of working previously done (learn the lesson, adopt and perpetuate or correct methods). Innovative work behavior is formed when the work team tries to produce a product that passes the test based on the fulfillment of specifications and precision (check) and the work team is faced with the source of the problem and corrective action that needs to be taken against the method or way of working that was previously done (action).

The positive direct effect of employee engagement on innovative work behavior is in line with the findings of Hosseini & Shirazi (2021); Park et al., (2014); De Spiegelaere et al., (2012, 2015);

Nadeem et al., (2018); Contreras et al., (2020); and Karkoulou et al., (2020). De Spiegelaere et al. (2015) stated that job design that directs innovative work behavior generally creates pressure in the form of autonomy and time pressure, at that point engagement plays an important role as a buffer or antidote to the pressure experienced by employees in shaping innovative work behavior. There are three things that become the sources of the formation of employee engagement, namely self-awareness to strive for the results of individual work and/or team work need to be better than the previous results; the results of individual/team work will determine the company's performance and their career sustainability; and the willingness to rise to the occasion when needed to achieve work goals and deadlines. Those sources then make employees generate new ideas and actualize more effective work practices independently, based on the ideas that have been realized. In the field, employee engagement is one of the principles for companies in implementing ISO 9001:2015 Certification: Quality Management System. The implementation of quality management directs each employee to generate new ideas to meet customer expectations for the products and/or services provided by the company.

The positive direct effect of learning organization on employee engagement is proven and in line with studies by Park et al., (2014); (2014); Song et al., (2018); Hosseini & Shirazi (2021); and Nadeem et al. (2018). Employee engagement is a situation that is created, when employees and their organization are bonded to each other by a learning process within their organization to make continuous improvement and act to develop themselves. Thus in this case the success of a company as a learning organization will contribute to the formation of employee engagement (Bedarkar & Pandita, 2014). Observations in the field shows that the PDCA learning cycle applied in the company is a form of learning organization in the company. One of the stages in PDCA mentions the importance of motivating employees and building employee engagement in implementing operational plans (motivate and engage people for doing operational plan).

Partially, employee engagement is proven to mediate the relationship between learning organization and innovative work behavior as found from the research of Nadeem et al. (2018); Park et al., (2014); and Hosseini & Shirazi (2021). The core principle of a learning organization is to place people as a whole in the organization to continually learn, transform, and change. Learning organization creates an atmosphere for the formation of an engaging

situation, where individual employees are willing to spend their energy and time to think and work to be able to perform well more than just fulfilling their routines. Furthermore, employee engagement will bring out special work behavior in the form of striving to meet or exceed certain performance standards, produce the best work results, and produce something new for the organization, either in the form of ideas, processes, or products. Employee engagement in the context of the implementation of quality management directs each employee to generate new ideas by maximizing the learning organization in meeting customer expectations for the products and/or services provided by the company.

5.1 Theoretical Implications

This research contributes to the growing literature on Human Resource Management and Organizational Behavior, especially related to learning organization, employee engagement, and innovative work behavior. The theoretical implications of the results of this study are fourfold. First, employee engagement has a strong influence in shaping innovative work behavior. Second, learning organization has an influence in shaping employee engagement. Third, employee engagement partially mediates the relationship between organizational learning and innovative work behavior. Finally, given the limited novelty references to the learning organization variable associated with innovative work behavior in the manufacturing sector, it is therefore important to conduct further research.

5.2 Practical Implications

This study underscores that in order to realize employee's innovative work behavior, a strong learning organization and employee engagement that is inherent in employees' self are needed. Innovative work behavior is well reflected by the indicator "Actualizing the results of ideas into practices/processes/products". Providing support for employees to actualize designs/concepts/products according to customer needs, effective work practices, creation of designs/concepts, application of ideas in work units/teams, and corporate strategy concepts to build competitiveness are crucial thing that can be done by management to realize innovative work behavior.

The indicator "Utilizing learning outcomes" is the best reflection for the learning organization variable. Leaders and HR managers can play a role in increasing the utilization of these learning outcomes

by continuously supporting employees who are challenged to face risks in realizing ideas, recognizing and appreciating employees who take initiative, and authorizing employees to manage the resources needed in their work so that they have an impact on effectiveness and efficiency.

The biggest contribution of the indicator "Attachment to the good feeling in the organization" on the employee engagement variable can be used as a reference for management to make employees more engaged with their work. Providing certainty to employees that there are equal opportunities in career paths and training & development and maintaining work effectiveness and efficiency that have an impact on company sustainability are essential things that management should maintain.

5.3 Limitations and Future Research

Some of the limitations of this research need to be discussed and can be used as the basis of future research. First, this research is limited to automotive manufacturing companies so that different results can occur if applied to other manufacturing sub-sectors, non-manufacturing sectors, trading & service companies, even in the government organizations and NGOs. Second, each organization has its own pace in becoming a learning organization, so it is necessary to further investigate how the learning organizations of domestic companies (PMDN) and PMA companies realize the innovative work behavior of their employees.

6 CONCLUSION

The existence and sustainability of a company is determined by its ability to create innovations that originate from the ideas of its employees. Therefore, company leaders need to create a conducive atmosphere for their employees to realize innovative work behavior so that they will be able to give birth to innovation.

It is confirmed in this study that learning organization and employee engagement have a direct positive effect on the innovative work behavior of employees of manufacturing companies in Indonesia. Learning organization also has a direct positive effect on employee engagement. Employee engagement partially mediates the relationship between learning organization and innovative work behavior.

Interestingly, employee engagement has a greater direct role than learning organization in increasing innovative work behavior, its role is even more

evident when mediating the relationship between learning organization and innovative work behavior. Management therefore needs to treat employee engagement as well as possible in building innovative work behavior in the workplace.

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