# **Knowledge-Processing Capabilities on Innovative Work Behavior: The Role Mediating of Employee Creativity**

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# **Abstract**

Employees are an important part of generating innovation. The challenge that then arises is how to apply innovation in their respective contexts. In improving the behavior of work innovation, the researcher formulates the existence of variables in the form of increasing knowledge. So, this study aims to determine the knowledge-processing capabilities of employees on innovative work behavior mediated by employee creativity. Quantitative techniques are used in this study. In this study, using 6 F&B manufacturing industries, more specifically the large coffee beverage factories in Indonesia, so that the sample in this study were 100 respondents who were employees of these companies. The analysis of this study is a Structural Equation Model (SEM) approach with smart PLS. The result of this research is that environmental dynamism affects innovative work behavior. Knowledge acquisition affects innovative work behavior. Knowledge dissemination affects innovative work behavior. Knowledge utilization affects innovative work behavior. Employee creativity affects innovative work behavior. Environmental dynamism does not affect employee creativity. Knowledge acquisition affects employee creativity. Knowledge dissemination does not affect employee creativity. Knowledge utilization affects employee creativity. The results of the mediation hypothesis state that employee creativity is able to strengthen the relationship between knowledge acquisition and innovative work behavior. Employee creativity is not able to mediate the relationship between innovative work behavior and environmental dynamism, knowledge acquisition, and knowledge dissemination variables. It can be concluded that F&B manufacturing companies need to increase knowledge between individuals and perform knowledge processing capabilities to improve employee innovation behavior.

# **Keywords**

Environmental dynamism, knowledge-processing capabilities, innovative work behavior, employee creativity

#### 1. Introduction

The form of work innovation in employees needs to be grown in the F&B manufacturing industry. The food and beverage industry is one of the mainstay manufacturing sectors in making a major contribution to national economic growth. According to the Ministry of Industry of Republic Indonesia, the achievement of F&B manufacturing performance is consistent and continues to be positive, starting from its role in increasing productivity, investment, exports to employment. Recently, the beverage industry has started to show improvement in the coffee sector in Indonesia. Indonesia also has various types of specialty coffee which are known in the world, including Luwak Coffee with a distinctive taste and aroma according to geographical indications which are the advantages of Indonesia (Ibnu et al.). Currently, Indonesia is a producer as well as an important consumer of coffee commodities. As a producer, Indonesia at fourth ranks after Brazil, Vietnam and Colombia, and as a consumer is in seventh place (Fitriani et al.). ICO (2015) shows the growth of coffee drinkers in Indonesia is growing rapidly, more than world growth, which is 8% for the growth of Indonesian coffee drinkers while the growth of world coffee drinkers only reaches 6%. The Association of Indonesian Coffee Exporters and Industry stated that the national coffee consumption growth increased from 0.8 kilograms per capita to 1.3 kilograms per capita. From the data above, entrepreneurs in Indonesia are starting to believe that building the F&B industry in the coffee sector will attract interest from all walks of life, especially teenagers. So that at this time more and more MSME are starting to focus on these drinks. This condition will cause

the growth of more competitors in following the market trend. If the company is not able to compete with competitors who have new innovations, they will be left behind.

Employees' innovative work behavior always receive considerable attention because it has been clearly demonstrated to contribute to organizational performance and survival. This is so important as the business environment becomes more dynamic and challenging, where the innovative work behavior of employees plays a role in aligning the vision and business model with the constant technological change and volatile operating environment. Thus, the innovative work behavior of employees, such as, developing, adopting and implementing new ideas for work products and methods has been considered as the main reason why some organizations survive the turbulence that comes from the competitive business environment (Tindika, et al. 2020). Niesen, et al. (2017) the way to make an organization more innovative is to not only rely on the training and development division for innovation but to further enhance the innovative capabilities of all employees. Employees who have innovative work behavior (IWB) can immediately recognize new work situations and provide ideas to improve product services (Afsar et al.).

Almeida & Coelho (2019) found that 80% of an idea was initiated by company employees and another 20% was the result of an innovation plan that the company had set. Therefore, employees are an important part of generating innovation. The challenge arises then is how to apply innovation in their respective contexts. Employee behavior that contributes to the generation and implementation of new ideas is desirable because it leads to organizational-level innovation, which is necessary for organizational effectiveness, competitive advantage, and long-term survival, individual factors, such as employee creativity, may also be influential in stimulating IWB. Creativity is defined as the generation of ideas or problem solving that new, useful, appropriate, and appropriate for the goals. Although an important component of innovative behavior is creativity, that is the generation of new and useful ideas, it requires more than just creative behavior. Specifically, IWB involves finding problems and/or solutions, generating new ideas, championing and implementing ideas (Saether). Leaders must appreciate creative and innovative work and provide innovation support to positively effect employee creativity and innovation. In addition, transformational leaders encourage employees to put forward new ideas and use innovative problem solving techniques to stimulate employee creativity for the achievement of organizational innovation (Shafi, et al., 2020).

In innovative work behavior, somebody must pay attention to knowledge-processing capabilities. In knowledge capabilities, has knowledge acquisition, knowledge dissemination, knowledge utilization. These three variables aim to increase individual knowledge. Innovative work behavior is defined as "configuration of a series of activities consisting of knowledge acquisition, idea generation, and solution implementation". Knowledge dissemination in the company can be generated from the personal experience of each employee (Caputo, et al. 2021). From the perspective of dynamic capabilities, (Papa, et al. 2020) claims that companies can combine internal and external knowledge to overcome with a dynamic environment and to take advantage of technological and commercial opportunities. In a dynamic external environment, an organizations operations and performance may be affected due to shifting customer preferences, technological advances, and fluctuations in demand and supply (Murcio and Scalzo). The literature suggests that innovation may be riskier in organizations that facing a changing environment. Therefore, understanding the relationship between environmental dynamism and employee innovative work behavior is important for employee job performance.

With this research, it is hoped that the company will be able to increase innovation, not only at the company level but also between employees. In improving the behavior of work innovation, the researcher formulates the existence of variables in the form of increasing knowledge. So this study aims to determine the knowledge-processing capabilities of employees on innovative work behavior mediated by employee creativity.

#### 2. Literature Review

# 2.1 Environmental Dynamism

Environmental dynamism (ED) refers to "the instability or volatility of a company environment" (Seo, et al. 2020) and has been recognized as one of the key situational elements in dynamic capability theory. ED is defined as a change in the competitive environment that has an impact on the character of competitors and the way they react to client demands and the situation in the branch of business. The dynamic environment is related to the high uncertainty of clients and competitors as well as high indicators of changing market trends and innovations in the business branch. In a dynamic environment, where demand is still changing, opportunities are getting bigger, and the best results should be owned by new change-oriented companies, because they have a good match between strategic orientation and environment (Petrus). Indicator of Environmental dynamism is adopted by (Tindika, et al. 2020).

# 2.2 Knowledge Acquisition

Knowledge is a process of translating information (such as data) and past experiences into a single meaningful relationship so that it can be understood and applied by an individual (Altmeyer et al.). Knowledge acquisition is an organizational process to obtain the knowledge needed by the organization. When an organization realizes the limited knowledge they have, then it needs to get knowledge either from within the organization or from outside the organization to fill the knowledge gap in the organization. Organizations can also work with other organizations to assist them in developing their knowledge acquisition skills. The process that describes relationships with outside parties, such as customers, suppliers, competitors and other business partners who work together to provide potential knowledge. Companies can also buy Knowledge that they cannot build on their own by recruiting experts or acquiring them from the company. Dimension and indicator of knowledge acquisition is adopted by (Forero, et al. 2014).

## 2.3 Knowledge Dissemination

Knowledge that has been stored properly and has been verified as a whole can begin to be socialized or disseminate knowledge within the organization. Knowledge must be available in a format that is useful for all people or members of the organization who need this knowledge, wherever and whenever it is available (Breu). Indicator of knowledge dissemination in this research is adopted by (Serrat).

# 2.4 Knowledge Utilization

At this stage, knowledge must be ensured to be stored as well as possible to support activities or business processes that take place within the organization. The successful identification and distribution stage cannot guarantee the use of the resulting productivity in its business operations. There are challenges that can hinder the use of external knowledge. Therefore steps must be taken to ensure that valuable capabilities and knowledge assets such as patents or licenses can be fully utilized (Ahmed, et al. 2019). Indicator of knowledge utilization in this research is adopted by (Hoffmann, et al. 2019).

# 2.5 Employee Creativity

Employee creativity can find hidden customer needs and handle problems creatively and effectively, which in turn creates superior performance. Creativity involves the ability and capacity of employees to create and develop new and useful thoughts about the company's products, services, practices and procedures (Suifan, et al. 2018). Creativity produces useful new ideas, employees will be able to work more effectively and creatively when they have a positive mood. This condition can increase productivity and efficiency (Akgunduz et al.). Creativity is also related to job satisfaction. More creative workers tend to be more satisfied with their jobs. Indicator of Employee creativity in this research is adopted by (Suifan, et al. 2018).

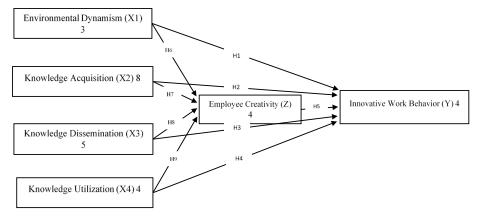
# 2.6 Innovative Work Behavior

Innovative work behavior is defined as all employee behavior that is directed at the creation, introduction or application of related roles, groups or organizations, which include ideas, processes, products or procedures, new to the relevant adoption unit. This definition limits innovative behavior to a deliberate effort to provide new results that benefit the organization. Innovative work behavior is the intention of employees to create, introduce and implement new ideas that they have in the group or organization where they work, which is intended to optimize the performance of the group or organization (Shanker, et al. 2017). Innovative work behavior is also defined as a complex behavior consisting of three different tasks, that are: idea formation, idea promotion and idea realization. Innovative work behavior begins with the creation of ideas, or the production of new ideas or solutions, which can be original or adapted

from existing products or processes (Akram, et al. 2020). (Bos-Nehles, et al. 2017) describes IWB as "All individual actions directed at the generation, processing and application/implementation of new ideas about how to do things, including new products, ideas, technologies, procedures or work processes with the aim of increasing their effectiveness and success". Indicator of Innovative work behavior in this research is adopted by (Woods, et al. 2018); (Tindika, et al. 2020).

# 2.7 Learning Framework (Figure 1)

- H1: There is an effect between Environmental Dynamism and Innovative Work Behavior
- H2: There is an effect between Knowledge Acquisition and Innovative Work Behavior
- H3: There is an effect between Knowledge Dissemination and Innovative Work Behavior
- H4: There is an effect between Knowledge Utilization and Innovative Work Behavior
- H5: There is an effect between Employee Creativity and Innovative Work Behavior
- H6: There is an effect between Environmental Dynamism and Employee Creativity
- H7: There is an effect between Knowledge Acquisition and Employee Creativity
- H8: There is an effect between Knowledge Dissemination and Employee Creativity
- H9: There is an effect between Knowledge Utilization and Employee Creativity
- H10: There is an effect between Environmental Dynamism and Innovative Work Behavior mediated by Employee Creativity
- H11: There is an effect between Knowledge Acquisition and Innovative Work Behavior mediated by Employee Creativity
- H12: There is an effect between Knowledge Dissemination and Innovative Work Behavior mediated by Employee Creativity
- H13: There is an effect between Knowledge Utilization and Innovative Work Behavior mediated by Employee Creativity



Figures 1. Learning Framework

# 3. Methods

Quantitative techniques are used in this study. The aim of quantitative studies is to test known hypotheses. This method uses the numbers generated from measurements made with a questionnaire on the study variables. In this study, using 6 F&B manufacturing industries, more specifically the large coffee beverage factories in Indonesia, so that the sample in this study were 100 respondents who were employees of these companies. The analysis of this study is a Structural Equation Model (SEM) approach with the help of smart PLS (Ghozali). SEM is a multivariate analysis technique that is useful for analyzing the pattern of relationships between variables and their indicators, between variables, as well as direct measurement errors for a comprehensive picture of a model.

#### **Outer Model Analysis**

Validity and reliability tests are carried out to ensure that the measurements used are accurate and reliable (valid and reliable). Testing the validity and reliability can be seen at the following: 1) convergent validity, 2) discriminant validity, 3) composite reliability, and 4) cronbach's Alpha. Then, the dependent construct (R-square) is used to analyze the effect of the specific independent variable on the dependent latent variable, which shows the magnitude of the effect.

# **Inner Model Analysis**

Deep model analysis, also known as structural modeling, is a technique for predicting causal relationships between model variables. Hypotheses are tested during deep model analysis in Smart PLS testing. The value of t-statistics and probability values can be shown in evaluating the hypothesis. The results of the t-statistics used to test the hypothesis by using the statistical value is 1.96 for alpha 5 percent, while the beta score is used to determine the direction of the influence of the relationship between variables. The criteria for acceptance/rejection of the hypothesis are:

H0 = t-statistic < 1.96 with a score of p-values > 0.05

Ha= t-statistic > 1.96 with p-values < 0.05.

# 4. Results and Analysis

# 4.1 Outer Model Analysis

# Validity Test

Validity test is used to measure the valid or invalid of a questionnaire. In this research, validity test is carried out using convergent validity and AVE. The instrument is declared valid if the AVE value is > 0.05 and the outer loading value is (> 0.6). Based on validity test (Table 1) below, the indicator shown in questionnaires can be concluded as valid.

Table 1. Validity Test (Outer Loading)

Variable	Indicator	AVE	Outer Loading	Valid
Environmental Dynamism (X1)	X1.1		0.830	Valid
	X1.2	0.622	0.707	Valid
	X1.3		0.824	Valid
	X2.1		0.738	Valid
	X2.2		0.726	Valid
Knowledge Acquisition (X2)	X2.3		0.748	Valid
	X2.4	0.527	0.695	Valid
	X2.5	0.527	0.714	Valid
	X2.6		0.742	Valid
	X2.7		0.631	Valid
	X2.8		0.801	Valid
	X3.1		0.832	Valid
	X3.2	0.621	0.843	Valid
<b>Knowledge Dissemination (X3)</b>	X3.3		0.790	Valid
	X3.4		0.679	Valid
	X3.5		0.786	Valid
	X4.1	0.640	0.830	Valid
Knowledge Utilization (X4)	X4.2		0.771	Valid
	X4.3		0.774	Valid
	X4.4		0.824	Valid
Innovative Work Behavior (Y)	Y1.1	0.671	0.884	Valid
	Y1.2		0.875	Valid
	Y1.3		0.824	Valid
	Y1.4		0.676	Valid
Employee Creativity (Z)	Z.1	0.595	0.713	Valid
	<b>Z.2</b>		0.718	Valid
	<b>Z.3</b>		0.833	Valid

<b>Z.4</b>	0.813	Valid

Based on the test results, the AVE value for each of variable used is >0.05, and the outer loading value of each indicator is >0.6, thus the indicator can be concluded as valid.

#### **Reliability Test**

Researchers used 2 types of reliability tests, that are the Cronbach Alpha test and the Composite Reliability test. Cronbach Alpha measures the lowerbound reliability. (Table 2) The data is declared good if the data has a Cronbach alpha value> 0.7. Meanwhile, composite reliability measures the actual reliability value of a variable. Data is declared to have high reliability if it has a composite reliability score >0.7.

Table 2. Reliability Result (Cronbach's Alpha and Composite Reliability)

	Cronbach's Alpha	Composite Reliability
Employee Creativity (Z)	0.771	0.854
Environmental Dynamism (X1)	0.701	0.831
Innovative Work Behavior (Y)	0.832	0.890
Knowledge Acquisition (X2)	0.871	0.899
Knowledge Dissemination (X3)	0.846	0.891
Knowledge Utilization (X4)	0.812	0.877

Based on the test results, the Cronbach's Alpha and Composite reliability score are having value >0.7 for each of variable used in this research, thus it can be concluded as reliable

# **R-Square Test**

R-Square Coefficient determination (R-Square) test is used in the measurement to measure how much the endogenous variables are influenced by other variables. Based on the data analysis carried out using the smartPLS program, the R-Square value is obtained as shown in the Table 3 below:

Table 3. R-Square Result (Coefficient Determination)

	R Square	R Square Adjusted
Employee Creativity (Z)	0.806	0.798
Innovative Work Behavior (Y)	0.878	0.871

Based on the test results, the r-square score for psychological engagement is 0.859, which means that psychological engagement is affected by ICT competence, psychosocial processes, and student performance by 85.9% and the rest is affected by variables that have not been explained in this study. Then the r-square score for student performance is 0.713, which means that student performance is affected by ICT competence, psychosocial processes, and psychological engagement.

#### **Hyphothesis Test**

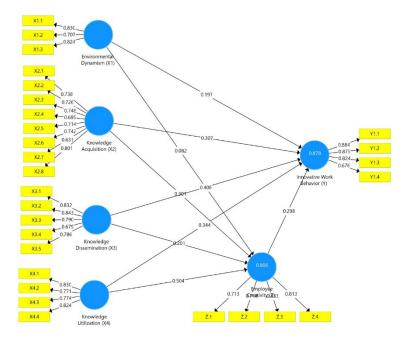
Hypothesis testing between constructs was carried out using the bootstrap method which was run using SmartPLS 3.2.9 on computer media. (Table 4) The measuring instrument used in testing the hypothesis is by using the path coefficient value, the comparison of t-statistics, and the Pvalue. The result is shown in Figure 2 below:

Table 4. Hypotheses Result

Original Sample (O)	T Statistics ( O/STDEV )	P Values

Direct Effect				
Employee Creativity (Z) -> Innovative Work Behavior (Y)	0.298	3.901	0.000	
Environmental Dynamism (X1) -> Employee Creativity (Z)	0.082	0.622	0.534	
Environmental Dynamism (X1) -> Innovative Work Behavior (Y)	0.197	2.494	0.013	
Knowledge Acquisition (X2) -> Employee Creativity (Z)	0.301	2.188	0.029	
Knowledge Acquisition (X2) -> Innovative Work Behavior (Y)	0.307	3.079	0.002	
Knowledge Dissemination (X3) -> Employee Creativity (Z)	0.201	1.272	0.204	
Knowledge Dissemination (X3) -> Innovative Work Behavior (Y)	0.408	2.711	0.007	
Knowledge Utilization (X4) -> Employee Creativity (Z)	0.504	3.528	0.000	
Knowledge Utilization (X4) -> Innovative Work Behavior (Y)	0.344	3.578	0.000	
Indirect Effect				
Environmental Dynamism (X1) -> Employee Creativity (Z) -> Innovative Work Behavior (Y)	0.024	0.587	0.558	
Knowledge Acquisition (X2) -> Employee Creativity (Z) -> Innovative Work Behavior (Y)	0.090	1.842	0.066	
Knowledge Dissemination (X3) -> Employee Creativity (Z) -> Innovative Work Behavior (Y)	0.060	1.137	0.256	
Knowledge Utilization (X4) -> Employee Creativity (Z) -> Innovative Work Behavior (Y)	0.150	2.581	0.010	

Based on hypotheses results above shown in tables, using the standard of p value <0.05 and t-statistic >1.96 can be seen that some of the hypotheses are not match the criteria, the results in Figure 2 are shown as below.



Figures 2. Analysis Result of variables

As shown in Tables and Figures above regarding the results of hypotheses results, the researcher will explain at discussion below regarding what the research has found.

# 5. Discussion

# 5.1 Environmental Dynamism affected Innovative Work Behavior

The results of testing the environmental dynamism hypothesis on innovative work behavior get a score (p = 0.197) with p values of 0.013 (p<0.05) and a t statistic of 2,494 (p>1.96) indicating that there is a significant positive relationship between environmental dynamism variables and innovative work behavior. The higher the environmental dynamism, so the higher the innovative work behavior. Fatoki (2021) mentions maintaining a competitive advantage, it is important for companies to invest in innovative behavior of managers and employees through training. Management must foster an environment that supports the generation of new ideas by employees and the coordination of those ideas to improve products and services. A good environment in the company can increase innovation behavior at work for employees (Woods, et al. 2018).

# 5.2 Knowledge Acquisition affected Innovative Work Behavior

The results of testing the knowledge acquisition hypothesis on innovative work behavior get a score (p = 0.307) with p values of 0.002 (p < 0.05) and t statistics of 3.079 (p > 1.96) indicating that there is a significant positive relationship between the variable knowledge acquisition and innovative work behavior. The higher the knowledge acquisition, so the higher the innovative work behavior. The results of research by Thneibat (2021) show that performance-based rewards have a positive effect on knowledge acquisition. In addition, knowledge acquisition mediates the relationship between performance-based rewards and IWB. In line with research (Zaman and Abbasi), that reflective learning and knowledge acquisition (organizational learning dimensions) are positively related to IWB.

# 5.3 Knowledge Dissemination affected Innovative Work Behavior

The results of testing the knowledge dissemination hypothesis on innovative work behavior get a score (p = 0.408) with p values of 0.007 (p<0.05) and t statistics of 2.711 (p>1.96) indicating that there is a relationship between the variable knowledge dissemination and innovative work behavior. The better the knowledge dissemination, so the better the innovative work behavior will be. Wang, et al. (2020) explained in their research on the batik company industry, that knowledge dissemination has been applied and has a relationship with innovation behavior, this condition is not in line with the results of this study. Manufacturing companies engaged in F&B in this study indicate that the dissemination of employee knowledge affects work innovation behavior. In line with the research of (Winarno, et al. 2021) explained that to accelerate the dissemination of knowledge, organizations can optimize employees in sharing experiences and knowledge of others.

#### 5.4 Knowledge Utilization affected Innovative Work Behavior

The results of testing the knowledge utilization hypothesis on innovative work behavior get a score (p = 0.334) with p values of 0.000 (p < 0.05) and a t statistic of 3,578 (p > 1.96) indicating that there is a significant positive relationship between knowledge utilization variable and innovative work behavior. The higher the knowledge utilization, so the higher the innovative work behavior. Knowledge utilization positively moderates the relationship between individual knowledge sharing behavior and work unit innovation (introduction and application of new work procedures in work units) (Ouakouak, et al. 2021).

# 5.5 Employee Creativity affected Innovative Work Behavior

The results of testing the hypothesis of employee creativity on innovative work behavior get a score (p = 0.298) with p values of 0.000 (p<0.05) and t statistics of 3,901 (p>1.96) showing that there is a significant positive relationship between employee creativity variable and innovative work behavior. The higher the employee creativity, so the higher the innovative work behavior. These results are in line with research by Mote & Karadas (2022) which states that employee creativity is related to performance innovation. Innovative work behavior in employees directly leads to an increase in organizational performance and workplace spirituality leads to an increase in employee innovation and creativity (Ranasinghe and Samarasinghe).

#### 5.6 Environmental Dynamism not affected Employee Creativity

The results of testing the environmental dynamism hypothesis on employee creativity get a score (p = 0.082) with p values of 0.534 (p <0.05) and t statistics of 0.622 (p> 1.96) indicating that there is no relationship between environmental dynamism variables and employee creativity. This condition is not in line with the research of (Sijbom, et al. 2018) which states that employee creativity is shaped by perceptions of the work environment.

# 5.7 Knowledge Acquisition affected Employee Creativity

The results of testing the knowledge acquisition hypothesis on employee creativity got a score (p=0.301) with p values of 0.029 (p<0.05) and t-statistics of 2.188 (p>1.96) showed that there was a significant positive relationship between knowledge acquisition variable and employee creativity. The higher the knowledge acquisition, so the higher the employee creativity. (Imran, et al. 2018) in companies that apply a culture of sharing and developing knowledge will increase the creativity of each employee. The reflection of knowledge culture can be observed in employee cognition, group behavior and company image. Employees make a significant contribution to the growth of the organization and its performance. The acquisition of high talent and retaining it is the main challenge for most organizations to grow competitive in the industry (Rajagopal).

# 5.8 Knowledge Dissemination not affected Employee Creativity

The results of testing the knowledge dissemination hypothesis on employee creativity got a score (p=0.201) with p-values of 0.204 (p<0.05) and t-statistics of 1.272 (p>1.96) showed that there was no relationship between knowledge dissemination variable and employee creativity. (Zhou et al.) stated that the knowledge gained from the use of social media can increase employee creativity. Highly knowledgeable employees improve the workplace environment and motivate a workforce with competitive knowledge and higher organizational efficiency. Companies need to encourage employees to increase their knowledge and creativity to increase emotional stability in the organization (Rajagopal).

# **5.9 Knowledge Utilization affected Employee Creativity**

The results of testing the knowledge utilization hypothesis on employee creativity get a score (p = 0.504) with p values of 0.000 (p < 0.05) and t statistics of 3.528 (p > 1.96) indicating that there is a significant positive relationship between knowledge utilization variable and employee creativity. The higher the knowledge utilization, the higher the employee creativity. Employee creativity is important to support development in order to stay in touch with the latest trends from a market (Merkus et al.); (Richter et al.). Perception affects the employee's background as well as cognitive abilities and limitations, which in turn affect the creative ability of employees (Al-Husseini et al.)

# 5.10 Employee Creativity unable to mediate Environmental Dynamism and Innovative Work Behavior

The results of hypothesis testing of the employee creativity variable mediating the relationship between environmental dynamism and innovative work behavior get a value (p = 0.024) with p values of 0.558 (p<0.05) with a t statistic of 0.587 (p>1.96) showing the relationship between environmental dynamism variables and innovative work behavior cannot be strengthened by employee creativity. The IWB is essential for innovation and one of the most studied constructions. IWB is the intentional behavior of an individual to introduce and/or apply new ideas, products, processes, and procedures to his or her role, unit, or work organization (Haider Et al., 2017). The relationship between creativity and innovation, which relationship can also be moderated by environmental dynamism. As mentioned earlier, the existing evidence suggests that positive influences enhance creativity and creativity, in turn, play a key role of innovation (Baron and Tang).

# 5.11 Employee Creativity unable to mediate Knowledge Acquisition and Innovative Work Behavior

The results of hypothesis testing of the employee creativity variable mediating the relationship between knowledge acquisition and innovative work behavior get a value (p = 0.090) with p values of 0.066 (p<0.05) with a t statistic of 1.842 (p>1.96) showing the relationship between knowledge acquisition variable and innovative work behavior unable to be strengthened by employee creativity. Creativity exists when organizations distribute strength, information, knowledge, and rewards among members. The integration of knowledge among working groups and units, and the flow of knowledge between groups leads to creativity. Therefore, we can say that creativity is simply not feasible in an organization without knowledge. In other words, innovation and creativity are not created in a vacuum, they require certain conditions and backgrounds. Knowledge is the means by which people show actions or acquire new knowledge. In addition, knowledge provides the knowledge and skills needed to solve a problem. When people share their knowledge with others, knowledge develops, and when one's knowledge is combined with others, new knowledge emerges through which the creativity of employees increases (Allameh et al.).

# 5.12 Employee Creativity unable to mediate Knowledge Dissemination and Innovative Work Behavior

The results of hypothesis testing the employee creativity variable mediating the relationship between knowledge dissemination and innovative work behavior get a value (p=0.060) with p-value 0.256 (p<0.05) with a t statistic of 1.137 (p>1.96) showing the relationship between knowledge dissemination variable and innovative work behavior unable to be strengthened by employee creativity. A low level of role conflict is associated with a reduced likelihood of employees to establish relationships and interactions with people in the organizational environment. As a result, employees may become less involved in the exchange of information and in knowledge dissemination activities, so it is less likely to acquire and use diverse information resources and, ultimately, combine them in creative ways (Montani, et al. 2020).

#### 5.13 Employee Creativity able to mediate Knowledge Utilization and Innovative Work Behavior

The results of hypothesis testing on the employee creativity variable mediating the relationship between knowledge utilization and innovative work behavior get a value (p = 150) with p values of 0.010 (p < 0.05) with a t statistic of 2.581 (p > 1.96) indicating that there is a relationship between knowledge utilization variable and innovative work behavior mediated by employee creativity. Groups with different backgrounds help each member of the group access different types of knowledge and resources that do not overlap, and as a result, this benefits creativity. Since the combination of different ideas and knowledge leads to creativity, researchers have emphasized that sharing different ideas and knowledge is important to encourage creative behavior (Kim)

#### 6. Conclusion

From the results of the study, it can be concluded that there is a significant positive relationship between the environmental dynamism variable and innovative work behavior. There is a significant positive relationship between the knowledge acquisition variable and innovative work behavior. There is a relationship between the knowledge dissemination variable and innovative work behavior. There is a significant positive relationship between the knowledge utilization variable and innovative work behavior. There is a significant positive relationship between employee creativity variable and innovative work behavior. There is no relationship between the environmental dynamism variable and employee creativity. There is a significant positive relationship between knowledge acquisition variable and employee creativity. There is no relationship between knowledge utilization variable and employee creativity. There is a significant positive relationship between knowledge utilization variable and employee creativity. The results of the mediation hypothesis state that employee creativity is able to strengthen the relationship between knowledge acquisition and innovative work behavior. Employee creativity is not able to mediate the relationship between innovative work behavior and environmental dynamism, knowledge acquisition, and knowledge dissemination variables. It can be concluded that F&B manufacturing companies need to increase knowledge between individuals and perform knowledge processing capabilities to improve employee innovation behavior.

#### References

- Afsar, Bilal, et al. "The Role of Job Crafting and Knowledge Sharing on the Effect of Transformational Leadership on Innovative Work Behavior." *Personnel Review*, vol. 48, no. 5, Emerald Group Holdings Ltd., July 2019, pp. 1186–208, doi:10.1108/PR-04-2018-0133/FULL/PDF.
- Ahmed, Yunis Ali, et al. "Social Media for Knowledge-Sharing: A Systematic Literature Review." *Telematics and Informatics*, 2019, doi:10.1016/j.tele.2018.01.015.
- Akgunduz, Yilmaz, et al. "Perceived Organizational Support, Employee Creativity and Proactive Personality: The Mediating Effect of Meaning of Work." *Journal of Hospitality and Tourism Management*, 2018, doi:10.1016/j.jhtm.2018.01.004.
- Akram, Tayyaba, et al. "The Impact of Organizational Justice on Employee Innovative Work Behavior: Mediating Role of Knowledge Sharing." *Journal of Innovation and Knowledge*, 2020, doi:10.1016/j.jik.2019.10.001.
- Al-Husseini, Sawasn, et al. "Transformational Leadership and Innovation: The Mediating Role of Knowledge Sharing amongst Higher Education Faculty." *International Journal of Leadership in Education*, 2021, doi:10.1080/13603124.2019.1588381.
- Allameh, Sayyed Mohsen, et al. "Consequences of Knowledge Processes in Small Businesses: The Role of Knowledge Acquisition, Dynamic Capabilities, Knowledge Sharing and Creativity." *International Journal of Process Management and Benchmarking*, 2020, doi:10.1504/IJPMB.2020.104231.
- Almeida, Maria da Graça Marques Casimiro, and Arnaldo Fernandes Matos Coelho. "The Antecedents of Corporate

- Reputation and Image and Their Impacts on Employee Commitment and Performance: The Moderating Role of CSR." *Corporate Reputation Review*, 2019, doi:10.1057/s41299-018-0053-8.
- Altmeyer, Kristin, et al. "The Use of Augmented Reality to Foster Conceptual Knowledge Acquisition in STEM Laboratory Courses—Theoretical Background and Empirical Results." *British Journal of Educational Technology*, 2020, doi:10.1111/bjet.12900.
- Baron, Robert A., and Jintong Tang. "The Role of Entrepreneurs in Firm-Level Innovation: Joint Effects of Positive Affect, Creativity, and Environmental Dynamism." *Journal of Business Venturing*, 2011, doi:10.1016/j.jbusvent.2009.06.002.
- Bos-Nehles, Anna, et al. "Innovative Work Behaviour in Knowledge-Intensive Public Sector Organizations: The Case of Supervisors in the Netherlands Fire Services." *International Journal of Human Resource Management*, 2017, doi:10.1080/09585192.2016.1244894.
- Breu, Anthony C. "From Tweetstorm to Tweetorials: Threaded Tweets as a Tool for Medical Education and Knowledge Dissemination." *Seminars in Nephrology*, 2020, doi:10.1016/j.semnephrol.2020.04.005.
- Caputo, Francesco, et al. "Knowledge Hiding in Socioeconomic Settings: Matching Organizational and Environmental Antecedents." *Journal of Business Research*, 2021, doi:10.1016/j.jbusres.2021.06.012.
- Et al., Mubarak Hussain Haider. "Internal Marketing and Employee's Innovative Work Behaviour: The Mediating Role of Job Embeddedness and Social Capital." *NICE Research Journal*, 2017, doi:10.51239/nrjss.v0i0.30.
- Fatoki, Olawale. "Innovative Behavior and Firm Competitive Advantage: The Moderating Effect of Environmental Dynamism." *Foundations of Management*, 2021, doi:10.2478/fman-2021-0012.
- Fitriani, Fitriani, et al. "Indonesian Coffee Exports and Its Relation to Global Market Integration." *Journal of Socioeconomics and Development*, 2021, doi:10.31328/jsed.v4i1.2115.
- Forero, Diana Magally, et al. "Systematic Review of Knowledge Acquisition and Representation Techniques." TECCIENCIA, 2014, doi:10.18180/tecciencia.2014.16.5.
- Ghozali, Imam. "Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25 (Sembilan)." *Semarang, Universitas Diponegoro*, 2018.
- Hoffmann, Sabine, et al. "Linking Transdisciplinary Research Projects with Science and Practice at Large: Introducing Insights from Knowledge Utilization." *Environmental Science and Policy*, 2019, doi:10.1016/j.envsci.2019.08.011.
- Ibnu, Muhammad, et al. "Toward a More Sustainable Coffee Production." *Pelita Perkebunan (a Coffee and Cocoa Research Journal)*, 2020, doi:10.22302/iccri.jur.pelitaperkebunan.v35i3.361.
- Imran, Muhammad Kashif, et al. "Knowledge Processes and Firm Performance: The Mediating Effect of Employee Creativity." *Journal of Organizational Change Management*, 2018, doi:10.1108/JOCM-10-2016-0202.
- Kim, Sang Soo. "Exploitation of Shared Knowledge and Creative Behavior: The Role of Social Context." *Journal of Knowledge Management*, 2020, doi:10.1108/JKM-10-2018-0611.
- Merkus, Suzanne L., et al. "Are There Patient-Related Factors That Influence Sickness Certification in Patients with Severe Subjective Health Complaints? A Cross-Sectional Exploratory Study from Different European Countries." *BMJ Open*, 2017, doi:10.1136/bmjopen-2016-015025.
- Montani, Francesco, et al. "Who Responds Creatively to Role Conflict? Evidence for a Curvilinear Relationship Mediated by Cognitive Adjustment at Work and Moderated by Mindfulness." *Journal of Business and Psychology*, 2020, doi:10.1007/s10869-019-09644-9.
- Mote, Ndingi Junior Itoe, and Georgiana Karadas. "The Impact of Automation and Knowledge Workers on Employees' Outcomes: Mediating Role of Knowledge Transfer." *Sustainability (Switzerland)*, 2022, doi:10.3390/su14031377.
- Murcio, Ricardo, and Germán Scalzo. "Person-Centered Leadership: The Practical Idea as a Dynamic Principle for Ethical Leadership." *Frontiers in Psychology*, 2021, doi:10.3389/fpsyg.2021.708849.
- Niesen, Wendy, et al. "Job Insecurity and Innovative Work Behaviour: A Psychological Contract Perspective." *Psychologica Belgica*, 2017, doi:10.5334/pb.381.
- Ouakouak, Mohammed Laid, et al. "Knowledge Sharing as a Give-and-Take Practice: The Role of the Knowledge Receiver in the Knowledge-Sharing Process." *Journal of Knowledge Management*, 2021, doi:10.1108/JKM-04-2020-0323
- Papa, Armando, et al. "Improving Innovation Performance through Knowledge Acquisition: The Moderating Role of Employee Retention and Human Resource Management Practices." *Journal of Knowledge Management*, 2020, doi:10.1108/JKM-09-2017-0391.
- Petrus, Barbara. "Environmental Dynamism: The Implications for Operational and Dynamic Capabilities Effects." *Management Sciences*, 2019, doi:10.15611/ms.2019.1.04.
- Rajagopal, Ananya. "Relationship between Employee Mobility and Organizational Creativity to Improve

- Organizational Performance: A Strategic Analysis." *Business Governance and Society: Analyzing Shifts, Conflicts, and Challenges*, 2018, doi:10.1007/978-3-319-94613-9 14.
- Ranasinghe, Vimansha R., and Samantha M. Samarasinghe. "The Effect of Workplace Spirituality on Innovative Work Behavior." *International Business Research*, 2019, doi:10.5539/ibr.v12n12p29.
- Richter, Nancy, et al. "Outsourcing Creativity: An Abductive Study of Open Innovation Using Corporate Accelerators." *Creativity and Innovation Management*, 2018, doi:10.1111/caim.12252.
- Saether, Erik Andreas. "Motivational Antecedents to High-Tech R&D Employees' Innovative Work Behavior: Self-Determined Motivation, Person-Organization Fit, Organization Support of Creativity, and Pay Justice." *Journal of High Technology Management Research*, 2019, doi:10.1016/j.hitech.2019.100350.
- Seo, Eun Hwa, et al. "A Study on the Mechanisms Linking Environmental Dynamism to Innovation Performance." Sustainability (Switzerland), 2020, doi:10.3390/su12239999.
- Serrat, Olivier. "Disseminating Knowledge Products." *Knowledge Solutions*, 2017, doi:10.1007/978-981-10-0983-9 97.
- Shafi, Mohsin, et al. "The Effects of Transformational Leadership on Employee Creativity: Moderating Role of Intrinsic Motivation." *Asia Pacific Management Review*, 2020, doi:10.1016/j.apmrv.2019.12.002.
- Shanker, Roy, et al. "Organizational Climate for Innovation and Organizational Performance: The Mediating Effect of Innovative Work Behavior." *Journal of Vocational Behavior*, 2017, doi:10.1016/j.jvb.2017.02.004.
- Sijbom, Roy B. L., et al. "Why Seeking Feedback from Diverse Sources May Not Be Sufficient for Stimulating Creativity: The Role of Performance Dynamism and Creative Time Pressure." *Journal of Organizational Behavior*, 2018, doi:10.1002/job.2235.
- Suifan, Taghrid S., et al. "The Impact of Transformational Leadership on Employees' Creativity: The Mediating Role of Perceived Organizational Support." *Management Research Review*, vol. 41, no. 1, Emerald Group Publishing Ltd., 2018, pp. 113–32, doi:10.1108/MRR-02-2017-0032/FULL/PDF.
- Thneibat, Motasem M., et al. "Promoting Radical Innovation Through Performance-Based Rewards: The Mediating Role of Knowledge Acquisition and Innovative Work Behavior." *International Journal of Innovation and Technology Management*, 2021, doi:10.1142/S0219877022500055.
- Tindika, O. K. N., et al. "Moderating Role of Environmental Dynamism on the Relationship between Opportunity Evaluation and Growth of NGOs in Kenya." *Expert Journal of Business and Management*, 2020.
- Wang, Zhining, et al. "Team Reflexivity and Employee Innovative Behavior: The Mediating Role of Knowledge Sharing and Moderating Role of Leadership." *Journal of Knowledge Management*, 2020, doi:10.1108/JKM-09-2020-0683.
- Winarno, Alex, et al. "The Impact of Perceived Organizational Support on Knowledge Sharing: A Meditation Analysis through an Sem Approach." *Journal of Eastern European and Central Asian Research*, 2021, doi:10.15549/jeecar.v8i4.723.
- Woods, Stephen A., et al. "Innovative Work Behavior and Personality Traits: Examining the Moderating Effects of Organizational Tenure." *Journal of Managerial Psychology*, 2018, doi:10.1108/JMP-01-2017-0016.
- Zaman, Umer, and Maha Abbasi. "Linking Transformational Leadership and Individual Learning Behavior: Role of Psychological Safety and Uncertainty Avoidance." *Pakistan Journal of Commerce and Social Science*, 2020.
- Zhou, Fei, et al. "Social Media Usage and Employee Creativity: Is Relational Energy a Missing Link?" *Online Information Review*, 2021, doi:10.1108/OIR-02-2021-0119.

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