

# THE ROLE OF DIGITAL INNOVATION BEHAVIOUR, EMPLOYEE SATISFACTION AND WORKFORCE AGILITY ON EMPLOYEE PERFORMANCE DURING DIGITAL ERA

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## ABSTRACT

The purpose of this study is to analyze the relationship between digital innovative behaviour variables and employee performance, the relationship between job satisfaction variables and employee performance and analyze the relationship between workforce agility variables and employee performance. The strategy used in this study is associative. An associative strategy is a research strategy used to determine the relationship between two or more variables. The research method used in this study is a quantitative approach. In this study, a purposive sampling technique was used because the sampling was taken with certain considerations or criteria that must be met. The data collection method in this study was carried out by distributing online questionnaires through social media. The respondents in this study were 432 manufacturing managers in Indonesia. The scale used to measure is a scale with an interval of 1 - 5, from strongly disagree to strongly agree. In measuring respondent answers, filling out the questionnaire was measured using a Likert scale. The data collection technique in this study used a questionnaire by providing several written statements addressed to the respondents and then answered. Structural equation modelling which is often called Partial Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 3.0. The results of this study show that innovative supply chain behaviour has a positive and significant relationship to performance, Job satisfaction has a significant positive influence on employee performance, and workforce agility has a significant positive influence on employee performance.

**Keywords:** Digital innovation work behaviour, employee satisfaction, employee agility, performance, Indonesian manufacturing

## 1. INTRODUCTION

The development of organizations in the business sector is currently in the era of society 5.0, society 5.0 is an era where everything is based on internet technology, and is a very important and inseparable part of human life or society, in terms of education, social, or doing business through internet services that drive economic growth. This era has an idea that focuses on technologically advanced human resources, for that the organization has an important task to pass the era of society 5.0. Human resources (HR) are a determining factor for an organization to be able to achieve its goals (Dzimidienè et al., 2022). Organizations need competent and expert employees in their respective fields. This is done to anticipate disruptions in terms of perfor-

mance, profit, and the survival of the organization itself. Organizations that have productive HR will produce the expected performance, and can also have an impact on the survival and progress of the organization. This Innovative Behavior Aspect is used to find out the problems that occur in millennial generation employees. Several cases in organizations occur because employees are burdened by innovations that often make employees tired of innovating (Mohamed et al., 2022). Those who are exhausted lose their intrinsic motivation to propose creative ideas and then become detached from new initiatives and even other initiatives

Innovative Behavior affects the survival of the organization, which can generate new ideas, promote ideas, and implement them in the workplace. As for what influences Innovative Behavior. Opportunity exploration is a way to improve current services or delivery processes or try to think about work processes, products or services in alternative ways. Then idea generation refers to the creation of concepts for improvement. Furthermore, championing is an effort to convince the added value of the proposed innovation. Finally, the application is behaviour in the application related to efforts made by individuals to be able to apply the idea in real practice. Factors of Innovative Behavior are humans, leadership, and organizational structure. Factors that influence Innovative Behavior at the individual level are organizational commitment and psychological capital. While factors that influence Innovative Behavior at the employee level in the organization are the organizational innovation atmosphere, leadership, social capital, and job characteristics (Malacina et al., 2022).

Based on the factors of Innovative Behavior above, the researcher takes the human factor as a factor that influences the growth of innovation in the organization. Humans in the organization are the capital to stimulate innovation. The ability of individuals as employees in the organization is needed to learn quickly in dealing with unexpected situations needed in building Innovative Behavior so that innovation is created. For this reason, the human factor is represented by the psychological variable Learning Agility. The level of dedication shown by employees will influence ideas in solving problems that employees will face (Jimenez et al., 2019). Furthermore, the commitment factor is used as an influence on employee innovation because it is known to be able to encourage organizations to achieve the expected work results. Supply chain innovation is important for companies of all sizes (Toni, 2025). This means looking at how the company uses its assets, operating resources, and capabilities to develop new ways to meet customer needs. Companies must measure the value of innovation based on how well the innovation helps meet customer demand. In the ever-growing digital era, technology has become an integral element in people's daily lives, especially in the world of work (Isaksson et al., 2010). This transformation introduces various digital tools, platforms, and systems that significantly affect the way we work, communicate, and interact with each other (Aumeboonsuke, 2025). Technology enables easy access to information, speeds up work processes, and facilitates collaboration both locally and globally, creating new opportunities to create innovative solutions and support the development of the business sector (Mastilo et al., 2025). Travelling close together reduces barriers, which increases fuel efficiency, resulting in safer and more fuel-efficient transportation that can help reduce logistics costs. Innovation in supply chain management aims to improve efficiency in the flow of products, information, and funds in a supply chain. By implementing the right innovation, companies can optimize their operations, reduce costs, improve product quality, and increase customer satisfaction (Oke et al., 2013).

The company's performance problems that occur are decreased productivity, internal conflict, and employee dissatisfaction, which need to be identified and addressed that the company remains competitive. Lack of employee competence, skills, and training. Uncomfortable working atmosphere, lack of facilities, and excessive workload. Unfair remuneration, lack of incentives, and lack of career development opportunities, Lack of effective communication, conflict

between employees, and non-transparent management. Motivation: Lack of work motivation, lack of appreciation, and lack of sense of belonging to the company. Lack of work discipline and responsibility. Ineffective and objective performance appraisals. Lack of good corporate governance mechanisms. In today's era, the main key to a company's success lies in its ability to generate ideas that provide solutions to problems that arise in the market. When companies can address these issues, the positive impact is seen through increased performance, competitiveness through unique products or services, and the overall success of the organization (Knoppen et al., 2015). One effort to generate solution ideas is to carry out Innovative work behaviour (IWB). Innovative work behaviour is work behaviour that includes an individual's ability to generate new ideas, adopt change, and implement creative solutions in the context of work. Innovative work behaviour involves the ability to think out of the box, identify new opportunities, and develop unique solutions to challenges faced in the workplace. This involves creativity, flexibility, and a willingness to take risks associated with innovation. Innovative work behaviour can provide benefits to the organization in terms of increased efficiency, improved quality, and progress in achieving business goals (Azmy et al., 2021).

One of the factors that affect employee performance is agility (Shevchenko, 2023). Agility is the ability related to adaptability and willingness to face the unknown and is used to predict a person's potential performance in carrying out tasks. With high agility, it can affect employee performance. Previous research on the effect of agility on employee performance According to research, agility has a positive and significant effect on employee performance. In contrast, the results of research that produced agility did not affect employee performance (Goffnett et al., 2016). The difference in results can create a research gap in this study. One of the abilities that must be possessed by employees and also companies to continue to compete with competitors is agility. Agility or agility is the ability of body movements to change direction or body position flexibly quickly and precisely without losing balance. However, as time goes by, agility has begun to be adopted in the world of work. Employees who have good agility skills can adapt quickly to the environment and also situations that are possible to occur. This includes the way of thinking, solving problems, and also the creativity possessed by the employee. While for companies, agility is needed to remain consistent in competing with competitors. Agile companies will be able to survive and adapt to the environment and the times that continue to develop (Petkova, 2025). A person's ability to move quickly, agilely, nimbly, and deftly. Initially, the term agility was closely related to athletic activities, then adopted to be more comprehensive in various lines of life. Agility enables a person to think, solve problems, and be creative in the workplace (Khalil et al., 2019).

Agility also refers to a person's emotional and intellectual intelligence. In business, agility means the ability of employees and companies to be able to adapt quickly and efficiently to changes, both internally and externally. The ability to respond effectively and efficiently or agility is very important for business considering the opportunities and challenges that come from both within the organization and the external environment continue to emerge (Abbas et al., 2022). Companies that have high agility tend to be able to take advantage of existing opportunities better and are also able to mitigate risks better. In short, entrepreneurs with companies and employees with good agility have the opportunity to survive and even win the competition. The rapid and ever-changing global development and competition today has caused complexity and rapid change in the work environment. Many companies are starting to consider investing in employees and increasing their agility. Employee agility can be the right answer to achieve company effectiveness, where they can try to integrate fast mindsets and behaviours into daily business activities. Employee agility is an urgent and growing need for companies. Therefore, it has made the author interested in understanding and seeing how important the role of employee

agility is in the company based on the journals that have been studied.

## 2. LITERATURE REVIEW

### 2. 1. SUPPLY CHAIN INNOVATION

Supply chain innovation is the ability and tendency of employees to create new ideas, propose changes, and adopt supply chain innovations in the work context (Sampson et al., 2012). This can include the ability to think creatively, identify new opportunities, and dare to take risks in new experiments. Strong supply chain innovative behaviour can strengthen the organization's ability to compete and adapt in a rapidly changing environment. Innovative behaviour is a behaviour that can improve employee performance. This behaviour stems from self-awareness that arises when facing the company's external situation that continues to change. If the supply chain's innovative behaviour in employees increases, employees can automatically increase their competence in facing work demands. Innovative behaviour is the overall action of individuals that leads to the emergence, recognition, and application of something new and useful at all levels of the organization. Innovative behaviour is work behaviour that aims to generate, introduce, and implement new ideas that are useful for the company (Neutzling et al., 2018). Opportunities that can be identified in innovative behaviour and processes, procedures, services, products, and can find new applications for methods, materials, or equipment that are changed can drive organizational development. Innovative behaviour can also solve problems that occur in the organization by implementing the right solution. Innovative supply chain behaviour has become a key element to promote innovation and the achievement of sustainable competitive advantage organizations, also examining other factors that can influence innovative behaviour, innovative work behaviour is an attitude of introducing, proposing and implementing new ideas, products, and procedures into their work (Shan et al., 2020). This innovative work behaviour is important to maintain the company's competitiveness and increase employee work productivity. To find out more about the definition of innovative work behaviour, here are the views of several experts or sources regarding innovative work behaviour. Innovative supply chain work behaviour is a behaviour that includes exploring new opportunities and ideas and includes the behaviour of implementing these new ideas to achieve increased individual and company productivity (Hong et al., 2019). Innovative supply chain work behaviour is an individual's action to recognize a problem, generate and develop new ideas, and realize these ideas or ideas with new techniques and procedures that can be useful for the company. Supply chain innovative work behaviour is employee behaviour that directly and indirectly stimulates the development and introduction of innovation in the workplace so that the company can survive in business competition. Innovative work behaviour is a deliberate effort by employees to innovate to provide benefits to the company and requires the willingness of individuals to be actively involved in its implementation. From the definition above, it can be concluded that innovative work behaviour is an action taken by employees to create, develop and apply new ideas in their work with a new process so that it can provide benefits for both themselves and the company (Hong et al., 2019).

Innovative behaviour is defined as all individual actions that lead to the introduction and implementation of something new and beneficial to the organization. This includes the development of new product ideas or technologies as well as changes in administrative procedures aimed at improving work relationships or the implementation of ideas and ideas. For work processes to significantly increase efficiency and innovation is the process of contemplating and applying these thoughts, which lead to new things in the form of products, services, processes, methods, policies, etc. In the context of organizational innovation, one alternative to forming an innovative organization is through innovation carried out by members (individuals) of the or-



ganization. Innovative work behaviour is the amount of physical and cognitive work activities carried out by employees in carrying out their work, both individually and in groups to achieve a series of tasks required for developing innovation. Innovative work behaviour is a series of work activities carried out consistently by workers to develop and improve effective work behaviour (Gligor et al., 2019). Innovative behaviour is behaviour to generate, improve and implement new ideas in tasks, work groups or organizations. Innovative work behaviour is a form of behaviour to achieve the initiation and introduction of new ideas, processes, procedures and products that are useful for the organization. Innovative behaviour is interpreted as part of the modernization process associated with innovative work behaviour as part of the process of changing people's lives followed by changes in attitudes, characteristics and lifestyles of individuals in society. Innovative work behaviour, namely the discovery, experience and application of new ideas, processes, products and procedures and then used in organizations to benefit work performance, work groups, organizations and society at large (Xing et al., 2022). Supply chain innovation integrates developments in information technology and technology related to logistics processes and new markets to improve operational efficiency and improve service effectiveness. The supply chain consists of all activities that include business process management, procurement, conversion, and logistics activities in the global industry through a single network, from suppliers, manufacturers, and distributors to end users to achieve customer satisfaction effectively and efficiently. Supply chain performance measurement can function as an indicator of the extent to which supply chain activities can run well (Hong et al., 2019). Positioning is carried out to determine the next strategy. However, to determine the performance of supply chain innovation and positioning, the innovation needs to be measured. Therefore, in this study, a review will be analyzed regarding the extent of the role of performance measurement in supply chain innovation.

## 2. 2. JOB SATISFACTION

Job satisfaction felt by employees must have an impact on work results. Employee job satisfaction must be created as well as possible so that employee morale, dedication, love and discipline increase. Employee job satisfaction will be high if employees always feel happy and enthusiastic in working. Four factors play a role in job satisfaction, including challenging work, the implementation of a fair reward system, supportive working conditions, and the attitude of coworkers. Indicators for measuring job satisfaction are 1) freedom to use free time, 2) freedom to work independently, 3) freedom to change jobs from time to time, 4) freedom to socialize, 5) leadership style of direct superiors, 6) supervisor competence, 7) tasks received, 8) opportunity to act on others, 9) work preparation, 10) freedom to command, 11) freedom to use time, 12) freedom to apply applicable regulations, 13) salary received, 14) opportunity to develop a career, 15) freedom to make decisions, 16) opportunity to use work methods, 17) supportive working conditions, 18) cooperation, 19) appreciation for achievement, 20) workers' feelings about their achievements (Chiu et al., 2022). Job satisfaction is a feeling of relative pleasure or displeasure that is different from objective thoughts and behavioural desires. Job satisfaction is a level of positive or negative feelings about several aspects of work, work situations, and relationships with coworkers. Job satisfaction is a positive or pleasant emotional state resulting from an assessment of a job or work experience. Aspects of job satisfaction are the job itself, salary and social security, promotion, supervision or supervisor, and co-workers where these aspects can play a role and can affect employee performance. Factors that influence job satisfaction are individual factors, social factors, the main factor of the job itself external factors (Swafford et al., 2008). Job satisfaction is an emotional state that employees experience when viewing their work. Job satisfaction reflects a person's feelings about their job. This is seen in the employee's positive attitude towards work and everything they face in their work environment.

Job satisfaction is a general attitude towards one's job, which shows the difference between the amount of rewards workers receive and the amount they believe they should receive (Storer et al., 2014). Job satisfaction is a positive and negative attitude that individuals have towards their jobs. Researchers who have strong humanistic values reject that satisfaction is a legitimate goal of an organization. They also reject that organizations are responsible for providing challenging and intrinsically rewarding work (Fayezi et al., 2017).

### 2. 3. EMPLOYEE AGILITY

Employee agility is expected to increase the ability to adapt quickly, innovate, be flexible, and respond to new changes. This employee agility can be seen from the perspective of the employee's behaviour. Agile employees usually have proactive, adaptive and generative behaviour (Tse et al., 2016).

This view is seen in how employees can adapt, as well as how they can proactively respond and prepare for change to become more agile. Companies that have agile employees will adapt quickly to changes and market spikes and can respond appropriately and flexibly to customer demand. Employee agility focuses on the employee's ability to handle uncertainty and new opportunities, someone who has high openness and extraversion (someone whose interests are more towards the outside world than their own experiences) is not necessarily agile or nimble in the workplace. Being agile or nimble in the workplace is someone who can pay attention, learn, and also respond to environmental changes in work situations (Pham et al., 2022).

The ability to move and adapt quickly provides many advantages. This is why we need to develop agility skills for everyday life and professionally in the workplace. Agility is a state in which an individual is open to seeking knowledge and self-development, has problem-solving skills, is comfortable with new experiences, technologies, and ideas, and is always ready to accept new responsibilities. Some factors drive agility, including internal and external factors. Internal factors that influence agility include personality, experience, and self-ability (Anse et al., 2021). However, it should be noted that the level of agility of each person is different because everyone has different intelligence, speed of mastering skills and competencies, and effectiveness of cooperation with others. External factors that can increase agility can be generated from the role of environmental and social aspects. For employee cases, agility can be increased through empowerment or motivation, as well as good teamwork. To become an agile individual, be proactive, adaptable, and have high resilience. Being proactive means that employees have the desire or initiative to continue learning and respond to the environment quickly. Because each company has a different culture or work style. Usually, national and international companies have very different work cultures. For example, in Japanese companies, the culture of work discipline is the main priority. The second is being able to adapt. Adaptation is the ability to adjust to all conditions, including conditions that are not to our expectations as employees. Being able to adapt also means that employees can solve problems well, work together with the team, and understand the character of each team (Storer et al., 2014).

### 2. 4. EMPLOYEE PERFORMANCE

Employee performance is usually seen based on the results and can also be seen from their behaviour. Employee performance is assessed by following the work standards set by the company (Faisal et al., 2020). These standards include the use of productivity, efficiency, effectiveness, quality and profitability. Performance assessments must provide accurate information or feedback so that employees have evaluation materials to improve their performance in the future. This of course requires a manager in the company to be responsible and ensure that the company will make maximum efforts so that high levels of employee performance can be achieved (Wuttke et

al., 2013). When high performance has been achieved, it will provide a sense of satisfaction and pleasure that can make it easier for management to motivate employees so that their performance is maximized again to achieve company goals. Performance is an assessment of how an individual has worked hard to exceed the specified target. The performance itself is employee behaviour that is directly related to the company's production results (Swafford et al., 2008). Performance is the quality and quantity produced by an individual from doing their job. Employee performance will increase along with the quality and comfort of the place where they work, if they are allowed to develop their achievements, by involving them in every company activity and the company accepts their new ideas to be developed, it will create job satisfaction and improve the quality of employee performance (Wuttke et al., 2013). Many factors affect employee performance. Employees who have integrity and can establish good communication in the workplace have the potential to experience increased performance. The work environment and leadership have a role in shaping employee performance. Good discipline has a good influence on performance.

Organizational performance is the responsibility of every individual working in the organization (Wuttke et al., 2013). Responsibility for performance arises not only from leadership but also from individuals. If every employee in an organization works well, achieves, is enthusiastic, and gives their best contribution to the organization, then the individual and the organization as a whole will work well too. Thus, organizational performance is a reflection of the performance of individual employees. This is by the morals or ethics of society. Performance is the result of work carried out by a person based on job demands. Performance is a general term used for part or all of an organization's actions in a period by referring to several past or projected cost standards efficiently, management responsibility or accountability and the like (Michalski et al., 2019). Performance refers to the level of success in carrying out tasks and the ability to achieve predetermined goals. Performance is declared good and successful if the desired goals can be achieved properly. Performance is the output produced by the functions or indicators of a job or a profession within a certain time. Aspects of measuring employee performance are quality of work, employee honesty, initiative attendance, attitude, cooperation, reliability, knowledge of work, responsibility, and time utilization. Three factors influence performance, namely individual factors including, ability, skills, family background, work experience, and social and demographic levels of a person, the second psychological factors include; perception, role, attitude, personality, motivation and job satisfaction, the third organizational factors including; organizational structure, job design, leadership, reward system (Michalski et al., 2019).

## **2. 5. HYPOTHESIS DEVELOPMENT**

### **2. 5. 1. RELATIONSHIP BETWEEN SUPPLY CHAIN INNOVATION CULTURE AND EMPLOYEE PERFORMANCE**

There is still inconsistency in the results of the study on the relationship between supply chain innovative behavior and performance. According to Wuttke et al.( 2013). supply chain innovative behavior has a positive and significant relationship to performance, this result is supported by Michalski et al. (2019) supply chain innovative behavior has a positive and significant relationship to performance. This result is contrary to other studies. According to Dzimidienė et al., (2022) supply chain innovative behavior has not a positive and significant relationship to performance and according to Jimenez et al.(2019) also states that supply chain innovative behavior has a positive and significant relationship to performance. Supply chain innovative work behaviour is a strategy that companies need to implement to meet product demand so that it can be used as a competitive advantage in the company. Supply chain innovative work behaviour that arises within employees is one of the factors that can spur employee work productivity. In addition, another factor that affects the level of work productivity is work motivation.

If employee work motivation is high, then employees will work optimally so that their work productivity increases and can meet the targets given by the company. Supply chain innovative behavior if owned by a company will improve organizational performance, this is because in an organisation of course it must face competition from the industry (Dzimidiené et al., 2022). This requires the need for HR management to produce a Competitive advantage from the products produced to be able to face the competition which can be obtained from innovative work behaviour. One of the main reasons people must be innovative in the workplace is to provide performance benefits, improvements, or efficiency in work roles or jobs. Supply chain innovation suggests and uses new methods that are more effective and sought-after actions that provide added value and are useful for the survival of the organization. These innovations include the production of new products, services, and processes to obtain better organizational results from various positions and levels of the organization. The higher the creative behaviour created by employees, the better the performance of the organization (Mohamed et al., 2022).

Supply chain innovative behaviour is closely related to innovation. Innovation and innovative behaviour are social changes, the difference is in the emphasis of the characteristics of the change. Supply chain innovation emphasizes the characteristics of something that is observed as something new for individuals or society (Oke et al., 2013). Meanwhile, innovative behaviour emphasizes the existence of a creative attitude so that there is a process of changing attitudes from traditional to modern, or from attitudes that are not yet advanced to attitudes that are already advanced. Job satisfaction is a general attitude towards one's work, the difference between the amount of rewards received by a worker and the amount they believe they should receive (Jimenez et al., 2019). A person who has innovative behavior is a person whose daily attitude is to always think critically, trying to ensure that there is always change in his environment that is towards renewal from traditional to modern, or from an attitude that is not yet advanced to an attitude that is advanced and trying to make the change have a certain usefulness or added value. People who behave innovatively will always try to solve problems in a different way than usual but more effective and efficient. Develop a mature plan and schedule to realize the new idea (Oke et al., 2013). Based on the description, the hypothesis in this study is:

*H<sub>1</sub>: Supply chain innovative behaviour has a positive and significant relationship to performance*

## 2. 5. 2. THE INFLUENCE OF JOB SATISFACTION ON EMPLOYEE PERFORMANCE

There is still inconsistency in the research results on the relationship between Job satisfaction and performance. According to Michalski et al. (2019) Job satisfaction has a positive and significant relationship with performance, this result is supported by Wuttke et al. (2013) Job satisfaction has a positive and significant relationship with performance. This result is contrary to other studies according to Jimenez et al. (2019) Job satisfaction does not have a positive and significant relationship with performance and according to Dzimidiené et al., (2022) also stated that Job satisfaction has a positive and significant relationship with performance. Satisfied workers will try harder to achieve good performance, and then work harder and better. Therefore, every organization tries to create a satisfied workforce to improve the welfare of the organization (Sampson et al., 2012). Satisfied employees tend to be more involved, committed, and proactive in their roles, resulting in higher levels of performance. Job satisfaction and performance are a relationship that is related to an organization. Job satisfaction will be achieved if employee needs are met through work. Where job satisfaction is a happy emotional state or positive emotion that comes from the assessment of a person's work or experience (Goffnett et al., 2016). Various studies from several countries were conducted by (Abbas et al., 2022)



on the relationship between job satisfaction and employee performance. The study found that learning-oriented operations are important predictors of employee job satisfaction that affect employee performance (Abbas et al., 2022). There is a relationship between people's organizations with job satisfaction and employee performance. Job satisfaction with senior leadership, compensation and work balance each have an impact on employee performance. Based on this description, the hypothesis in this study is

*H<sub>2</sub>: Job satisfaction has a significant positive effect on employee performance*

### 2. 5. 3. THE EFFECT OF WORKFORCE AGILITY ON EMPLOYEE PERFORMANCE

The research gap in this study is that there is still inconsistency in the research results on the relationship between workforce agility and performance. According to Michalski et al. (2019) workforce agility has a positive and significant relationship with performance, this result is supported by Wuttke et al. (2013) workforce agility has a positive and significant relationship with performance. This result is contrary to other studies according to Jimenez et al. (2019) workforce agility does not have a positive and significant relationship with performance and according to Dzimidienė et al., (2022) also stated that workforce agility has a positive and significant relationship with performance. One of the factors that affects employee performance is agility, agility is the ability related to the ability to adapt and the willingness to face the unknown and is used to predict a person's potential performance in carrying out tasks (Abbas et al., 2022). With high agility, it can affect employee performance. Previous research on the effect of agility on employee performance, other studies that produce agility have a positive and significant effect on employee performance (Goffnett et al., 2016). Workforce agility is a positive attitude of the workforce towards learning and self-development, good problem-solving skills, comfort with change, new ideas, and new technologies, and the ability of the workforce to produce innovative ideas and always be ready to accept new responsibilities (Liao et al., 2021). Workforce agility is proactive, adaptive, and generative behaviour of the workforce. Workforce agility is the ability of the workforce to adapt and respond to sudden and unexpected market changes proactively. Workforce agility is the ability of the workforce to handle and respond to change by adapting quickly to changes and new conditions created by the change. This is because workforce agility is expected to increase the ability to adjust quickly, innovate, flexibly, and the ability of employees to new changes. This employee agility can be seen from the perspective of the employee's behaviour.

*H<sub>3</sub>: workforce agility has a significant positive influence on employee performance*

## 3. METHOD

The strategy used in this study is associative. An associative strategy is a research strategy used to determine the relationship between two or more variables. The research method used in this study is a quantitative approach. This study uses a purposive sampling technique because the sampling is taken with certain considerations or criteria that must be met. The data collection method in this study was carried out by distributing online questionnaires through social media. The respondents in this study were 432 manufacturing managers in Banten region of Indonesia. The sample is manufacturing companies that have minimum 20 years operation time. The scale used to measure is a scale with an interval of 1 - 5, from strongly disagree to strongly agree. In measuring the respondents' answers, filling out the questionnaire was measured using a Likert scale. Statements are given a score of 1 for strongly disagree answers, a score of 2 for disagree

answers, a score of 3 for doubtful answers, a score of 4 for agree answers and a score of 5 for strongly agree answers. analysis using SmartPLS is SEM PLS analysis is a useful tool for understanding the relationships between variables in a theoretical model. Using this approach, researchers can test their hypotheses, test the model's fit, and identify the theoretical and practical implications of their findings. SmartPLS (Smart Partial Least Square) is used to process quantitative data in research because: Facilitates SEM (Structural Equation Model) analysis, Suitable for beginners, Can handle measurement models and structural models simultaneously, Lightweight and does not require a lot of RAM, Does not require normally distributed data, Can be used with a small number of samples. The data collection technique in this study used a questionnaire by providing several written statements addressed to the respondents which will then be answered. Structural equation modelling is often called Partial Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 3.0. Hypothesis testing can be seen from the t-statistic value and probability value. For hypothesis testing, namely by using statistical values, then for alpha 5% the t-statistic value used is 1.96. So the criteria for accepting or rejecting the hypothesis are  $H_a$  accepted and  $H_0$  is rejected when the  $t\text{-statistic} > 1.96$ . To reject or accept the hypothesis using probability,  $H_a$  is accepted if the  $p\text{-value} < 0.05$ . SmartPLS uses Partial Least Squares Structural Equation Modeling (PLS-SEM), Facilitates SEM (Structural Equation Model) analysis, Suitable for beginners, Can handle measurement models and structural models simultaneously, Lightweight and does not require a lot of RAM, Does not require normally distributed data, Can be used with a small number of samples

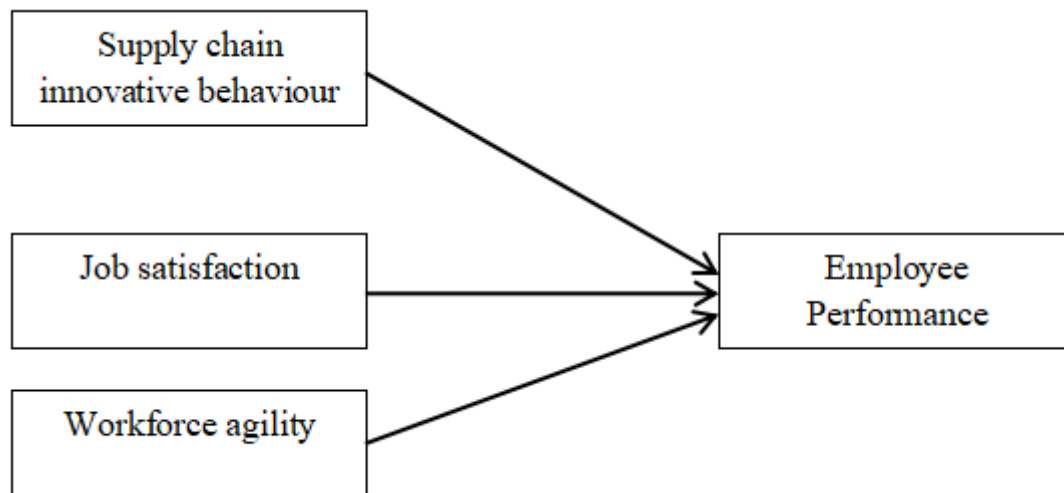
The hypothesis in this study is:

$H_1$ : Supply chain innovative behaviour has a positive and significant relationship to performance

$H_2$ : Job satisfaction has a significant positive effect on performance

$H_3$ : workforce agility has a significant positive effect on performance

Fig 1. Research Model



Source: Authors' calculation

Table 1. Respondent descriptive statistics

Criteria		Total	Percentage
Gender	Male	324	75.00%
	Female	108	25.00%
Education	High School	35	8.10%
	Bachelor	154	35.65%
	Master	67	15.51%
	Doctor	176	40.74%
	< 1 Years	12	2.78%
Work Experience	1 - 3 Years	123	28.47%
	3 - 6 Years	122	28.24%
	6 - 9 Years	109	25.23%
	> 9 Years	66	15.28%

Source: Authors' calculation

Based on respondent data with the most gender criteria, namely male, total 75.00%, the highest level of education is Doctor, total 40.74% and the most work experience is 1 - 3 years, total 28.47%.

## 4. RESULT AND DISCUSSION

### 4. 1. CONVERGENT VALIDITY TEST

Namely, the factor loading number owned by the latent variable against its indicator which functions to determine the validity of a construct. Based on the theory of the indicator factor loading value  $\geq 0.7$  is called valid. However, in developing the model, the agreement on the factor loading value between 0.5 - 0.6 can still be tolerated. In this study, a limit of 0.5 was used, so indicators with factor loading values above 0.5 were declared valid. It can be seen from the validity test at this stage that all items, and factor loading values are all above 0.5 So they are declared valid.

### 4. 2. RELIABILITY TEST

The test is used to measure stable or constant measurement results and can be relied on/reliable. Indicated that a person's answer to the question is consistent or stable from several tests, through the Internal consistency method through the composite reliability feature and the Cronbach's Alpha coefficient. The values used to obtain reliability consist of Cronbach's Alpha and Composite Reliability must exceed 0.70 for confirmatory research and a value of 0.60 - 0.70 is still acceptable for exploratory research. The results of this test are as follows as table 2.:

Table 2. Reliability Test

Variables	Cronbach's Alpha	Composite Reliability
Supply chain innovative behaviour	0.732	0.710
Job satisfaction	0.745	0.746
Workforce agility	0.791	0.790
Performance	0.728	0.715

Source: Authors' calculation

The conclusion of the data processing shows satisfactory numbers, all variables are above the threshold of 0.70, indicating high consistency and stability of the instruments used. It is con-

cluded that all constructs of this study have become fit measuring instruments, and have good reliability.

#### 4. 3. AVERAGE VARIANCE EXTRACTED (AVE) TEST

Shows how much variance in the diversity of manifest variables is owned by the latent construct, a standard figure of 0.5 means good convergent validity can also be interpreted as an average above the indicator variant. The number 0.50 or above is the standard value of the variable AVE. The results of the research data processing show that all variables have good construct validity.

Table 3. Average Variance Extracted (AVE) Test

Variables	Average Variance Extracted (AVE) Test
Supply chain innovative behaviour	0.732
Job satisfaction	0.754
Workforce agility	0.691
Performance	0.689

Source: Authors' calculation

Based on the results of the average variance extracted (AVE) test, the AVE value for all variables was greater than 0.60, so it was concluded that all variables have good construct validity.

#### 4. 4. R-SQUARE ANALYSIS

This analysis is to determine the percentage of endogenous construct variability that may be explained by exogenous construct variability. This analysis is also to determine the goodness of the structural equation model. The higher the R-square value, the greater the exogenous variable can explain the endogenous variable so that the better the structural equation. Attached is the output value of the R Square value as follows table 4.:

Table 4. R-Square Analysis

Variables	R-Square
Performance	0.701

Source: Authors' calculation

Based on the results of the R-Square analysis, the R-Square value for the performance variable is 0.701 or 70.1%, meaning that the independent variables of supply chain innovative behaviour, job satisfaction and workforce agility contribute 70.1% to the performance variable while the remaining 29.9% is a contribution from other variables not discussed in this study.

#### 4. 5. HYPOTHESIS TESTING

Intended to find a significant influence between independent variables on dependent variables by examining path coefficients that indicate parameter coefficients and statistical T significance values. Parameter significance is estimated to provide an overview of the correlation between research variables. The standard for rejecting and accepting the proposed hypothesis is to use a probability of 0.05. The table below presents the estimation output for structural model testing:



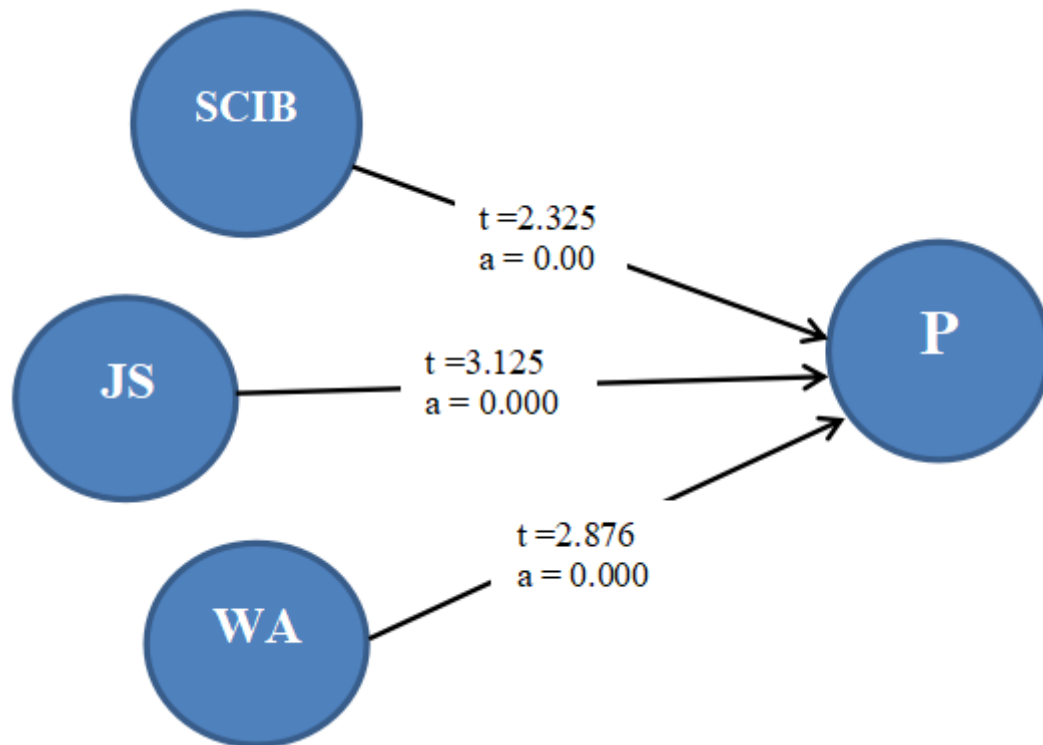
Table 5. Hypothesis Testing

Hypothesis	T value	P value	Remark
Supply chain innovative behaviour -performance	2.325	0.000	Supported
Job satisfaction - performance	3.125	0.000	Supported
Workforce agility - performance	2.876	0.000	Supported

Source: Authors' calculation

The figure below presents the estimation output for structural model testing:

Figure 2. Hypothesis Testing



Source: Authors' calculation

#### 4. 6. RELATIONSHIP BETWEEN SUPPLY CHAIN INNOVATIVE BEHAVIOUR AND EMPLOYEE PERFORMANCE

Based on the results of the PLS-SEM analysis, it was found that the p-value of 0.000 was less than 0.050, so it was decided that there was a positive and significant relationship with employee performance. This is by research showing that employee innovative behaviour will emerge when employees are faced with urgent and challenging conditions when completing their work. In addition, managers provide freedom and opportunity for employees to realize their ideas to solve problems in their work. This condition will develop better work patterns. This is as evidenced by the results of previous studies with increasing competition, requiring companies to continue to review and improve innovative employees to contribute their creative ideas to be able to change something that is considered monotonous and hinders the development of the company faster (Srimulyani et al., 2023).

Furthermore, by increasing the innovative behaviour of employees towards the company, it will be able to develop the quality of the company while improving the quality of employee performance in the company (Xing et al., 2022). The implication is the company must provide broader and more sustainable insight into how important the role of innovative behaviour is in

the company. With the highly innovative behaviour of employees, they dare to innovate and develop a creative idea into a new reality, it will directly accelerate their mindset to develop the skills they have and will help achieve the company's goals in the future; (2) the company can also implement openness of communication. The openness of communication that is carried out will form an exchange of ideas among employees related to innovation (Hariyasasti, 2025). This shows that one important aspect of innovative behaviour is the openness of communication. With the openness of communication, provides the possibility for each employee to improve their ideas that are realized through action and of course, with this, employee concern for the company will be seen (3) carrying out human resource management practices because, with HR practices, the company can identify, develop, evaluate, and appreciate innovative behaviour from employees (Neutzling et al., 2018).

Some of these HR practices include providing fair rewards because this can influence innovative supply chain behaviour. If the company implements a fair reward system, it can influence innovative behaviour. In addition, providing training and development is crucial because, with this, the company considers employees to be a valuable part of the company (Anse et al., 2021). Furthermore, employees will consider that useful training and development can support their readiness to develop new ideas so that training has a direct influence on innovative behaviour. This can be seen from the results of the hypothesis testing above, which illustrates that overall employees show highly innovative behaviour. Innovative behaviour is an individual action that leads to the introduction and implementation of something new and beneficial to the organization (Fayezi et al., 2017). This includes the development of new product ideas or technologies as well as changes in administrative procedures aimed at improving work relationships or the application of ideas and concepts to work processes significantly increasing their efficiency and effectiveness. With the supply chain innovation created, employees in working to provide services to the community can be faster, more precise and at a lower cost, so that employee performance increases. Someone who shows innovative behaviour at work is considered to have shown their performance. High performance can be achieved because of the innovative behaviour of employees. Supply chain innovative behaviour is one of the variables that influences performance. Maximum organizational performance can be obtained from innovative employee behaviour at work (Chiu et al., 2022). Innovative employee behaviour is needed by every company. Employees who have innovative behaviour, they can create or combine creative ideas into something new and have the courage to develop these ideas in the company (Pham et al., 2022). Innovative behaviour as deliberate renewal, and promotion, there are new ideas that are realized for the work done, the group or the company. By daring to innovate and develop a creative idea into a new reality, on the one hand also dares to be directly involved in taking risks when the idea fails. The failure in question is the results that are expected not by reality. An employee who has innovative behaviour will be very critical and will always try anything to bring up something new in the surrounding environment so that it is more useful and has added value that someone who behaves innovatively will try to solve problems using more effective and efficient methods (Sharifi et al., 2006). The statement shows that high levels of employee performance are also determined by employee engagement. In addition, employee engagement will provide satisfaction, employee commitment to the company, OCB behavior and turnover intentions can also be reduced significantly due to work involvement (Tse et al., 2016).

#### **4. 7. RELATIONSHIP BETWEEN JOB SATISFACTION AND EMPLOYEE PERFORMANCE**

Based on the results of the PLS-SEM analysis, it was found that the p-value of 0.000 was less than 0.050, so it was decided that there was a positive and significant relationship to employee performance. From the results of these calculations, the hypothesis that states that there is a significant relationship between job satisfaction and employee performance can be accepted. This shows that

one of the factors that determines employee performance is job satisfaction. The results of this study strengthen the expert opinion that job satisfaction is a predictor of performance because job satisfaction has a moderate correlation with performance. Satisfied workers do a better job in fulfilling obligations as stated in the job description. Based on the description above, it can be concluded that the better the job satisfaction, the higher the employee's performance in working because providing sufficient job satisfaction for employees, will provide good employee performance so that employees can provide good and satisfactory work results for their organization (Faisal et al., 2020). Job satisfaction is a level of positive or negative feelings about several aspects of work, work situations, and relationships with coworkers. Job satisfaction is a positive or pleasant emotional state resulting from an assessment of a job or work experience. Aspects of job satisfaction are the work itself, salary and social security, promotion, supervision or supervisor, and co-workers where these aspects can play a role and can affect employee performance. Factors that affect job satisfaction are individual factors, social factors, the main factor of the work itself, and external factors. This is known from the level of employee satisfaction with their work which is still weak due to the spirit of encouragement from the leadership in the form of recognition and appreciation for work performance that has not been maximized (rewards and punishments that have not been applied). In addition, there is still a lack of work facilities in the workplace, which reduces comfort in working. Based on this description, the increase in employee job satisfaction needs to be improved. This increase in job satisfaction is expected to employees achieve their goals with satisfactory results. Job satisfaction is also interpreted as a form of positive feelings about work, which is the result of an evaluation of its characteristics (Wuttke et al., 2013). Job dissatisfaction is often cited as the main reason for the high rate of absenteeism and turnover of nurses which poses a threat to health care so that which hinders their efficiency and effectiveness. Another study said that happy employees have a positive effect on productivity, thus suggesting that satisfaction or happiness with one's job has a positive effect on one's performance.

#### **4. 8. RELATIONSHIP BETWEEN WORKFORCE AGILITY AND EMPLOYEE PERFORMANCE**

Based on the results of the PLS-SEM analysis, it was found that the p-value of 0.000 was less than 0.050, so it was decided that there was a positive and significant relationship with employee performance. Agile employees usually have proactive, adaptive and generative behaviour. This view is seen in how employees can adapt, as well as how they can proactively respond and prepare for change to become more agile. Companies that have agile employees will adapt quickly to changes and market spikes and can respond appropriately and flexibly to customer demand. From these definitions, the scope of employee agility focuses on the ability of employees to handle uncertainty and new opportunities. Agility is the ability in the form of dexterity and intelligence possessed by individuals to do something. This means that someone who has an agile attitude can adapt easily and quickly in any situation. Even under pressure, agile employees have good work resilience. That is why this is an indicator of quality candidates. Agility is an ability that is not only mandatory for employees, but also all leaders at the managerial level to the upper ranks. If this attitude is possessed by all members of the company, the business can run well without having to struggle to adapt (Faisal et al., 2020). Employees who have agility will be better able to cope with changes in the work environment, such as changes in work processes, changes in teams, or changes in technology (Georgieva, 2025). They will also be better able to work effectively, solve problems quickly, and achieve goals better. In addition, employees who have agility are better able to make decisions quickly and accurately. This will make them better prepared to face challenges and pursue existing opportunities. Overall, recruiting agile employees is very important for companies to survive and thrive in a rapidly

changing environment and increasingly fierce competition. They will be a valuable asset for the company in dealing with dynamic situations and achieving business goals (Wuttke et al., 2013). Competitive advantage in a company can be created if there is innovative work behaviour and there is a willingness from managers to support it (Swafford et al., 2008). Innovative behaviour also determines the desire of employees to apply new ideas, products, processes and strategies to the work done, their company or its members. Every company must consider it important to motivate employees so that their performance increases through innovative behavior and high performance can be achieved because there is innovative behavior. Innovative behaviour as an individual's action that leads to the interests of the company, where employees introduce and apply their new ideas to benefit the company. Innovation is a process of renewal, and discoveries in the form of ideas, methods or others. Innovative behaviour does not just appear, but innovative behaviour at work will appear if employees are faced with challenges in their work and get broad authority in carrying out their duties and responsibilities (Michalski et al., 2019). Job satisfaction is an affective or emotional response to various aspects or aspects of a person's work so job satisfaction is not a single concept. A person can be relatively satisfied with one aspect of the job and dissatisfied with one or more other aspects (Swafford et al., 2008). Factors that influence job satisfaction are the salary received, the job itself, promotion opportunities, working conditions, coworkers and job security within the organization. The impact of job satisfaction on work is reduced absenteeism, making positive contributions, and remaining with the organization. The phenomenon in manufacturing companies is that employee performance increases by implementing a culture of innovation, companies that implement innovation cultures such as 5S, Kaizen and six sigma have better performance. Another phenomenon is that companies that have a high level of job satisfaction will encourage increased employee performance. Several companies conduct employee satisfaction surveys, and if the results of the employee satisfaction survey are high, it will encourage increased company performance. Several companies have high work agility, which will encourage increased employee performance.

## 5. CONCLUSION

The results of this study are that innovative supply chain behaviour has a positive and significant relationship to performance, Job satisfaction has a significant positive influence on employee performance. Workforce agility has a significant positive influence on employee performance. Innovative supply chain work behaviour is a strategy that companies need to do to meet product demand so that it can be used as a competitive advantage in the company. Innovative supply chain work behaviour that arises in employees is one of the factors that can spur employee work productivity, Satisfied employees tend to be more involved, committed, and proactive in their roles, resulting in higher levels of performance, One of the factors that affects employee performance is agility, agility is the ability related to adaptability and willingness to face the unknown and is used to predict a person's potential performance in carrying out tasks.

The company can design job characteristics according to employee attitudes and involve employees more to improve their performance. If the work is by the employee's attitude, the employee will be more productive and beneficial for the company to achieve existing goals and objectives and develop further to be able to compete in the market; company management creates a supportive work environment because if it is done then indirectly management has shown that there is concern for what employees need and feel, there is development of new skills and is willing to provide assistance related to the work being done. The meaningfulness of a work environment like this can help employees to focus on their work so that they are willing to be involved in their work; and able to inspire employees because leaders have a responsibility to provide information that employees play a major role when the company wants to achieve its overall success. This shows



that the role of leadership that can provide inspiration can influence employee work engagement. The positive impacts of innovative work behaviour include: 1. Can generate ideas for the work environment With innovative work behaviour, it will encourage employees to create new ideas to improve the work environment to be better and create new ways to complete work to be more effective and efficient. 2. Can promote themselves in work An employee who has innovative ideas has a greater chance of being promoted to a higher position. This is because of the employee's role in creating new ideas to solve problems in the company. 3. Can realize new ideas for the work environment Innovative work behaviour as a place within a person to implement new ideas that are hidden and can be used to deal with problems that occur. The implications are (1) the company can design job characteristics according to employee attitudes and involve employees more to improve their performance. If the work is by the employee's attitude, the employee will be more productive and useful for the company to achieve existing goals and targets and develop further to be able to compete in the market; (2) company management creates a supportive work environment because if this is done, then indirectly management has shown that there is concern for what employees need and feel, there is development of new skills and is willing to provide assistance related to the work being done. The meaningfulness of a work environment like this can help employees to focus on their work so that they are willing to be involved in their work; (3) able to inspire employees because leaders have a responsibility to provide information that employees play a major role when the company wants to achieve its overall success. This shows that the role of leadership that can inspire can influence employee work engagement. Employee Agility or employee agility is considered very crucial for employees to have in the company. This is because, Employee Agility is expected to increase the ability of speed in adapting, innovation, flexibility, and employee ability to new changes. This employee agility can be seen from the perspective of the employee's behaviour. Agile employees usually have proactive, adaptive, and generative behaviour. This view is seen in how employees can adapt, as well as how they can proactively respond and prepare for change to become more agile. Companies that have agile employees will adapt quickly to changes and market surges and can respond appropriately and flexibly to customer demand.

Based on the researcher's direct experience in this research process, there are several limitations experienced and can be several factors that can be considered more by future researchers in further refining their research because this research itself certainly has shortcomings that need to be continuously improved in future research. Some limitations in the study include the number of respondents which is only 432 people, of course it is still not enough to describe the real situation. In the data collection process, the information provided by respondents through questionnaires sometimes does not show the respondent's true opinion, this happens because sometimes the differences in thoughts, assumptions and understanding are different for each respondent, as well as other factors such as the honesty factor in filling in the respondent's opinion in the questionnaire.

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