

# Work effectiveness of regional inspectorate employees of Riau Islands Province with the determination of digital transformation, self-efficacy and innovative behaviour through work motivation

Syafrizal Syafrizal<sup>1</sup>, Chablullah Wibisono<sup>2</sup>, Nurhatisyah Nurhatisyah<sup>3</sup>

Batam University, Indonesia<sup>1,2,3</sup>

[syafrizal29031978@gmail.com](mailto:syafrizal29031978@gmail.com)<sup>1</sup>, [chablullahwibisono@gmail.com](mailto:chablullahwibisono@gmail.com)<sup>2</sup>, [nurhatisyah@univbatam.ac.id](mailto:nurhatisyah@univbatam.ac.id)<sup>3</sup>



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## Abstract

**Purpose:** This study aimed to examine the influence of digital transformation, self-efficacy, and innovative behavior on the work effectiveness of employees in the Riau Islands Provincial Inspectorate, with work motivation analyzed as an intervening variable.

**Research Methodology:** The sample in this study comprised employees of the Riau Islands Provincial Inspectorate. A total of samples used was 103 respondents were included in the study. The obtained data were analyzed using data analysis techniques with the help of AMOS 24.0.

**Results:** The findings show that digital transformation, self-efficacy, and innovative behavior significantly affect work effectiveness. Self-efficacy significantly affected work motivation, whereas digital transformation and innovative behavior did not. Work motivation has a strong and significant influence on work effectiveness. Moreover, self-efficacy indirectly affects work effectiveness through work motivation, whereas digital transformation and innovative behavior show no significant indirect effects via motivation.

**Conclusions:** This study concludes that self-efficacy and motivation are critical drivers of employee effectiveness, whereas digital transformation and innovation require stronger organizational support to contribute effectively.

**Limitations:** The study was limited to one government institution, reducing generalizability, and relied on self-reported survey data that may contain biases.

**Contribution:** This study contributes theoretically by clarifying the mediating role of motivation and practically by offering insights for public sector agencies to strengthen digital transformation initiatives, improve employee confidence, and encourage innovation.

**Keywords:** *AMOS, Digital transformation, Innovative Behavior, Self-Efficacy, Work Effectiveness, Work Motivation*

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## 1. Introduction

Human resources or employees are important components of an organization. Employees are the main factor in achieving organizational goals to assist with government tasks (Nugroho, 2022). Employees expected in an organization are those who are productive and agile in carrying out government tasks; therefore, employees must be utilized optimally so that their existence can be felt and is beneficial for the organization. To achieve the goals of the organization, it is highly dependent on employees to develop their abilities in terms of developing knowledge, skills, and attitudes (M. H. Khan, 2019). This is necessary to increase the effectiveness of employees' work, ensure employees' accuracy in carrying out tasks, and promote cooperation between various work units that carry out different activities. Employees with good work effectiveness exhibit good organizational performance.

In addition to the transition of the work system from manual to automatic or digital transformation, one of the factors that affects the effectiveness of employee work is employees' self-confidence in carrying out tasks (Stajkovic & Luthans, 1998). If employees have an adequate work environment and easy work access, they will feel confident that they can complete the work assigned by their superiors. Ability or confidence influences the success of employees in performing an action or job. Self-confidence is also referred to as self-efficacy. Employees with high efficacy use all their energy to perform a task. Conversely, if employees have low self-efficacy, they are half-hearted and give up quickly when faced with difficulties (Sukrawati, Paramartha, & Indiani, 2021).

Employees' self-efficacy must be considered in this regard. Therefore, effective human resource management is required to address these issues. To improve employee self-efficacy, employees' level of competence must also be good so that they are more confident in their work (Tyas, Tippe, & Sutanto, 2020). The phenomenon in the Riau Islands Province Regional Inspectorate for employee self-efficacy or self-confidence is very good, but there are still some self-confidence problems in some employees because of their educational backgrounds (Abun, Asuncion, Lazaro, Magallanes, & Nimfa, 2021).

Another factor that affects employee effectiveness is innovative work behavior. Innovative work behavior is one of the things that must always be done to improve the development of an organization (Mubarak, Khan, Yasmin, & Osmadi, 2021). Innovative behavior is also necessary to improve employee effectiveness. However, in the work environment of the Riau Islands Province Inspectorate employees, many employees still maintain a work system using the old method (manual) in terms of implementing the main tasks and supervisory functions, namely, in planning, implementing, and reporting the results of supervision. There is no application, only limited to the implementation of follow-up reports on the results of supervision, namely SIM HP (Supervision Results Management Information System), which cannot be accessed online, and not everyone concerned can access it.

However, innovative work behavior must be carried out in a structured and systematic manner in accordance with the applicable Standard Operating Procedure (SOP), and requires commitment, involvement, and management leadership in developing supporting factors, both technical and non-technical, to encourage innovative work behavior in every job role. The lack of innovation carried out by employees is because the Riau Islands Province Regional Inspectorate is an institution that upholds integrity and is full of confidentiality (Liu, Huang, Kim, & Na, 2023). This makes it difficult for employees to innovate and show creativity because they are hampered by strict standard operating procedures. Therefore, an in-depth examination is needed to determine whether it violates the SOP.

Innovative work behavior is the ability to apply creative ideas or solutions to problems in an organization to ensure its survival and growth. To develop an organization, innovative work behavior is the willingness of human resources to create or apply innovative ideas. In addition to the need for innovative behavior from employees, employee motivation is required to improve the effectiveness of their work. Work motivation is given to encourage employees to work effectively so that they can work optimally and be disciplined in carrying out tasks that have become their obligations. The importance of fostering motivation among members in the work environment has a positive impact on the effectiveness of both personnel and organizations (Vo, Tuliao, & Chen, 2022).

Therefore, the researcher was interested in conducting an analysis to identify the problems that occur by analyzing the relationship between the variables of Digital Transformation, Self-Efficacy and Innovative Behavior on Work Effectiveness and Work Motivation. The results of this study are expected to identify the shortcomings of the Regional Inspectorate of the Riau Islands Province, where the researcher took the research sample to provide the best solution related to the problems previously expressed. The title of the research proposed by the researcher in this thesis is "Work effectiveness of regional inspectorate employees of Riau Islands Province with determination of digital transformation, self-efficacy, and innovative behavior through work motivation".

## **2. Literature review**

### **2.1 Digital Transformation**

According to Najoran and Cabral, Djaha, and Nursalam (2019), transformation is a process of gradual change until it reaches the ultimate stage of change, which is carried out by responding to the influence of external and internal elements that directly change from previously known forms through repeated duplications or multiplications. Arimie (2019) defined digital transformation as a process that aims to improve a particular organization, resulting in significant changes in its characteristics through a combination of information technology, computing, communication, and connectivity. (Morande & Marzullo, 2019), digital transformation is a new development in the use of digital artifacts, systems, and symbols that exist in and around an organization. Ghorbani and Khanachah (2020), digital transformation is fundamentally not about the use of technology but about strategy (Kane, Palmer, Phillips, Kiron, & Buckley, 2015). The strategy in question is the company's strategy for using technology so that the company can compete with competing companies.

### **2.2 Self-Efficacy**

Baron and Byrne M. M. R. Khan (2020) stated that academic self-efficacy is related to an individual's belief in their ability to perform tasks, organize their own learning activities, and live up to their own and others' academic expectations. According to Bandura (Sadeghi & Barzegari, 2020), self-efficacy is a person's belief in their ability to exercise several measures of control over their self-functions and events in their environment. Furthermore, Kusumawati (2020) stated that self-efficacy is a self-assessment of whether one can perform good or bad actions, right or wrong, and can or cannot do according to requirements.

According to Acharya (2019), self-efficacy is a person's belief in their chances of being able to successfully achieving a task at a certain level. In other words, self-efficacy is a self-assessment belief regarding a person's competence to succeed in their task. Ormrod in Gina Amalia Nurdini<sup>1</sup>, Neti Hernawati (2023:214) stated that self-efficacy is an individual's assessment of his/her ability to carry out tasks or activities to achieve certain goals. According to the expert opinion above, it can be concluded that self-efficacy is a perception of one's own ability, which refers to confidence in carrying out a task to achieve the desired results.

### **2.3 Innovative Behavior**

According to Farr and Ford Omodero (2019), IWB is a behavior that aims to initiate and introduce new ideas, processes, procedures, or products that are useful for the organization. According to Inkeles et al., Jufri Hasani Z a Joni Harnedi (2022:1) define innovative behavior as part of the process of modernization, which is linked to innovative work behavior as part of the process of change in people's lives, followed by changes in attitudes, traits, and lifestyles of individuals in society. According to West and Farr in El Idrissi and Alami (2021), innovative work behavior is the discovery, experience, and application of new ideas, processes, products, and procedures that are then used in the organization to gain benefits for work performance, work groups, organizations, and the wider community.

According to Chigora, Kapesa, and Svongoro (2021), innovative behavior is individual behavior that aims to achieve deliberate initiation and introduction in the role of group or organizational work to apply new ideas, products, processes, and strategies to the work done, the company, or its members. According to De Jong and Kemp in Reynaldo Vincent, Delfi Panjaitan, Desy Lesmana (2022: 87) innovative behavior as an individual's action that leads to the interests of the company, in which

employees introduce and apply their new ideas to benefit the company. Thus, it can be concluded that innovative work behavior is a form of individual behavior towards discovery and experience by implementing new ideas, concepts, processes, products, and procedures for use in the organization.

## **2.4 Work Effectiveness**

Companies and agencies always attempt to ensure that their employees can achieve work effectiveness. An organization's success in achieving its goals begins with the success of each employee. Effectiveness is a basic element in achieving the goals or targets determined by each organization. Effectiveness can be considered effective if the previously determined goals or targets are achieved. According to Chinyamunjiko, Makudza, and Mandongwe (2022), effectiveness is usually used to measure the extent to which a group or organization is effective in achieving a goal. Work effectiveness is the level at which a person or group carries out their main tasks to achieve desired goals.

According to Alamry, Al-Attar, and Salih (2022), "effectiveness is the achievement of targets that have been mutually agreed upon, and the level of achievement of these targets indicates the level of effectiveness. Based on this statement, effectiveness is related to the achievement of a target or goal. From the opinions above, it can be concluded that work effectiveness is a measure of completing work achievements that have been determined in accordance with the procedures and objectives of the company or organization, as well as the ability to carry out activities that have been set by an institution to achieve goals and achieve maximum success.

## **2.5 Work Motivation**

According to Rahman and Shanjabin (2022), motivation is a condition of energy that moves employees who are directed or focused on achieving the goals of a company's organization. The mental attitude of employees who are positive about their work situation strengthens their work motivation to achieve maximum performance. This means that employees must be mentally, physically, and healthily prepared to work, understand the situation and conditions, and strive to achieve work targets, namely, the main goals of the organization. In everyday life, motivation is interpreted as the entire process of providing encouragement or stimulation to employees so that they are willing to work willingly without being forced.

Based on the description of the theory and opinions of the experts above, it can be concluded that motivation is an employee's feeling (happy or unhappy) towards the work that is their job, such as being happy with the rewards given, happy with cooperation between employees, and other things. Indicators: physical needs, needs for safety, social needs, needs for appreciation, and the need for encouragement to achieve goals.

## **2.6 Hypothesis Development**

### **2.6.1 Relationship between Digital Transformation and Work Effectiveness**

According to Najoan and Johansen in Khaqim Nurjawahir, Safuan, and Musa Alkadhim Alhabshy (2021:3349), transformation is a process of gradual change until it reaches the ultimate stage of change, which is carried out by responding to the influence of external and internal elements that directly change from previously known forms through repeated duplication or multiplication. According to Steers (2017:14), effectiveness is usually used to measure the extent to which a group or organization achieves a goal. Work effectiveness is the level at which a person or group carries out their main tasks to achieve desired goals.

The government encourages work effectiveness. Work effectiveness describes an organization's success in utilizing its resources to achieve its stated goals. Effectiveness indicates the success of achieving targets; in this case, the closer the target, the higher the effectiveness. In this digital era, employees must be given the opportunity to switch from replication to creation. Stimulating the working frequency of an employee's brain can create better competence, balance, and well-being for employees while increasing creativity, innovation, and becoming part of the creator in the world of technology. In this case, the digitalization of the government system, supported by good competence, will certainly make services more effective and efficient.

**H1:** A positive relationship exists between Digital Transformation and Work Effectiveness.

### *2.6.2 Relationship between Self-Efficacy and Work Effectiveness*

Baron and Byrne in Permana, Harahap, and Astuti (2016:52) stated that academic self-efficacy is related to an individual's belief in their ability to do tasks, organize their own learning activities, and live up to the academic expectations of themselves and others. According to Steers (2017:14), effectiveness is usually used to measure the extent to which a group or organization achieves a goal. Work effectiveness is the extent to which an individual or group carries out its main tasks to achieve desired goals. The experience and abilities possessed by individuals are very important in the world of work; thus, employees can perform their work effectively and efficiently according to their desired goals.

Employees' high abilities can affect the extent to which employees can work effectively, so companies can provide opportunities for employees to develop their potential to achieve maximum work levels. High employee work effectiveness benefits employees because they can easily achieve work achievements. It can be seen that the effectiveness of an employee's work is greatly influenced by self-efficacy and the abilities and experience they have, which will improve their performance. This is in line with the research conducted by Pratiwi (2020), whose results showed that there was a positive and significant influence between self-efficacy and employee work effectiveness.

**H2:** A positive relationship exists between Self-Efficacy and Work Effectiveness.

### *2.6.3 Relationship between Innovative Behavior and Work Effectiveness*

According to De Jong and Kemp in Reynaldo Vincent<sup>1</sup>, Delfi Panjaitan, Desy Lesmana (2022: 87) innovative behavior 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. Innovative work behavior affects employees' work effectiveness. As time goes by, the way employees work must also follow the needs of society according to changes. Therefore, innovative work behaviors must be developed to support work effectiveness in the workplace. This means that the more innovative employees are in their work, the greater the level of work effectiveness produced. Innovative work behavior encompasses discussions on working sincerely, thoroughly, correctly, hard, seriously, creatively, superiorly, and perfectly in their entirety. Creatively working can encourage the emergence of a person's innovative attitude at work, thereby increasing employee work effectiveness.

This is in line with the research conducted by Kurniawan (2019), where the results showed that Innovative Behavior had a positive and significant influence on employee work effectiveness.

**H3:** IB is positively related to work effectiveness.

### *2.6.4 The Relationship between Digital Transformation and Work Motivation*

Anoke (2023) states that digital transformation is fundamentally not about the use of technology but about strategy itself. The strategy in question is the company's strategy for using technology so that the company can compete with competing companies. P. and Hasibuan (2016) motivation comes from the Latin word *movere* which means encouragement or movement. Motivation in management is only shown to human resources in general and subordinates in particular. Motivation questions how to direct the power and potential of subordinates so that they are willing to work together productively to achieve the predetermined goals. With the existence of digital transformation, communication and information gathering are considered simpler, more affordable, practical, and dynamic because everything is done online. For some employees, digital transformation is currently a solution that greatly helps motivate them to work.

Digital Transformation is necessary for every organization. Digital Transformation can provide more motivation to employees. Digital transformation can also provide employees with more flexibility in carrying out their duties. Digital tools that enable remote work or greater mobility can increase employee job satisfaction, motivating employees to contribute more to their work. This is in line with the research conducted by Kurniawan (2019), where the results showed that Innovative Behavior had a positive and significant influence on employee work effectiveness.

**H4:** There is a positive relationship between digital transformation and motivation to work.

### *2.6.5 The Relationship between Self-Efficacy and Work Motivation*

Furthermore, Alwisol (2017:303) stated that self-efficacy is a self-assessment of whether one can perform good or bad actions, right or wrong, and can or cannot do according to requirements. This efficacy is different from aspirations or ideals because ideals describe something ideal that should be (can be achieved), while efficacy describes an assessment of ability. Wahjosumidjo (2015: 172) stated that: motivation is closely related to the success of a leader in moving others to achieve predetermined goals depending on the leader's obligations and also the leader's ability to create motivation in each subordinate, colleague or superior.

Self-efficacy is an individual's assessment of their capability to carry out the tasks at hand, contributing significantly to achievement motivation. Employees with low self-efficacy are likely to be confident in their ability to participate happily when faced with difficult tasks. Employees with high self-efficacy tend to set more challenging goals (quite difficult to achieve), both material and performance goals. Based on the description above, the influence and relationship between self-efficacy and achievement motivation occur when students have expectations in the form of cognitive predictions about the possible results that will be obtained and the possibility of achieving goals, as well as efficacy expectations, where expectations about the emergence of behavior are influenced by a person's perception of performance capabilities related to results.

**H5:** There is a positive relationship between Self-Efficacy and Work Motivation

### *2.6.6 Relationship between Innovative Behavior and Work Motivation*

According to De Jong and Kemp in Reynaldo Vincent<sup>1</sup>, Delfi Panjaitan, Desy Lesmana (2022: 87) innovative behavior 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. Sedarmayanti in Bungin (2017:129) defines motivation as the entire process of providing work motivation to subordinates in such a way that they are willing to work sincerely to achieve organizational goals.

Work motivation encourages employees to carry out their work; if an employee has a strong drive from within or outside himself, the employee will be encouraged to do his job well, so that the drive both from within and outside a person can produce good performance and be able to innovate in doing their job. Thus, the higher the work motivation of an employee, the higher the employee's innovative work behavior. This is in line with research conducted by Wan, He, Zhang, and Zhou (2022), whose results showed a positive and significant influence of Innovative Behavior on employee motivation.

**H6:** There is a positive relationship between Innovative Behavior and Work Motivation

### *2.6.7 The Relationship between Digital Transformation and Work Effectiveness Through Work Motivation*

McGrath & Maiye in Siti Masrohatin, Hafiz Wahyu Ananda, Rizca Laila Amalia, Lynda Qurotul Aini (2023:416) explained that digital transformation is the integration of digital technology into all aspects of agency activities, which will lead to changes in infrastructure, agency operations, and added value provided to its users Pasolong (2017:4) effectiveness basically comes from the word effect and this term is used as a cause and effect relationship Work effectiveness is a state of achieving expected or desired goals through completing work according to a predetermined plan.

The implementation of transformation through information technology, or what is known as digital transformation, is being intensively carried out, which is considered to provide benefits by making employees faster and more precise in completing their work. Thus, employees will be able to continue to be motivated to work well because there will be a sense of satisfaction with their work. In addition, an increase in employee motivation caused by the use of digital transformation in the workplace will improve employee effectiveness. This is in accordance with the research conducted by Sasmita Maharani Lantip (2023), where the results of the study showed a positive and significant influence between digital transformation and employee work effectiveness.

**H7:** There is a positive relationship between digital transformation and work effectiveness through motivation.

#### *2.6.8 The Relationship Between Self-Efficacy and Work Effectiveness Through Work Motivation*

The high or low effectiveness of an employee's work is influenced by self-efficacy factors. Employee self-efficacy does not depend on the fulfillment of needs alone but is highly dependent on the views and opinions of the group that employees consider as a reference group. Employees use reference groups as benchmarks to assess themselves and their environment. Thus, employees feel satisfied if their work results are in accordance with the interests and needs of their reference group. To improve self-efficacy, leaders must respond to employee needs, which has been indirectly carried out by various human resource management activities. However, other actions must be taken to improve the quality of work life.

In addition to self-efficacy, factors within an employee determine the effectiveness of their work. This internal factor is work motivation. Motivation is the drive that leads teachers to carry out tasks. Highly motivated employees are encouraged to work optimally and try their best. If employees work motivation is high, work effectiveness is also expected to be maximized. If employees work motivation is good and supported by high self-efficacy, it is possible that the work effectiveness achieved by employees will be even higher. However, if employee work motivation and self-efficacy are low, the level of achievement of employee work effectiveness will also be low.

This is in line with research conducted by Aslamiyah (2019), who showed that there is a positive and significant influence of self-efficacy on employee work effectiveness motivation.

**H8:** There is a positive relationship between self-efficacy and work effectiveness, as mediated by motivation.

#### *2.6.9 The Relationship Between Innovative Behavior and Work Effectiveness Through Work Motivation*

Motivation is the willingness to make high-level efforts to achieve organizational goals, conditioned by the ability to satisfy the needs of several individuals. Essentially, a person's motivation is determined by the intensity of their motives. Innovative work behavior is an individual behavior that aims to introduce new and useful ideas, processes, products, or procedures to groups or organizations. Innovative work behavior is needed in organizational development and improving performance through improvements or the efficiency of various activities through innovations. To achieve the expected work effectiveness, a combination of innovative work behavior and work motivation within each employee is needed. This is because if an employee has the motivation to develop further by implementing innovative work behavior, the level of success in achieving effective work will increase.

This is in line with the research conducted by Yuliandari (2022), where the results of the study showed a positive and significant influence between motivation and employee work effectiveness.

**H9:** IB is positively related to work effectiveness through work motivation.

#### *2.6.10 Relationship between Work Motivation and Work Effectiveness*

Widodo (2014:183) The power in a person that drives their behavior to take action, the intensity of a person performing a task, or achieving a goal shows the extent of their motivation. According to Hasibuan (2016:105), work effectiveness is a condition that shows the level of success of management activities in achieving goals, including work quantity, quality, and timeliness in completing work.

Motivating employees is important to increase passion and work spirit; if employees are motivated to work, they will feel obliged to do their work optimally. In other words, employees will feel that they must give their best for the company to succeed. High motivation and effectiveness can be achieved if employees are motivated to perform their duties. Motivation can create work abilities and cooperation, thus indirectly increasing effectiveness. Meanwhile, if employee motivation is high but not supported by a comfortable work environment, the results of motivation and work effectiveness are poor.

This is in line with the research conducted by Susilarto (2023), where the results showed that there was a positive and significant influence between motivation and employee work effectiveness.

**H10:** There is a positive relationship between work motivation and effectiveness.

To facilitate understanding of the flow of thought in this study, the variables to be studied are presented in the following image:

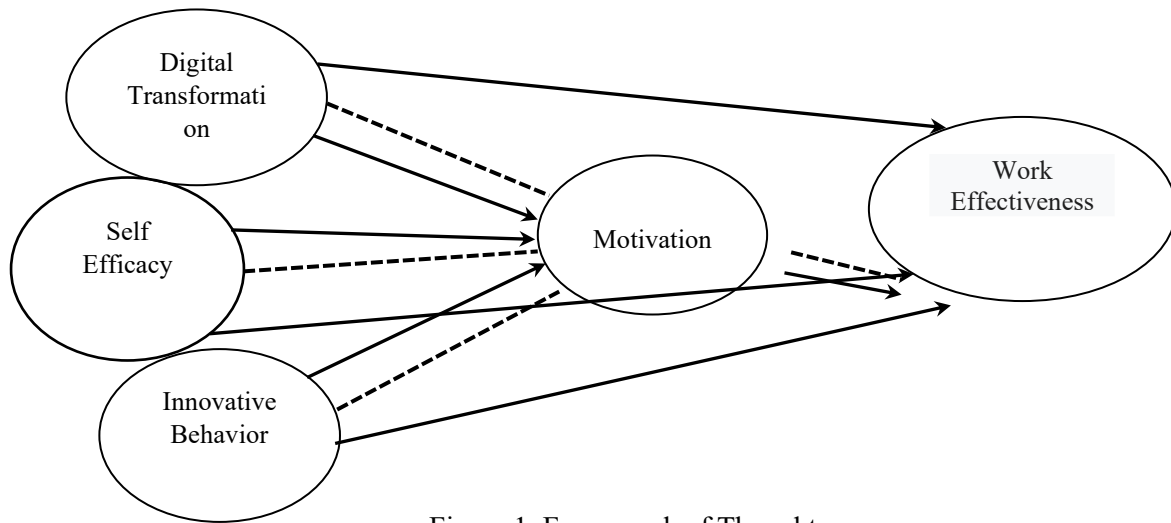


Figure 1. Framework of Thought

Description:

X <sub>1</sub>	=	Independent Variable (exogenous) Digital Transformation
X <sub>2</sub>	=	Independent Variable (exogenous) Self Efficacy
X <sub>3</sub>	=	Independent Variable (exogenous) Behavior Innovative
Z	=	Intervening Variable Motivation
Y	=	Dependent Variable (endogenous) Work Effectiveness

### 3. Research methodology

#### 3.1 Population

The population in this study was the employees of the Inspectorate of the Riau Islands Province. The total population was 103 patients. The details are as follows:

Table 1. Population criteria

Description		Total	Percentage
Gender	Male	60	58,2
	Female	43	41,8
Age	< 30 Years	5	4,9
	30-40 Years	38	36,9
	> 40 Years	60	58,2
Education	S2	27	26,2 %
	S1	66	64,1 %
	D3	3	2,9 %
	SMA	7	6,8 %

#### 3.2 Operational Definition of Variables

Table 2. Digital Transformation Variable Instrument Grid

Variable	Indicator	Statement Items	Scale
Digital Transformation Soekanto (2019)	1. Coping Process	1,2,3	Likert
	2. Adjustment Process	4,5,6,	
	3. Change Process	7,8,9,,	
	4. Evaluation Process	10,11,12	
	5. Adaptation Process	13,14,15	



Self Efficacy (X2) Yunianti Elis (2016)	1. Confident in being able to complete a specific task	1,2,3	Likert
	2. Confident in being able to motivate oneself to take the necessary actions to complete the task	4,5,6	
	3. Confident in being able to work hard, persistently and diligently	7,8,9	
	4. Confident in being able to survive obstacles and difficulties		
	5. Confident in being able to complete tasks that have a wide or narrow range (specific)	10,11,12	
		13,14,15	
Innovative Behavior (X3) Kleysen dan Street (2016)	1. Exploration of Strength opportunities	1,2, 3,	Likert
	2. Generativity		
	3. Formative suggestions	4,5,6	
	4. Fighting for	7,8,9,	
	5. Application	10,11,12, 13,14,15	
Motivation Hasibuan (2019)	1. Physical Needs	1,2,3,	Likert
	2. Safety Needs	4,5,6,	
	3. Social Needs		
	4. Need for Appreciation	7,8,9,	
	5. Need for motivation to achieve goals	10,11,12	
		13,14,15	
Performance Steers (2017)	1. Adaptability	1,2,3	Likert
	2. Job performance		
	3. Job satisfaction	4,5,6	
	4. Quality	7,8,9	
	5. External assessment	10,11,12 13,14,15	

## 4. Result and discussion

### 4.1 Research Results

#### 4.1.1 Evaluation of SEM Assumptions

The evaluation of SEM assumptions was preceded by a normality evaluation to determine the normality of the data.

#### 4.1.2 Evaluation of Data Normality

Confirmatory Factor Analysis (CFA) Test Results

##### 1. Confirmatory Factor Analysis of Digital Transformation Variables.

The confirmatory factor analysis (CFA) of the Digital Transformation variable is shown in the image below:

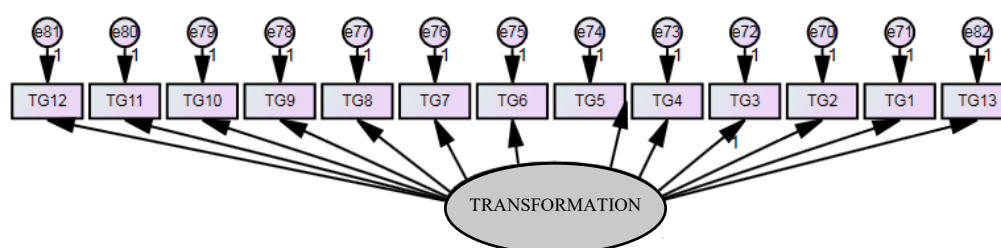


Figure 2. CFA of Digital Transformation Variables  
Data source: IBM AMOS 24 Report Output (2023)

Table 3. Standardized Regression Weights of Digital Transformation Variables

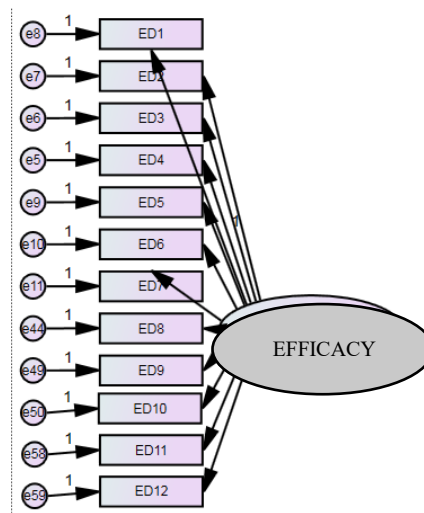
			Estimate
TG2	<---	TRANSFORMATION	,703
TG1	<---	TRANSFORMATION	,711
TG3	<---	TRANSFORMATION	,851
TG4	<---	TRANSFORMATION	,759
TG5	<---	TRANSFORMATION	,766
TG6	<---	TRANSFORMATION	,793
TG7	<---	TRANSFORMATION	,892
TG8	<---	TRANSFORMATION	,810
TG9	<---	TRANSFORMATION	,742
TG10	<---	TRANSFORMATION	,711
TG11	<---	TRANSFORMATION	,658
TG12	<---	TRANSFORMATION	,716
TG13	<---	TRANSFORMATION	,668

Data source: IBM AMOS 24 Report Output (2023)

Based on the results of the confirmatory factor analysis of the Digital Transformation variable indicators, both in the form of diagrams and tables, the *Regression Weight* ( $(\lambda)$ ) for the 13 indicators is greater than 0.50, the C.R. coefficient is greater than 2.00, and the probability value of the 13 indicators is less than 0.05 (\*\*\*) means <0.000. Thus, it can be said that in terms of CFA, the 13 indicators are strong enough to confirm the latent variable of Digital Transformation. Therefore, 13 indicators were included in the further analysis.

## 2. Confirmatory Factor Analysis of Self-Efficacy Variables

The confirmatory factor analysis (CFA) of the self-efficacy variable based on the results of data processing is shown in the image below:



Data source: IBM AMOS 24 Report Output (2023)

Table 4. Standardized Regression Weights of Self-Efficacy Variables

			Estimate
ED4	<---	EFFICACY	,699
ED3	<---	EFFICACY	,803

			Estimate
ED2	<---	EFFICACY	,877
ED1	<---	EFFICACY	,850
ED5	<---	EFFICACY	,670
ED6	<---	EFFICACY	,704
ED7	<---	EFFICACY	,873
ED8	<---	EFFICACY	,902
ED9	<---	EFFICACY	,846
ED10	<---	EFFICACY	,697
ED11	<---	EFFICACY	,629
ED12	<---	EFFICACY	,627

Data source: *Output IBM AMOS 24 Report (2023)*

Based on the results of the confirmatory factor analysis of the self-efficacy variable indicators, both in the form of diagrams and tables, it is known that the *Regression Weight* ( $\lambda$ ) for the 12 indicators is greater than 0.50, the C.R. coefficient is greater than 2.00, and the probability value of the 12 indicators is less than 0.05. Thus, it can be said that in terms of CFA, the 12 indicators are strong enough to confirm the latent variable of self-efficacy. Therefore, 12 indicators were included in the analysis.

### 3. Confirmatory Factor Analysis of Innovative Behavior Variables

The confirmatory factor analysis (CFA) of the Innovative Behavior variable based on the results of data processing is shown in the figure below.

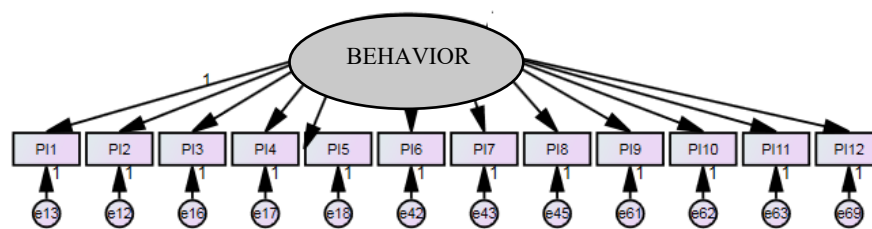


Figure 4. CFA of Innovative Behavior Variables  
Data source: IBM AMOS 24 Report Output (2023)

Table 5. Standardized Regression Weights: Innovative Behavior Variables

			Estimate
PI2	<---	BEHAVIOR	,811
PI1	<---	BEHAVIOR	,728
PI3	<---	BEHAVIOR	,825
PI4	<---	BEHAVIOR	,835
PI5	<---	BEHAVIOR	,804
PI6	<---	BEHAVIOR	,842
PI7	<---	BEHAVIOR	,857
PI8	<---	BEHAVIOR	,749
PI9	<---	BEHAVIOR	,742
PI10	<---	BEHAVIOR	,799
PI11	<---	BEHAVIOR	,647
PI2	<---	BEHAVIOR	,704

Data source: IBM AMOS 24 Report Output (2023)

Based on the results of the confirmatory factor analysis of the indicators of the Innovative Behavior

variable, both in the form of diagrams and tables, it is known that the *Regression Weight* ( $\lambda$ ) for the 12 indicators is greater than 0.50, the C.R. coefficient is greater than 2.00, and the probability value of the 11 indicators is less than 0.05. Thus, it can be said that in terms of CFA, the 12 indicators are strong enough to confirm the latent variable of Innovative Behavior. Therefore, 12 indicators were included in the analysis.

#### 4. Confirmatory Factor Analysis of Work Motivation Variables

The confirmatory factor analysis (CFA) of the Work Motivation Variable based on the results of data processing is shown in the image below:

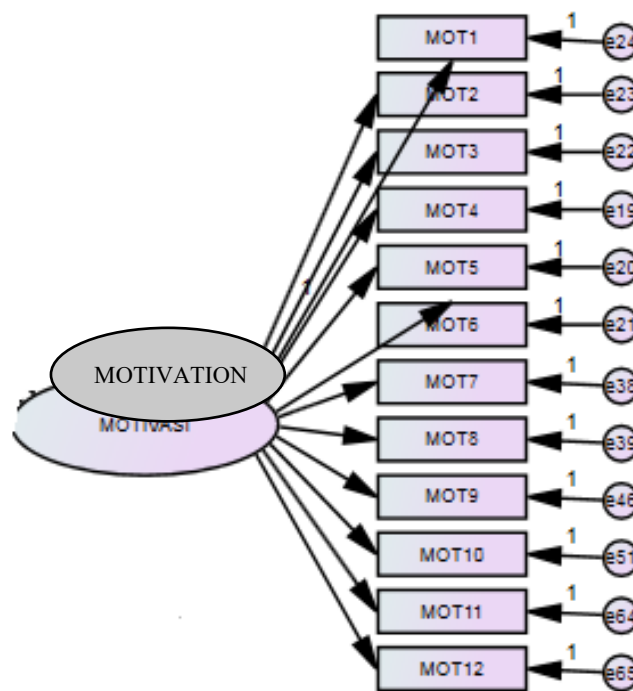


Figure 5. CFA of Motivation Variables  
Data source: IBM AMOS 24 Report Output (2023)

Table 6. Regression Weights: Motivation Variables

			Estimate	S.E.	C.R.	P	Label
MOT4	<---	MOTIVATION	1,000				
MOT5	<---	MOTIVATION	,793	,120	6,627	,000	par_12
MOT6	<---	MOTIVATION	,761	,122	6,250	,000	par_13
MOT3	<---	MOTIVATION	,932	,124	7,539	,000	par_14
MOT2	<---	MOTIVATION	1,033	,136	7,613	,000	par_15
MOT1	<---	MOTIVATION	,824	,118	6,961	,000	par_16
MOT7	<---	MOTIVATION	,957	,132	7,249	,000	par_39
MOT8	<---	MOTIVATION	1,091	,158	6,886	,000	par_40
MOT9	<---	MOTIVATION	1,146	,163	7,033	,000	par_46
MOT10	<---	MOTIVATION	1,107	,153	7,222	,000	par_51
MOT11	<---	MOTIVATION	1,123	,167	6,735	,000	par_64
MOT12	<---	MOTIVATION	1,094	,149	7,330	,000	par_65

Data source: IBM AMOS 24 Report Output (2023)

Both diagrams and tables were used based on the results of the confirmatory factor analysis of the

motivation variable indicators. The *Regression Weight* ( $\lambda$ ) for the 12 indicators was greater than 0.50, the C.R. coefficient was greater than 2.00, and the probability value of the 12 indicators was less than 0.05. Thus, it can be said that in terms of CFA, the 12 indicators are strong enough to define the latent variable, Motivation. Therefore, 12 indicators were included in the analysis.

#### 5. Confirmatory Factor Analysis of Work Effectiveness Variables

The confirmatory factor analysis (CFA) of the Work Effectiveness variable based on the results of data processing is shown in the image below:

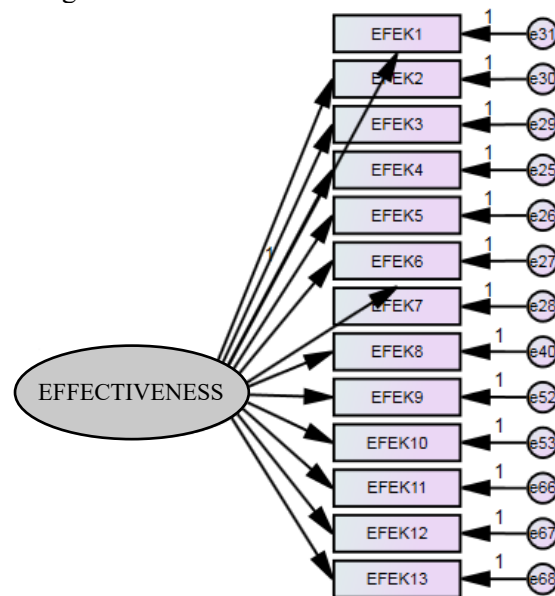


Figure 6. CFA Effectiveness Variable  
Data source: IBM AMOS 24 Report Output (2023)

Table 7. Regression Weights: Effectiveness Variables

			Estimate	S.E.	C.R.	P	Label
EFEK4	<---	EFFECTIVENESS	1,000				
EFEK5	<---	EFFECTIVENESS	,991	,111	8,945	,000	par_17
EFEK6	<---	EFFECTIVENESS	1,043	,113	9,248	,000	par_18
EFEK7	<---	EFFECTIVENESS	,949	,103	9,174	,000	par_19
EFEK3	<---	EFFECTIVENESS	,978	,100	9,800	,000	par_20
EFEK2	<---	EFFECTIVENESS	,999	,111	8,999	,000	par_21
EFEK1	<---	EFFECTIVENESS	1,054	,119	8,854	,000	par_22
EFEK8	<---	EFFECTIVENESS	1,004	,108	9,271	,000	par_41
EFEK9	<---	EFFECTIVENESS	,972	,107	9,106	,000	par_52
EFEK10	<---	EFFECTIVENESS	1,129	,120	9,389	,000	par_53
EFEK11	<---	EFFECTIVENESS	,880	,106	8,331	,000	par_66
EFEK12	<---	EFFECTIVENESS	1,154	,121	9,514	,000	par_67
EFEK13	<---	EFFECTIVENESS	,899	,120	7,471	,000	par_68

Data source: IBM AMOS 24 Report Output (2023)

Based on the results of the confirmatory factor analysis of the effectiveness variable indicators, both diagrams and tables were used in this study. The *Regression Weight* ( $\lambda$ ) for the 13 indicators was greater than 0.50, the C.R. coefficient was greater than 2.00, and the probability value of the 14 indicators was less than 0.05. Thus, it can be said that in terms of CFA, the 13 indicators are strong in defining the effectiveness variable. Therefore, 13 indicators were included in the further analysis.

#### 4.2 Hypothesis Testing Results

In accordance with the research objectives to determine the influence of Digital Transformation, Self-Efficacy, Innovative Behavior, Motivation and Effectiveness, coupled with the hypothesis formulated in Chapter III, data analysis was carried out using the Structural Equation Model (SEM), which is a set of statistical techniques that allows testing a series of relatively complex relationships simultaneously (Ferdinand, 2002; Solimun, 2004). The hypotheses tested were as follows:

1. Hypothesis 1 (H1): Digital Transformation affects the Work Effectiveness of employees in the Riau Islands Province Inspectorate.
2. Hypothesis 2 (H2): Self-efficacy affects the Work Effectiveness of employees in the Riau Islands Province Inspectorate.
3. Hypothesis 3 (H3): Innovative Behavior affects the Work Effectiveness of employees in the Riau Islands Province Inspectorate.
4. Hypothesis 4 (H4): Digital Transformation affects the Work Motivation of employees in the Riau Islands Province Inspectorate.
5. Hypothesis 5 (H5): Communication affects the Work Motivation of employees in the Riau Islands Province Inspectorate.
6. Hypothesis 6 (H3): Innovative Behavior affects the Work Motivation of employees in the Riau Islands Province Inspectorate.
7. Hypothesis 7 (H6): Work Motivation influences the Work Effectiveness of employees in the Regional Inspectorate of the Riau Islands Province.
8. Hypothesis 8 (H8): Digital Transformation indirectly influences Work Effectiveness through Work Motivation of employees in the Regional Inspectorate of the Riau Islands Province.
9. Hypothesis 9 (H9): Self-efficacy indirectly influences Work Effectiveness through Work Motivation of employees in the Regional Inspectorate of the Riau Islands Province.
10. Hypothesis 10 (H10): Innovative Behavior indirectly influences Work Effectiveness through Work Motivation of employees of the Regional Inspectorate of the Riau Islands Province.

Based on this hypothesis, a model of the relationship between the variables was developed, as shown in Figure 7.

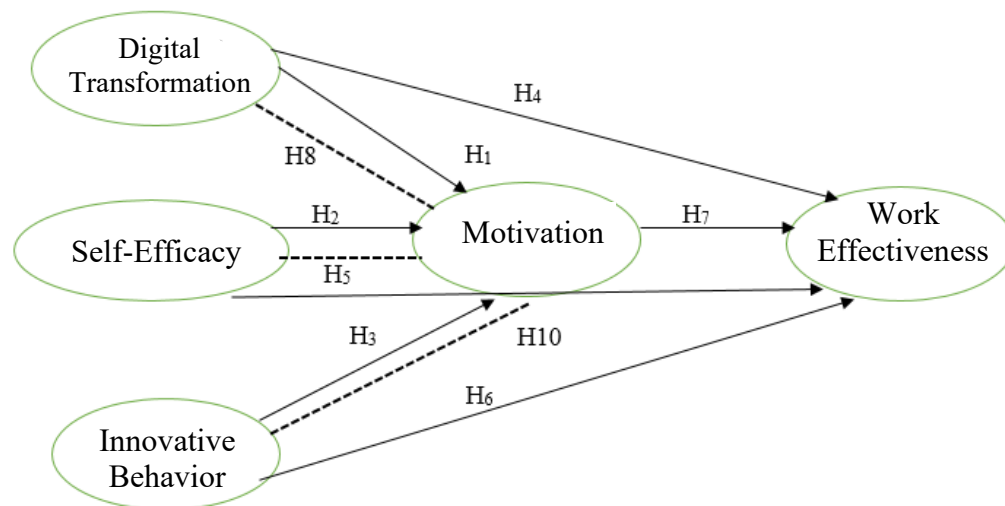


Figure 7. Causality Model of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Work Motivation, and Work Effectiveness

From Figure 7, the structural equation model can be formulated as follows:

- H1 :  $Y = \beta_{y.x1} X_1 + e_1$ ,  $\beta_{y.x1}$  (Direct Effects)  $X_1$  on  $Y$ ,  
H2 :  $Y = \beta_{y.x2} X_2 + e_1$ ,  $\beta_{y.x2}$  (Direct Effects)  $X_2$  on  $Y$ ,  
H3 :  $Y = \beta_{y.x3} X_3 + e_1$ ,  $\beta_{y.x3}$  (Direct Effects)  $X_3$  on  $Y$ ,  
H4 :  $Z = \beta_{z.x1} X_1 + e_2$ ,  $\beta_{z.x1}$  (Direct Effects)  $X_1$  on  $Z$ ,

- H5 :  $Z = \beta_{z2} X_2 + e_2$ ,  $\beta_{z2}$  (Direct Effects)  $X_2$  on  $Z$ ,  
H6 :  $Z = \beta_{z3} X_3 + e_2$ ,  $\beta_{z3}$  (Direct Effects)  $X_3$  on  $Z$ ,  
H7 :  $Z = \beta_{zy} Y_1 + e_2$ ,  $\beta_{zy}$  (Direct Effects)  $Z$  on  $Y$

The model in Figure 7 is then supplemented with the relationship between each latent variable and its respective indicators/question items, so that a more complete path diagram model can be displayed (Figure 8).

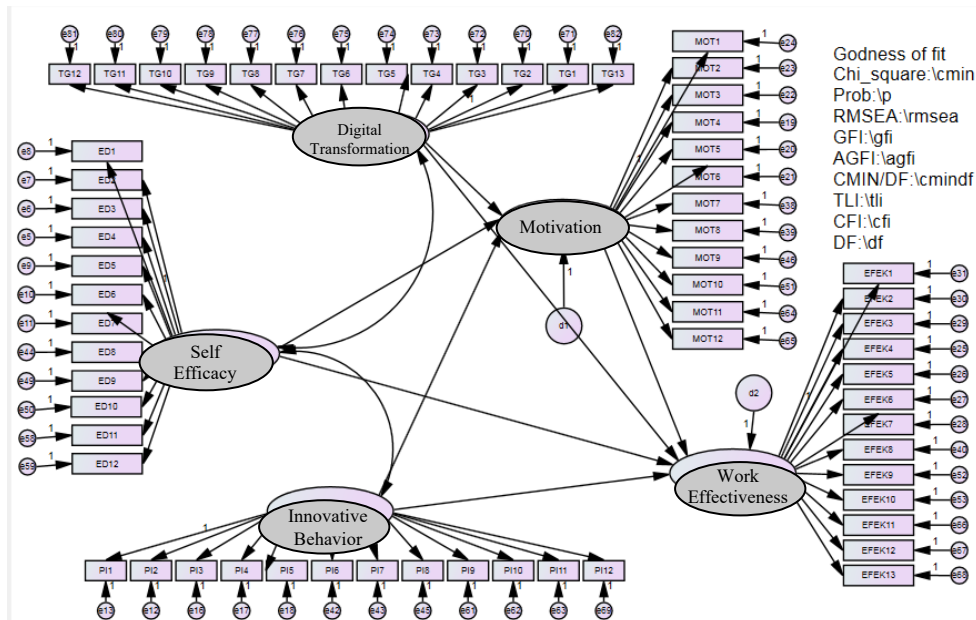


Figure 8. Full Model of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness  
Data Source: output of IBM AMOS 24 Report (2023)

Referring to the image above, the number of indicators for each digital transformation variable—self-efficacy, innovative behavior, motivation, and work effectiveness—can be seen. The respondents' answer scores in Appendix 8 were processed using full model Structural Equation Modeling (SEM) statistics with AMOS for Windows software version 24.0.



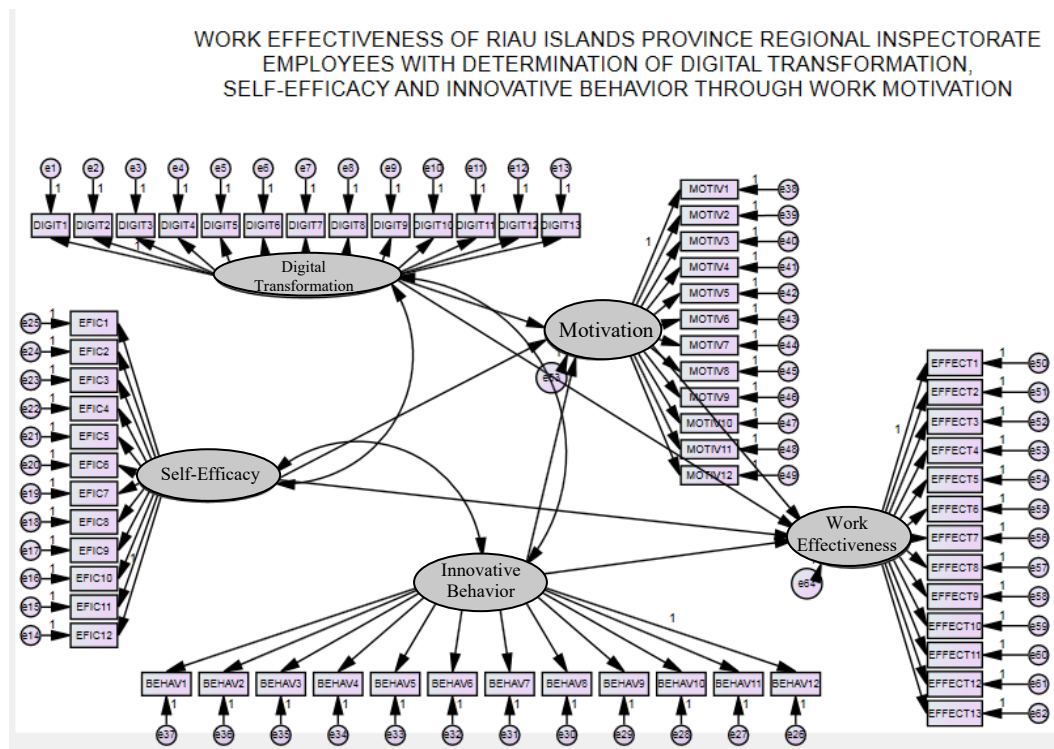


Figure 9. Regression Coefficient of Digital Transformation Variable Model, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness  
Data Source: output of IBM AMOS 24 Report (2023)

Based on the above image, a measurement model analysis can be conducted with lambda parameters, structural model analysis, determination analysis, and goodness of fit for the influence of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation and Work Effectiveness.

### 1. Analysis of Measurement Model Testing with Lambda Parameters ( $\lambda$ )

Parameter testing was conducted using the Lambda Parameter ( $\lambda$ ) test. The test was intended to determine the validity of each indicator. To test the lambda parameter ( $\lambda$ ), the *standardized estimate (regression weight) value* was used in the form of a loading factor. If the standardized estimate (regression weight) value ( $\lambda$ ) > 0,50, the CR value > t<sub>table</sub> = 2,000, and probability <  $\alpha$  = 0,05, then the loading factor of the lambda parameter ( $\lambda$ ) of the indicator is declared significant (Ferdinand & Agusty, 2015:97). This implies that the indicators are valid. To test the lambda parameter, Table 4.16 contains the loading factor/lambda ( $\lambda$ ), CR, Probability (P).

Table 8. Standardized Regression Weight (Lamda) of Digital Transformation, Self-Efficacy, Innovative Behavior, Motivation and Work Effectiveness

			Estimate
MOTIVATION	<---	EFFICACY	,254
MOTIVATION	<---	BEHAVIOR	-,016
MOTIVATION	<---	TRANSFORMATION	,000
EFFECTIVENESS	<---	EFFICACY	-,108
EFFECTIVENESS	<---	BEHAVIOR	,294
EFFECTIVENESS	<---	MOTIVATION	,417
EFFECTIVENESS	<---	TRANSFORMATION	,250
ED4	<---	EFFICACY	,703
ED3	<---	EFFICACY	,711
ED2	<---	EFFICACY	,699
ED1	<---	EFFICACY	,803



			Estimate
ED5	<---	EFFICACY	,877
ED6	<---	EFFICACY	,850
ED7	<---	EFFICACY	,670
PI2	<---	BEHAVIOR	,704
PI1	<---	BEHAVIOR	,873
PI3	<---	BEHAVIOR	,811
PI4	<---	BEHAVIOR	,728
PI5	<---	BEHAVIOR	,825
MOT4	<---	MOTIVATION	,835
MOT5	<---	MOTIVATION	,804
MOT6	<---	MOTIVATION	,759
MOT3	<---	MOTIVATION	,650
MOT2	<---	MOTIVATION	,619
MOT1	<---	MOTIVATION	,724
EFEK4	<---	EFFECTIVENESS	,734
EFEK5	<---	EFFECTIVENESS	,681
EFEK6	<---	EFFECTIVENESS	,819
EFEK7	<---	EFFECTIVENESS	,798
EFEK3	<---	EFFECTIVENESS	,817
EFEK2	<---	EFFECTIVENESS	,812
EFEK1	<---	EFFECTIVENESS	,807
MOT7	<---	MOTIVATION	,771
MOT8	<---	MOTIVATION	,765
EFEK8	<---	EFFECTIVENESS	,851
PI6	<---	BEHAVIOR	,759
PI7	<---	BEHAVIOR	,766
ED8	<---	EFFICACY	,793
PI8	<---	BEHAVIOR	,892
MOT9	<---	MOTIVATION	,810
ED9	<---	EFFICACY	,706
ED10	<---	EFFICACY	,777
MOT10	<---	MOTIVATION	,821
EFEK9	<---	EFFECTIVENESS	,842
EFEK10	<---	EFFECTIVENESS	,857
ED11	<---	EFFICACY	,902
ED12	<---	EFFICACY	,749
PI9	<---	BEHAVIOR	,785
PI10	<---	BEHAVIOR	,742
PI11	<---	BEHAVIOR	,711
MOT11	<---	MOTIVATION	,846
MOT12	<---	MOTIVATION	,697
EFEK11	<---	EFFECTIVENESS	,808
EFEK12	<---	EFFECTIVENESS	,787
EFEK13	<---	EFFECTIVENESS	,818
PI12	<---	BEHAVIOR	,658
TG2	<---	TRANSFORMATION	,716
TG1	<---	TRANSFORMATION	,668
TG3	<---	TRANSFORMATION	,612

			Estimate
TG4	<---	TRANSFORMATION	,629
TG5	<---	TRANSFORMATION	,627
TG6	<---	TRANSFORMATION	,742
TG7	<---	TRANSFORMATION	,799
TG8	<---	TRANSFORMATION	,647
TG9	<---	TRANSFORMATION	,760
TG10	<---	TRANSFORMATION	,752
TG11	<---	TRANSFORMATION	,741
TG12	<---	TRANSFORMATION	,823
TG13	<---	TRANSFORMATION	,676

Data Source: IBM AMOS 24 Report (2023)

Table 9. Regression Weight (lambda) of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness

			Estimate	S.E.	C.R.	P	Label
MOTIVATION	<---	EFFICACY	,311	,144	2,153	,031	par_23
MOTIVATION	<---	BEHAVIOR	-,022	,177	-,124	,902	par_24
MOTIVATION	<---	TRANSFORMATION	,000	,139	-,003	,998	par_25
EFFECTIVENESS	<---	EFFICACY	,323	,128	2,190	,034	par_26
EFFECTIVENESS	<---	BEHAVIOR	,452	,168	2,688	,007	par_27
EFFECTIVENESS	<---	MOTIVATION	,793	,138	3,560	,000	par_28
EFFECTIVENESS	<---	TRANSFORMATION	,289	,103	2,797	,005	par_29
ED4	<---	EFFICACY	1,000				
ED3	<---	EFFICACY	1,336	,199	6,716	,000	par_1
ED2	<---	EFFICACY	1,000				
ED1	<---	EFFICACY	1,539	,203	7,593	,000	par_2
ED5	<---	EFFICACY	1,548	,188	8,248	,000	par_3
ED6	<---	EFFICACY	1,559	,193	8,066	,000	par_4
ED7	<---	EFFICACY	1,106	,170	6,506	,000	par_5
PI2	<---	BEHAVIOR	1,222	,180	6,781	,000	par_6
PI1	<---	BEHAVIOR	1,603	,194	8,278	,000	par_7
PI3	<---	BEHAVIOR	1,000				
PI4	<---	BEHAVIOR	,993	,121	8,233	,000	par_8
PI5	<---	BEHAVIOR	1,140	,117	9,707	,000	par_9
MOT4	<---	MOTIVATION	1,131	,114	9,888	,000	par_10
MOT5	<---	MOTIVATION	1,110	,119	9,341	,000	par_11
MOT6	<---	MOTIVATION	1,000				
MOT3	<---	MOTIVATION	,793	,120	6,627	,000	par_12
MOT2	<---	MOTIVATION	,761	,122	6,250	,000	par_13
MOT1	<---	MOTIVATION	,932	,124	7,539	,000	par_14
EFEK4	<---	EFFECTIVENESS	1,033	,136	7,613	,000	par_15
EFEK5	<---	EFFECTIVENESS	,824	,118	6,961	,000	par_16
EFEK6	<---	EFFECTIVENESS	1,000				
EFEK7	<---	EFFECTIVENESS	,991	,111	8,945	,000	par_17
EFEK3	<---	EFFECTIVENESS	1,043	,113	9,248	,000	par_18
EFEK2	<---	EFFECTIVENESS	,949	,103	9,174	,000	par_19
EFEK1	<---	EFFECTIVENESS	,978	,100	9,800	,000	par_20
MOT7	<---	MOTIVATION	,999	,111	8,999	,000	par_21

			Estimate	S.E.	C.R.	P	Label
MOT8	<---	MOTIVATION	1,054	,119	8,854	,000	par_22
EFEK8	<---	EFFECTIVENESS	1,330	,169	7,875	,000	par_33
PI6	<---	BEHAVIOR	1,306	,184	7,115	,000	par_34
PI7	<---	BEHAVIOR	1,319	,181	7,288	,000	par_35
ED8	<---	EFFICACY	1,127	,145	7,776	,000	par_36
PI8	<---	BEHAVIOR	1,300	,158	8,221	,000	par_37
MOT9	<---	MOTIVATION	1,454	,191	7,595	,000	par_38
ED9	<---	EFFICACY	,957	,132	7,249	,000	par_39
ED10	<---	EFFICACY	1,091	,158	6,886	,000	par_40
MOT10	<---	MOTIVATION	1,004	,108	9,271	,000	par_41
EFEK9	<---	EFFECTIVENESS	1,070	,107	10,017	,000	par_42
EFEK10	<---	EFFECTIVENESS	1,039	,102	10,141	,000	par_43
ED11	<---	EFFICACY	1,595	,188	8,488	,000	par_44
ED12	<---	EFFICACY	,951	,112	8,458	,000	par_45
PI9	<---	BEHAVIOR	1,146	,163	7,033	,000	par_46
PI10	<---	BEHAVIOR	1,263	,182	6,947	,000	par_47
PI11	<---	BEHAVIOR	1,108	,160	6,935	,000	par_48
MOT11	<---	MOTIVATION	1,567	,196	8,003	,000	par_49
MOT12	<---	MOTIVATION	1,135	,168	6,735	,000	par_50
EFEK11	<---	EFFECTIVENESS	1,107	,153	7,222	,000	par_51
EFEK12	<---	EFFECTIVENESS	,972	,107	9,106	,000	par_52
EFEK13	<---	EFFECTIVENESS	1,129	,120	9,389	,000	par_53
PI12	<---	BEHAVIOR	1,257	,200	6,271	,000	par_54
TG2	<---	TRANSFORMATION	1,285	,190	6,748	,000	par_55
TG1	<---	TRANSFORMATION	1,093	,168	6,513	,000	par_56
TG3	<---	TRANSFORMATION	1,151	,197	5,835	,000	par_57
TG4	<---	TRANSFORMATION	1,020	,168	6,086	,000	par_58
TG5	<---	TRANSFORMATION	,959	,158	6,077	,000	par_59
TG6	<---	TRANSFORMATION	,945	,113	8,351	,000	par_61
TG7	<---	TRANSFORMATION	1,110	,122	9,108	,000	par_62
TG8	<---	TRANSFORMATION	,957	,137	6,992	,000	par_63
TG9	<---	TRANSFORMATION	1,123	,167	6,735	,000	par_64
TG10	<---	TRANSFORMATION	1,094	,149	7,330	,000	par_65
TG11	<---	TRANSFORMATION	,880	,106	8,331	,000	par_66
TG12	<---	TRANSFORMATION	1,154	,121	9,514	,000	par_67
TG13	<---	TRANSFORMATION	,899	,120	7,471	,000	par_68

Data Source: IBM AMOS 24 Report (2023).

From the table above, it can be seen that all latent variable indicators have a standardized estimate (regression weight) in the form of a loading factor or lambda ( $\lambda_i$ )  $> 0,50$ , a critical value of C.R  $> 2,000$ , and a probability (P)  $< 0,05$ . Thus, all latent variable indicators are valid and significant.

## 2. Structural Equation Model Analysis

Structural Equations of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness.

H1 :  $Y = \beta_{y.x1} X_1 + e_1$ ,  $\beta$  (Direct Effects)  $X_1$  on  $Y$ ,

H2 :  $Y = \beta_{y.x2} X_2 + e_1$ ,  $\beta$  (Direct Effects)  $X_2$  on  $Y$ ,

H3 :  $Y = \beta_{y.x3} X_3 + e_1$ ,  $\beta$  (Direct Effects)  $X_3$  on  $Y$ ,

H4 :  $Z = \beta_{z.x1} X_1 + e_2$ ,  $\beta$  (Direct Effects)  $X_1$  on  $Z$ ,

H5 :  $Z = \beta_{z.x2} X_2 + e_2$  ,  $\beta_{z.x2}$  (Direct Effects)  $X_2$  on  $Z$ ,  
H6 :  $Z = \beta_{z.x3} X_3 + e_2$  ,  $\beta_{z.x3}$  (Direct Effects)  $X_3$  on  $Z$ ,  
H7:  $Z = \beta_{z.y} Y_1 + e_2$   $\beta_{z.y}$  (Direct Effects)  $Z$  on  $Y$ .

Partial model testing was conducted using regression coefficients for Digital Transformation, Self-Efficacy, Innovative Behavior, Motivation and Work Effectiveness. Using the output table from the view/set submenu,

Table 10. Standardized Direct Effects of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness

	BEHAVIO R	EFFICAC Y	TRANSFORMATI ON	MOTIVATIO N	EFFECTIVENES S
MOTIVATION	,000	-,016	,254	,000	,000
PERFORMANC E	,417	,294	-,108	,250	,000

Data Source: IBM AMOS 24 Report (2023).

Table 11. Standardized Regression Weight of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness

			Estimate
MOTIVATION	<---	EFFICACY	,254
MOTIVATION	<---	BEHAVIOR	-,016
MOTIVATION	<---	TRANSFORMATION	,000
EFFECTIVENESS	<---	EFFICACY	-,108
EFFECTIVENESS	<---	BEHAVIOR	,294
EFFECTIVENESS	<---	MOTIVATION	,417
EFFECTIVENESS	<---	TRANSFORMATION	,250

Data Source: IBM AMOS 24 Report (2023)

Table 12. Regression Weight of Digital Transformation Variables, Self-Efficacy, Innovative Behavior, Motivation, and Work Effectiveness

			Estimate	S.E.	C.R.	P	Label
MOTIVATION	<---	EFFICACY	,311	,144	2,153	,031	par_23
MOTIVATION	<---	BEHAVIOR	-,022	,177	-,124	,902	par_24
MOTIVATION	<---	TRANSFORMATION	,000	,139	-,003	,998	par_25
EFFECTIVENESS	<---	EFFICACY	,353	,128	2,190	,034	par_26
EFFECTIVENESS	<---	BEHAVIOR	,452	,168	2,688	,007	par_27
EFFECTIVENESS	<---	MOTIVATION	,793	,138	3,560	,000	par_28
EFFECTIVENESS	<---	TRANSFORMATION	,289	,103	2,797	,005	par_29

Data Source: IBM AMOS 24 Report (2023)

In the three tables above, it can be seen that the influence of the Digital Transformation variable on the Work Effectiveness variable had a standardized estimate (regression weight) of 0.103, with a CR critical ratio = identical to the t-count value) of 2.797 at probability = 0.005. A CR value of 2.797 > 2.000 and a probability of 0.005 < 0.05 indicate that the influence of the Digital Transformation variable on the Work Effectiveness variable is **significant**.

The influence of the self-efficacy variable on the Work Effectiveness variable had a standardized estimate (regression weight) of 0.128 with a CR (critical ratio = identical to the t-count value) of 2.190 at probability = 0.034. The CR value = 2.190 > 2.000 and probability = 0.034 < 0.05, indicating that the influence of self-efficacy on Work Effectiveness was **significant**.

The influence of Innovative Behavior on the Work Effectiveness variable has a standardized estimate (regression weight) of 0.168, with a CR (critical ratio = identical to the t-count value) of 2.688 at probability = 0.007. The CR value = 2.688 > 2.000 and probability = 0.007 < 0.05, indicating that the influence of the Innovative Behavior variable on the Work Effectiveness variable is **significant**.

The influence of the Digital Transformation variable on the motivation variable had a standardized estimate (regression weight) of 0.139 with a CR (critical ratio = identical to the t-count value) of -0.003 at a probability of 0.998. A CR value of -0.003 < 2.000 and a probability of 0.998 > 0.05 indicate that the influence of the Digital Transformation variable on the motivation variable is **not significant**.

The influence of the self-efficacy variable on the Work Motivation variable had a standardized estimate (regression weight) of 0.144, with a CR (critical ratio = identical to the t-count value) of 2.153 at probability = 0.031. The CR value = 2.153 > 2.000 and probability = 0.031 < 0.05, indicating that the influence of the self-efficacy latent variable on the Work Motivation latent variable is **significant**.

The influence of Innovative Behavior on Work Work Motivation has a standardized estimate (regression weight) of -0.177, with a CR (critical ratio = identical to the t-count value) of -0.124 at probability = 0.902. The CR value = -0.124 < 2.000 and probability = 0.902 > 0.05, indicating that the influence of Innovative Behavior on Work Work Motivation was **not significant**.

The influence of the motivation variable on the effectiveness variable had a standardized estimate (regression weight) of 0.138, with a critical ratio (CR) of 3.560 at a probability of 0.000. The CR value = 3.560 > 2.000 and probability = 0.000 < 0.05, shows that the influence of the motivation variable on the effectiveness variable was **significant**.

The results of testing the hypothesis of the indirect influence of Digital Transformation on Effectiveness through Motivation as an intervening variable using the Sobel test calculator program are presented in the following table:

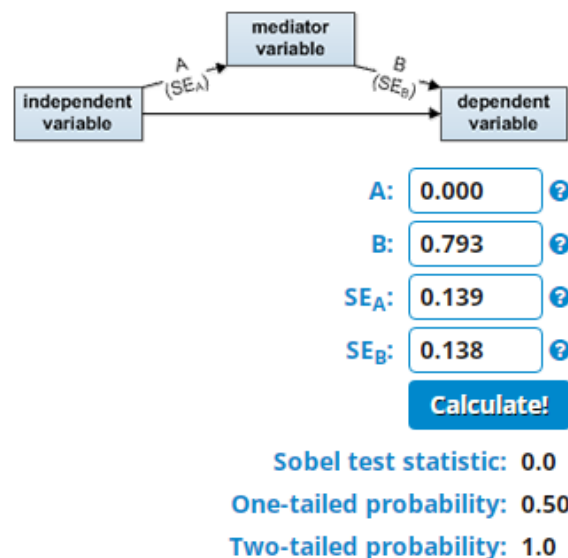


Figure 10. Results of Sobel Test of Digital Transformation on Effectiveness through Motivation

Based on the results of the Calculation for the Sobel test in the image above, it can be seen that the two-tailed Probability value = 1.0 is greater than 0.05, so it can be concluded that the influence of digital transformation on effectiveness two-tailed probability is **not significant**.

The results of test; therefore, the hypothesis of the indirect influence of Self-Efficacy on Effectiveness through Motivation as an intervening variable using the Sobel test calculator program are presented in the following table:

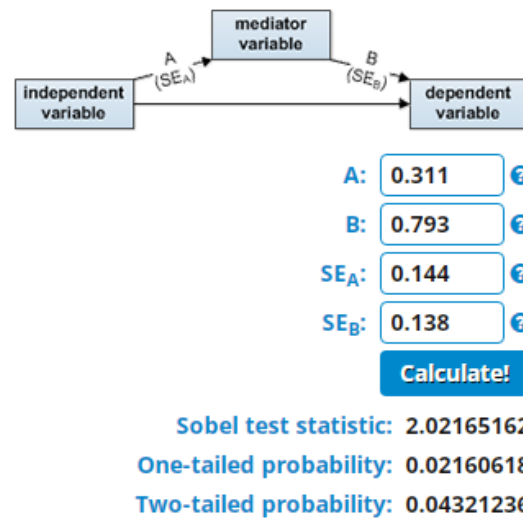


Figure 11. Results of the Sobel Test of Self-Efficacy on Performance through Motivation

Based on the results of the Calculation for the Sobel test in the above image, it can be seen that the two-tailed probability value = 0.04321236 is smaller than 0.05. This means that the influence of Self-Efficacy on Effectiveness Through Motivation was **significant**.

The results of testing the hypothesis of the indirect influence of innovative behavior on effectiveness through motivation as an intervening variable using the Sobel test calculator program are presented in the following table:

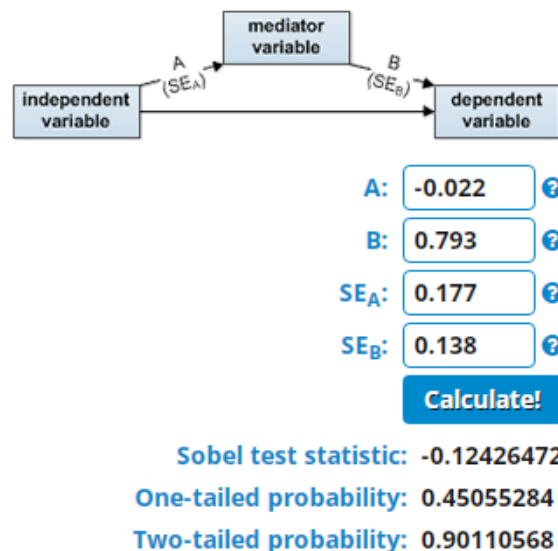


Figure 12. Results of the Sobel Test of Innovative Behavior on Effectiveness via Motivation

Based on the results of the Sobel test in the image above, the two-tailed probability value = 0.90110568 is greater than 0.05; therefore, it can be concluded that the influence of Digital Transformation on Effectiveness through Motivation is **not significant**.

## 5. Conclusion

### 5.1 Conclusion

The analysis showed that digital transformation (CR = 2.797; p = 0.005), self-efficacy (CR = 2.190; p = 0.034), and innovative behavior (CR = 2.688; p = 0.007) each had a significant direct effect on work effectiveness. Self-efficacy had a significant positive influence on work motivation (CR = 2.153; p = 0.031), whereas digital transformation (CR = -0.003; p = 0.998) and innovative not (CR = -0.124; p = 0.992). Work motivation significantly improved work effectiveness (CR = 3.560; p = 0.000). In terms of mediation, digital transformation and innovative behavior do not significantly affect work effectiveness through motivation (p = 1.0 and p = 0.901), whereas self-efficacy has a significant indirect effect on work effectiveness through work motivation (p = 0.043).

## 5.2 Implications

The implications of this study are as follows:

### 1. heoretical implications

Theoretically, the employee performance model involves aspects of Digital Transformation, Self-Efficacy and Innovative Behavior with the aim of increasing Work Effectiveness. Through this study, aspects and factors that encourage criteria for increasing productivity were identified.

### 2. Practical implications

Based on the conclusions that have been put forward, there is a relationship between Digital Transformation, Self-Efficacy, and Innovative Behavior on Employee Work Effectiveness. This proves that Digital Transformation, Self-Efficacy, and Innovative Behavior are the factors that determine employee work effectiveness.

### 3. Methodological implications

Causal research has several shortcomings, including the possibility of coincidental events that can be misinterpreted as cause-and-effect relationships. It may be difficult to reach a correct conclusion based on the findings of causal research. This is because of the impact of various factors and variables on the social environment. This study has implications for the use of causal methods.

## 5.3 Suggestions

To optimize employee work effectiveness, several improvements need to be made, including the following: leaders are expected to always be able to routinely provide motivation to employees because motivation is one of the things that makes employees more enthusiastic about working so that the implementation of tasks can be completed quickly and with quality and become more effective. In addition, providing opportunities for employees to express new ideas and concepts while completing existing work must comply with existing regulations.

## References

- Abun, D., Asuncion, S. B., Lazaro, J. R., Magallanes, T., & Nimfa, C. C. (2021). The effect of educational attainment, length of work experience on the self-efficacy of teachers and employees. *International Journal of Business Ecosystem & Strategy* (2687-2293), 3(2), 16-28. doi:<https://doi.org/10.36096/ijbes.v3i2.258>
- Acharya, M. (2019). A review on status and profitability of large cardamom production in Nepal. *International Journal of Financial, Accounting, and Management*, 1(1), 17-22. doi:<https://doi.org/10.35912/ijfam.v1i1.53>
- Alamry, S. J. M., Al-Attar, H. A., & Salih, A. S. (2022). The effect of using the Balanced Scorecard (BSC) on reducing the financial and administrative corruption in Iraqi Government Units. *International Journal of Financial, Accounting, and Management*, 4(1), 67-83. doi:<https://doi.org/10.35912/ijfam.v4i1.732>
- Anoke, A. F. (2023). Microfinance services and the growth of women entrepreneurial businesses in North Central Nigeria. *International Journal of Financial, Accounting, and Management*, 4(4), 379-393. doi:<https://doi.org/10.35912/ijfam.v4i4.1106>
- Arimie, C. J. (2019). Employer-employee relations and employee engagement in a tertiary institution in Benin-City, Edo State. *Annals of Management and Organization Research*, 1(1), 9-24. doi:<https://doi.org/10.35912/amor.v1i1.199>

- Cabral, H. d. C. G., Djaha, A. S., & Nursalam, N. (2019). The Development of Human Resources in the University of Dili, Timor-Leste (a Rector's Policy Study). *Annals of Management and Organization Research*, 1(1), 1-7. doi:<https://doi.org/10.35912/amor.v1i1.143>
- Chigora, F., Kapesa, T., & Svongoro, P. (2021). Revisiting nation branding: An infrastructure financing perspective in Zimbabwe. *International Journal of Financial, Accounting, and Management*, 3(2), 179-192. doi:<https://doi.org/10.35912/ijfam.v3i2.611>
- Chinyamunjiko, N., Makudza, F., & Mandongwe, L. (2022). The nexus between blockchain distributed ledger technology and financial crimes. *International Journal of Financial, Accounting, and Management*, 4(1), 17-30. doi:<https://doi.org/10.35912/ijfam.v4i1.815>
- El Idrissi, I., & Alami, Y. (2021). The financial impacts of board mechanisms on performance: The case of listed Moroccan banks. *International Journal of Financial, Accounting, and Management*, 3(2), 93-113.
- Ghorbani, S., & Khanachah, S. N. (2020). Provide a model for establishing a comprehensive knowledge management system in knowledge-based organizations based on success factors. *Annals of Management and Organization Research*, 2(1), 1-12. doi:<https://doi.org/10.35912/amor.v2i1.569>
- Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2015). Strategy, not technology, drives digital transformation. *MIT Sloan management review*.
- Khan, M. H. (2019). Knowledge, skills and organizational capabilities for structural transformation. *Structural Change and Economic Dynamics*, 48, 42-52. doi:<https://doi.org/10.1016/j.strueco.2018.05.006>
- Khan, M. M. R. (2020). Strategic human resource management in facilitating the organizational performance: Birds-eye view from Bangladesh. *Annals of Management and Organization Research*, 2(1), 13-24. doi:<https://doi.org/10.35912/amor.v2i1.575>
- Kusumawati, F. R. (2020). Profitability determinants of five-star hotels in Yogyakarta. *Annals of Management and Organization Research*, 2(1), 41-52. doi:<https://doi.org/10.35912/amor.v2i1.670>
- Liu, X., Huang, Y., Kim, J., & Na, S. (2023). How ethical leadership cultivates innovative work behaviors in employees? Psychological safety, work engagement and openness to experience. *Sustainability*, 15(4), 3452. doi:<https://doi.org/10.3390/su15043452>
- Morande, S., & Marzullo, M. (2019). Application of Artificial Intelligence and Blockchain in healthcare management-donor organ transplant system. *Ann. Manag. Organ. Res.*, 1(1), 25-38. doi:<https://doi.org/10.35912/amor.v1i1.261>
- Mubarak, N., Khan, J., Yasmin, R., & Osmadi, A. (2021). The impact of a proactive personality on innovative work behavior: the role of work engagement and transformational leadership. *Leadership & Organization Development Journal*, 42(7), 989-1003. doi:<https://doi.org/10.1108/LODJ-11-2020-0518>
- Nugroho, S. H. (2022). The role of human resources management in organizational perspective. *Global Journal of Engineering and Technology Advances*, 10(3), 012-018. doi:<https://doi.org/10.30574/gjeta.2022.10.3.0040>
- Omodero, C. O. (2019). Genesis of accountability and its impact on accounting. *International Journal of Financial, Accounting, and Management*, 1(1), 47-55.
- P., M. S., & Hasibuan. (2016). *Manajemen Sumber Daya Manusia*.
- Rahman, G. M., & Shanjabin, S. (2022). The trilogy of job stress, motivation, and satisfaction of police officers: Empirical findings from Bangladesh. *International Journal of Financial, Accounting, and Management*, 4(1), 85-99. doi:<https://doi.org/10.35912/ijfam.v4i1.866>
- Sadeghi, S., & Barzegari, J. (2020). Accounting in the fourth industrial revolution: Exploration of digital currency exchanges using AHP method. *Annals of Management and Organization Research*, 2(1), 25-40.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological bulletin*, 124(2), 240. doi:<https://psycnet.apa.org/doi/10.1037/0033-2909.124.2.240>
- Sukrawati, N. M., Paramartha, W., & Indiani, N. M. (2021). The Importance Of Psychological Aspects And Motivation For Students In Learning Hindu Religious Education In The Era Of The Pandemic Covid-19. doi:<http://repo.unhi.ac.id/jspui/handle/123456789/2080>



- Tyas, A. A. W. P., Tippe, S., & Sutanto, S. (2020). How Employee Competency and Self Efficacy Affect Employee Work Engagement in Human Resource Development Agency (BPSDM) Ministry of Law and Human Rights Republic of Indonesia. *IJHCM (International Journal of Human Capital Management)*, 4(2), 125-140. doi:<https://doi.org/10.21009/IJHCM.04.02.11>
- Vo, T. T. D., Tuliao, K. V., & Chen, C.-W. (2022). Work motivation: The roles of individual needs and social conditions. *Behavioral Sciences*, 12(2), 49. doi:<https://doi.org/10.3390/bs12020049>
- Wan, X., He, R., Zhang, G., & Zhou, J. (2022). Employee engagement and open service innovation: The roles of creative self-efficacy and employee innovative behaviour. *Frontiers in Psychology*, 13. doi:<https://doi.org/10.3389/fpsyg.2022.921687>