

# **The Relationship Between Digital Competencies Moderated By Digital Leadership On Employee Resilience At Pt Angkasa Pura I Branch Of Sam Ratulangi Airport Manado**

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**ABSTRACT :** *The fourth industrial revolution has transformed work processes and employee resilience, requiring digital leaders with skills and competencies. This study aims to explore the relationship between digital competencies and employee resilience, and the relationship between digital leadership and employee resilience at PT Angkasa Pura I branch of Sam Ratulangi Airport in Manado. It also investigates whether digital leadership moderates the impact of digital competencies on employee resilience. In the first hypothesis, it is stated that digital competencies have an impact of 0.488 on employee resilience. Similarly, in the second hypothesis, it is stated that digital competencies have an impact of 0.375 on employee resilience. Additionally, the third hypothesis indicates that the relationship between digital competencies and employee resilience is moderated by digital leadership, resulting in a significant effect. This implies that digital competencies, when combined with effective digital leadership, can further enhance employee resilience. By implementing training programs, encouraging innovation, and establishing digital leadership development initiatives, leaders can navigate Industry 4.0 challenges, improve employee resilience, and drive sustainable growth*

**KEYWORDS -** *Digital Competencies, Digital Leadership, Employee Resilience, Industry 4.0*

## **I. INTRODUCTION**

The world is facing the fourth industrial revolution, which means changes are happening to every aspect in human life. The changes that are currently happening in this world is a challenge for every company, so does PT Angkasa Pura I. Every leader must have faced how their employees find setbacks and challenges in the workplace. Especially the post-Covid-19 situation which has caused many changes in the work process in a company. Companies are forced to find new strategies that match the current circumstances. Forcing employees to change from working in a traditional way to a more modern way can cause emotional effects such as frustration or stressful situations (Tugade & Fredrickson, 2004, p. 322) which can cause a decrease in their performance in achieving the vision and mission of the company. How employees deal with workplace setbacks and challenges can be seen from their level of resilience. It is about how employees can cope with the unfavorable emotional conditions in a changing situational demand that is currently happening.

It is undeniable, employees are an important asset for a company. They are a spinning wheel to achieve company goals, especially in the face of rapid change. Therefore, these employees must be able to cope with changing circumstances (Shin et al., 2012; Tugade & Fredrickson, 2004). The rapid change that is currently happening leads companies to compete to keep up with digital transformation in this 4.0 era. This transformation adopts variations of technologies, such as digital platforms, internet of things (IOT), artificial intelligence (AI), machine learning (ML), and big data (Cortellazzo et al., 2019). The use of information technology in all sectors is, of course, very helpful for companies to achieve their goals. The existence of digitalization also provides its own challenges for employees, with automation the company can replace its employees with technology that can make it easier for employees' performance (Naude, 2019), thus dismissal of the workforce can also occur considering that work that was previously always done manually has been replaced by technology. However, according to previous research (Naude, 2019) even though unemployment occurs, there will still be opportunities or other employment opportunities. Even so, employees are still the main key to a transformation that occurs in a company. Considering workforce changes in companies that rely on employees as the main asset, the resilient employee in one company is the key to the success of implementing digital

transformation, compared to companies with less resilient employees. The question is who is responsible for building resilience for their employees. That would be the leaders.

Leaders have a responsibility to influence their employees in a direct or indirect way. Then, what kind of leaders can influence their employees so they can survive in the rapid changes situation that the world is currently facing. Leaders who can think ahead and adapt to digital transformation. Previous research (Oberer & Erkollar, 2018) has stated that companies must have good design thinking skills in order to be able to develop bright ideas, as well as concepts to increase the level of innovation within a company. In the end, leaders must have a mindset towards digital transformation, referred to as digital leaders, who are able to build collaborative network organizations and have higher digital competencies (Frankowska et al., 2020).

Leaders who know what to do in adapting their employees in the face of digital transformation can provide new enthusiasm for employees who are in a state of confusion about the changes that are taking place. Increasing technological capabilities within a company will result in unemployment and changes in work and the workforce, which is caused by the trend of using technology in every existing job to accelerate the achievement of organizational goals (G. Rana & Sharma, 2019). That is why, ensuring that the talents in the company are equipped with good quality and competence is the main role for every Human Resources Manager or Human Capital Manager. This is a challenge for every HRD / HCM out there to ensure this happens. Especially leaders who lead in a division, so that they are equipped with basic skills or competencies to deal with digital transformation, can be called digital skills or digital competencies, so that later employees who are facing digital transformation can thrive, not just survive, in a high stress environment.

Currently, using digital transformation, companies can gain new perspectives in managing companies, optimizing company operations, and changing business models to become more effective. This has also been initiated by PT Angkasa Pura I, already started during the Covid-19 pandemic in 2020. PT Angkasa Pura I has started to plan the implementation of smart airports to adopt new habits towards operational excellence and service excellence at all airports managed by PT Angkasa Pura I. The programs launched are the Airport Operation Control Center (AOCC), virtual customer service, boarding pass scanners and thermal scanners. Likewise, in 2022, PT Angkasa Pura I has set a target for business recovery and efficiency for 2022-2024, relying on technological efficiency as the axis.

The statement above proves that the PT Angkasa Pura I is already literate in technology and has a vision to turn all airports managed by PT Angkasa Pura I into smart airports. Thus, many jobs that were previously done manually are now being replaced with technology in the industrial era 4.0. This also indicates a change in the way leaders are at PT Angkasa Pura I due to digital leadership and competencies are required to implement the digital transformation that is currently happening at PT Angkasa Pura I. Therefore, this research was conducted with the main objective of examining the influence of digital leadership of the leaders that is moderated by digital competencies on employee resilience at PT Angkasa Pura I branch of Sam Ratulangi International Airport Manado where this aspect of leadership can help employees to thrive, in a high stress level environment due to changes in work processes due to digital transformation.

## II. LITERATURE REVIEW

### II.1 Industry 4.0

Industry 4.0 is a concept that appeared around 2011 for the first time with the aim of digitizing the manufacturing process so that all existing information can be connected to machines in a controlled environment in order to reduce human work themselves (Reischauer, 2018). The German Industrial and Academic communities are pioneers who promote, support and develop the concept of Industry 4.0. With the support from the German government, they are trying to framing and developing the industrial competence of their country. It cannot be denied that Germany is one of the leaders for manufacturing and has so many manufacturing industries (Rojko, 2017).

Industry 4.0 is a new paradigm of smart and autonomous manufacturing, in which it combines manufacturing operating systems with communication, information and intelligence technologies (Wang et al., 2017). It is focused on how to create even higher technology information and sophisticated services (Tay, Lee, Hamid, & Ahmad, 2018). Some of the advantages and benefits of creating Industry 4.0 are how this can give companies a new perspective in creating profitable business models with higher levels of efficiency and quality, as well as improved conditions and the ambience in a workplace (Hofmann & Rusch, 2017). For example, the application of AI, which refers to technological developments due to industry 4.0, can adapt and evolve over time to automate some of the work that is usually done by humans (Frey & Osborne, 2017).

### II.2 Digital Competencies

Digital competencies have become a crucial thing for humans. Humans are familiar with what is called digital competencies from the beginning of the industrial revolution era which began around the mid-18th century in England and the United States, and have started to live, live and study digital competencies and also technology from that time. Nowadays, technology has become part of human daily life, therefore humans are required to be more flexible in adapting to the times which also result in the development of technology itself where humans must keep up with changes and developments over time.

Several previous studies that have been carried out reveal the important role of leaders, who have competencies that can adapt to the times, to streamline and develop their abilities, competencies and skills to be able to support companies facing digitalization to achieve their goals. This was revealed by Zeike, Choi, et al., (2019), where in their study it was found that digital leadership can be obtained through 2 approaches, namely competency and awareness of digital transformation and also the ability to carry out digital strategies specified by the company.

The current era is an era that requires leaders to be able to adapt to changes and technological developments that lead them to new approaches to assess and theorize digital competencies, which are still an absolute component in this digital era. Digital leadership requires a leader to be able to take advantage of new technologies that are presented along with the times to make work easier for humans in a company (Allmam & Blank, 2021), therefore mastering the digital competencies helps employee resilience.

### II.3 Dimensions of Digital Competencies

According to Van Laar et al., (2017), there are several competencies needed by human capital to face the digital era, especially for leaders who will later become digital leaders, which are:

1. Information skills. They refer to leaders who have the ability to be able to search, evaluate and organize information in a digital environment (Catts & Lau, 2008). How to manage information can be seen from how leaders can explain in detail and clearly about the information needed, identify digital information, and choose what digital information is needed effectively and efficiently (Ananiadou & Claro, 2009).
2. Communication skills. They are how a leader can facilitate communication between subordinates, colleagues, superiors and stakeholders to communicate remotely, faster and more ubiquitously. So that individuals who are members of the business process can more freely express themselves, grow relationships, and interact with fellow business partners in any distance in time and space (Yu et al., 2010).
3. Collaboration skills here refer to how leaders can adapt their work by collaborating or utilizing chat software, such as whatsapp, skype, zoom meeting, etc., so that business processes can run more smoothly by exchanging thoughts, ideas, information, and experiences. Leaders need skills to be able to connect and collaborate with others beyond the constrained physical environment (Starkey, 2011).
4. Critical thinking has been identified as important in becoming a leader because in a global online environment people have participated and thus resources have been created with various intentions and competencies (Starkey, 2011).
5. Leaders need creative skills so that within a company they can put forward ideas, develop these ideas, and create or make these ideas a reality (Loveless, 2017). This is because the industrial era 4.0 or the digital era allows leaders to get various design concepts, experiences, and ideas.

6. Problem solving skills. It cannot be denied, in today's digital era there is a lot of information scattered everywhere, problems can be defined in multiple ways, and many solutions can also be found there. The drawback is the solution to specific problems, a solution can be obtained, but it is not necessarily suitable for the current situation in a company (David & Foray, 2002).

#### II.4 Leadership

Although from several existing definitions, there is no agreement that can measure how successful leadership is in a business, one thing that can be seen that has more or less the same meaning is that leadership is a social process in which each individual expresses his own behavior, which later it can influence the people around it or a community to be able to achieve good collaboration between people, cooperation, networking and cohesion towards the common goals they have (Chaimongkonrojna, 2009). Leaders and followers are part of the leadership system itself where leaders and followers must have common goals and must set specific objectives. Mutual interests are a natural thing for leaders and followers who work together in a leadership system (Allen, 2016).

In line with the resilience literature, Caniels & Baaten (2019) suggest that the workforce must not only be responsible for change, but they must promote change. Hence, this indicates that employees must handle a higher level of responsibility and uncertainty at work (Caniels & Baaten, 2019). This indicates that a manager in a company cannot just be a manager, they must become a leader who is able to guide and develop employees who become their followers in achieving the specific goals set by themselves and the goals of the company.

If from time to time, the responsibilities and the workforce of employees change over time, it can also be concluded that the model and leadership style of a leader also changes according to the times. Leaders who can adapt to today's times are called digital leaders, with a digital leadership style.

#### II.5 Digital Leadership

Digital leadership plays a very important role in company development, especially in developing strategies and methods to achieve each vision and mission goal of the company concerned in the digitization process (Zeike, Bradbury, et al., 2019). Therefore, it is important for leaders to be aware of how digital development is to achieve a company's goals, for example by adopting digital competencies that are in accordance with current digital developments (Zhu, 2015). This is because the role of a leader in a company has shifted in definition, from previously managing business processes in a division or company, now it has increased to how leaders can have the abilities to influence those around them who work with them such as colleagues, superiors, subordinates, even stakeholders to utilize and also familiarize them with the new technology and ambience created due to digital transformation in an effort to develop the company in achieving predetermined performance.

Digital leadership is also considered to be an effective resource for achieving the sustainability of a company and competitive advantage refers to optimization and efficiency in using company resources (Artuz & Bayraktar, 2021). But of course, good leadership skills must be supported by good competence as well. Allman & Blank (2021) states that digital competence is needed for a leader so that he can have good leadership, be able to adapt and have the ability to see the changes that are happening. Therefore, every manager in the company has an obligation to realize what the goals of the company in carrying out digital transformation are.

#### II.6 Dimensions of Digital Leadership

According to Zhu (2015), the definition of digital leadership is how a leader can adapt to changing times by utilizing their abilities, including thinker leadership, creative leadership, global leadership, inquisitive leadership and profound leadership.

1. Thinker leadership means leaders who are capable and have good critical thinking. Thinker leadership can make good decisions in all situations, as well as being able to provide expected outcomes that become clearer. It is reasoned, purposeful and goal focused. It allows leaders to develop interventions that are informed and relevant, capable of solving problems. Consider all possibilities and make better decision-making.
2. Creative leadership refers to the ability to create and realize innovative solutions, especially in dealing with significant and complex changes. It refers to people who, when faced with a situation that can change at any time and new approaches that are not even known yet, can still make clarity on the goals of their team to go in which direction.
3. Global visionary leadership is defined as how a leader can lead people who are basically different or come from various regions and have different cultures. Global leaders must engage with diversity and ultimately be able to unite stakeholders or colleagues to achieve company goals.
4. Inquisitive leadership or leadership that allows a leader to always be curious about new things in terms of work or eager to try new things, strategies and methods to achieve company goals. A leader who has high curiosity produces an environment where employees feel safe and comfortable to explore new ideas, take risks, and also challenge the status quo, making an

inquisitive leader a leader who is able to create higher performing employees, and is a more adaptable company.

5. Profound leadership is leaders who have the ability to enable the best qualities not only from their employees, but also from superiors, colleagues and stakeholders. Profound leadership refers to leaders who can bring the company to sustainability.

## II.7 Employee Resilience

Seery et al. (2013) revealed in their research that resilience is a situation in which employees face moderate levels of adversity in conjunction with support in the workplace or workforce in the companies where they work. However, a subsequent study conducted by Van Der Veegt (2015) said in his journal it has been claimed that resilience is not only exclusively limited to crisis management, but also how the mental state and feeling of an employee's position in the place where he works. So from that, it is advised that companies through their leaders must have initiatives to have constant capability development and have solid readiness, so that business processes can be carried out without any heavy things that hinder employees, including the leaders. Thus, leaders must also put forward ideas and thoughts in which the world is in constant change, everything can change at any time and is very dynamic (Kirk, 1951).

Employee resilience can be obtained and can be influenced by various factors, including personality traits and cultural value orientations, personal attitudes and thoughts, personal emotions, and personal resources (Hartmann et al., 2019). Nevertheless, this study will only study and is limited to a set of malleable personal resources to see how each individual triggers employee resilience.

## II.8 Dimensions of Employee Resilience

According to Hartmann et al. (2019), personal resources which are dimensions of employee resilience can be divided into competence, internal locus of control, self-confidence, reflective ability, and self-efficacy.

1. Competence. The development of competencies can eliminate unacceptable workloads and potential roadblocks that can prevent employees from getting optimal performances (Verleysen et al., 2015). A previous study by Deci & Vansteenkiste (2004) expressed the opinion that the need for employees to gain competence is an intrinsic factor of motivation to do something well, for example with digital technology or work demand. Hence, employees who want to fulfill their need to gain competency prefer to seek challenging situations that can enhance their capabilities (Deci & Ryan, 2000).
2. Self-confidence refers to personal resources whose individual consideration is to develop themselves by providing the necessary resources and also training using opportunities that have been obtained (Avolio et al., 2004). This is of course closely related to business processes. In a business context, self-confidence can be obtained by taking lessons from experiences that have been experienced in the past and also conclusions drawn from an individual about what their capabilities are (Yang & Danes, 2015).
3. Self-efficacy is someone's belief that they can get something done because they have done a specific task successfully (Lyons, 2015). Intellectual stimulation provides opportunities to develop self-efficacy or become experts due to experience by allowing themselves to fail and keep experimenting (Zhou et al., 2012).
4. Internal locus of control refers to a person's belief that the results they receive are due to what they achieve because of forces within the person itself (Deci & Ryan, 1985). Because intellectual stimulation contributes to what happens to each individual's behavior by providing incentives for employees to take on more responsibilities (Avolio et al., 1991), it can encourage employees to have more internal locus of control. For example, according to Deci & Ryan (1985), individuals who have an internal locus of control are more likely to have an autonomous orientation, in which they believe the effects they make are themselves the cause.
5. Reflective ability is where an individual considers to reflect on what are their strengths and weaknesses by engaging in two-way communication about what things can be their areas of improvement (Bass & Avolio, 1992). Therefore, mistakes are natural according to Weick & Sutcliffe, (2011) because they are part of the learning process and promote resilience.

## II.9 Conceptual Framework

A conceptual framework illustrates the expected relationship between variables chosen by researcher (Swaen B. et al, 2022). It defines the relevant objectives for the research process and maps out how they come together to draw coherent conclusions.



**Figure II.1 Conceptual Framework**

The conceptual framework formulation that the author uses is by using three variables, namely Digital Leadership from Zhu (2015) and Digital Competencies from Van Laar et al. (2017), as independent variables, and Employee Resilience proposed by Hartmann et al. (2019) as dependent variables. In this study, digital leadership has 5 (five) dimensions to describe how a leader should lead his employees in a company when digital transformation is taking place, digital competencies have 6 (six) dimensions as competencies that a leader should have in dealing with digital transformation, and employee resilience which has 5 (five) dimensions of how employees should thrive to a transformation demanding currently happening.

**H1** : Digital competencies have significant effect on employee resilience

**H2** : Digital leadership have significant effect on employee resilience

**H3** : Digital competencies moderated by digital leadership has significant effect on employee resilience

The conceptual framework above shows how each variable, digital leadership, digital competencies and employee resilience are related to one another. The researcher tries to show how the dimensions in digital competencies (X) as an independent variable and digital leadership (Z) as an intervening variable can influence dimensions mentioned in the employee resilience (Y) as the dependent variable.

### **III. RESEARCH METHODOLOGY**

#### **III.1 Data Collection Method**

Data collection method for this research is quantitative research and using questionnaires as one of the tools. The data collection used to conduct the survey is the sampling method. Sampling method is a method used to take samples from individuals who will be used as research respondents. Due to the large number of real populations at PT Angkasa Pura I branch of Sam Ratulangi International Airport Manado, researchers used probability sampling to decide on the number of respondents who would later represent the total population.

This survey will later be filled in by organic employees from PT Angkasa Pura I branch of Sam Ratulangi International Airport. The population of this research survey is 100 and thirty-three (133) people, taken from all organic employees at PT Angkasa Pura I branch of Sam Ratulangi International Airport Manado. To measure the required population sample, the author uses the Slovin Formula. The research will use 5% of margin of error, that concludes the minimum number of respondents needed for this research are:

$$n = \frac{133}{1 + 133 \times 0,05^2}$$

n = 99,81 or 100 respondents

#### **III.2 Data Analysis Method**

##### **III.2.1 Validity and Reliability Test**

1. Validity testing is an essential aspect of assessing the quality and accuracy of measurements in research. Testing the validity of data is a process used to assess whether a questionnaire accurately measures what it intends to measure. A questionnaire is considered valid when the questions included in it effectively capture the construct or concept being measured.
2. Reliability testing refers to the process of evaluating the consistency, stability, and dependability of a measurement instrument, assessment tool, or research procedure. It aims to assess the extent to which the measurements obtained from a particular instrument or procedure are consistent and reproducible over time or across different raters (Heale & Twycross, 2015).

##### **III.2.2 Descriptive Statistics**

Descriptive statistics are numerical measures that summarize and describe the essential characteristics of a dataset. They provide valuable insights into the central tendency, variability, and distribution of the data. Measures of central tendency, such as the mean, median, and mode, help us understand the typical or representative value of the data. The mean is the average value, the median is the middle value when the data is arranged in order, and the mode represents the most frequent value(s) in the dataset.

Table III. 1 Descriptive Statistic

Mean Score	Level
1.00-2.33	Low
2.34 - 3.67	Moderate
3.68 - 5.00	High

Wiersman W 2000

III.2.3 Normality Test

A normality test is a statistical procedure used to determine whether a dataset or a specific variable follows a normal distribution. The normal distribution, also known as the Gaussian distribution or bell curve, is a symmetrical probability distribution characterized by its shape, where the majority of data points cluster around the mean, with progressively fewer data points towards the tails.

III.2.4 Regression Analysis

Regression analysis is a statistical technique used to examine the relationship between a dependent variable and one or more independent variables. It aims to model and understand the impact of independent variables on the dependent variable, allowing researchers to make predictions, infer causality, or identify patterns in the data. (Montgomery, Douglas. 2012).

1. Linear regression is a statistical modeling technique used to examine the relationship between a dependent variable and one or more independent variables. It assumes a linear relationship between the dependent variable and the independent variables, meaning that the relationship can be represented by a straight line. In linear regression, the dependent variable is the variable we want to predict or explain, while the independent variables are the variables that potentially influence or explain the variation in the dependent variable. The goal of linear regression is to estimate the parameters of the linear equation that best fits the data and allows for meaningful interpretations. (Rencher, A. 2008).

The linear regression equation can be represented as:  $Y = \beta_0 + \beta_1X + \epsilon$

2. Multiple linear regression is a statistical modeling technique used to understand the relationship between a dependent variable and two or more independent variables. It extends the concept of simple linear regression, which deals with only one independent variable. (Rencher, A. 2008). In multiple linear regression, the goal is to find a linear equation that best fits the data by minimizing the difference between the observed values and the predicted values. The equation takes the general form:  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n + \epsilon$

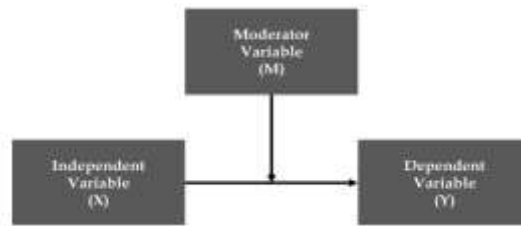
III.2.4 Moderated Variable Analysis

The focus is on moderation analysis and the use of a conceptual model to understand the relationship between variables. The model is represented graphically in Figure III.2, and it consists of three main components: a dependent variable (Y), an independent variable (X), and a moderator (M).

The moderator variable plays a crucial role in influencing the relationship between the independent variable (X) and the dependent variable (Y). This influence is depicted by an arrow connecting the moderator to both the independent and dependent variables. The arrow represents how the moderator affects the relationship between X and Y.

It is important to note that the statistical visualization of this relationship may differ from the conceptual model's graphical representation. In the statistical analysis, an interaction term, denoted as X\*M (Z), is included. The interaction term captures the combined effect of the independent variable (X) and the moderator (M) on the dependent variable (Y).

The inclusion of the interaction term allows for a more nuanced understanding of how the relationship between X and Y is influenced by the moderator. It helps determine whether the effect of X on Y varies depending on the different levels or conditions of the moderator (M).



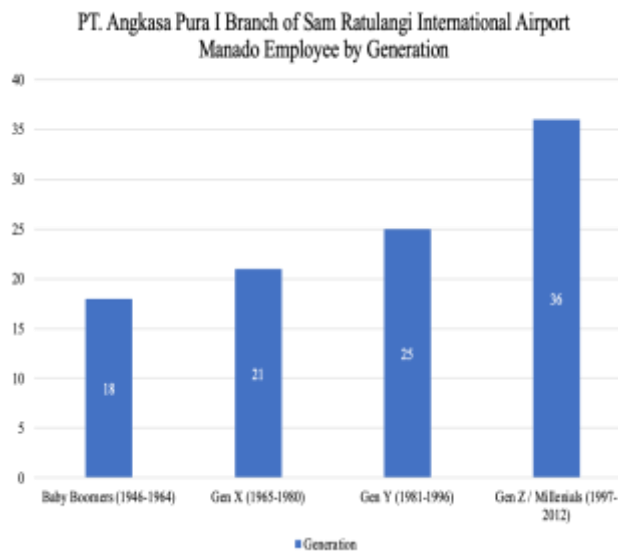
**Figure III.2 Moderated Variable Model**

**IV. RESULTS AND DISCUSSIONS**

**IV.1 Data Demographic**

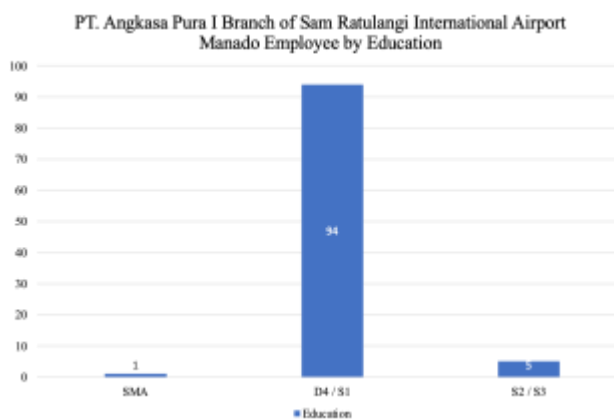
By conducting this research and collecting data from the employees, the researchers aim to gain insights into various aspects related to the research topic. The quantitative analysis will allow them to analyze the collected data statistically, draw conclusions, and make informed decisions or recommendations based on the findings.

The poll was distributed privately using the online platform to the employees of PT Angkasa Pura I Branch of Sam Ratulangi International Airport in Manado. The demographic data for the respondents includes gender, generation, employee status, education and employee working period shown by the graph below:



**Figure IV.1 Respondent by Generation**

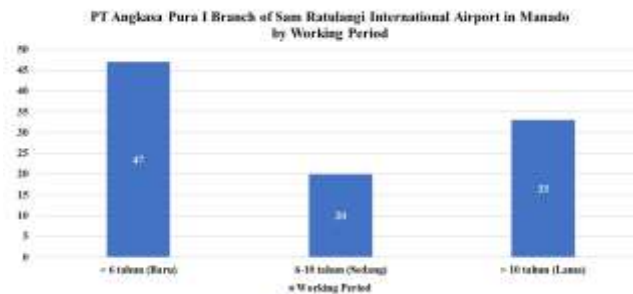
The survey received responses from 100 PT Angkasa Pura I Branch of Sam Ratulangi International Airport in Manado, 36% of respondents are from Generation Z / Millennials or born 1997-2012, 25% of Generation Y or born 1981-1996, 21% of Generation X or born 1965-1980 and the remaining 18% are Baby Boomers or born 1946-1964.



**Figure IV.2 Respondent by Education**



Respondents at PT Angkasa Pura I Branch of Sam Ratulangi International Airport in Manado based on the education of their employees, 94% had D4/S1 education, 5% had S2/S3 education and the remaining 1% had senior high school (SMA) education.



**Figure IV.3 Respondent by Working Period**

The working period is also one of the data collections displayed for employee demographic data this time, out of 100 respondents to PT Angkasa Pura I Branch of Sam Ratulangi International Airport in Manado, as many as 47% worked for less than 6 years (<6 years), 33% worked more than 10 years (> 10 years) and the remaining 20% work between 6-10 years.

**IV.2 Validity and Reliability Test**

**IV.2.1 Validity Test**

To apply this method, the researchers collected data from 100 respondents. The significance level or alpha ( $\alpha$ ) is 0.05, which corresponds to a confidence interval of 95%. The degrees of freedom (df) in this case are calculated as the total number of respondents minus 2, which equals 98. Given these parameters, the critical value or r table is determined to be 0.197. Therefore, if the calculated r value is greater than 0.197, the variable statement is considered valid. It's important to note that the information provided only outlines the decision criteria for validity based on the Pearson Correlation Coefficient. It does not specify the actual calculations or the nature of the variables being studied.

**Table IV.1 Validity Test**

No	Dimension	Statement	Code	r count	r table	Status
1	Digital Leadership	Thinker Leadership	TL1	0.332	0.197	Valid
			TL2	0.409	0.197	Valid
			TL3	0.351	0.197	Valid
			TL4	0.460	0.197	Valid
			TL5	0.481	0.197	Valid
		Global Visionary	GV1	0.252	0.197	Valid
			GV2	0.244	0.197	Valid
			GV3	0.374	0.197	Valid
			GV4	0.321	0.197	Valid
			GV5	0.222	0.197	Valid
		Creative Leadership	CL1	0.381	0.197	Valid
			CL2	0.464	0.197	Valid
			CL3	0.315	0.197	Valid
			CL4	0.377	0.197	Valid
			CL5	0.345	0.197	Valid
		Inquisitive Leadership	IL1	0.483	0.197	Valid
			IL2	0.300	0.197	Valid
			IL3	0.298	0.197	Valid
			IL4	0.359	0.197	Valid
			IL5	0.439	0.197	Valid
Profound Leadership	PL1	0.299	0.197	Valid		
	PL2	0.379	0.197	Valid		
	PL3	0.370	0.197	Valid		
2	Digital Competencies	Information Skills	IS1	0.311	0.197	Valid
			IS2	0.369	0.197	Valid
			IS3	0.213	0.197	Valid
			IS4	0.382	0.197	Valid
		Communication Skills	CS1	0.304	0.197	Valid
			CS2	0.363	0.197	Valid
			CS3	0.283	0.197	Valid
			CS4	0.272	0.197	Valid
		Collaboration Skills	COS1	0.299	0.197	Valid
			COS2	0.240	0.197	Valid
			COS3	0.246	0.197	Valid

		Critical Thinking Skills	CT1	0.409	0.197	Valid		
			CT2	0.355	0.197	Valid		
		Creative Skills	CRS1	0.423	0.197	Valid		
			CRS2	0.353	0.197	Valid		
			CRS3	0.365	0.197	Valid		
			CRS4	0.399	0.197	Valid		
		Problem Solving Skills	PSS1	0.252	0.197	Valid		
			PSS2	0.427	0.197	Valid		
			PSS3	0.343	0.197	Valid		
			PSS4	0.319	0.197	Valid		
			PSS5	0.430	0.197	Valid		
		3	Employee Resilience	Competence	C1	0.206	0.197	Valid
					C2	0.304	0.197	Valid
					C3	0.326	0.197	Valid
				Self-Confident	SC1	0.358	0.197	Valid
SC2	0.224				0.197	Valid		
SC3	0.442				0.197	Valid		
SC4	0.475				0.197	Valid		
Self-Efficiency	SE1			0.454	0.197	Valid		
	SE2			0.284	0.197	Valid		
	SE3			0.381	0.197	Valid		
Internal Locus of Control	ILC1			0.405	0.197	Valid		
	ILC2			0.488	0.197	Valid		
	ILC3			0.355	0.197	Valid		
Reflective Ability	RA1			0.447	0.197	Valid		
	RA2			0.334	0.197	Valid		
	RA3	0.301	0.197	Valid				

#### IV.2.2 Reliability Test

In conducting the reliability test for this research, the author used Cronbach's alpha as a reference to measure the internal consistency or reliability of a measurement scale or instrument. Cronbach's alpha calculates the reliability coefficient based on the inter-item correlations within a measurement scale. The alpha value ranges from 0 to 1, where values closer to 1 indicate higher levels of consistency. More detailed information can be found in the following table.

**Table IV. 2 Cronbach's Alpha**

<b>Cronbach's Alpha</b>	<b>Internal Consistency</b>
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$\alpha > 0.5$	Unacceptable

Tavakol & Dennis (2011) Reliability index interpretation for Cronbach's alpha

The analysis results of each variable, namely digital competencies, digital leadership, and employee resilience, are shown in the following image.

<p><b>Digital Competencies (X)</b></p> <p>The result of the analysis for the variable shows a Cronbach's alpha value of 0.721. Referring to the internal consistency table provided earlier, this value falls within the <b>acceptable</b> range. This indicates that the variable exhibits a satisfactory level of internal consistency.</p>	<p><b>Case Processing Summary</b></p> <table border="1"> <thead> <tr> <th colspan="2"></th> <th>N</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Cases</td> <td>Valid</td> <td>100</td> <td>100.0</td> </tr> <tr> <td></td> <td>Excluded<sup>a</sup></td> <td>0</td> <td>0</td> </tr> <tr> <td></td> <td>Total</td> <td>100</td> <td>100.0</td> </tr> </tbody> </table> <p>a. Listwise deletion based on all variables in the procedure.</p> <p><b>Reliability Statistics</b></p> <table border="1"> <thead> <tr> <th>Cronbach's Alpha</th> <th>N of Items</th> </tr> </thead> <tbody> <tr> <td>.721</td> <td>22</td> </tr> </tbody> </table>			N	%	Cases	Valid	100	100.0		Excluded <sup>a</sup>	0	0		Total	100	100.0	Cronbach's Alpha	N of Items	.721	22
		N	%																		
Cases	Valid	100	100.0																		
	Excluded <sup>a</sup>	0	0																		
	Total	100	100.0																		
Cronbach's Alpha	N of Items																				
.721	22																				
<p><b>Digital Leadership (M)</b></p> <p>The result of the analysis for the variable shows a Cronbach's alpha value of 0.745. Referring to the internal consistency table provided earlier, this value falls within the <b>acceptable</b> range. This indicates that the variable exhibits a satisfactory level of internal consistency.</p>	<p><b>Case Processing Summary</b></p> <table border="1"> <thead> <tr> <th colspan="2"></th> <th>N</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Cases</td> <td>Valid</td> <td>100</td> <td>100.0</td> </tr> <tr> <td></td> <td>Excluded<sup>a</sup></td> <td>0</td> <td>0</td> </tr> <tr> <td></td> <td>Total</td> <td>100</td> <td>100.0</td> </tr> </tbody> </table> <p>a. Listwise deletion based on all variables in the procedure.</p> <p><b>Reliability Statistics</b></p> <table border="1"> <thead> <tr> <th>Cronbach's Alpha</th> <th>N of Items</th> </tr> </thead> <tbody> <tr> <td>.745</td> <td>23</td> </tr> </tbody> </table>			N	%	Cases	Valid	100	100.0		Excluded <sup>a</sup>	0	0		Total	100	100.0	Cronbach's Alpha	N of Items	.745	23
		N	%																		
Cases	Valid	100	100.0																		
	Excluded <sup>a</sup>	0	0																		
	Total	100	100.0																		
Cronbach's Alpha	N of Items																				
.745	23																				
<p><b>Employee Resilience (Y)</b></p> <p>The result of the analysis for the variable shows a Cronbach's alpha value of 0.720. Referring to the internal consistency table provided earlier, this value falls within the <b>acceptable</b> range. This indicates that the variable exhibits a satisfactory level of internal consistency.</p>	<p><b>Case Processing Summary</b></p> <table border="1"> <thead> <tr> <th colspan="2"></th> <th>N</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Cases</td> <td>Valid</td> <td>100</td> <td>100.0</td> </tr> <tr> <td></td> <td>Excluded<sup>a</sup></td> <td>0</td> <td>0</td> </tr> <tr> <td></td> <td>Total</td> <td>100</td> <td>100.0</td> </tr> </tbody> </table> <p>a. Listwise deletion based on all variables in the procedure.</p> <p><b>Reliability Statistics</b></p> <table border="1"> <thead> <tr> <th>Cronbach's Alpha</th> <th>N of Items</th> </tr> </thead> <tbody> <tr> <td>.720</td> <td>16</td> </tr> </tbody> </table>			N	%	Cases	Valid	100	100.0		Excluded <sup>a</sup>	0	0		Total	100	100.0	Cronbach's Alpha	N of Items	.720	16
		N	%																		
Cases	Valid	100	100.0																		
	Excluded <sup>a</sup>	0	0																		
	Total	100	100.0																		
Cronbach's Alpha	N of Items																				
.720	16																				

**IV.3 Digital Leadership Analysis**

During the analysis, the researchers calculated the mean score, which represents the average score of the participants' responses within each dimension of digital leadership. The average score was also calculated to provide an overall indication of the participants' performance in digital leadership across all dimensions.

Table IV.3 Digital Leadership Analysis

No	Dimension	Mean Score	Score
1	Thinker Leadership	3.98	79.68%
2	Global Visionary	4.13	82.52%
3	Creative Leadership	3.94	78.84%
4	Inquisitive Leadership	4.01	80.16%
5	Profound Leadership	4.06	81.27%
<b>Average Score</b>		<b>4.02</b>	<b>80.49%</b>

Based on the above analysis, the digital leadership variable has a mean score that falls into the high category and an average score that also falls into the high category. The highest score was obtained for the global visionary dimension (85.52%), while the lowest score was obtained for the creative leadership dimension (78.84%).

This analysis suggests that, on average, the participants exhibit a high level of digital leadership, with the global visionary dimension being particularly strong. However, there is room for improvement in the creative leadership dimension.

**IV.4 Digital Competencies Analysis**

During the analysis, the researchers calculated the mean score, which represents the average score of the participants' responses within each dimension of digital competencies. The average score was also calculated to provide an overall indication of the participants' performance in digital competencies across all dimensions.

Table IV.4 Digital Competencies Analysis

No	Dimension	Mean Score	Score
1	Information Skills	4.04	80.70%
2	Communication Skills	4.00	80.05%
3	Collaboration Skills	4.09	81.80%
4	Critical Thinking Skills	4.09	81.80%
5	Creative Skills	4.05	80.95%
6	Problem Solving Skills	4.09	81.84%
<b>Average Score</b>		<b>4.06</b>	<b>81.19%</b>

Based on the above analysis, the digital competencies variable has a mean score that falls into the high category and an average score that also falls into the high category. The highest score was obtained for the problem solving skills (81.84%) and critical dimensions, while the lowest score was obtained for the communication skills (80.05%).

This analysis suggests that, on average, the participants exhibit a high level of digital competencies, with particularly strong performance in problem solving skills. However, there is room for improvement in the communication skills.

IV.5 Employee Resilience Analysis

During the analysis, the researchers calculated the mean score, which represents the average score of the participants' responses within each dimension of employee resilience. The average score was also calculated to provide an overall indication of the participants' level of resilience across all dimensions.

Table IV.5 Employee Resilience Analysis

No	Dimension	Mean Score	Score
1	Competence	3.91	78.20%
2	Self-Confident	4.06	81.15%
3	Self-Efficiency	4.03	80.53%
4	Internal Locus of Control	4.02	80.47%
5	Reflective Ability	4.01	80.20%
<b>Average Score</b>		<b>4.01</b>	<b>80.11%</b>

Based on the above analysis, the digital leadership variable has a mean score that falls into the high category and an average score that also falls into the high category. The highest scores were obtained for the dimensions of self-confidence (81.15%), while the lowest score was obtained for the competence (78.20%).

This analysis suggests that, on average, the participants demonstrate a high level of employee resilience, with particularly strong performance in self-confidence. However, there is room for improvement in the competence dimension.

IV.6 Regression Model Analysis

Regression analysis is conceptually simple for investigating the mutual relationship between variables (Chatterjee & Hadi, 2006). Regression analysis is a methodology that allows finding a functional relationship (model or equation) among response or dependent variables and predictor, explanatory or independent variables (Fumo & Bismas, 2015).

In this study, a regression analysis will be carried out to find out whether there is an influence of the independent variable on the dependent variable through the intermediary variable.



Figure IV.1 Regression Model Analysis

This section aims to give the regression analysis for three hypotheses of this research, the regression was completed using SPSS software.

IV.6.1 Hypothesis 1(Digital Competencies have Significant Effect on Employee Resilience)

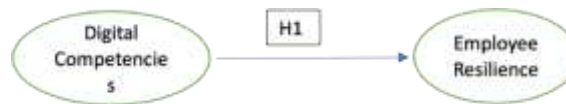


Figure IV.2 Hypothesis 1

By using the regression test using SPSS, the following results are obtained:

Table IV.6 F Test Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1136.967	1	1136.967	46.717	.000 <sup>b</sup>
	Residual	2385.073	98	24.337		
	Total	3522.040	99			
2	Regression	1534.433	2	767.217	37.442	.000 <sup>c</sup>
	Residual	1987.607	97	20.491		
	Total	3522.040	99			
3	Regression	1679.637	3	559.879	29.173	.000 <sup>d</sup>
	Residual	1842.403	96	19.192		
	Total	3522.040	99			

a. Dependent Variable: Employee Resilience  
 b. Predictors: (Constant), Digital Competencies  
 c. Predictors: (Constant), Digital Competencies, Digital Leadership  
 d. Predictors: (Constant), Digital Competencies, Digital Leadership, moderasi

In the table above, an F value of 46,717 is obtained with a significance level of 0,000. When viewed from the significance value, the sig F value is smaller than  $\alpha$  (0.05). So the Digital Competencies variable has a significant influence on the Employee resilience variable. The significant influence means that H1 is accepted. Next, an R<sup>2</sup> analysis will be carried out to find out how much influence the independent variables have on explaining the dependent variable.

Table IV.7 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.568 <sup>a</sup>	.323	.316	4.93330	.323	46.717	1	98	.000
2	.660 <sup>b</sup>	.436	.424	4.52668	.113	19.397	1	97	.000
3	.691 <sup>c</sup>	.477	.461	4.38083	.041	7.566	1	96	.007

a. Predictors: (Constant), Digital Competencies  
 b. Predictors: (Constant), Digital Competencies, Digital Leadership  
 c. Predictors: (Constant), Digital Competencies, Digital Leadership, moderasi

In the table above, it can be seen that the coefficient of determination value is R. R is a measure that describes the strength and direction of the linear relationship between the independent variable and the dependent variable in the regression model. A value of R that is closer to 1 indicates a stronger linear relationship between the variables. Therefore, the resulting R value of 0.568 indicates a moderate relationship.

Next is the value of R-squared (R<sup>2</sup>), which is 0.323. R-squared (R<sup>2</sup>) or the coefficient of determination is a measure that explains how much variability in one variable can be explained by the variability in another variable in regression analysis. The R<sup>2</sup> value of 0.323 indicates that variable X (Digital Competencies) influences Y (Employee Resilience) by 32.3%, while the remaining 67.7% is the contribution of other variables not explained in the study.

After obtaining the R<sup>2</sup> value, the next step is to analyze the regression model with the following results:

Table IV.8 Regression Model Test

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	20.561	6.395		3.215	.002
	Digital Competencies	.488	.071	.568	6.835	.000
2	(Constant)	11.445	6.222		1.839	.069
	Digital Competencies	.202	.092	.235	2.191	.031
	Digital Leadership	.375	.085	.473	4.404	.000
3	(Constant)	158.546	53.817		2.946	.004
	Digital Competencies	-1.380	.582	-1.606	-2.371	.020
	Digital Leadership	-1.147	.559	-1.448	-2.051	.043
	moderasi	.016	.006	3.479	2.751	.007

a. Dependent Variable: Employee Resilience

The t-test analysis is conducted to determine the extent to which a single independent variable can partially explain its dependent variable. This t-test is performed by comparing the calculated t-value with the critical t-value. If the calculated t-value is greater than the critical t-value, then the alternative hypothesis (H1) is accepted. In this study, the calculated t-value is 6.835, which, when compared to the critical t-value of 1.66055, is larger. This means that the alternative hypothesis (H1) is accepted, indicating that Digital Competencies have a partial effect on Employee Resilience.

Based on the results of the linear regression, using the simple linear regression equation  $Y = a + bX$ , where Y is the dependent variable, a is the constant term, b is the regression coefficient, and X is the independent variable, the constant term (a) is 20.561 and the regression coefficient (b) is 0.44. Therefore, the regression equation is as follows:

$$Y = 20.561 + 0.488X$$

Based on the results, by using the regression equation, it can be concluded that digital competencies as the independent variable have an effect of 0.488 on the dependent variable (employee resilience).

IV.6.2 Hypothesis 2 (Digital Leadership has Significant Effect on Employee Resilience)

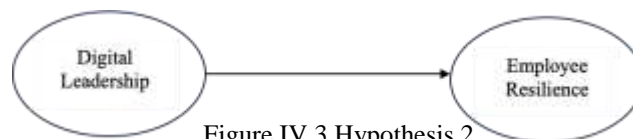


Figure IV.3 Hypothesis 2

By using the regression model test using SPSS, the following results are obtained:

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1136.967	1	1136.967	46.717	.000 <sup>b</sup>
	Residual	2385.073	98	24.337		
	Total	3522.040	99			
2	Regression	1534.433	2	767.217	37.442	.000 <sup>c</sup>
	Residual	1987.607	97	20.491		
	Total	3522.040	99			
3	Regression	1679.637	3	559.879	29.173	.000 <sup>d</sup>
	Residual	1842.403	96	19.192		
	Total	3522.040	99			

- a. Dependent Variable: Employee Resilience
- b. Predictors: (Constant), Digital Competencies
- c. Predictors: (Constant), Digital Competencies, Digital Leadership
- d. Predictors: (Constant), Digital Competencies, Digital Leadership, moderasi

In the table above, the F value is 37,442 with a significance level of 0,000. When viewed from the significance value, the sig F value is smaller than  $\alpha$  (0.05). Then the Digital Competencies variable has a significant influence on the Digital Leadership variable. The significant influence means that H2 is accepted. Next, an R2 analysis will be carried out to find out how much influence the independent variables have on explaining the dependent variable.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.568 <sup>a</sup>	.323	.316	4.93130	.323	46.717	1	98	.000
2	.660 <sup>b</sup>	.436	.424	4.52668	.113	19.397	1	97	.050
3	.691 <sup>c</sup>	.477	.461	4.38083	.041	7.566	1	96	.007

a. Predictors: (Constant), Digital Competencies  
 b. Predictors: (Constant), Digital Competencies, Digital Leadership  
 c. Predictors: (Constant), Digital Competencies, Digital Leadership, moderasi

The R value that is closer to 1 indicates the stronger the linear relationship between these variables, therefore the resulting R value of 0.660 indicates a strong relationship.

Next is the value of R<sup>2</sup>, in the table above it can be seen that the value of the coefficient of determination, namely R<sup>2</sup> is worth 0.436, R-square (R<sup>2</sup>) or the coefficient of determination is a measure that explains how well the variability of one variable can be explained by the variability of other variables in the regression analysis. The R<sup>2</sup> value of 0.436 indicates that the variable M (Digital Leadership) has an effect on Y (Employee Resilience) of 43.6%, of which the remaining 56.4% is contributed by other variables not explained in the study.

After getting the value of R<sup>2</sup>, then the next step is to do a regression model analysis.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	20.561	6.395			3.215	.002
	Digital Competencies	.488	.071	.568		6.835	.000
2	(Constant)	11.445	6.222			1.839	.069
	Digital Leadership	.375	.085	.473		4.404	.000
3	(Constant)	158.546	53.817			2.946	.004
	Digital Competencies	-1.380	.582	-1.606		-2.371	.020
	Digital Leadership	-1.147	.559	-1.448		-2.051	.043
	moderasi	.016	.006	3.479		2.751	.007

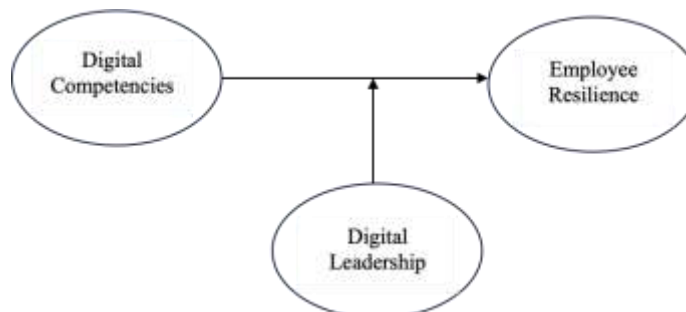
a. Dependent Variable: Employee Resilience

Analysis The t statistical test was carried out to show how far one independent variable is partially able to explain the dependent variable. This t test is done by comparing the t-value with t-table. If the value of t-count > t-table then H2 is accepted. In this study, the t-count value is 4.404 which when compared to the t-table value is 1.66055, the t-count value is greater than the t-table, which means that the H1 statement is accepted that Digital Leadership partially affects Employee Resilience.

Based on the regression results using the SPSS, the results of the significance of Digital Leadership on Employee Resilience are 0.000, where the variable M < 0.05, so it can be concluded that there is a significant influence between the Digital Leadership (M) variable and Employee Resilience (Y). Then by using the regression equation, namely Y = a + bX, where Y is the dependent variable, a is the regression constant, and x is the independent variable. In the regression analysis of the intervening variables, the beta used is standardized beta coefficients, so the regression equation is:

$$Y = 11.445 + 0.375X$$

**IV.6.3 Hypothesis 3 (Digital Competencies Moderated by Digital Leadership have Significant Effect on Employee Resilience)**



IV.4 Hypothesis 3

By conducting a regression analysis using SPSS, the following results were obtained:

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1136.967	1	1136.967	46.717	.000 <sup>b</sup>
	Residual	2385.073	98	24.337		
	Total	3522.040	99			
2	Regression	1534.433	2	767.217	37.442	.000 <sup>c</sup>
	Residual	1987.607	97	20.491		
	Total	3522.040	99			
3	Regression	1679.637	3	559.879	29.173	.000 <sup>d</sup>
	Residual	1842.403	96	19.192		
	Total	3522.040	99			

a. Dependent Variable: Employee Resilience  
 b. Predictors: (Constant), Digital Competencies  
 c. Predictors: (Constant), Digital Competencies, Digital Leadership  
 d. Predictors: (Constant), Digital Competencies, Digital Leadership, moderasi

In the table above, an F-value of 29.173 is obtained with a significance level of 0.000. Looking at the significance value, the F-value is smaller than  $\alpha$  (0.05). This means that the variable Digital Competencies, moderated by the moderating variable Digital Leadership (M), has a significant influence on the variable Employee Resilience (Y). The significant influence indicates that H3 is accepted. Next, an R-squared analysis will be conducted to determine the extent to which the independent variables explain the dependent variable.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.568 <sup>a</sup>	.323	.316	4.93350	.323	46.717	1	98	.000
2	.660 <sup>b</sup>	.436	.424	4.52668	.113	19.397	1	97	.000
3	.691 <sup>c</sup>	.477	.461	4.38083	.041	7.566	1	96	.007

a. Predictors: (Constant), Digital Competencies  
 b. Predictors: (Constant), Digital Competencies, Digital Leadership  
 c. Predictors: (Constant), Digital Competencies, Digital Leadership, moderasi

In the table above, it can be observed that the F Change value for Model 3 is 7.566, which is smaller compared to the F Change value for Model 2, which is 19.397. This decrease in the F Change value indicates that adding the independent variable, Digital Leadership as a moderating variable in Regression Model 3, has a less significant impact on the dependent variable compared to the independent variable that was not added in Model 2.

The coefficient of determination, denoted as R, is a measure that describes the strength and direction of the linear relationship between the independent variable and the dependent variable in the regression model. A value of R that is closer to 1 indicates a stronger linear relationship between the variables. Therefore, the resulting R value of 0.691 indicates a strong relationship.

Next is the R-squared value. In the table above, it can be seen that the coefficient of determination, R-squared ( $R^2$ ), is 0.477. R-squared is a measure that explains how well the variability of one variable can be explained by the variability of another variable in regression analysis. The  $R^2$  value of 0.477 indicates that the variable Digital Competencies (X), moderated by Digital Leadership (M), influences the variable Employee Resilience (Y) by 47.7%, while the remaining 52.3% is the contribution of other variables not explained in the analysis.

After obtaining the F Change and  $R^2$  values, the next step is to perform the analysis of the regression model with the moderating variable.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	20.561	6.395		3.215	.002
	Digital Competencies	.488	.071	.568	6.835	.000
2	(Constant)	11.445	6.222		1.839	.069
	Digital Competencies	.202	.092	.235	2.191	.031
	Digital Leadership	.375	.085	.473	4.404	.000
3	(Constant)	158.546	53.817		2.946	.004
	Digital Competencies	-1.380	.582	-1.606	-2.371	.020
	Digital Leadership	-1.147	.559	-1.448	-2.051	.043
	moderasi	.016	.006	3.479	2.751	.007

a. Dependent Variable: Employee Resilience



Analysis The t statistical test was carried out to show how far one independent variable is partially able to explain the dependent variable. This t test is done by comparing the t-value with t-table. If the value of t-count > t-table then H1 is accepted. In this study, the t-count value for the Digital Competencies (X) variable on the Employee Resilience (Y) variable is 2.191 which when compared to the t-table which has a value of 1.66055, and the Digital Leadership (M) variable on the Employee Resilience variable is 2.051 which means which when compared with the t-table which has a value of 1.66055 the t-count value is greater than the t-table, the results of these calculations show that the t-count value is negative, which value indicates the relationship between these variables has a negative direction. This means when the value of one variable increases, the value of another variable tends to decrease. The value of t-count > t-table that Digital Competencies moderated by the moderating variable Digital Leadership (M) has an effect on Employee Resilience has a t-count of 2.751 which is bigger than the t-table which has a value of 1.66055, then H1 is accepted, namely Digital Competencies Moderated by Digital Leadership has a positive and significant effect on employee resilience.

In calculating the regression model of this moderation, the value of the moderating variable is obtained from the multiplication between X and M, namely the Digital Competencies and Digital Leadership variables. This is done to obtain a valuable variable based on the interaction value between the independent variables, digital competencies and the moderating variable, digital leadership.

Based on the regression results using SPSS, the results of the significance of Digital Competencies on Employee Resilience were 0.020, where the variable X < 0.05, so it can be concluded that there is a significant influence between the Digital Competencies (X) variable and Employee Resilience (Y). For the significance test of the Digital Leadership variable on Employee Resilience, the significance obtained is 0.043, where the X variable < 0.05, so it can be concluded that there is a significant influence between the Digital Leadership (M) variable on Employee Resilience (Y), and the moderation variable significance test on employee resilience 0.007 where variable X < 0.05, so it can be concluded that there is a significant effect.

Furthermore, by using the moderating variable regression equation, namely  $Y = a + bX_1 + bX_2 + bX_1X_2$ , where Y is the dependent variable, b is the beta coefficient, and x1 is the independent Digital Competencies variable, x2 is the digital leadership variable and x3 is the moderating variable. Then the regression equation is:

$$Y = 158.546 - 1.380X_1 - 1.147X_2 + 0.016X_1X_2$$

Based on these results, using the regression equation, it can be concluded that digital competencies as an independent variable moderated by a mediator variable, namely digital leadership, have a smaller effect when compared to the effect of digital competencies on employee resilience. This can be seen from the decreased F-change value, which indicates that there is a decrease in significance from the addition of a new variable to the model, namely the digital leadership variable.

#### IV.7 Business Solution

##### IV.7.1 Digital Leadership Solution

Based on the results obtained, it has been identified that the thinker leadership dimension has a lower score compared to other dimensions. This indicates a need to focus specifically on enhancing thinker leadership capabilities within the leadership team.

To address this gap, a targeted approach can be taken to develop and strengthen thinker leadership skills. This may involve providing training and development programs that emphasize critical thinking, strategic decision-making, and analytical skills. Additionally, creating opportunities for leaders to engage in thought-provoking discussions, problem-solving exercises, and continuous learning activities can further enhance their thinker leadership abilities. This will enable them to effectively navigate the challenges and changes in the aviation industry and drive the airport towards achieving its vision and objectives in the era of digital transformation.

##### IV.7.2 Digital Competencies Solution

Based on the results obtained, it has been identified that communication skills have received a lower score compared to other dimensions. Recognizing the importance of effective communication in the digital age, it becomes crucial to focus on enhancing communication skills within the organization.

To address this gap, a targeted approach can be taken to improve communication skills among employees. This may involve providing training programs that emphasize clear and concise communication, active listening, virtual communication etiquette, and the effective use of digital communication tools and platforms.

Additionally, creating opportunities for employees to engage in collaborative projects and activities that require effective communication can further enhance their skills in this area. Encouraging open and transparent communication channels, promoting feedback and constructive dialogue, and fostering a culture of effective communication throughout the organization are also essential. Effective communication also facilitates the sharing of knowledge and ideas, strengthens relationships, and fosters a positive work environment conducive to innovation and growth.

#### IV.7.3 Employee Resilience

Based on the results obtained, it has been identified that the competence dimension has received a lower score compared to other dimensions. Recognizing the importance of competence in employee resilience, it becomes crucial to focus on enhancing competence within the workforce.

To address this gap, a targeted approach can be taken to improve competence among employees. This may involve providing training programs, workshops, and resources that focus on skill development, knowledge enhancement, and continuous learning opportunities. By investing in the professional growth of employees, the airport can ensure that they possess the necessary competencies to perform their roles effectively and confidently.

Additionally, creating a supportive and empowering work environment that encourages employees to take ownership of their tasks and responsibilities can enhance their sense of competence. Providing regular feedback, recognition, and opportunities for growth and advancement can also contribute to building competence and fostering a culture of continuous improvement. This will not only improve individual employee resilience but also enhance the overall resilience and adaptability of the organization as a whole.

### V. CONCLUSION

In conclusion, the research on "The Influence of Digital Competencies Moderated by Digital Leadership on Employee Resilience" highlights the significant impact that digital competencies and digital leadership can have on employee resilience at PT Angkasa Pura I branch of Sam Ratulangi International Airport in Manado.

The first is the influence of digital competencies on employee resilience. The findings suggest that equipping employees with digital competencies, such as information skills, communication skills, collaboration skills, critical thinking skills, creative skills, and problem-solving skills, positively influences their resilience. Having the necessary digital skills enables employees to navigate the digital landscape, adapt to technological advancements, and effectively contribute to the airport's success amidst industry changes. Based on analyzing the results of a hypothesis test, Digital Competency variables have a significant effect on Employee resilience variables.

The second is to explore the influence of digital leadership on employee resilience. The research indicates that digital leadership, characterized by leaders who possess balanced competencies aligned with the era of Industry 4.0, plays a vital role in fostering employee resilience. Digital leaders guide the organization through digital transformation, communicate a clear vision, and create a culture of innovation and adaptability. Their supportive and empowering leadership style enhances employee engagement, motivation, and the ability to navigate digital challenges with resilience. Based on analyzing the results of a hypothesis test, digital leadership has a significant influence on the dependent variable, namely employee resilience.

The third is to examine the influence between digital competencies moderated by digital leadership on employee resilience. The findings suggest that when digital competencies are effectively moderated and supported by digital leadership, employee resilience is further enhanced. The combination of digital skills and leadership support enables employees to leverage their competencies effectively, embrace change, overcome obstacles, and adapt to the evolving digital landscape with resilience. Based on analyzing the results of a hypothesis test, Digital Competencies Moderated by Digital Leadership has a positive and significant effect on employee resilience.

In summary, the research concludes that developing digital competencies, fostering digital leadership, and their combined influence significantly contribute to improving employee resilience at PT Angkasa Pura I branch of Sam Ratulangi International Airport in Manado. By investing in digital competencies, cultivating digital leadership, and providing a supportive environment, the airport can enhance employee resilience, adapt to digital transformation, and thrive in the dynamic aviation industry.

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