

The Influence of Digital Leadership and Digital Competence on Employee Performance Mediated by Job Satisfaction in Health Services in Tarakan City

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ABSTRACT

This study examines the effect of digital leadership and employee digital competence on employee performance in health services in implementing One Healthy with job satisfaction as a mediating variable in Tarakan City. The implementation of the health transformation launched by the Ministry of Health requires the ability of health workers to implement health data digitization by carrying out digital recording of patient health examination results. This research design uses quantitative and descriptive methods. The participants in the study were health workers at the Puskesmas who played a role in the implementation of recording patient medical record data into the Satu Sehat platform. The sample in this study amounted to two hundred and two health workers at six Puskesmas in Tarakan City. The research strategy used a random sampling method with primary data sources by distributing questionnaires. The results showed that digital leadership and digital competence had no direct effect on performance. The role of job satisfaction as a mediating variable is able to provide a positive influence from digital leadership and digital competencies on employee performance in Tarakan City health services.

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1. INTRODUCTION

The health sector electronic-based government system (SPBE) is an effort to implement the mandate of Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems, which is a strategic step by the Ministry of Health to develop service quality and bureaucracy within the Ministry of Health. Along with the COVID 19 pandemic based on [1] concerning the implementation of the Health Electronic-Based Government System and the Health Digital Transformation Strategy which emphasizes the implementation of policies on

the use of digital health data, the Ministry of Health is accelerating the implementation of SPBE by encouraging the implementation of digitalization in the health sector, which will ultimately make it easier for the public to access health services and provide information to policy makers in making strategic decisions.

The implementation of Health Digital Transformation is integrated into the SatuSehat platform as stated in the Blueprint for Health Digital Transformation Strategy 2024 as a guideline and reference in the implementation of digital transformation in

the health sector. Based on the Decree of the Minister of Health Number 133, [2] of the concerning the integration of national health data through Satu Sehat where every health service facility is required to organize electronic medical records in accordance with the provisions of laws and regulations. Recording health services to the community in Free Health Check activities and maternal and child health services by inputting individual service data results into the Healthy Indonesiaku Application (ASIK) which is carried out in a timely manner so that the health report card can be directly accessed by the community and determine follow-up and recommendations for further health treatment.

The implementation of digital transformation in health services where health workers must record health data covering all aspects of health services into a digital health information system. The implementation of digital data recording which is carried out *in real time* makes every health worker must have digital competence related to the program reporting system into the SatuSehat platform through electronic medical records and the Healthy Indonesia Application (ASIK).

The existence of competency gaps in health workers where expertise is more focused on providing medical services and there are demands related to inputting service data directly into digital systems makes employees must have more competence to improve services to the community. In the work process in health services where there is still a generation gap starting from the leadership, management and medical and administrative technical teams, the role of digital leadership from the leadership to gather the performance of all employees is very crucial. The changes that occur in the implementation of health services have an influence on organizational performance in providing health services to the community. Based on the achievement of puskesmas performance in 2024 states that the implementation of Satu Sehat data reporting using the Aplikasi Sehat Indonesiaku (ASIK) platform for out-of-building services has not

yet reached the set target and performance on the ASIK dashboard has only reached 63.58%. Recording of health services to patients has been carried out using electronic medical records (RME) connected to the SatuSehat Platform, but patient visit data sent to the SatuSehat Platform until July 31, 2024 is less than 50% (fifty percent).

Based on the analysis of problem priorities with the USG method (Urgency, Seriousness, Growth), priority problems are obtained, including the availability of puskesmas information systems that do not yet support One Healthy integration, digital capabilities and the speed of health workers in inputting data into the digital health system and the availability of infrastructure, workload and limited human resources at the Puskesmas. The existence of constraints on the availability of digital systems, infrastructure and human resources is the authority of the leadership, namely the Head of the Puskesmas or management leaders at the Health Office to support the implementation of SatuSehat integration. The role of the leadership is crucial where all health centers in 2023 have become BLUD (Regional Public Service Agency) where the head of the health center is in accordance with the [3] concerning Financial Administration of Puskesmas which states that the head of the health center has the authority to use the BLUD budget to fulfill infrastructure, fulfill human resources and fulfill financing for improving officer competence.

The existence of a new era in digital transformation and technological advances, has forced health professionals to develop new competencies to adapt to new challenges, but necessary skills such as using digital tools are generally neglected by health institutions both health centers, hospitals, and universities, thus forcing professionals to conduct training in this area independently [4]. The burden of health workers who must master medical competencies and digital competencies that must be carried out at one time and the demands of fast and precise service make the implementation of patient electronic records hampered. [5] stated that effective leadership is essential for

introducing healthcare transformation by ensuring the improvement of digital competencies required by employees. Many studies have proven that leaders are instrumental in organizational performance [6]. The role of digital leadership from leaders and management in puskesmas and the Health Office is related to the division of tasks, the formation of work teams and commitment to the use of health data digitization technology. The use of digital technology in health services where there are implications for the application of digital technology on the digital capabilities and competencies of health workers to evaluate the needs of patient-centered health services, service efficiency, service effectiveness, patient safety and timeliness, service and health service equity [7].

Digital employee competence and work discipline have a significant effect on employee productivity [8]. According to [9] performance improvement is not only influenced by leadership motivation but also influenced by the level of employee satisfaction, because satisfaction with leadership supervision also has a significant relationship with motivation where a manager provides treatment and motivates workers through joint efforts to increase job satisfaction. The results of research by [10] state that digital competence and self leadership from leaders have a positive effect on innovative work behavior in the learning process. In an environment full of tension and division of labor such as health services, employee performance is one of the most important things.

Maslow's hierarchy of needs theory identifies five human needs based on their level of importance, starting from the lowest, namely physiological needs, security needs, social needs, ego needs, and the highest, self-actualization needs. According to Maslow's theory, humans try to fulfill their low-level needs first, before fulfilling their high-level needs [11]. According to [12] emphasizes the relationship between job satisfaction and employee performance in health service centers which emphasizes the role of proper

management in creating a good climate in the workplace.

From the results of the employee satisfaction survey conducted on 140 puskesmas employees, the employee satisfaction value is above 85% and in the good category. The greatest dissatisfaction value is related to the fulfillment of work infrastructure and increasing employee competence. This is in line with the results of determining the priority of problems in the implementation of One Healthy where digital competence and technological system infrastructure, availability of tools are very important in supporting employee performance.

The results of [13] research state that digital leadership and information technology have a significant positive effect on employee performance. Employee job satisfaction is one of the important factors to increase employee motivation and productivity in efforts to implement health data digitization through the SatuSehat platform.

The role of job satisfaction as a mediating variable is also carried out by [14] where there is the influence of leadership style on improving performance which states that increased job satisfaction will affect employee performance. With the obstacles and priority problems faced in the implementation of SatuSehat in primary health care facilities in Tarakan City, a study was conducted by looking at the priority of problems related to digital leadership, digital competence on employee performance in the implementation of SatuSehat with job satisfaction as a mediating variable.

2. LITERATURE REVIEW

Researchers will describe the theoretical foundations used in identifying the variables studied. This discussion discusses the explanation of human resource management, digital leadership, digital competence, and employee performance. Human resource management according to [15] in [16] is the science and art of regulating the relationship and role of labor so that it effectively and efficiently helps realize the goals of the company, employees and society.

According to [17] is an approach to managing human problems based on three basic principles, namely human resources are the most valuable and important assets owned by the organization/company. According to [18] the functions of human resource management are to conduct position analysis, plan employee needs and recruitment, select job candidates, orient and train new employees, manage employee compensation, provide incentives and benefits, assess employee performance, communicate, conduct training and development for managers, build employee commitment, provide equal opportunities for employees, ensure employee health and safety, and handle complaints as well as labor relations.

Leadership in an organization plays an important role in creating a vision, mission, setting and setting goals, designing strategies, policies, and methods to achieve organizational goals effectively and efficiently and directing and coordinating organizational efforts and activities [19]. The development of digital transformation gave birth to the concept of digital leadership which is related to leadership and technological development. There are many definitions of digital leadership which are then written in many studies. The definition of *digital leadership* according to [20] is a set of technology-mediated social influence processes intended to change attitudes, feelings, thoughts, behavior, and performance in organizations. Some other literature defines digital leadership as a key skill that managers must have to transform. [21] states that Digital Leadership is the ability of a leader to utilize digital technology in managing teams, directing organizational strategy, and creating a work culture that is adaptive to technological developments. [22] which states that there are 6 characteristics of digital leadership, digital knowledge and literacy, vision, customer focus, agility and risk taking and collaboration. These dimensions are used in this study to evaluate digital leadership.

[23] state that digital competence is a special ability possessed by someone in accordance with their field of work in using digital tools and facilities appropriately which

has an impact on digital transformation. According to [24] digital competence is the ability to explore in the face of new technological situations to analyze, select, evaluate data and information to take advantage of the potential of technology to solve problems. According to [25], competence is a quality that determines and distinguishes an employee from other employees. And represents employee's collection of behaviours [26]. [27] in their research stated that there are 6 aspects in digital competencies that can be fulfilled in adapting to digital health transformation, namely the existence of interest in the use of Health Information Systems (e Health). In addition, there are skills in the use of information and communication technology (ICT), the ability to the utilization of Health Information Systems (e Health), the ability to communicate digitally through health information systems (e Health) with colleagues or with customers and the ability to present information obtained through health information systems (e Health) and ethical aspects by upholding ethical principles and personal data that integrate technology into health services.

[28] explain that job satisfaction is a positive feeling about one's job which is the result of an evaluation of its characteristics. According to job satisfaction is the result of employees' perceptions of how well their jobs provide what is considered important. [29] state that there are eleven dimensions that can be used in measuring employee job satisfaction in organizations or businesses, namely information and communication, Demanding Work, relationships to direct colleagues, , relationships to direct supervisor, organization and management, Changes of making career, working conditions, decision range, working vacation times, compensation and general framework conditions. These dimensions are used in this study to measure employee job satisfaction.

[30] expresses his opinion that job performance or performance is the level of success of employees in completing work originating from the company which is a manifestation of the talents or abilities

possessed by these employees. According to [31] performance is the result of quality and quantity work achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. The dimensions of job performance refer to certain behaviors and results that are used to evaluate how well an employee does his job. In general, these dimensions may vary depending on the specific requirements of the job and the goals of the organization. Using the theory put forward by [32]. Which is a measuring tool in employee performance that will be used in this study is with dimensions, namely Work Quality, Work Quantity, Punctuality, Work Effectiveness, Independency and The Desire to Develop.

3. RESEARCH METHODOLOGY

The research method used is quantitative research. The strategy applied in this study was to use a survey as a method for collecting primary data by distributing questionnaires. The population in this study were health workers in 6 (six) health centers in Tarakan City. To determine the minimum number of samples, researchers used the Slovin formula with an error rate of 5%. The number of respondents obtained was 202 health workers. Data collection using a questionnaire with a research instrument using a Linkert scale where respondents were asked to respond to each question by choosing one of five answers. The score on this scale ranges from number 1 (One) to number 5 (Five). In this study, descriptive analysis of all variables was carried out. Statistical data analysis using Structural Equation Modeling (SEM) using the help of LISREL (Linear Structural RELations) software through measurement model evaluation with CFA

(Confirmatory Factor Analysis) test, followed by Goodness of Fit Model evaluation and structural model evaluation through hypothesis testing and R-Square.

4. RESULTS AND DISCUSSION

4.1 Results

Descriptive statistical analysis, according to [33] is a research method that uses quantitative data to describe and analyze phenomena that are happening factually, systematically, and accurately. This analysis aims to describe the condition, situation, or characteristics of the research object. Descriptive analysis in this study was conducted to present and interpret the responses of 202 respondents regarding Variable X1 (Digital Leadership), Variable X2 (Digital Competence), Variable Z (Job Satisfaction) and Variable Y (Performance) among health worker employees at the Tarakan City Health Center. To effectively summarize the data, the analysis used a frequency distribution table that displays the item numbers associated with the questionnaire statements, the respondents' feedback, the total number of responses, and the corresponding scores. These scores assist in categorizing the tendency of respondents' perceptions towards each variable. To assess employees' perceptions of digital leadership, data was collected using a questionnaire administered to 202 respondents. A summary of responses regarding their perceptions of the work environment is presented in Table 1 below.

Table 1. Description of Respondents' Answers to Digital Leadership Variables

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA				
		1	2	3	4	5	Total	Ideal		
1.	My digital literacy is supported by my boss.	2	22	111	516	115	766	1010	75,8	Good
2.	Superiors support to understand the digital health information system	0	4	66	548	205	823	1010	81,4	Good

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA				
		1	2	3	4	5	Total	Ideal		
3.	Superiors support the use of digital health information systems	0	2	60	556	210	828	1010	81,9	Good
4.	Superiors encourage digital work methods in the work unit	0	4	63	576	175	818	1010	80,9	Good
5.	Superiors provide regular feedback on digital work	0	22	105	544	100	771	1010	76,3	Good
6.	When there is a need for digitization questions there is support from superiors.	0	6	84	552	165	807	1010	79,9	Good
7.	Involvement in decision-making that affects work and the digital work environment	0	4	96	564	135	799	1010	79,1	Good
8.	My boss provides me with the necessary information to do my digital work.	0	4	84	580	135	803	1010	79,5	Good

Source: Author's Process Results, 2025

Based on the results of respondents' responses to the digital leadership variable, the lowest value was obtained with a percentage of 75.8% at item 1 with the statement "my digital literacy is supported by my superiors". This can be explained that the majority of respondents feel that they have not been fully supported by their superiors in developing and improving digital literacy in supporting their work. This is made possible by various factors, especially the lack of facilities and facilities for improving digital competence that can support activities to improve digital literacy. In addition, the lack of support from superiors to provide time during working hours to improve digital literacy is due to the limited number of health workers so that during working hours it is maximized for patient service.

The highest value on the digital leadership variable is found in item no. 3 with the statement "I am supported by my superiors to use digital health information systems". This reflects that the commitment of puskesmas leaders to use digital health information systems in patient services at the Puskesmas is very large. The Ministry of Health's policy for the use of Electronic Medical Records for recording patient services within the building and the use of the Healthy Indonesiaku Application (ASIK) for services outside the building and recording National Priority Program services has been carried out well. The role of the puskesmas leadership is considered by respondents to have good digital leadership in the implementation of the use of digital health data for health services to the community.

Table 2. Description of Respondents' Answers to Digital Competency Variables

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA				
		1	2	3	4	5	Total	Ideal		
1.	I have an interest in using digital health information systems	0	0	75	524	230	829	1010	82,0	Good
2.	I use a digital health information system to store patient health data	0	2	63	504	270	839	1010	83,0	Good

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA	Total	Ideal		
		1	2	3	4	5				
3.	I use the digital health information system as a tool to support health services.	0	0	48	504	300	852	1010	84,3	Good
4.	I use digital health information systems to improve the health care system.	0	0	57	504	285	846	1010	83,7	Good
5.	I am able to use the digital health information system to access patient data	0	0	57	508	280	845	1010	83,6	Good
6.	I feel confident using the digital health information system that has been set up by my leadership.	0	2	96	480	245	823	1010	81,4	Good
7.	I know the benefits of using a digital health information system	0	2	60	532	240	834	1010	82,5	Good
8.	I regularly evaluate the data entered into the digital health information system.	0	2	93	524	195	814	1010	80,5	Good
9.	I am willing to provide the information that patients need by using the digital health information system.	0	2	66	548	210	826	1010	81,7	Good
10.	I use the digital health information system to help people who need health services.	0	2	57	560	210	829	1010	82,0	Good
11.	I provide professional services in the use of digital health information systems.	0	0	57	576	195	828	1010	81,9	Good
12.	I am competent in clinical reasoning using digital health information systems	0	4	102	544	150	800	1010	79.2	Good
13.	I believe that using digital health information systems in certain situations helps patients' quality of life to get better health services.	0	0	84	524	215	823	1010	81,4	Good
14.	I have the ability to communicate health data by using a digital health information system with other health workers.	0	4	102	512	190	808	1010	80,0	Good
15.	I have <i>basic skills</i> in using technology such as computers and <i>smartphones</i> .	0	2	114	488	205	809	1010	80,0	Good
16.	I know where I can collect health information using the digital health information system.	0	8	78	552	170	808	1010	80,0	Good
17.	I understand the impact of using a digital health information system on	0	2	75	572	165	814	1010	80,5	Good

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA				
		1	2	3	4	5	Total	Ideal		
	improving the health care system.									
18.	I can communicate professionally with people who need health services about the importance of using digital health information systems.	0	6	87	544	170	807	1010	79,9	Good
19.	I am able to present information from the digital health information system that others can understand.	0	6	99	540	155	800	1010	79,2	Good
20.	I am able to communicate using the digital health information system with people who need health services.	0	0	84	564	165	813	1010	80,4	Good

Source: Author's Process Results, 2025

Based on the data in table 2 above related to the results of respondents' responses on the digital competency variable, the lowest value with a percentage of 79.2% was obtained in item 12 with the statement "I am competent in clinical reasoning using a digital health information system" and item 19 with the statement "I am able to present information from a digital health information system that can be understood by others." From the two answer items with the lowest scores above, it illustrates that some respondents still need an increase in digital competence, especially in interpreting the clinical symptoms experienced by patients to be able to make digital records into the health information system. In addition, there are factors from the digital health system itself that do not contain complete features of the patient's clinical determination steps so that there are still discrepancies between digital records and the results of clinical reasoning that has

been done before. In addition, respondents experienced difficulties in presenting information from the digital health system by pulling data obtained from the digital health application system because individual data with high complexity and dashboards did not contain all the information needed.

The results of the respondents' responses were highest in item 3 with the statement "I use the digital health information system as a tool to support health services". From the answer with the highest value above, it can illustrate that respondents have a high commitment to using digital health information systems to record patient data and implement health services. Respondents have the ability to use digital health information systems and use them regularly in daily services. Respondents are aware of the policy to record patient health service data into a digital health information system and support the one health data policy.

Table 3. Description of Respondents' Answers Job Satisfaction Variable

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA	Total	Ideal		
		1	2	3	4	5				
1.	I get clear information about my duties and work	0	2	75	548	195	820	1010	81,1	Good
2.	I get clear information about the flow of work services in my unit	0	0	21	142	39	826	1010	81,7	Good

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA	Total	Ideal		
		1	2	3	4	5				
3.	I know the means of communication used to connect with management and work teams.	0	0	63	568	195	826	1010	81,7	Good
4.	My job requires a lot of responsibility	0	0	36	504	320	860	1010	85,1	Good
5.	My job demands speed in execution	1	0	57	500	285	843	1010	83,4	Good
6.	I know the risks that can occur in carrying out my work	0	0	45	540	260	845	1010	83,6	Good
7.	All employees where I work have good interactions with coworkers	0	4	84	524	205	817	1010	80,9	Good
8.	I am willing to help other coworkers in need	1	0	90	544	175	810	1010	80,2	Good
9.	I feel that my coworkers have applied the principle of openness in working relationships.	0	6	114	512	165	787	1010	77,9	Good
10.	I understand the importance of my work to other cross-programs	0	0	63	564	200	827	1010	81,8	Good
11.	I feel that the boss where I work can be a good role model	0	4	60	500	275	839	1010	83,1	Good
12.	I feel that the boss where I work supports me to complete my work.	0	2	69	504	260	835	1010	82,7	Good
13.	I will tell my supervisor when I am having problems completing my work.	0	0	57	524	260	841	1010	83,3	Good
14.	I will tell my superiors when I make mistakes in completing work	0	0	69	544	215	828	1010	81,9	Good
15.	My boss clearly organizes the division of tasks between coworkers	1	2	66	540	215	824	1010	81,6	Good
16.	I believe that my superiors value the contributions of their employees.	0	2	75	540	205	822	1010	81,3	Good
17.	My boss gives feedback on my work results	0	6	69	544	200	819	1010	81,1	Good
18.	My work is interesting	0	6	81	488	250	825	1010	81,6	Good
19.	I am proud to be part of the health service to the community	0	0	39	472	355	866	1010	85,7	Good
20.	I actively participate in the activities carried out by the organization	0	4	72	548	195	819	1010	81,1	Good
21.	I have the opportunity to be promoted according to my expected career path.	3	14	162	456	120	755	1010	74,7	Good
22.	I don't feel worried about promotion opportunities because the agency has provided clear career promotion path	2	12	156	488	100	758	1010	75,0	Good

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA	Total	Ideal		
		1	2	3	4	5				
23.	I feel that at the institution where I work, I have clear self-development opportunities.	0	2	141	492	155	790	1010	78,2	Good
24.	I have the opportunity to continue my education	2	24	129	484	120	759	1010	75,1	Good
25.	I get adequate work equipment according to my work needs.	0	20	111	500	150	781	1010	77,3	Good
26.	I get enough work materials to do my job	0	10	102	544	135	791	1010	78,3	Good
27.	I can fill out the work application that I have to use in my job.	0	0	81	556	180	817	1010	80,9	Good
28.	My work environment supports me to do my job well	0	4	90	548	165	807	1010	79,9	Good
29.	I am involved in decision-making on organizational issues	1	12	147	488	120	768	1010	76,0	Good
30.	I know the limits of my authority in making decisions related to my work	0	2	57	604	155	818	1010	80,9	Good
31.	I am satisfied with the working hours set by my work unit.	2	4	90	556	150	802	1010	77,5	Good
32.	I am satisfied with the leave-taking system that has been established.	0	8	132	508	135	783	1010	77,5	Good
33.	The salary I receive is in accordance with the work I do.	2	24	111	24	2	765	1010	75,7	Good
34.	I receive compensation beyond my salary that is in line with my expectations.	2	32	129	480	105	748	1010	74,0	Good
35.	I am aware of the work system that has been established by the agency where I work.	0	0	96	556	155	807	1010	79,9	Good
36.	I implement the terms of reference that have been developed in the execution of my work.	0	0	96	544	170	810	1010	80,2	Good

Source: Author's Process Results, 2025

Based on the data in table 3 above related to the results of respondents' responses to the job satisfaction variable, the lowest value was obtained in question item number 21 with the statement "I have the opportunity to move up according to the career path I expect". This illustrates that some respondents believe that the opportunity to move up according to the career path is not clear to them. This is influenced by various factors including those related to work ties. If respondents are ASN or PPPK, they have a clear career path regulated by law and have regular

promotions. Meanwhile, for respondents with the status of non-permanent employees / contract workers, they do not have information related to career paths and opportunities for promotion. The staffing system has not supported career opportunities and promotion for contract workers so that respondents with contract worker status feel that this affects their job satisfaction.

The results of the highest respondent responses on the job satisfaction variable were found in item 19 with the statement "I am proud to be part of health services to the community". This

illustrates that the majority of respondents have pride as health workers who work in providing health services to the community. The pride inherent in this respondent is in line with the great

responsibility and high workload and has a big share in job satisfaction which can affect the attitude, behavior and work process of respondents in providing services to patients and the community.

Table 4. Description of Respondents' Answers Performance Variables

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA				
		1	2	3	4	5	Total	Ideal		
1.	I do my work based on the SOPs that have been established.	0	2	36	504	315	857	1010	84,8	Good
2.	I do my work carefully to avoid work mistakes	0	0	30	508	325	863	1010	85,4	Good
3.	I have sufficient skills to complete the work assigned to me.	0	0	54	548	235	837	1010	82,8	Good
4.	I have a lot of experience related to the work I do.	0	2	105	516	185	808	1010	80,0	Good
5.	I always complete a certain amount of work in accordance with the set target.	0	0	90	560	160	810	1010	80,1	Good
6.	I always complete more work than the set target.	1	8	135	520	110	774	1010	76,6	Good
7.	I always finish my work on time	0	6	117	448	140	711	1010	70,3	Good
8.	I am able to solve problems in my work quickly	0	0	138	524	125	787	1010	77,9	Good
9.	I am willing to give up my personal time to solve unfinished work problems	4	14	159	460	115	752	1010	74,4	Good
10.	I don't like to put off work that needs to be done	0	0	105	536	165	806	1010	79,8	Good
11.	I can focus on completing my work even when not supervised by my boss.	0	0	69	548	210	758	1010	75,4	Good
12.	I am able to prioritize my work according to its level of importance	0	0	57	608	155	820	1010	81,1	Good
13.	I use office facilities in accordance with the interests of the job	1	2	63	572	180	818	1010	80,9	Good
14.	I take good care of the facilities provided to prevent damage.	1	2	48	548	235	834	1010	82,5	Good
15.	I take responsibility for the work I do	0	0	45	536	265	846	1010	83,8	Good
16.	I am committed to not running away from the problems I cause at work.	0	0	51	540	250	841	1010	83,2	Good
17.	I am able to complete my work without the help of others	3	24	135	476	115	753	1010	74,5	Good
18.	I try to quickly find a solution to my work problems.	0	2	75	612	115	804	1010	79,6	Good

No.	Statement	Respondent Response					Score		%	Category
		SD	D	MA	A	SA				
		1	2	3	4	5	Total	Ideal		
19.	I want increased capacity/knowledge to get the job done	0	0	54	556	225	835	1010	82,6	Good
20.	I want to achieve more in my future work.	0	0	57	580	190	827	1010	81,8	Good

Source: Author's Process Results, 2025

Based on the data in table 4 above related to the results of respondents' responses on the performance variable, the lowest value was obtained in question item number 7 with the statement "I always finish work on time". This illustrates that some respondents cannot complete their work on time due to various factors. The limited number of health workers and the large workload both in direct service to patients and the demands of administrative work with digital reporting that must be reported in real time make it difficult for many respondents to divide their time and have an impact on completing work that is not in accordance with the deadline set. The highest score was obtained in item number two with the statement "I do my work carefully to avoid work errors". This illustrates that the majority of respondents do their work with the principle of high caution and avoid work errors. Health care is one of the jobs with high work demands and the principle of great caution because if there is an error in service or medical action, it will have a fatal impact on the quality of patient health. Implementation of work with reference to the established SOP can minimize the level of errors that occur.

Furthermore, statistical analysis was carried out using Structural Equation Modeling (SEM) with the help of the LISREL version 8.80 statistical application. The latent variables in this study are digital leadership and digital competence as exogenous latent variables, performance variables as endogenous latent variables and job satisfaction variables as mediating variables. This study uses a two-step approach where an evaluation of the CFA model is carried out to produce an acceptable level of model fit first and then, after that, proceed with structural model testing or hypothesis testing.

Measurement model evaluation or confirmatory factor analysis (CFA) is the initial stage carried out before the structural model testing process. This CFA process is a process of evaluating the causal relationship between indicators and latent variables represented in validity and reliability measures. Evaluation of the validity level of each indicator can be seen from the standardized loading factor (SLF) value, where if the SLF value ≥ 0.50 , it can be said that the indicator is valid and vice versa if the SLF value < 0.50 , it can be said that the indicator is invalid.

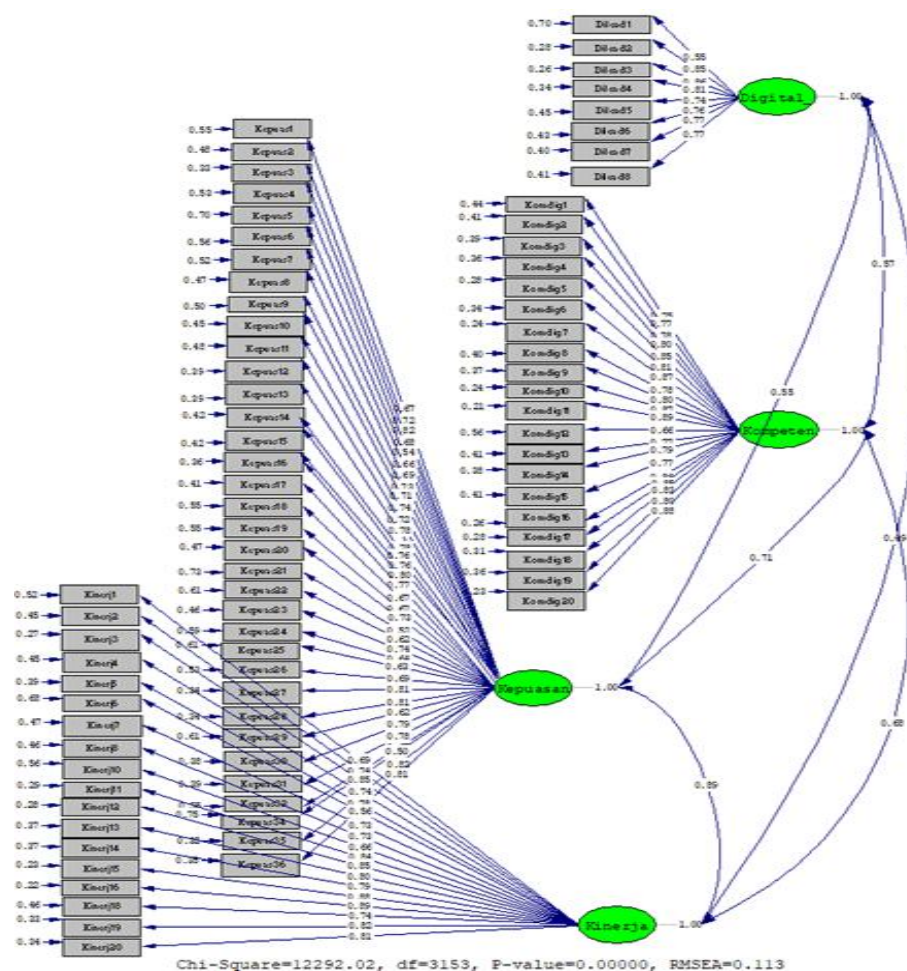


Figure 1. Structural Model
Source: LISREL 8.8 Output Results

From the results of Figure 4.1, it can be seen that all indicators are valid to represent the latent variables being measured, this is because all indicators

have an SLF value ≥ 0.50 . Furthermore, reliability analysis is carried out with the following results.

Table 5. Variable Reliability Test Results

Variables	SLF	CR	RESULTS
Digital Leadership (X1)	>0,5	0,919	Reliable
Digital Competency (X2)	>0,5	0,974	Reliable
Job Satisfaction (Z)	>0,5	0,973	Reliable
Performance (Y)	>0,5	0,964	Reliable

Based on table 5 above obtained CR values on each variable greater than 0.7 (≥ 0.70). Thus, all variables in this study are declared valid and reliable.

Furthermore, the structural model evaluation analysis is carried out. The structural model in SEM describes the relationships that exist between latent variables. In the SEM analysis, an evaluation of the Goodness-of-fit (GOF)

criteria is carried out which is useful for testing the suitability of the model for the theory under study evaluated in the measurement and structural models, namely through its main output, namely the absolute fit indices and incremental fit indices. The results of the research model fit level test can be seen in the following figures and tables:

Table 6. Goodness of Fit Index Test Results

	Goodness of Fit Index	Criteria	Value	Description
Absolute Fit Indices	Chi-Square	Small value	8067,33	Poor-Fit
	Probability	> 0,05	0,000	Poor-Fit
	RMSEA	≤ 0,08	0,075	Good-Fit
	GFI	≥ 0,90	0,57	Poor-Fit
Incremental Fit Indices	AGFI	≥ 0,90	0,53	Poor-Fit
	CFI	≥ 0,90	0,97	Good-Fit
	NNFI	≥ 0,90	0,97	Good-Fit
	NFI	≥ 0,90	0,95	Good-Fit
	RFI	≥ 0,90	0,95	Good-Fit
	IFI	≥ 0,90	0,97	Good-Fit
Parsimonious Fit Indices	PNFI	≥ 0,90	0,90	Good-Fit
	PGFI	≥ 0,90	0,52	Poor-Fit

Source: LISREL 8.8 Output Results

Based on table 6 above, it can be seen that the indices according to [34] can be said that the structural model of this study is fit or the model is said to be feasible. This is because at least 4 goodness of fit indices have been met which state good-fit and each criterion of goodness of fit, namely absolute fit indices, incremental fit indices, and parsimony fit indices, has been represented which states good fit. A fit model means that it has met the

expectations of the theoretical frequency and can proceed to the next stage, namely hypothesis testing. In this study, the significance level used by researchers is 5% with the two-tailed method. The two tailed t significance value of 5% is 1.96 (absolute), where the significant t value (C.R.) is smaller than -1.645 and greater than 1.645. Thus, if the t-statistic value> 1.645, it will indicate a positive significant effect on a relationship between variables [34].

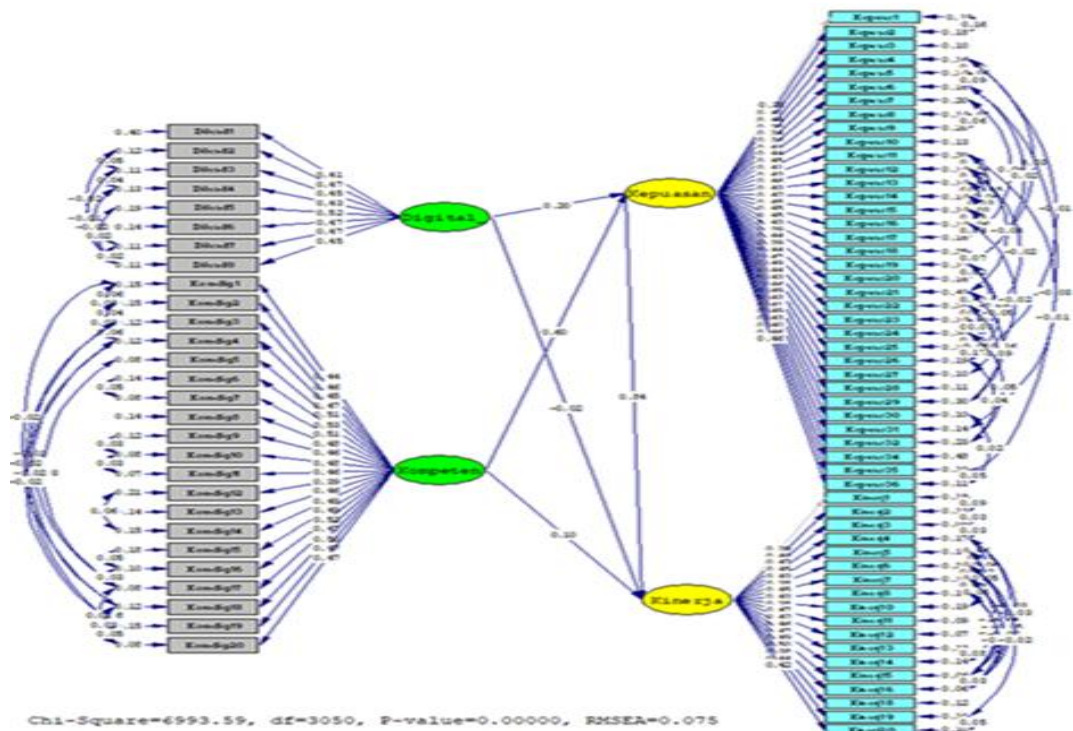


Figure 2. Structural Model (Path Coefficient)
Source: LISREL 8.8 Output Results

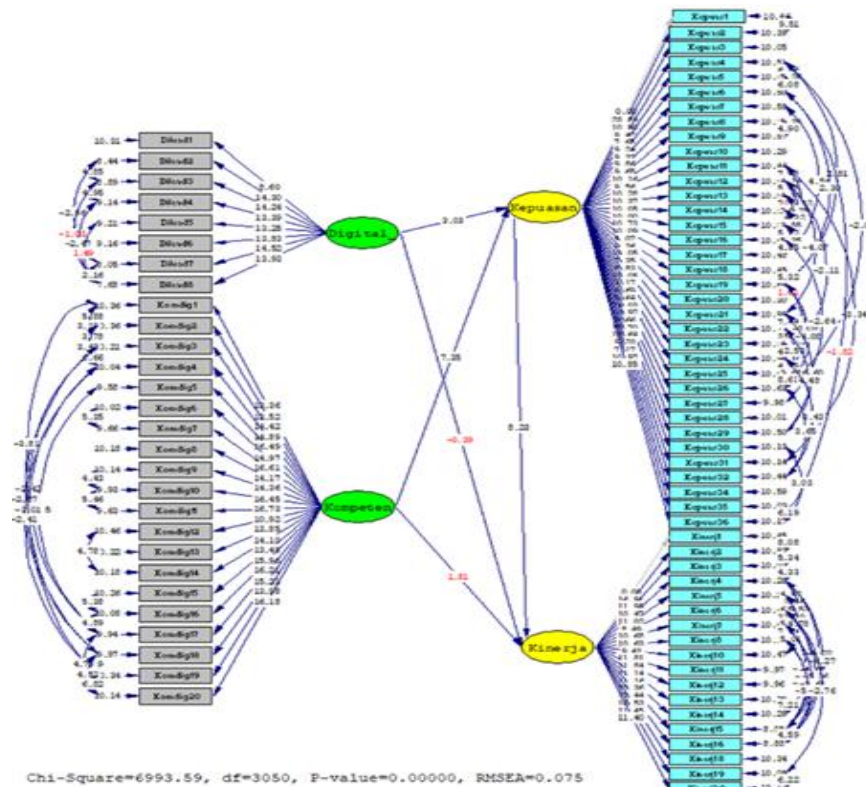


Figure 3. Structural Model (T Value)

Source: LISREL 8.8 Output Results

Table 7. Hypothesis Test Results

Hypothesis	Path	Path Coefficient	T-values	Decision	Conclusion
Direct Influence					
H1	Digital Leadership → Performance	-0,017	-0,39	Not Significant	Rejected,
H2	Digital Competencies → Performance	0,095	1,81	Not Significant	Rejected,
Mediation Effect					
H3	Digital Leadership → Job Satisfaction → Performance	0,17	2,99	Significant Mediating	Accepted, Data Supported
H4	Digital Competencies → Job Satisfaction → Performance	0,50	6,87	Significant Mediating	Accepted, Data Supported

Source: LISREL 8.8 Output Results

The results of the analysis that has been carried out show that Digital Leadership and Digital Competencies have no direct influence on Performance (H1 and H2 are rejected). However, when Job Satisfaction is included as a mediating variable, it is found that Job Satisfaction is able to mediate the effect of Digital Leadership and Digital Competencies on Performance (H3 and H4 accepted). This suggests that Digital Leadership and Digital Competencies do not directly

improve Performance, but play a role in improving Job Satisfaction, which in turn has a positive impact on Performance. This shows the importance of job satisfaction as a major factor in improving employee performance. Therefore, organizations need to improve employee job satisfaction by implementing good digital leadership and improving employees' digital skills, so that they are more comfortable and productive at work.

This study examines the relationship between digital leadership, digital competence as independent variables, job satisfaction as a mediating variable and its effect on performance in health worker employees in Tarakan City Bandung, by including one dependent variable (performance). This study used a questionnaire with 8 items to assess digital leadership, 20 items to evaluate digital competencies, 36 items to assess job satisfaction and 20 items to measure performance. A total of 202 health worker employees who served in health services at Puskesmas throughout Tarakan City participated in this study. This section will present and discuss the results obtained from the data, as described in the previous section.

4.2 Discussion

a. Effect of Digital Leadership on Performance

Based on the results of SEM analysis using Lisrel in this study, Digital Leadership has no direct effect on Performance, with a t-statistics value of -0.39 (<1.96). This suggests that the implementation of digital leadership in organizations does not necessarily improve employee performance directly. Most likely, the effect of Digital Leadership on Performance requires other factors, such as job satisfaction or broader organizational support, for the impact to be felt.

Based on the characteristics of respondents where the majority of the age range is 25 to 45 years where respondents are in productive age and mature thinking, the role of leaders is to provide direction, motivation and work distribution and monitor employee performance. Although digital leadership does not directly affect performance, good digital leadership can increase employee trust and loyalty to the institution. This will make health workers have the motivation to carry out their duties well with the support

of the leadership. This is in accordance with the research of [35] which states that digital leadership does not directly affect the performance of health services in hospitals in Kuwait and leaders need to pay attention to other supporting factors such as innovation in the digital leadership process. Innovation in digital leadership style is more easily accepted by employees than persuasion in the process of improving organizational performance. [36] which states that e-leadership does not directly affect performance but is more influenced by innovative work culture and digital culture.

[37] state that an organization can develop well in the implementation of digital transformation with a strong digital leadership role to drive the organizational transformation process and determine the right strategy in improving organizational performance. [38] in their research related to the implications of digital leadership, digital culture, organizational learning and digital innovation on the performance of PT Telkom found that digital leadership does not have a direct influence on employee performance, but the support of the work environment and digital innovation that continues to be developed by the organization can influence and can have an impact on employee performance. Based on some of the above research, digital leadership can be a good capital in decision making for developing business strategies and improving employee performance.

b. Effect of Digital Competence on Performance

Based on the results of SEM analysis using Lisrel in this study, Digital Competence also does not have a direct effect on Performance, as shown by the t-statistics value of

1.81 (<1.96). Although employees who have good digital competence are easier to adapt technology in their work, the results of this study show that it is not enough to improve performance without other factors that strengthen the relationship, such as job satisfaction and organizational support.

Based on the characteristics of respondents where the age range of respondents varies from 25 years to 45 years and above, the ability of respondents to master the use of digital technology varies. Employees with an age range of 25 to 35 years will be much easier to adapt to changes and master digital competencies. Employees with an age range of 45 years and over will take longer to master digital technology. Although digital competence does not directly affect performance, mastery of technology with increased digital competence of employees can facilitate the implementation of work. Digital work patterns that are starting to be implemented with the digital transformation of health require health workers to be adaptive to digital health technology. The gap in mastery of employee digital competencies can be dealt with by forming work teams that can help each other and cooperate between employees in the process of carrying out work so that with joint synergy in the implementation of health data digitization, the performance of health service institutions will increase.

This is in accordance with the research of [39] which states that digital competence does not have a direct effect on performance but digital competence can affect performance mediated by organizational digital innovation. Digital competence can be built with talent skills, knowledge and

experience as well as continuous development of digital technology that can have an impact on organizational performance. According to [40] digital competence can improve performance supported by a learning system that is carried out continuously and continuously.

c. The effect of Job Satisfaction that can mediate the relationship between Digital Leadership on Performance

Based on the results of SEM analysis using Lisrel in this study, Job Satisfaction mediates the effect of Digital Leadership on Performance, with a t-statistics value of 2.99 (>1.96). This means that although Digital Leadership does not directly affect performance, it still has an impact on improving employee performance through increased job satisfaction. In other words, leaders who are effective in managing digital technology can increase employee job satisfaction, which in turn has a positive impact on improving their performance.

From the results of the research employee job satisfaction is in the good category and there are variations in several dimensions. Employees in health services, the majority of whom are ASN and PPPK, have a working period of more than 5 years, have a high commitment and pride in health institutions and can be a great asset in improving performance. In addition, the majority of employees have a good level of education so that they have good insight and understanding in their work and are easily adaptable to advances in digital technology. This is in accordance with the research of [13] which states that job satisfaction is able to mediate the influence of digital leadership on digital performance. The role of increased job satisfaction is influenced by decision making from leaders regarding digital work patterns and the support of

information technology developed by the company,

The role of job satisfaction as mediation is full mediation. This is in accordance with the concept of full mediation, where the mediating variable (Job Satisfaction) fully bridges the relationship between the independent variable (Digital Leadership) and the dependent variable (Performance). This means that without an increase in Job Satisfaction, the implementation of Digital Leadership will not contribute directly to improving employee performance. Therefore, organizations that want to improve performance through digital leadership must ensure that the implementation of digital leadership is also able to increase the level of employee job satisfaction.

[14] in their research stated that job satisfaction is able to mediate the relationship between digital leadership and performance. In this study, the digital leadership style in decision-making patterns is preferred by providing compensation and rewards which can increase job satisfaction and have an indirect impact on improving performance.

d. The Mediating Effect of Job Satisfaction on Digital Competencies and Performance

Based on the results of SEM analysis using Lisrel in this study, Job Satisfaction also mediates the effect of Digital Competence on Performance, with a t-statistics value of 6.87 (>1.96) and a coefficient of 0.50. This shows that although Digital Competence does not have a direct effect on Performance, employees who have good digital competence will feel more satisfied with their work, which in turn encourages an increase in their performance. This is in accordance with [41] which looks at the role of job satisfaction which is able to mediate the relationship between digital

competence and performance. Increasing digital competence can have a direct effect on job satisfaction and have an indirect effect on organizational performance.

The relationship between digital competence and job satisfaction is based on the characteristics of respondents who have a good level of education. The majority of respondents with Diploma 3 and Bachelor education have good academic abilities, mindsets and insights, it will be easier to adapt to technological advances. The use of technology can be more easily learned and applied in carrying out work. With the use of digitization of health data and the fulfillment of infrastructure and competency improvement, employees will find it easier to complete their work and job satisfaction will increase. With better job satisfaction, it will have an impact on the speed of performance achievement.

[42] in their research stated that job satisfaction is able to mediate the relationship between digital competence, worklife balance, transformational leadership on performance. An increase in employee digital competence will provide increased abilities and skills that are able to foster a sense of recognition, relieve stress and efficiency in carrying out tasks so that job satisfaction increases, worklife balance can be implemented and work productivity increases.

5. CONCLUSION

Based on the results of the research and discussion that has been described previously, the conclusions of this study can be drawn as follows:

1. Digital leadership, digital competence and employee performance in health services in

- Tarakan City are in the good value score category.
2. Digital leadership has no direct influence on employee performance in health services within the scope of Tarakan City Health Office.
 3. Digital competence has no direct influence on employee performance in health services within the scope of Tarakan City Health Office.
 4. Employee job satisfaction can mediate the effect of Digital leadership on employee performance in health services within the Tarakan City Health Office.
 5. Employee job satisfaction can mediate the effect of Digital

leadership on employee performance in health services within the Tarakan City Health Office.

This study has limitations that can be considered in further research in the future. Future researchers can conduct research by adding several other independent variables such as workload, work discipline and work environment where these variables can add broader results related to the existence of factors that can support improved employee performance. In addition, an analysis can be carried out by adding mediating variables related to the use of digital technology, in order to obtain more specifics in efforts to improve performance in the implementation of health service transformation.

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