Factors Influencing the Utilization of the Renbut Application for Planning Health Human Resource Needs in the Work Area of the South Sulawesi Provincial Health Service

1st **Nurul Hudayah Burhanuddin[1], Sukri Palutturi[2], Muhammad Alwy Arifin[3], Muhammad Yusran Amir[4], Erniwati Ibrahim[5]**
Health Policy Administration Study Program, Faculty of Public Health, Hasanuddin University Makassar

Abstract: The utilization of information technology in the health sector is increasingly becoming an urgent need to improve the efficiency and quality of services. One of the applications being developed is Renbut. However, the problem in the field is that there are still challenges in utilizing this application, which are influenced by various factors. This study aims to determine the factors that influence the utilization of the Renbut application for planning health human resource needs in the work area of the South Sulawesi provincial health office. This type of research uses quantitative with a cross sectional study approach and logistic regression analysis. The population in this study were all employees who served as Renbut managers in the South Sulawesi Provincial Health Office work area as many as 539 employees. The sample used in this study was 230 respondents using the slovin formula. The results of this study indicate that technological infrastructure (p=0.000), stakeholder support (p=0.001), HR availability (p=0.000), and organizational characteristics (p=0.005) have a significance value on Renbut Application Utilization. Based on Binary Logistic analysis, the strongest variable is the availability of human resources (Sig = 0.006 and Exp(B) = 4.049). This study found that HR availability is a key factor influencing Renbut application utilization, with technological infrastructure support, stakeholder support, and organizational characteristics also contributing significantly. This recommendation emphasizes the importance of strengthening HR capacity and technological infrastructure to maximize application utilization in improving the quality of health services in the digital era.

Keywords: Health Worker Performance, PONED, Maternal Mortality Rate (MMR), Competence, Logistic Regression

1. INTRODUCTION

The 1945 Constitution of the Republic of Indonesia mandates that health is a human right. The state is the most ideal institution to fulfill the needs of this human right, where the most concrete form is public service, namely services provided by the state to the people. Article 28 of the 1945 Constitution of the Republic of Indonesia states that everyone has the right to live in physical and spiritual prosperity, to live and have a good and healthy living environment and has the right to receive health services.

Also in Law Number 36 of 2009 concerning Health, it is stated that health development aims to increase awareness, willingness, and ability to live healthily for everyone in order to realize the highest level of public health, as an investment for the development of human resources that are socially and economically productive. Success in regional development depends on the human resources factor. Adequate quality (HR). Human resources. Quality (HR) can support the achievement of a region's goals.

With the issuance of Law Number 23 of 2014 concerning Regional Government, the division of Provincial Regions is carried out, consisting of Provincial, Regency and City Governments. In health development, it can increase the level of awareness, willingness and ability to live healthily for everyone in order to realize an optimal level of public health which is characterized by its population behaving healthily and in a healthy environment, having the ability to access quality health services fairly and evenly, and having an optimal level of health throughout the territory of the Republic of Indonesia (Syamsi & Asmi, 2019).

According to Naydenov (2019) Basically, the success of regional development depends on human resource

factors. Adequate quality human resources can support the achievement of a region's goals. With the issuance of Law Number 23 of 2014 concerning Regional Government, the division of Provincial Regions was carried out, consisting of Provincial, Regency and City Governments. To regulate administrative policies and governance of existing resources, each province and district/city has a regional government. The implementation of regional government in the era of decentralization, each region has the authority to issue policies (Pratiwi, 2021). Human Resources (HR) are very important in organizational development because in an organization, human resources are a guide to obtaining quality, professional and productive people in organizational activities. Have broad knowledge, expertise and attitudes to solve work problems quickly. The development provided is not only in education and training, but also career development and organizational development (Maulyan, 2019).

In the process of managing health Human Resources (HR), especially planning health HR needs. So far, it is still administrative in nature and has not been managed professionally, is still top-down from the center, not bottom-up (from below), does not match the needs of the organization and real needs in the field, and is not long-term oriented (Syaputri & Hartono, 2023). The success of an organization is highly dependent on the performance of the people who work in it. A rapidly changing environment requires them to be able to adapt to changing phenomena, analyze their impact on the organization and prepare solutions to deal with the situation.

Seeing the facts above, the role of human resource management in an organization is not only administrative, but also guides how to develop the potential of human resources to be creative and innovative (Farazmand, 2004). Performance is an important thing that must be achieved by every agency including the Health Service, because performance is a reflection of the agency's ability to manage and allocate its employees, therefore the performance of employees has a very important influence on the ongoing activities of the agency and influences the process of achieving the agency's goals (Safitri et al., 2022).

Health Human Resources (HR) or Health workers are the main key to the success of achieving health development goals and for an organization in achieving its goals, because humans are the managers and controllers of all capital in an organization. Referring to this, every step in an organization's activities cannot be separated from the maximum utilization of resources in order to achieve greater organizational output. The most important asset that must be owned by an organization and is highly considered by management is the human assets of the organization.

The term human resources refers to the people in the organization. When managers are involved in human resource activities as part of their work, they try to facilitate the contributions made by people to achieve the plans of the organization's strategy. Rohman & Hidayah (2022) said that, the importance of human resource efforts stems from the fact that people (humans) are elements that are always present in every organization.

Health Human Resources (HR) also contribute up to 80% to the success of health development. In the 2019 World Health Organization report, European countries dominate with excellent health worker performance, while Indonesia is one of 57 countries facing a health HR crisis, both in terms of numbers and performance. According to Michie & West (2004), effective employee performance management is needed according to the abilities and expertise of each available health worker. One of the integrated HR management can be done through a measurable employee performance appraisal system in supporting the achievements of the Health Service (Lutwama et al., 2013).

In order for these conditions to be realized, comprehensive health fulfillment efforts are needed which are supported by health resources. One of the very strategic resources in the health sector is Health Human Resources (HRK). The availability of quality human resources can meet needs, be distributed fairly and evenly, and be utilized effectively and efficiently to ensure the implementation of health development to improve the highest level of public health is absolutely necessary on an ongoing basis.

For this reason, human resources needs planning that begins with the overall human resources management aspect must be prepared as a reference in determining procurement that includes human resources education and training, human resources utilization, including improving their welfare, and human resources quality development and supervision (Riau Human Resources Management Team). Human resources needs planning is carried out by adjusting health development needs, both locally, nationally, and globally, and

strengthening commitments with other related elements.

In the era of health decentralization, regional governments have the authority to recruit human resources in their respective regions as regional government employees. Consequently, regions must have the ability to plan human resources needs, both in provincial and district/city governments. Human resources planning is the initial stage of human resources management which is carried out in stages with a bottom-up concept, in accordance with local, national and global health development needs. This HR planning requires the involvement and commitment of all relevant stakeholders at every level of government administration.

Where the output is in the form of mapping HR needs per health facility/agency, per health service facility, per type of personnel and per level (South Sulawesi Health Office). The transformation policy in accelerating the achievement of national health targets through six pillars, with one of the pillars being the transformation of Health HR which includes efforts to accelerate the availability, quality and distribution of health workers. One of the efforts to accelerate the availability of these health workers is through the procurement of Government Employees with Work Agreements (PPPK).

In Law Number 23 of 2014 concerning Regional Government, the Health sector is a concurrent government affair which is a government affair that has been divided into authorities between the central, provincial and district/city governments. The regional government must ensure the availability of sufficient resources (facilities, infrastructure, tools, personnel and money/costs) so that the process of implementing minimum service standards (SPM) runs optimally.

Law Number 5 of 2014 concerning State Civil Apparatus, mandates that every government agency, both Central and Regional, has an obligation to prepare a health worker needs plan as a reference basis for efforts to fulfill health workers and improve health worker governance comprehensively. In line with Law Number 17 of 2023 concerning Health, the Central Government and Regional Governments are responsible for the planning, procurement, and utilization of medical health workers and health workers according to the needs of the Community and its region based on the provisions of laws and regulations.

Health worker needs planning is prepared periodically every year as a short-term needs plan, it can also be prepared in a five-year period as a medium-term needs plan and a projection of needs for more than five years as a long-term needs plan (Law No. 17 of 2023). Indonesia is still faced with a shortage of health workers in terms of number, type, distribution and quality, especially doctors. As of December 2022 (STR data) the ratio of doctors to the population in Indonesia reached 0.52 per 1000 population, which is still relatively small when compared to countries in Asia which have reached 1.2.

The distribution of health workers is not evenly distributed across all health facilities. Nationally, the number of health centers as of June 30, 2023 (SIDMK) was 10,454 health centers, 4.2% of health centers did not have doctors and 45% of health centers did not have complete 9 types of health workers (Doctors, Dentists, Nurses, Midwives, Public Health, Pharmacy, Nutrition, Health, and ATLM). The number of regional general hospitals was 673 regional general hospitals and 38% of 7 types of specialist doctors (Sp.A, Sp.OG, Sp.B, Sp.PD, Sp.An, Sp.Rad, and Sp.PK) were incomplete (Ministry of Health of the Republic of Indonesia., 2021). The Ministry of Health as the Supervising Agency for 30 (thirty) Health Functional Positions (JF) has the task of mapping the need for health workers nationally.

Mapping of national needs is carried out through planning of health worker needs in stages starting from the health facility level, continuing to the Regency/City level then to the Provincial level until finally reaching the Central level (Ministry of Health) as regulated in issuing technical guidelines for the preparation of health worker needs/formation plans, both the Regulation of the Minister of Health Number 33 of 2015 concerning Guidelines for the Preparation of Health Human Resource Needs Planning and the Regulation of the Minister of Health Number 43 of 2017 concerning the Preparation of Health Functional Position Formations.

Individual data inputted into the SI SDMK application must be correct and updated. Individual data in SI SDMK is the basis for calculating the need for health workers in the renbut application (Ministry of Health). The Provincial Health Office is an element of the implementation of regional autonomy in the health sector which is positioned under and responsible to the Governor through the Regional Secretary. Facilities under the auspices of the South Sulawesi Provincial Health Office consist of 24 district/city offices, 121 Hospital units, and 475 Health Center units (South Sulawesi Health Office).

Development and Empowerment of Health Human Resources in the Provincial Health Office includes Planning for the Needs and Programs for Human Resources required, Procurement which includes Education for health workers and Training for Health Human Resources, Utilization of Health Human

Resources, including improving welfare, and coaching and supervision of the quality of Health Human Resources. Based on data from the South Sulawesi Provincial Health Office, it is known that it has a total of 86,534 Human Resources (HR).

Based on the results of observations at the location, it is known that the problems that researchers found showed that there are still many health facilities, especially the fulfillment of doctors and health workers that have not been met. In realizing quality health service quality management, especially first-level health facilities, namely the District/City Health Center. So that a foundation is needed in the implementation of TQM, also called (Total Quality Management) according to Juran's Quality Trilogy theory which includes Quality Planning, Quality Control, and Quality Improvement, with activities starting from planning the needs of health workers based on the quality of health services and implementing the plan, and then there is control for the maintenance of HRK for improvement or improvement in improving the quality of health services.

2. METHOD

This research design uses a descriptive analytic design using a cross-sectional study approach, namely research that uses measurements or research at one time. The specific purpose of cross-sectional research is to describe the phenomenon or influence of various phenomena or influences between independent variables and dependent variables at one time or moment (Van et al., 2015). This study uses a cross-sectional approach because this study intends to identify whether or not there is a relationship and the influence of independent variables on dependent variables in one measurement using a questionnaire measuring instrument on respondents. The purpose of this study is the factors that influence the use of the renbut application for planning human resource needs for health in the work area of the South Sulawesi provincial health office. This research was conducted in the work area of the South Sulawesi Health Office from October 9 to November 9, 2024. The research was conducted periodically, the researcher met via Zoom Meeting media with the Program Manager of 24 Districts/Cities and 48 District/City government hospitals. Then the researcher explained the intent and purpose of the research and distributed the questionnaire during the zoom meeting. After a large zoom meeting with 24 regencies/cities, the researcher then conducted a Zoom Meeting with several Health Centers and Hospitals that would be the research samples. Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. The population of this study was all employees who served as Renbut managers in the South Sulawesi Provincial Health Office Work area spread across 24 regencies/cities and 475 Health Centers and 48 Regency/City Government Hospitals totaling 539 employees.

A sample is part of the number and characteristics possessed by a population. It can also be said that a sample is a small part taken to represent its population. The sample in this study was employees who served as Renbut managers in the South Sulawesi Provincial Health Office Work area. This study aims to analyze the factors that influence the use of the Renbut SDMK 4.0 application in planning health human resource needs in the South Sulawesi Provincial Health Office work area. The dependent variable in this study is the utilization of the Renbut application, while the independent variables include the availability of resources, technical capabilities, technological infrastructure, socio-economic conditions, stakeholder support, and organizational characteristics. Primary data were collected through interviews and questionnaires distributed online to Renbut application managers, while secondary data were obtained from documentation of related agencies. Data processing was carried out through editing, coding, and tabulation processes, then analyzed using SPSS software version 22.0. The analysis was carried out in three stages, namely univariate to describe the characteristics of respondents, bivariate to test the relationship between variables with the Chi-Square test, and multivariate with binary logistic regression to see the simultaneous effect of independent variables on the dependent variable. This study follows the principles of research ethics such as consent to participate, data confidentiality, and respect for respondent rights, and has received ethical approval from the Faculty of Public Health

3. FINDINGS AND DISCUSSIONS

Univariate Analysis

Univariate analysis was conducted with the aim of determining the distribution and frequency of each variable, both independent variables, dependent variables and respondent characteristics. The univariate results in this

study are:

Respondent Characteristics

Table 1. Frequency Distribution of Respondents Based on Characteristics

Respondent Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	49	21.3
Female	181	78.7
Age		
17 – 25 Years	5	2.2
26 – 35 Years	95	41.3
36 – 45 Years	103	44.8
46 – 55 Years	27	11.7
Last Education Level		
Senior High School / Vocational School (SMA/SMK/MA)	6	2.6
Bachelor's Degree (S1)	195	84.8
Master's Degree (S2)	29	12.6
Total	230	100.0

Source: Primary Data 2024

Based on Table 1, it shows that the gender of the largest respondents in this study was female, with 181 respondents (78.7%). Based on age group, it was dominated by the age of 36-45 years with 103 respondents (44.8%). The last education of the respondents with the largest number was S1 with 195 respondents (84.8%).

Researched Variables

Table 2. Frequency Distribution of Respondents Based on Research Variables

Research Variable	Frequency (n)	Percentage (%)
Technical Skills		
Bad	5	2.2
Good	225	97.8
Technology Infrastructure		
Bad	56	24.3
Good	174	75.7
Stakeholder Support		
Bad	22	9.6
Good	208	90.4
Socioeconomic Conditions		
Bad	4	1.7
Good	226	98.3
Availability of Human Resources		
Bad	35	15.2
Good	195	84.8
Organizational Characteristics		
Bad	13	5.7
Good	217	94.3
Utilization of Renbut		
Bad	59	25.7
Good	171	74.3

Source: Primary Data 2024

Based on Table 2, it shows that the technical capability variable is dominated by the good category with 225 respondents (97.8%). Based on the technology infrastructure variable, there are 225 respondents (75.7%). Based on the stakeholder support variable, respondents have the most good answers, 208 (90.4%). The socio-economic condition variable has the most good category, 226 (98.3%). The availability of human resources,

respondents have the most good answers, 195 (84.8%). The organizational characteristics variable has the most good category, 217 (94.3%). In the Renbut application utilization variable, respondents predominantly answered good, 171 (74.3%).

Bivariate Analysis

Relationship between Technical Ability and Utilization of Renbut

Table 3. Distribution of Respondents Based on Technical Ability in Utilization of Renbut in 2024

Technical Skills	Utilization of Renbut				Total	P Value
	Bad		Good			
	n	%	n	%		
Bad	3	1,3	2	3,7	5	0,108
Good	56	57,7	169	167,3	225	
Total	59	59,0	171	171,0	230	

Source: Primary Data 2024

Table 3 above shows that 230 respondents who have good technical skills and good utilization of renbut are 169 people (167.3%). While poor technical skills and good utilization of renbut are 2 people (3.7%). The results of the chi square test obtained a value of p = 0.108 (p Value> 0.05), meaning that statistically there is no significant relationship between technical skills and utilization of renbut.

The Relationship between Technology Infrastructure and the Utilization of Renbut

Table 4. Distribution of Respondents Based on Technology Infrastructure in the Utilization of Renbut in 2024

Technology Infrastructure	Utilization of Renbut				Total	P Value
	Bad		Good			
	n	%	n	%		
Bad	27	14,4	29	41,6	56	0,000
Good	32	44,6	142	129,4	174	
Total	59	59,0	171	171,0	230	

Source: Primary Data 2024

Table 4 above shows that 230 respondents who have good technological infrastructure and good utilization of renbut are 142 people (129.4%). While poor technological infrastructure and poor utilization of renbut are 27 people (14.4%). The results of the chi square test obtained a p value = 0.000 (p Value <0.05), meaning that statistically there is a significant relationship between technological infrastructure and utilization of renbut.

Relationship between Stakeholder Support and Utilization of Renbut

Table 5. Distribution of Respondents Based on Stakeholder Support for the Utilization of Renbut in 2024

Stakeholder Support	Utilization of Renbut				Total	P Value
	Bad		Good			
	n	%	n	%		
Bad	12	5,6	10	16,4	22	0,001
Good	47	53,4	161	154,6	208	
Total	59	59,0	171	171,0	230	

Source: Primary Data 2024

Table 5 above shows that 230 respondents who have good stakeholder support and good utilization of renbut are 161 people (154.6%). While poor stakeholder support and good utilization of renbut are 10 people (16.4%). The results of the chi square test obtained a p value = 0.001 (p Value <0.05), meaning that statistically there is a significant relationship between stakeholder support and utilization of renbut.

Relationship between Socio-Economic Conditions and the Utilization of Renbut

Table 6. Distribution of Respondents Based on Stakeholder Support for the Utilization of Renbut in 2024

Socio-Economic Conditions	Utilization of Renbut				Total	P Value
	Bad		Good			
	n	%	n	%		
Bad	3	1,0	1	3,0	4	0,053
Good	56	58,0	170	168,0	226	

Total	59	59,0	171	171,0	230	

Source: Primary Data 2024

Table 6 above shows that 230 respondents who have good socio-economic conditions and good utilization of renbut are 170 people (168.0%). While poor socio-economic conditions and poor utilization of renbut are 1 person (3.0%). The results of the chi-square test obtained a value of p = 0.053 (p Value> 0.05), meaning that statistically there is no significant relationship between socio-economic conditions and utilization of renbut.

Relationship between Availability of Human Resources and Utilization of Renbut

Table 7. Distribution of Respondents Based on Availability of Human Resources in Utilization of Renbut in 2024

Availability of human resources	Utilization of Renbut				Total	P Value
	Bad		Good			
	n	%	n	%		
Bad	22	9,0	13	26,0	35	0,000
Good	37	50,0	158	145,0	195	
Total	59	59,0	171	171,0	230	

Source: Primary Data 2024

Table 7 above shows that 230 respondents who have good human resource availability and good utilization of renbut are 158 people (145.0%). While the availability of human resources is poor and the utilization of renbut is good, namely 13 people (26.0%). The results of the chi square test obtained a value of p = 0.000 (p Value <0.05), meaning that statistically there is a significant relationship between the availability of human resources and the utilization of renbut.

Relationship between Organizational Characteristics and Utilization of Renbut

Table 8. Distribution of Respondents Based on Organizational Characteristics in Utilization of Renbut in 2024

Organizational Characteristics	Utilization of Renbut				Total	P Value
	Bad		Good			
	n	%	n	%		
Bad	8	3,3	5	9,7	13	0,005
Good	51	55,7	166	161,3	217	
Total	59	59,0	171	171,0	230	

Source: Primary Data 2024

Table 8 above shows that 230 respondents who have good organizational characteristics and good utilization of rentbut are 166 people (161.3%). While poor organizational characteristics and good utilization of rentbut are 5 people (9.7%). The results of the chi square test obtained a p value = 0.005 (p Value <0.05), meaning that statistically there is a significant relationship between organizational characteristics and utilization of rentbut.

Multivariate Analysis

Multivariate analysis is conducted to see the influence between more than one independent variable and one dependent variable. The analysis is conducted using binary logistic regression analysis. The results of the analysis can be seen in table 9.

Table 9. Results of Multivariate Test Analysis

Independent Variables	Sig. (Hosmer and Lemeshow Test)	Sig.	Exp (B)	Negelkerke R Square	Overall Percentage (%)
Technology Infrastructure		0,056	2.124		
Stakeholder Support		0,484	1.515		
Availability of Human Resources	0,471	0,002	4.049	0,202	78,3
Organizational Characteristics		0,207	2.580		

Source: Primary Data 2024

Based on table 9, it shows that in terms of the suitability of the analysis model with the observation data, the sig value (Hosmer and Lemeshow test) = 0.471 (sig> 0.05) which means that this binary logistic analysis model

is suitable for use. Meanwhile, of the four variables tested for their influence on the utilization of Renbut, there is one variable that has the most influence with a sig value = 0.002 and Exp (B) 4.049, namely the availability of human resources. The negelkere R Square value shows the magnitude of the influence of all independent variables and dependent variables. The results of the analysis show a value of 0.202 (20.2%), which means that the independent variables in this study have an influence of 20.2% on the dependent variable. In addition, the overall percentage value in the results of this binary logistic test is 78.3%, which means that the accuracy of the analysis model in this study is 78%.

Discussion

Relationship between Technical Ability and Utilization of Renbut

Basically, a person needs to have the ability to compete in the global era, especially the important component of the ability to absorb new knowledge and assimilate it to be applied to commercial purposes. That is called technological capability. There are various arguments about the definition of technological capability. According to Ellitan (2002), for example, asserting that technological capability is the company's ability to perform technical functions, develop new products, develop new processes, and operate company facilities effectively. It is important to emphasize that the main purpose of technological capability is to have an impact on products and/or processes. In addition, technological capability can be defined as "the ability to develop and design new products, new processes, and operate equipment more effectively" or "the resources needed to produce a managerial engineering revolution including skills, knowledge and experience as well as institutional structures and ties.

Based on the results of the univariate analysis in table 2, it shows that the technical capability variable is dominated by the good category of 225 respondents (97.8%) and less than good by 5 respondents (2.2%). The researcher assumes that respondents who have good technical capabilities tend to be easier to understand, operate, and maximize the features in this application. The researcher also assumes that previous training or work experience can contribute to this good level of technical capability. Respondents with poor technical capabilities, although only a few (2.2%), are still considered a potential obstacle to optimal utilization of the Renbut Application. The researcher assumes that this small group may need additional support, such as intensive training or technical assistance, so that they can more easily utilize the application.

The results of the bivariate study in table 3 above show that 230 respondents who have good technical skills and good renbut utilization are 169 people (167.3%). While poor technical skills and good renbut utilization are 2 people (3.7%). The results of the chi square test obtained a p value = 0.108 (p Value> 0.05), meaning that statistically there is no significant relationship between technical skills and renbut utilization. The researcher assumes that these results indicate an insignificant relationship between technical skills and Renbut utilization, with the presence of respondents who have poor technical skills but are still able to utilize the Renbut Application well (3.7%), the researcher assumes that individual adaptability factors, openness to new technologies, and practical experience in using applications may be more significant in encouraging application utilization compared to technical skills alone. This shows that although technical literacy is important, success in utilizing the Renbut Application does not solely depend on how well someone masters the technical aspects, but also on other contexts that influence technology adoption in the work environment.

The Relationship of Technology Infrastructure to the Utilization of Renbut

Information technology (IT) infrastructure can be defined as a shared technology resource that provides a platform for detailed enterprise information system applications. Information technology infrastructure consists of investments in hardware, software, and services, such as consulting, education, and training that are spread throughout the company or spread across all business units within the company. Information technology infrastructure can be said to be a collection of services that encompass all services regulated by management. These services consist of human and technical capabilities. Based on the results of the univariate analysis in table 1, it shows that the technology infrastructure variable is 225 respondents in the good category (75.7%), while respondents in the poor category (24.3%).

The researcher assumes that technology infrastructure plays an important role in utilizing the Renbut Application for planning human resource needs for health in the work area of the South Sulawesi Provincial Health Office. The majority of respondents who rated the technology infrastructure as good indicated that their work environment supports effective access and use of this application. The availability of adequate hardware and software, stable internet access, and technical support likely contribute to their ability to use the Renbut

Application optimally. The results of the bivariate study in table 4 above show that 230 respondents who have good technological infrastructure and good utilization of renbut are 142 people (129.4%). Meanwhile, poor technological infrastructure and poor utilization of renbut are 27 people (14.4%).

The results of the chi-square test obtained a p value of 0.000 (p Value <0.05), meaning that statistically there is a significant relationship between technological infrastructure and renbut utilization. Researchers assume that the quality of technological infrastructure, such as the availability of adequate hardware, stable internet network, and available technical support, greatly influences the ability of users to utilize the Renbut Application effectively. When the technological infrastructure in the work environment is considered good, users tend to find it easier to access and use the application, which in turn increases efficiency and accuracy in planning health human resource needs. Conversely, when the technological infrastructure is considered poor, these limitations can hinder the process of using the application and reduce the effectiveness of Renbut utilization.

Relationship of Stakeholder Support to Utilization of Renbut

Stakeholder support has become one of the key factors in the successful implementation of technology projects and initiatives in various sectors. In the context of technology utilization, such as health human resource management applications in this case, what the researcher studied was needs planning (RenBut), stakeholder support plays an important role in determining the success of adoption, effectiveness of implementation, and sustainability of the use of the system. Based on the results of the univariate analysis in table 1, it shows that the stakeholder support variable is 225 respondents in the good category (90.4%) while respondents in the less good category (9.6%).

The researcher assumes that when stakeholders provide adequate support, application users tend to have higher motivation to utilize the Renbut Application, because they feel supported both technically and non-technically. This support can facilitate training, access to the technology needed, and help overcome obstacles that may arise during the application implementation process. Limited support from stakeholders can cause difficulties in gaining access to the resources needed, as well as reduce enthusiasm and participation in using the application optimally. The results of the bivariate study in table 5 above show that 230 respondents who have good stakeholder support and good utilization of renbut are 161 people (154.6%). While poor stakeholder support and good utilization of renbut are 10 people (16.4%).

The results of the chi square test obtained a p value = 0.001 (p Value <0.05), meaning that statistically there is a significant relationship between stakeholder support and utilization of renbut. The researcher assumes that good stakeholder support, including in the form of policies, regulations, resources, and supervision, contributes significantly to the success of the utilization of the Renbut Application. Adequate support from stakeholders, such as organizational leaders, local governments, and other related parties, plays an important role in ensuring that application users get the resources they need, both in terms of training, access to technology infrastructure, and technical assistance. This creates a conducive environment for optimal utilization of the Renbut Application in planning human resource needs for health in the work area of the South Sulawesi Provincial Health Office.

The Relationship between Socio-Economic Conditions and the Utilization of Renbut

Socioeconomic status (SES) is a term that describes the social and economic position of a person or group of people in society, usually measured by indicators such as income, education, employment, and access to resources. According to various recent international journals, socioeconomic conditions have a major impact on many aspects of life, including the adoption of technology and technology-based applications in important sectors such as health (Yao et al., 2022). Understanding socioeconomic conditions is very relevant to analyzing the factors that influence the use of technology such as Renbut, which is a human resource planning application in the Health sector.

Based on the results of the univariate analysis in table 1, it shows that the socioeconomic condition variable is 225 respondents in the good category (98.3%) while respondents in the poor category (1.7%). The researcher assumes that respondents with good socioeconomic conditions are more likely to have access to supporting facilities and infrastructure, such as adequate technological devices, stable internet connectivity, and a work environment that supports the use of information technology. Better socioeconomic conditions can also reflect higher levels of education, which allows users to more easily understand and adopt technology-based applications such as the Renbut Application in the process of planning health human resource needs. The results of the bivariate study in table 3.6 above show that 230 respondents who have good socioeconomic conditions and good utilization of renbut are 170 people (168.0%). While poor socioeconomic conditions and

poor utilization of renbut are 1 person (3.0%).

The results of the chi-square test obtained a p value = 0.053 (p Value> 0.05), meaning that statistically there is no significant relationship between socioeconomic conditions and the utilization of renbut. The researcher assumes that the utilization of the Renbut Application is more influenced by other factors that are more relevant in the context of technology adoption in the health sector, such as technical support, training, or available technological infrastructure. Socioeconomic conditions, although important, do not seem to be a dominant factor in determining the success of using this application. Users with better socio-economic conditions may have better access to technology and education, but this does not guarantee that they will make optimal use of the Renbut Application if it is not supported by other factors that are more directly related to the use of technology.

Relationship between Availability of Human Resources and Utilization of Renbut

Availability of human resources according to Andrew E. Sikula, Availability of human resources is the process of determining workforce needs and means meeting those needs so that their implementation interacts with the organization's plan. Meanwhile, Chiara et al. (2023) define human resource planning as the process of analyzing and identifying the availability and need for human resources so that the organization can achieve its goals. Based on the results of the univariate analysis in table 1, it shows that the variable of HR availability is 225 respondents in the good category (84.8%) while respondents in the poor category (15.2%).

The researcher assumes that good HR availability includes an adequate number of workers and competencies that are in accordance with the demands of using the Renbut application. With sufficient HR, institutions can ensure that the health HR needs planning process runs smoothly, because the existing workforce is able to handle the various tasks required in using this application. This also means that the available human resources have adequate knowledge and skills to operate the application effectively, both in terms of data input and decision making based on data generated by the application. The results of the bivariate study in table 7 above show that 230 respondents who have good human resource availability and good utilization of renbut are 158 people (145.0%). While the availability of poor human resources and good utilization of renbut are 13 people (26.0%).

The results of the chi square test obtained a p value = 0.000 (p Value <0.05), meaning that statistically there is a significant relationship between the availability of human resources and the utilization of renbut. Researchers assume that the availability of good human resources is not only related to the number of workers, but also to their quality in terms of mastery of technology and the ability to carry out data-based planning processes. Institutions with good human resource availability are more likely to have a work culture that supports the use of information technology, which in turn will increase the efficiency and effectiveness of health human resource planning through the Renbut Application. The availability of adequate and qualified human resources will not only ensure the success of the Renbut Application implementation, but will also increase the accuracy and effectiveness of overall health human resource needs planning.

Relationship of Organizational Characteristics to Utilization of Renbut

Organizational characteristics are internal conditions in an organization. What is meant by organizational characteristics here is the extent to which the individual perceives them. If there is a match, the individual or worker will feel like a member of the organization. These characteristics can be used to provide support for improving employee performance (Esthi, 2020). Based on the results of the univariate analysis in table 1, it shows that the organizational characteristics variable is 225 respondents in the good category (94.3%), while respondents in the less good category (5.7%). Researchers assume that good organizations tend to have resources, infrastructure, and work culture that allow the adoption of information technology to run smoothly. These factors support the workforce in using the Renbut Application effectively to meet the needs of health HR planning.

On the other hand, 5.7% of respondents who assessed organizational characteristics in the less good category may reflect the existence of several structural barriers in the organization that hinder the optimization of technology use. Researchers assume that organizations that are less flexible or do not have a system that supports technological innovation may face difficulties in utilizing the Renbut Application to its full potential. The results of the bivariate study in table 8 above show that 230 respondents who have good organizational characteristics and good utilization of renbut are 166 people (161.3%). While poor organizational characteristics and good utilization of renbut are 5 people (9.7%). The results of the chi square test obtained a

p value = 0.005 (p Value <0.05), meaning that statistically there is a significant relationship between organizational characteristics and utilization of renbut.

The researcher assumes that good organizational characteristics, including a clear structure, supportive leadership, and an organizational culture that is adaptive to technological innovation, play a major role in facilitating the use of the Renbut Application. Organizations with good governance tend to be more responsive to change and more easily adopt new technologies, including applications that support HR needs planning in the health sector. Organizations that have good coordination between work units and efficient procedures will be able to provide the support needed to maximize the potential of technology applications in HR planning and management. The researcher also assumes that to achieve optimal application utilization across all work units, ongoing support from management is needed in the form of policies, training, and appropriate resource allocation.

4. CONCLUSION

There is no influence of technical capability factor in the utilization of renbut application on planning of human health resource needs in the work area of the South Sulawesi Provincial Health Service. There is an influence of technology infrastructure factor in the utilization of renbut application on planning of human health resource needs in the work area of the South Sulawesi Provincial Health Service. There is an influence of stakeholder support factor in the utilization of renbut application on planning of human health resource needs in the work area of the South Sulawesi Provincial Health Service. There is no influence of socio-economic condition factor in the utilization of renbut application on planning of human health resource needs in the work area of the South Sulawesi Provincial Health Service. There is an influence of human resource availability factor in the utilization of renbut application on planning of human health resource needs in the work area of the South Sulawesi Provincial Health Service. There is an influence of organizational characteristic factor in the utilization of renbut application on planning of human health resource needs in the work area of the South Sulawesi Provincial Health Service. The variable that has the strongest influence in this study is the Availability of Human Resources with a statistical value of binary logistic test of sig. 0.002 / Exp (B) 4.049.

Suggestion

The South Sulawesi Provincial Health Office is advised to hold regular training and workshops for staff who use the Renbut application. This training can focus on improving technical skills, so that users can utilize the application more effectively and efficiently in planning health human resource needs. The Health Office needs to evaluate and develop existing technology infrastructure. Improving internet connectivity and providing adequate devices will support optimal use of the Renbut application. This also includes improving the integrated data management system, so that data access and analysis become faster and more accurate. Further research is expected to explore more variables that may influence the use of the Renbut application. Additional variables such as individual motivation, previous experience with technology, and other external factors can provide a more holistic picture of application use in the context of health human resource planning.

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