**Human Resource Management Improving Sustainable District Health Center Performance In DKI Jakarta Province**

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**Abstract**

The aim of this research was to examine the relationship between intellectual capital, work environment, human resource engagement, and the performance of community health centers (known as puskesmas in Indonesia). The study focused on the sub-district health centers located in Kebayoran Lama District, South Jakarta, and involved 34 health workers as research samples. All health workers in the population were included in the study using the saturation sampling technique since the sample size was less than 100. The Likert scale was utilized to measure the variables in this study. The research methodology employed a quantitative approach using a questionnaire and structural equation models (SEM) with partial least squares (PLS) analysis. Data processing was done using the SMARTPLS 3.2.9 software. The findings indicated that maximizing the performance of community health centers involves optimizing intellectual capital and the work environment, while considering the involvement of human resources to enhance the performance of sub-district health centers in the Kebayoran Lama District Health Center's working area.

**Keywords:** HR engagement, work environment, intellectual capital, performance, Puskesmas, Sustainable

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1. **Introduction**

The degree of public health in an area is influenced by the existence of health facilities. Based on Law number 36 of 2009 concerning health states that a health service facility is a tool/or place that is used to carry out health service efforts, both promotive, preventive, curative, and rehabilitative carried out by the government, government and/or the community (Jakarta, 2020).

There has been little change in the number of community health centers (known as "puskesmas" in Indonesian) at both sub-district and district levels over the past five years. Covid-19 pandemic has significantly affected patient visits to healthcare facilities, particularly at community health centers. The decrease in visits in 2020 is likely attributable to the pandemic, although the central government (Ministry of Health of the Republic of Indonesia) has implemented a policy through Minister of Health Regulation No. 43 of 2019 to address the rapid spread of Covid-19, which has made it difficult to carry out the two main functions of puskesmas. However, it is crucial for community health centers, as a public sector organization that serves the health sector, to maintain their performance regardless of the situation. The Health Office uses community health center performance assessments as a method to evaluate their success.

According to a study conducted by Hasanah, Dai, and Sari (2020), the South Margahayu Health Center has effectively fulfilled its obligations under the Minister of Health Regulation No. 43 of 2019, which includes both individual and community health efforts. However, in order to maintain the quality of service and meet the Minimum Service Standards outlined in the Performance Assessment, a special strategy is necessary. Another study by Mufida (2017) demonstrates that performance assessments of puskesmas have a positive impact on community satisfaction levels, with the State Revenue and Expenditure Budget (APBN) and Regional Revenue and Expenditure Budget (APBD) serving as antecedent variables. Rahayu (2006) suggests that improving the quantity and quality of employees, particularly medical personnel, is crucial for enhancing the performance of community health centers and empowering them to better serve their communities.

The level of performance exhibited by community health centers in the working area of DKI Jakarta is still unsatisfactory. Only 63.9% of community health centers in 2019 and 61.9% in 2020 were deemed to have performed well. Moreover, some health centers still fail to evaluate their performance, with the percentage increasing from 23.3% in 2019 to 25.6% in 2020. Therefore, it can be inferred that the performance of these health centers might have contributed to the decline in community visits (Jakarta, 2020). Public health efforts are managed effectively in accordance with the established standards and guidelines, and there is a continuous focus on improving quality and performance, then it is possible to achieve high-quality and effective public health outcomes. One way to improve the quality of service provided by community health centers is to assess their performance. Community Health Centers play a crucial role in achieving health development goals, and therefore, the guidelines for stratifying Health Centers have been improved to include an assessment of their performance, as they are at the forefront of health development (Risfaskes, 2019).

In an increasingly uncertain environment, competition is intensifying, and organizations are finding it harder to maintain a sustainable competitive advantage. This is also true for community health centers, which serve as public sector organizations in the health sector. To sustain a competitive advantage, they need to adopt strategies that focus on increasing their technological capabilities to manage their resources effectively. The Resources-Based View (RBV) approach can help community health centers to maintain their competitive edge sustainably by identifying and managing their tangible and intangible resources effectively. Researchers using the RBV approach analyze resources such as intellectual capital, work environment, and human resource engagement to understand how they impact the performance of community health centers. The RBV approach helps organizations to surpass their competitors by focusing on identifying and managing their potential resources effectively over the long term. Three types of resources are identified by Barney and Clark (2007): Physical capital resources (such as physical, technological, plant, and equipment); human resources (including training, experience, and insight), and organizational capital resources (such as formal structure). Brumagim and Klavans (1994) present a resource hierarchy with four different levels of organizational resources: Production/maintenance resources (considered the lowest level), Administrative resources, Organizational learning resources, and Strategic vision resources (considered the highest level). In this study, intellectual capital refers to the potential of temporary intangible resources for the physical work environment, including tangible and intangible resources.

Concept of intellectual capital refers to the knowledge and abilities of employees and organizations, and their capacity to create value and gain a competitive advantage in a sustainable way. This aspect is considered crucial for organizations, which has led to increasing research interest in the contribution of intellectual capital to organizational performance (Ramadhan, Abdurahim and Sofyani, 2018). Measuring intellectual capital is essential for organizations to identify areas that need improvement in terms of intellectual capital, as this strategic aspect can help organizations achieve and sustain a competitive advantage and generate greater profits in the future. A number of studies have investigated the impact of intellectual capital on organizational performance, including those conducted by Ramadhan, Abdurahim and Sofyani (2018), Puspita and Wahyudi (2021a), and Ningrum and Arsyah (2022). These studies have found that intellectual capital has a positive influence on organizational performance, indicating that organizations can enhance their performance through improving their intellectual capital.

Performance of community health centers can be affected by the work environment and the engagement of HR. The physical facilities and infrastructure of community health centers in DKI Jakarta have been fulfilled according to the Indonesia national PKM Rifaskes Report (RI, 2019) since it is the capital city of Indonesia. However, research is still needed to evaluate the non-physical aspects of the work environment such as the working atmosphere and occupational safety and health. Listiana, Suryoputro, and Sriatmi (2018) found that there is still a lack of togetherness among employees during overtime work and a lack of coordination with colleagues, which can affect the work environment. Meanwhile, Marangu, Rebecca, and Egessa (2015) revealed that the type of leadership significantly affects the performance of community health centers. The study also showed that the work environment for the tuberculosis control program management team in Surabaya was not good enough, and the working atmosphere reflects the climate at work, which can affect the organization's performance. A healthy and comfortable work environment can contribute to increasing productivity, efficiency, and better quality of work. According to Khairunnisa and Riyanto (2020), a good work environment can have a positive impact on employees, while a negative work environment can have a negative impact on them.

The implementation of Occupational Health and Safety (OHS) is a crucial aspect of the work environment. However, it appears that the implementation of OHS in the DKI Jakarta Health Center area is not yet optimal. The evidence for this includes the absence of a decree from the Head of the community health centers regarding the implementation of OHS, as well as the lack of competent human resources, training, and allocation of funds for OHS implementation. Although there is a PPI team and standard operating procedures for compliance with standard precautions, waste management is outsourced, and there are SOPs and PPEs for waste management, reporting work accidents and work-related diseases, and an Emergency Response Team or Red Code Team, there are still several obstacles to OSH implementation at community health centers X. According to Ristanti, Denny, and Setyaningsih (2022), these obstacles include the absence of an annual work plan based on risk identification and inadequate socialization of SOPs for cultivating OSH.

Apart from the work environment, employee engagement is also important in improving performance. Employee engagement refers to the level of willingness to devote time, skills, and energy to work, and consider work as a significant aspect of life (Sucahyowati & Hendrawan, 2020). However, employee engagement in the DKI Jakarta health center area is still low, with 42.5% of employees not sharing the same values and attitudes as their colleagues in providing good health services, as shown in the pre-survey conducted by the researchers. This can have an impact on the performance of health centers. However, the results of a study by Joushan et al. (2015) indicate that employee engagement does not have a significant effect on organizational performance. Factors that influence employee engagement include the work environment, leadership, team and coworkers, training and career development, compensation, organizational policies, procedures, structures, and systems, as well as workplace well-being. The issue of intellectual capital, work environment, and human resource commitment to performance in community health centers is a significant matter that needs further investigation.

1. **Relationship between intellectual capital and community health center performance**

The intangible asset known as intellectual capital can provide knowledge-based resources that enhance organizational performance and competitiveness, thereby adding value compared to other organizations. According to a study conducted by Alfiero, Brescia, and Bert (2021), intellectual capital has an impact on organizational performance. Herli, Vitayala, and Sadikin (2018) assert that human "intellectual capital" plays a crucial role in promoting company growth and performance, as evidenced by their research findings that intellectual capital has an influence on company value.

**H1: Intellectual Capital Has a Positive Relationship with Community Health Center Performance**

1. **Relationship between work environment and community health center performance**

Community health centers, also known as Puskesmas, are essential service providers that offer health services to the community. Given their responsibility for the health and safety of patients, these organizations are expected to maintain good performance. The quality of health workers, including nurses and midwives, who typically interact with patients during medical check-ups, plays a critical role in creating patient satisfaction. As such, Puskesmas must employ highly competent health workers who can provide exceptional service to patients. Achieving patient satisfaction is crucial because satisfied patients can promote the services to their friends and relatives, which can benefit the organization.

Obtain good health workers who can provide excellent service to patients, the Puskesmas should prioritize the satisfaction of its employees. Therefore, the work environment and job satisfaction are crucial factors in these organizations. The performance of health workers can be influenced by various factors, including job satisfaction, motivation, work environment, and organizational culture. According to Purnomo, Waruwu, and Aziti (2021), the work environment has a positive impact on employee performance. Furthermore, Shanti (2017) states that the work environment has a highly positive effect on employee performance. However, there is limited research on the influence of the work environment on organizational performance.

**H2: The work environment is positively related to the performance of the Community Health Centers**

1. **Relationship between intellectual capital and community health center HR engagement**

According to a study by Taib et al. (2018), employee engagement plays a mediating role in the relationship between human resource management practices and employee performance, indicating an indirect effect between these variables. However, there is currently no research examining the relationship between intellectual capital and the performance of community health centers, which is mediated by employee engagement.

**H3: Intellectual Capital Has a Positive Relationship with Community Health Center HR Engagement**

1. **Relations between the work environment and the involvement of community health center human resources**

According to Ambarsari (2022), employee engagement plays a mediating role in the impact of organizational support and work environment on employee performance. However, this study focuses on examining the effect on organizational performance rather than on individual employee performance.

**H4: The work environment is positively related to the engagement of community health centers' human resources**

1. **The relationship between HR engagement and community health centers performance**

Employee engagement refers to the emotional attachment that employees have towards the organization and its objectives. It signifies that employees are invested in their job and the organization, and are not motivated solely by financial incentives or career advancement, but rather by the organization's goals. Various scholars have attempted to define engagement, some of whom relate it to customer satisfaction, positive attitude towards the organization, commitment to the organization, job satisfaction, and motivation to contribute. Although the concept of engagement is distinct from that of organizational commitment and work engagement, they share a common trait of fostering positive work experiences.

According to a study by Malik and Kristina (2020), it was found that the work environment does not have a significant effect, either directly or indirectly, on the performance of civil servants at the South Sulawesi Provincial Social Service through employee engagement. However, leadership has a positive and significant effect on civil servant performance at the same institution through employee engagement. Additionally, compensation has a positive and significant effect on civil servant performance at the South Sulawesi Provincial Social Service through employee engagement. The factors that influence employee engagement include the work environment, leadership, team and co-workers, training and career development, compensation, organizational policies, procedures, structures and systems, and workplace well-being. Another study by Trisnawati and Kurniawan (2021) shows that motivation has a positive effect on employee engagement, as well as the work environment. Employee engagement, in turn, has a positive effect on employee performance. The study also found that employee engagement mediated the influence of the work environment on employee performance, but did not mediate the effect of work motivation on employee performance.

**H5: HR Engagement Has a Positive Relationship with Health Center Performance**

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1. **Methodology**

The research paradigm employed in this study is positivism, which asserts that research findings are valid only if they are observable and measurable. The research findings should also be replicable and generalizable. The research methodology used in this study is quantitative, which is defined by Creswell and Creswell (2017) as an objective approach to testing theories by examining the relationships between variables.

In this study, a questionnaire was used as a measurement tool, with responses provided by health workers and the head of community health centers serving as data sources. The study was self-explanatory and based on predetermined research objectives, and the path analysis model was used due to the influencing relationship between the independent and dependent variables. The study examined four variables: the dependent variable of health center performance and the independent variables of intellectual capital, work environment, and human resource engagement. The study involved 34 respondents, including health workers and heads of community health centers in four working areas of Puskesmas in the Kebayoran Lama sub-district. Data was collected through survey techniques and documentation, with primary and secondary data sources used for analysis. Validity and reliability tests were conducted on the data, and data analysis included path analysis, hypothesis testing (T-Test), determination correlation analysis (R2), convergent validity test, and discriminant validity. PLS analysis was used in two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The outer model tested validity and reliability, while the inner model tested causality. The conceptual model of this research is as follows:

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H2

H1

H51

H4

H3

**Figure 1. Research Conceptual Model**

1. **Results**

**8.1 Overview of the Community Health Centers**

The study utilized four urban village health centers located in the working area of the South Jakarta City Health Sub-Department, which falls under the Kebayoran Lama District Health Center. These health centers are Puskesmas Kebayoran Lama Utara Village, North Grogol 1, Cipulir 1, and Cipulir 2. Table 1 presents the establishment year, certification, and quality status of the four Community Health Centers.

**Table. 1 Characteristic of Community Health Center, Certificate, Year Established, Recognition of Quality and Number of Health Workers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Community Health Centers (puskesmas) | Certificate | Year Established | Quality Recognition | Health Workers |
| Kebayoran Lama Utara | 3/B.37.1/31.74.05/-1.779.3/e/2018 | 31-12-1978 | Ministry of Health and ISO accreditation | 10 |
| Grogol Utara 1 | 4/B.37.1/31.74.05/-1.779.3/e/2018 | 31-12-1980 | ISO accreditation | 10 |
| Cipulir 1 | 9/B.37.1/31.74.05/-1.779.3/e/2018 | 31-12-1980 | Not yet accredited | 7 |
| Cipulir2 | 7/B.37.1/31.74.05/-1.779.3/e/2018 | 31-12-1978 | Ministry of Health and ISO accreditation | 8 |

According to the information presented in table 1, two community health centers, namely Puskesmas Kebayoran Lama Utara and Puskesmas Cipulir 2, have been recognized for their quality by both the Ministry of Health and ISO accreditation. On the other hand, PuskesmasGrogol Utara 1 has received ISO recognition for quality, and PuskesmasCipulir 1 has not been recognized for quality.

**8.2 Respondent Demographics**

The demographics of the respondents in this study consisted of 34 health workers as shown in Table 2 below.

**Table 2 Respondent Demographics**

|  |  |  |  |
| --- | --- | --- | --- |
| **Respondent Demographics (n=34)** | | **N** | **%** |
| Gender | Male  Female | 7  27 | 20.6  79.4 |
| Age (y.o) | ≤30  31-40  41-50  >50 | 12  11  4  7 | 35.3  32.4  11.8  20.6 |
| Last education | Master degree  Bachelor/associate degree\_D4  Associate degree\_D3 | 2  13  19 | 5.9  38.2  55.9 |
| Types of Health Workers | Doctor  Dentist  Midwife  Nurse  Pharmacist  Public health  Environmental Health  nutritionist  Health analyst  Laboratory | 4  3  6  7  4  1  2  3  3  1 | 11.8  8.8  17.6  20.6  11.8  2.9  5.9  8.8  8.8  2.9 |
| Position/title | Head of Health Center  Functional health workers  Program Manager  Hospital staff | 3  4  9  18 | 8.8  11.8  26.5  52.9 |
| Length of working (year) | ≤5  6-15  >15 | 16  8  10 | 47.1  23.5  29.4 |
| Employment status | ASN/ASN candidate\*  PPPK\*  PTT daerah\*  BLU\*  Kontrakdaerah\* | 14  1  1  15  3 | 41.2  2.9  2.9  44.1  8.8 |

Source: Village Health Center in the working area of Kebayoran Lama District in 2022

Note: BLU (public service agency), PPPK (government employees with work agreements), PTT daerah (non-permanent regional employees) and ASN (Civil servant)

The table indicates that the majority of the participants were females (79.4%) and males (20.6%). The respondents' age was distributed among four categories: below 30 years (35.3%), between 31-40 years (32.4%), between 41-50 years (11.8%), and above 50 years (20.6%). The respondents' educational qualifications were mostly Associate degree\_D3 (55.9%), bachelor degree/associate degree\_D4 (38.2%), and master's degree (5.9%). In terms of profession, the respondents included nurses (20.6%), midwives (17.6%), pharmacists (11.8%), doctors (11.8%), dentists, nutritionists, and health analysts (8.8%), environmental health professionals (5.9%), and public and laboratory health experts (2.9%). Their length of service was categorized as less than five years (47.1%), between 6-15 years (23.5%), and above 15 years (29.4%). The majority of the respondents were employed as BLU (44.1%) and civil servants/candidates (41.2%), while 8.8% had regional contracts and 2.9% were employed as PPPK or regional PTT. Most of the respondents held the position of community health center staff (52.9%), followed by program administrators (26.5%), functional positions (11.8%), and head of health centers (8.8%).

**8.3 Validity Test**

Validity is a measure of the degree to which an instrument can effectively gather the desired data from the variables being studied (Sileyew, 2019). To ensure validity, the questionnaire should explicitly state the factors to be measured, and variables can be made clearer by including sub-variables or indicators. The questionnaire's degree of validity is assessed through a validity test, which in this study involved collecting data from a sample of 30 respondents. Based on the data analysis, the instruments used in this investigation were deemed valid. Construct validity was used, which determined validity by correlating the scores obtained for each item, such as a statement, with the total score. The total score was derived from the sum of all item scores, and the statistical measure had to show a significant correlation between the item scores and the total score.

**8.4 Reliability Test**

The purpose of this test was to assess the consistency of measurement results when the same symptoms and measuring instruments were used repeatedly. The concept of reliability refers to the degree of trustworthiness of an instrument as a data collection tool due to its quality. Reliability implies that the instrument can be depended upon to produce consistent results. In this study, the Cronbach alpha formula was used to test the reliability.

**8.5 Path Analysis**

The measurement of path coefficients between constructs is done to determine the strength and significance of the relationship and to test hypotheses. Path coefficient values range from -1 to +1, with values closer to +1 indicating a stronger relationship between the two constructs. On the other hand, values closer to -1 indicate a negative relationship (Leguina, 2015). Path analysis allows for the calculation of the partial effect of each independent variable on the dependent variable, as well as the simultaneous effect of all the independent variables on the dependent variable. By examining the pattern of relationships between endogenous variables, a path analysis model can determine the direct or indirect impact of a group of exogenous factors on the dependent variable. The route analysis model presented focuses on the pattern of causal relationships. Therefore, the study design within the path analysis framework primarily concentrates on the independent factors (X1, X2,..., Xk) that affect the dependent variable Y, and the extent of their influence on direct causation, indirect causation, total causation, or a collection of variables that are free simultaneously.

**8.6 Convergent Validity Test**

Convergent validity is assessed on the premise that measures of a construct should have a strong correlation (Latan and Ghozali, 2012). To evaluate the convergent validity of a reflective indicator, the Average Variance Extracted (AVE) is used. An AVE value equal to or greater than 0.5 indicates good convergent validity. When the AVE value is 0.5 or more, it means that the construct can account for 50% or more of the item variance (Wong, 2013; Leguina, 2015).

**8.7 Discriminant Validity Test**

The purpose of discriminant validity is to assess whether a reflective indicator is an effective measure of its corresponding construct, by ensuring that the indicator exhibits a strong correlation with its own construct but not with measures of other constructs (Latan and Ghozali, 2012). To test for discriminant validity, cross-loadings, the Fornell-Larcker Criterion, and Heterotrait-Monotrait (HTMT) values are commonly used (Henseler, Ringle, and Sarstedt, 2015).

**Table 3. Discriminant Validity Results**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | HR engagement | Work environment | Intellectual Capital |
| Fornell and Lacrker Criterion  HR engagement  Work environment  Intelectual capital | 0.981  0.714  0.716 | 0.879  0.592 | 0.907 |

Source: Researcher Data Analysis, 2022

The cross-loading values calculated for the performance variables in table 3 indicate that all correlations between indicators were higher than those with other variables in the model. This confirms the principle of discriminant validity, which suggests that all latent constructs can better predict the indicators in their block than in other blocks.

**8.8 Composite Reliability**

According to (Hair Jr, 2014), a composite reliability value of greater than 0.70 indicates high reliability, although a value of 0.60 is still acceptable. Reliability refers to the accuracy and precision of measurements. The reliability test was conducted to assess if the data collected from the research instrument demonstrated adequate internal consistency.

**Table 4. Construct Model**

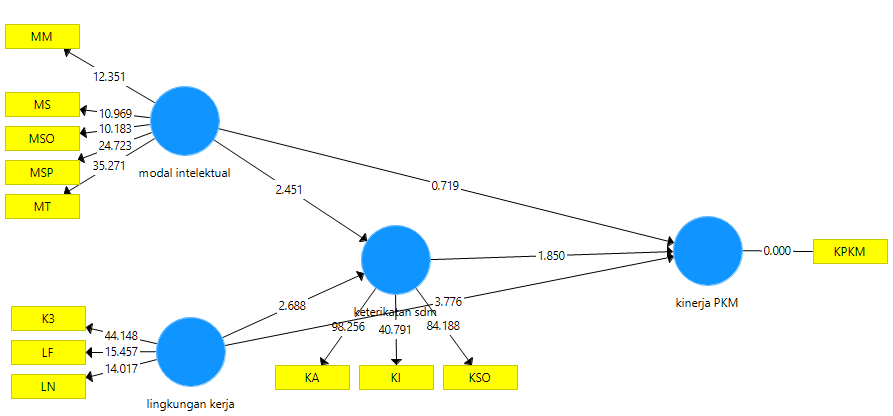
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Construct** | **Dimensions/Indicators** | **Reliability Item (LF)** | **ValidityConvergence** | | |
| **Alpha** | **CR** | **AVE** | |
| **Intellectual Capital** | Human Capital  Structural Capital  Social Capital  Technology Capital  Spiritual Capital | **0.855**  **0.930**  **0.889**  **0.947**  **0.913** | **0.946** | **0.959** | **0.823** | |
| **Work environment** | Physical Environment  Non-Physical Environment  K3 | **0.852**  **0.860**  **0.923** | **0.856** | **0.911** | **0.773** | |
| **HR engagement** | Intellectual Attachment  Social Attachment  Affective Attachment | **0.973**  **0.984**  **0.986** | **0.981** | **0.987** | **0.963** | |

Note: LF=loading factor; Alpha=cronbach’s alpha; CR=composite reliability; AVE=average variance extracted

The reliability of the constructed model can be evaluated using the Cronbach alpha coefficient, Composite Reliability (CR) value, and average variance extracted (AVE), as presented in Table 4 above, which is the outcome of SmartPLS calculations. Higher values of the alpha coefficient and composite reliability indicate greater reliability of the model. All the reliability values of Cronbach alpha, composite variables, and AVE were greater than 0.7, with the HR engagement variable showing the highest value. These results indicate that the constructed model met the standard of reliability.

**8.9 Inner Model**

The assessment of structural models or hypothesis testing involves the computation of path coefficients, R2 values, effect sizes F2, and evaluation of predictive relevance. The Goodness of Fit Index (GoF) is used to validate all structural models. The path coefficient value is evaluated based on the results of calculations carried out using SmartPLS bootstrap. Figure 1 shows the variables and their relationships with the constructed model, and the path coefficient values indicate the strength of these relationships.



**Figure 2. Path Coefficient Test Results**

In research, the assessment of the inner model aims to determine whether the research hypothesis is valid. The evaluation process begins by testing the model's fitness using the coefficient of determination or R-squared value. Next, the significance of the relationship between the variables in the model is tested by examining the t-values for the coefficients of direct and indirect effects. This, in turn, determines whether the hypothesis is supported. A model is considered to have a good fit if the R-squared value is greater than 0.5. To test the direct and indirect effect coefficients, the calculated t-value is compared to the t-table.

**Hypothesis Testing**

The hypothesis was tested by comparing the t-value of the data processing results with the critical value of the t-table to reject the null hypothesis (H0). The t-value was calculated using the bootstrap method with SmartPLS, and the t-values and p-values were presented in Table 5.

**Table 5. Path Coefficient in Direct Relationship**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Hypothesis | Original Sample | Sample mean | Standard Dev (STDEV) | t statistic | p-value |
| Intellectual Capital->Health center performance  Work environment-> Health center performance  Intellectual capital ->HR engagement  Work environment ->HR engagement  HR engagement->Health center performance | 0.235  -0.750  0.451  0.448  0.628 | 0.266  -0.753  0.430  0.464  0.605 | 0.327  0.199  0.184  0.167  0.340 | 0.719  3.776  2.451  2.688  1.850 | 0.473  0.000\*  0.015\*  0.007\*  0.065\* |

**Description: \* significant p-value< 0.05 at alpha=0.10**

**Source: Researcher Data Analysis**

Based on Table 5 above, it can be concluded that the determination of the hypothesis in this study is as follows:

**Hypothesis 1**

In this research, it was found that there was no significant relationship between intellectual capital and the performance of community health centers, and thus the hypothesis was rejected with a p-value of 0.473. This contrasts with the findings of other studies by Ramadhan et al. (2018), Puspita and Wahyudi (2021), and Ningrum and Arsyah (2022), which have shown that intellectual capital has a positive impact on organizational performance. Intellectual capital is considered a strategic aspect that can lead organizations to gain and maintain a competitive advantage, and measuring it allows organizations to identify areas for improvement to generate greater profits in the future. Efficiently utilizing intangible resources combined with real capital generates added value for the organization. Additionally, organizations that possess good information systems, procedures, organizational culture, and management philosophy have an advantage in implementing processes and achieving optimal performance. Although this study found no relationship between intellectual capital and performance, other factors may still support strengthening the performance of community health centers.

**Hypothesis 2**

Present study found that the work environment has a positive relationship with the performance of the community health center, as the hypothesis was accepted with a p-value of 0.000. Previous research by Khairunnisa and Riyanto (2020) has also shown that a healthy and comfortable work environment can have a positive impact on employee productivity and efficiency. However, in this study, the work environment conditions at the Surabaya city health center were not found to be good. According to Jennifer and Asri (2022), the work environment can be assessed in various dimensions such as job challenge, autonomy, leader's support, workgroup cooperation, and equity reward system. These factors influence employee actions and contribute to their productivity and commitment to their work. Overall, the positive relationship between the work environment and performance highlights the importance of creating a healthy and supportive work environment for employees to achieve optimal performance.

**Hypothesis 3**

The present study confirmed the hypothesis that intellectual capital has a positive relationship with the engagement of human resources in community health centers. The p-value of 0.015 indicated a significant relationship. Employee engagement plays an important role in the perspective of HRD. Recent developments in engagement measurement have contributed to the understanding of how engagement influences positive outcomes such as individual performance, productivity, and organizational development. Previous studies have shown that employee engagement is a psychological foundation for HRD theory and practice. HRD is increasingly interested in theoretical models that explain how employees can contribute to OD. HRD practitioners consider the shift from HRD as a primary management tool to one that employees can also use and develop as a top priority.

**Hypothesis 4**

According to the study, it was found that the work environment is positively related to the engagement of human resources in community health centers, and the hypothesis was accepted with a significant relationship between the work environment and engagement with a p-value of 0.007. Employee engagement involves positive commitment, willingness to direct energy towards the organization's success, and demonstrating innovative initiatives to contribute and work harder. However, it is important to note that these constructs are part of a larger engagement construct and cannot act as substitutes for engagement. The work environment is a crucial element that affects job satisfaction and employee commitment to the organization. It refers to the organizational atmosphere and surrounding environment where employees carry out their duties. (Danish, Ramzan, & Ahmad, 2013).

**Hypothesis 5**

In this study, it has been proven that HR engagement is positively related to the performance of community health centers, and the hypothesis was accepted with a significant relationship between the two, with a p-value of 0.065. Previous research has shown that employee engagement has a significant impact on organizational performance, including outcomes such as employee retention, productivity, profitability, customer loyalty, and security. In fact, engagement has been found to be correlated with increased revenue growth and higher levels of customer satisfaction in organizations with double-digit growth. (Tannady, Tannady and Zami, 2019); (Rachmawati, 2014); (Adhivinna and Damayanti, 2022); (Welch, 2011); (Fitriah et al., 2019); (Coffman and Gonzalez-Molina, 2002). According to (Jiony et al., 2015), maintaining a safe, engaged, and dedicated workforce through interactions with fellow employees is essential for good organizational performance.

1. **Conclusion**

Drawing on the findings of the hypothesis testing, research results, and previous discussion, the following conclusions can be made: 1) there is a relationship between the work environment, human resource engagement, and community health center performance; 2) human resource engagement is related to both intellectual capital and work environment; and 3) there is no relationship between intellectual capital and community health center performance.

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