



Determination of Motivation, Work Environment, and Work Communication on Performance Through Competence at the Public Health Centers In Batam City

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Abstract

The research was to study the relationship between motivation, work environment, and work communication dimensions toward the public health center's employees' performance based on the scale of their competence at work. The employees' lack of motivation caused their achievement and performance to be not optimal. The work environment is not bright enough for employees to be optimal at work. The lack of communication between fellow employees and subordinates made goals not carried out properly, and lack of competence causes non-fulfillment of employee competencies that are appropriate or not by their areas of expertise. The research surveyed 190 respondents, with the Slovin Formula sample being 129 respondents. The model used is to combine quantitative with AMOS v.24 SEM software. Research obtained the following results: The determination of variable Motivation over variable ability is significantly positive. In the dimension that determines the working environment variable, "competence" is positive. Erratic work communication decisions concerning varying abilities have especially favorable effects. Variable determination of capacity for inconsistent performance is very positive. Work environment variable decisions on uneven performance are incredibly positive. The variables this determine work communication at erratic performance do not significantly positive. Inconsistent determination of variable performance motivation is very positive. All variables are determined to be significant except the Communication variable. The researcher encourages that the communication between employees needs to be improved to achieve effective work performance.

Keywords: Motivation; Environmental Work; Communication Jobs; Competence; Performance

1. Introduction

1.1 Foundation

Batam City is the largest city in Indonesia's Riau archipelago, located between two countries, specifically Malaysia and Singapore. The Batam City region includes Batam, Galang, Rempang, and other smaller islands on the Singapore and Malacca rivers. Batam, Rempang, and Galang islands are associated with the Bareleng Extension. As indicated by information from the Branch of Populace and Common Library of Batam City, starting around 2015, the number of inhabitants in Batam City contacts 1,037,187 individuals. Batam is necessary for the Batam-Bintan-Karimun deregulation of exceptional regions (jdih.Batam.go.id 2022)

The public health center is one organization that provides services to the community and has goals and a shared commitment to achieving performance. With the increasing needs of the community or society and to achieve the performance of the Batam City Health Office, a Public health center was formed, led by a Head of the Public health center who would report his responsibilities to the Head of the Batam City Health Office.

Improving health services for health development in the health sector is part of the national development goals. Health is one of the elements necessary for the quality of life in national development to realize the complete Indonesian human being.

There are many factors in achieving employee performance, and the health center's human resource factor or staff is significant. Quality human resources can be seen in their work. Good performance is how an employee can show enthusiasm in providing services that influence the making of the vision and mission of an organization or place of work, for example, how to provide good service to patients, self-motivation in managing human resources so that it leads to results organization or workplace when their abilities are not optimally developed.

Employees or HR play a vital part in determining the future goals that the organization will bring. Qualified employees have high Motivation related to supporting the achievement of Organizational Goals. Excellent and smooth Communication will provide input as the creator of new arguments in achieving increased performance. High employee competence shows an organization's quality; for this reason, employee improvement and competency are needed to support employee performance to achieve organizational goals. A safe, comfortable, and conducive workplace will affect the individual existence of representatives Employees or workers who feel comfortable and not stressed will have high work performance. If the elements of competence, motivation, and work environment are well cared for in an organization, hopefully, it results in good employee performance.

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Fig. 1. Batam City Map

The public health center is an organization that capabilities as a middle for well-being improvement, a hub for cultivating local area support in well being area as well as a first-level administration focus that sorts out its exercises in a complete, coordinated, and feasible way of locally living in a specific region.

Public health centers are obliged to carry out several functions and provide medical support services besides medical and non-medical services. Various sources report this. The main principle of improving the quality and performance of health services is a concern for customers. Patients as external customers not only want to recover from their illness which is the result of the service but also feel and evaluate how they are treated in the service process (Muninjaya, 2019)

1.2 Detailing of the issue

- a) How Does Motivation Affect Competence?
- b) How Does the Work Environment Affect Competence?
- c) How Does Communication Affect Competence?
- d) How Does Motivation Affect Performance?
- e) How Does the Work Environment Affect Performance?
- f) How Does Communication Affect Performance?
- g) How Does Competence Affect Performance?

2 Literature Review

2.1 Motivation

Motivation can be seen as a change in a person's energy, characterized by the appearance of emotions, preceded by reactions to goals. Motivation is the primary driving force that drives people, or the desire to devote all their energy to a goal. As stated (Mangkunegara, 2014), "It is the agents' positive mental attitude towards the work environment that enhances their work inspiration to achieve ideal execution. The positive demeanor of representatives towards the work climate fortifies their work inspiration to accomplish ideal execution. The driving part of an individual to complete a specific movement is typically the requirements and wants of others. The three factors that are the way to inspiration are exertion, authoritative objectives, and necessities. Inspiration emerges from inside people due to consolation with objective variables. Inspiration emerges from inside

people due to support with a component of direction. Objectives concern the issue of necessities; there is no inspiration assuming no apparent need.

Sedarmayanti (2017, p.154) "Motivation is the force that encourages a person to take action or not, which is positive or negative internally or externally; work motivation creates encouragement/work enthusiasm/work enthusiasm. "Wilson Bangun (2012, p.312) "Motivation is a will in a person that causes the person to act. Someone takes action for something in achieving a goal." Motivation as a construct is meant to be the desire to satisfy a certain need and is a central pillar in the workplace. For an organization to thrive and be effective, certain conditions need to be met for managers to get the most out of their human resources (workers/employees). An organization's employees are its greatest asset in a dynamic and competitive environment. If an organization wants to function effectively and aim to remain successful, it is important that it has a dynamic workforce of employees willing to learn (Forson, Ofosu-Dwamena, Opoku, & Adjavon, 2021).

2.2. Work Environment

According to Alex S. Nitisemito (1998, p. 86) (Ferawati, 2017), the meaning of the workplace is all that exists around laborers and influences them in carrying out the tasks given. This means that workers can complete their duties adequately supported by a good work area. Meanwhile, Ahyari (1999, p. 124) states that the workplace is "the condition of the climate where representatives complete their everyday work." Shayari (1999) states that employees have a must fulfilled psychological will for employees to work well. Quoting the 'individual theory', people in a particular environment have a dynamic relationship with their social, physiological, and physical environment. The theory also states that work environments are interdependent in the sense that work settings are interrelated and influence workplace activities in terms of context, time, and process. This theory emphasizes the importance of the work environment to employees and individuals involved in organizational processes (Zhenjing, Chupradit, Ku, Nassani, & Haffar, 2022).

2.3. Work Communication

According to (Caropeboka, M 2015), Communication is a human activity to understand the conversation between the questioner and the answerer. Communication can take place where there is an ordinary meaning conveyed.

According to (Colquitt et al., 2011, p. 422), Communication is the process of information and meaning transferred by the sender to the recipient; the work carried out in an association is completed independently, cooperates, and uses Communication by every employee or employee. The effectiveness of Communication is significant in knowing whether there are successes or losses in the existing communication process. Effective communication is a skill that must be practiced effectively in the workplace for better productivity and results.

Communication in the workplace is a means of conveying information in such a way that one person can make others understand him or her. The importance of effective communication in the workplace is undeniable. Furthermore, as the workplace of the 21st century is organizations with people from different social, occupational and cultural backgrounds working together for the same goals. Therefore, it is very important for senior executives, managers and team members to communicate skillfully to achieve their goals and work results in less time. The virtual meeting and teleconference connection format is a growing culture in organizations and as a result, clear and crisp communication is becoming the norm (Shrivastava & Prasad, 2019).

2.4. Competence

According to (Hasibuan, 2016), competence is an activity that can affect employee performance. Competence has a role in implementing employee work in organizations such as Puskesmas. Maximum competence through their expertise will help employees complete the work with great dedication. Predicting the performance of employees or employees with existing competencies helps superiors provide work to subordinates. Suboptimal expertise, training, and theory can be provided in direct implementation and practice. Competence in Indonesian is an absorption of English, a competence that means skills and abilities (Hasan, 2017).

2.5. Performance

Sutrisno (Sutrisno, 2015) said that performance is employees' work output. This should be visible from value, amount, working time, and collaboration to accomplish objectives. Which has been determined by the association. Meanwhile, Hasibuan (2016: 136) argues that "It is the result of an individual's work in performing the duties given to him and is determined by his abilities, experience, sincerity, and timing," According to Nawawi (2004) (Widodo et al., 2015) "Execution is the action of carrying out work in both a physical and non-physical/non-material manner."

Performance is a condition of the extent of achievement of results an organization associated with the vision and mission of an organization run. Performance has been identified as a key for organizations to achieve competitive advantage and greater productivity. Job performance also ensures the smooth running of the organization and includes knowledge and skills that can guide employees in performing a variety of activities (Virgana, 2020).

2.6. Hypothetical structure

In light of the hypothetical premise that has been portrayed, The determination of Motivation, work environment, and work communication regarding achievement through competence in Batam City Health Center is carried out according to the following theoretical framework.

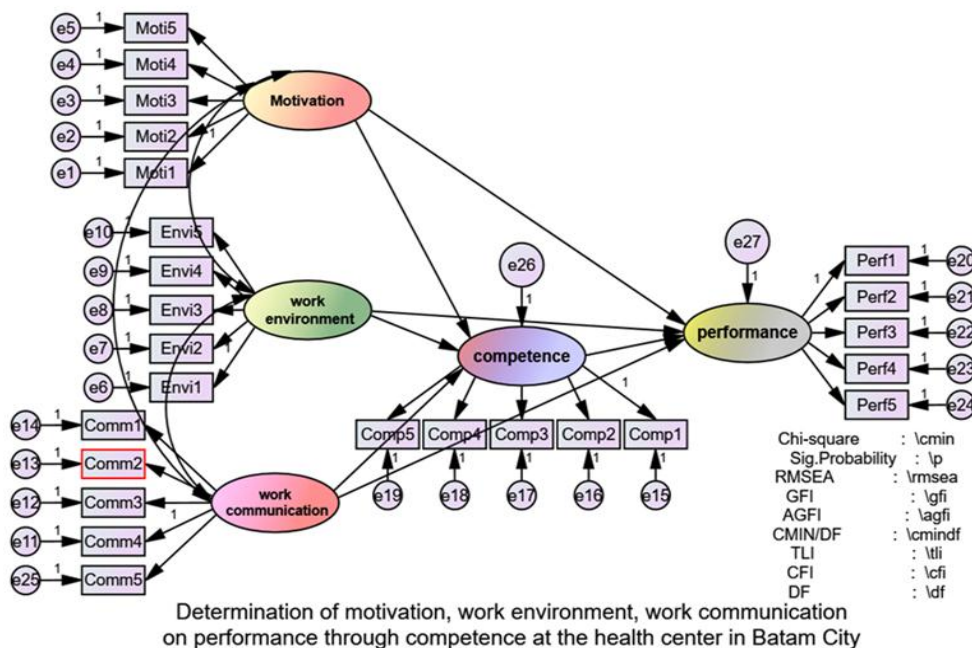


Fig. 2. The research theoretical framework model

2.7. Hypothesis

- a) Motivation Affects Competence
- b) Work Environment Affects Competence
- c) Communication Affects Competence
- d) Motivation Affects Performance
- e) Work Environment Affects Performance
- f) Communication Affects Performance
- g) Competence Affects Performance

3. Research Methodology

3.1. Quantitative Method

Quantitative research methods are carried out after analysis; the quantitative results are gone into the framework to see the examinations acquired. “Quantitative populations and samples, Research Devices, Information Assortment Techniques, and Information Examination Strategies” (Sugiyono, 2014).

3.2 population

The population is the total object measured in the survey” (Schindler, 2003). This research was conducted on health center staff.

3.3 Samples

“A sample is a population member selected to be representative of research” (Cooper & Schindler, 2003, p. 82). In this analysis, we recalculated the sample size to be consistent with the theoretical framework. Particularly the basic illness model (SEM). Therefore, the standard error of the mean (SEM) sample size is 100–200 samples. Utilizing a model with the maximum number of parameters allowed by the Maximum Likelihood Estimation (MLE) technique. Utilized (Hair et al., 1998, p. 605; Gozari, 2004, p. 17). Estimation (Ferdinand, 2006:44). In this survey, we received responses from 190 employees. Here is her Slovin formula used to get the proper nouns used as a sample of 129 respondents:

$$n = \frac{N}{1 + N(e)^2}$$

The information used in the information-gathering strategy of this study is made up of both primary and secondary data. The main data are obtained directly from this study subject. Send a list of questions directly to the respondent. Data score from respondent's answers to every further handled with measurable markers Full Primary Condition Demonstrating (SEM) involving AMOS programming for

Windows rendition 24.0 gets a showcase like the consequences of picture taking from Underlying Condition displaying (SEM) follows (Wibisono, 2017).

H1: $Y = \gamma_{y,x1} X1 + e1$, → Jump X1 to Y,
 H2: $Y = \gamma_{y,x2} X2 + e1$, → Direct effect of X2 on Y,
 H3: $Y = \gamma_{y,x3} X3 + e1$, → Jump X3 to Y,
 H4: $Z = \gamma_{z,x1} X1 + e2$, → Direct Effect of X1 to Z,
 H5: $Z = \gamma_{z,x2} X2 + e2$, → Direct Effect X2 to Z,
 H6: $Z = \gamma_{z,x3} X3 + e2$, → Direct Effect X3 to Z,
 H7: $Z = \beta ZY Y1 + e2$, → Direct Affect Yes Z

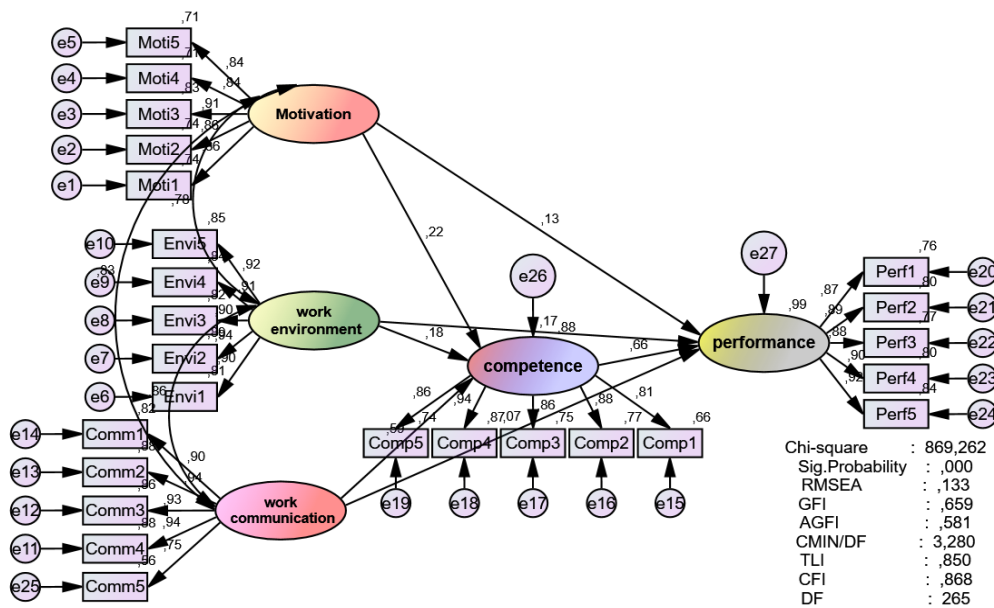
3.4. Data analyses

Pre-implementation The Structural Equivalence Model (SEM) approach is used for data analysis. The AMOS* version is the program used for structural analysis. For 24” (Adi, 2019), it is:

- Expansion from the hypothetical model
- Make a flow chart (track diagram)
- Modify flowcharts into the series from structural equality
- Choice from enter matrix and estimation technique model made.
- Evaluation of that possibility from the identification _ of the problem
- Evaluation of _ criteria on that excellent form fit

4. Results and Findings

The discussion of this research is quantitative. Moreover, the quantitative technique is logical, particularly a strategy that satisfies clear rules that are observational, unbiased, quantifiable, judicious, and deliberate. Autonomous quantitative exploration lays out objectivity, and causal connections will more often than not be summed up and esteem free. Simultaneously, subjective strategies connect with information sources to infer meaning.



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Fig. 3. the result of the framework model

Table 1
Estimation of the variable

	Estimation	SE	CR	P	Label
comp <--- MOTI	,208	,078	2,670	,008	par_1
comp <--- ENVI	,146	,069	2.115	.034	par_2
comp <--- KOM	,452	0.082	5,497	***	par_4
PERF <--- comp	,778	,135	5,779	***	par_3
PERF <--- MOTI	,146	.066	2,200	,028	par_5
PERF <--- KOM	,068	085	,803	,422	par_6
PERF <--- ENVI	,158	,057	2,767	,006	par_7

Estimate (group number 1 - standard model)
 scalar estimation (group number 1 – standard model)
 maximum likelihood estimation
 Regression weights: (group number 1 – standard model)
 Among all variables to be researched, the highest value achieved is ,778 of the performance-competence variable, while the lowest achieved is ,068 of the Performance-Communication. The highest score in SE is noted in 0.082 with the lowest noted in ,135. The highest value of CR is noted at 5,779 and the highest noted in P is 422.

Table 2
Standard Regression Weight:
(Primary group: Default model)

	Estimation
comp <--- MOTI	,216
comp <--- ENVI	,185
comp <--- KOM	,586
PERF <--- comp	,662
PERF <--- MOTI	,129
PERF <--- KOM	075
PERF <--- ENVI	,170

The estimated value of standard regression weight among all variables researched, the highest value achieved is 075 and the lowest is,129 from the variable of motivation.

Table 3
Multiple Squared Correlation:
(Model default for Group 1)

	Estimation
comp	,883
PERF	,989

5. Discussion

a) In the case when Cr (critical ratio = same as t computed value) = 2.176 and probability = 0.030, the standard estimates (regression weights) of the impact of motivation variables on performance variables are: 0.216 Values of CR > 2.176 2.00 and Probability> 0.008 0.05 suggest a positive impact of incentive variables on competence to the variable. This is to his research (Satria & Kuswara, 2013) partially. “Work motivation has an effect on competence of 22.85 %, and partial training has an implication for work competence

of 22.47%, but Work Motivation and Training simultaneously impact Work Competence by 85.28%. Human resources must increase self-motivation to achieve the desired competencies affecting employee work productivity”.

b) The capacity variable of the work environment has a substantial positive influence when the standard estimate of the link between competence and the work environment is 0.185, with a probability of 0.034 and a critical ratio of 2.115 2.115 (the same as a t-count of 2.00). Paying attention to and striving to create a work atmosphere that allows for productive, stress-free work is essential. Evidence suggests this is the case (Yani & Indrawati, 2016). Teachers' competence is positively influenced by their working conditions and enthusiasm for their jobs. When we are happy and comfortable at work, we naturally develop abilities that we hone through formal training and even more informal means.

c) An extremely positive relationship between Work Communication and Competency is indicated by the following c) standard estimate for the variable (regression weight) of 0.497 with a Cr of (critical ratio = same as t-count score) CR 5.497 at probability = *** value of CR 5.497 2.00 and Probability = *** 0.05. Of course, good communication will give birth to reasonable goals so that goals and performance increase. This is following research (Dewianawati et al., 2022) “that although not directly with good communication, it can improve existing competencies, for example in participating in training to improve skills, good communication is needed between trainers and us. as trainees so that we can achieve the goals we want”.

d) The usual estimate (regression weight) for the correlation between Competency and Performance is 0.662 with Cr (critical rate = equal to the t-count value). Probability = *** CR value 5.779 2.00 and probability = *** 0.05 show a statistically significant positive relationship between motivational and performance variables. e. Competence is the beginning of placing someone with the responsibility that becomes their struggle in carrying out work. The expertise that is by what we do will add insight to employees and continue to improve existing knowledge to practice according to existing knowledge. This is to the theory

(Sedarmawanti, 2017) "Competence affects employee performance."

- e) The effect of working environment variables on performance variables is significantly positive, as indicated by a standard estimate (regression weight) of 0.170, a critical ratio (Cr) of 2.767 (identical to the t count value), a probability (P) of 0.006, and CR values of 2.767 2.00 and P (critical ratio) of 0.006 0.05. In his research (Sedarmawanti, 2017), "working environment influences employee performance. A comfortable work environment can improve performance; the atmosphere is bright, comfortable, and free from hearing loss".
- f) The standard estimate (regression weight) of the effect of variable task communication on variable performance is 0.075, Cr (critical ratio = identical to t count value) is 0.749, Probability = 0.454, CR value $0.803 \leq 2.00$, Probability = $0.422 \geq 0.05$ shows the influence of motivation variables on performance variables is positive but not significant. With smooth communication between superiors and subordinates, fellow employees will facilitate good communication with each other so that communication will increase and improve performance. This is consistent with the theory (Aridansyah, 2016) "The results showed that communication on job satisfaction, communication on performance, job satisfaction on performance, and the mediating role of job satisfaction on communication and employee performance have a positive and significant effect."
- g) With a Cr (critical ratio = identical to the t-count value) of 2.778 and a probability of 0.454, it can be seen that the influence of motivational variables on performance variables is statistically significant. The CR value is 2.778 2.00, and the Probability is 0.005 0.05. "Someone full of motivation and passion that he brings will create an atmosphere full of enthusiasm and dedication at work. And this keeps employees active". This is to the theory (Kusuma et al., 2021). The study results show that 78.3% of representative execution is affected by motivation, competence, and work environment. At the same time, the other 21.7% is influenced by other factors.
- h) Competence = 0.883 on the Square Multiple Correlation, and performance = 0.990. Since $R^2 = 0.883$ for the competency variable is statistically indistinguishable from $R^2 = 0.993$ in SPSS, we may calculate the effect size as the quadratic double correlation value of the competency variable multiplied by 100%. = $0.883 \times 100\% = 88.3\%$. Therefore, it is reasonable to state that 89.3 percent of skill change is influenced by motivation, working conditions, and interactions with coworkers, leaving the remaining $100\% - 88.3\% = 11.7\%$ percent to chance. Factors outside the scope of this analysis could influence it. Determination = $0.989 \times 100\% = 98.9\%$ for an R^2 of 0.990, indicating a level of performance of nearly perfect consistency. In light of this, we may conclude that changes in performance are influenced by motivation, work environment, work communication, and competency 99.0% of the time, with the remaining

$100\% - 98.9\% = 1.1\%$ attributable to additional variables not considered in this research.

6. Conclusion

- Several studies have shown a positive and statistically significant relationship between motivational characteristics and measures of innate talent.
- One's ability to adapt to change is greatly aided by a favorable work environment that allows for a wide range of
- The positive effects of varied competencies in job communication are substantial.
- Competence-related variables have a statistically significant, positive effect on performance-related variables.
- There is a moderately positive relationship between workplace factors and measures of productivity.
- There is a positive, although not statistically significant, correlation between workplace communication and performance.
- Motivating factors have a significant, beneficial impact on measures of performance.
- Competence and performance are highly correlated ($r_1 = 0.883$ and $r_2 = 0.990$, respectively).

References

- Aridansyah, DO (2016). The Effect Of Communication On Employee Performance Mediated By Job Satisfaction. *Journal Of Business And Management*, 3 (1), 16–30.
- Caroeboka, M, R. (2015). *Business Communication* (Pe Print). Mediator.
- Dewianawati, D., Efendi, MJ, & Oksaputri, SR (2022). *The Effect Of Emotional Intelligence, Competence, Communication, And Work Discipline On Employee Performance*. 1 (3), 223–230.
- Ferawati, A. (2017). The Effect Of Work Environment And Work Discipline On Employee Performance At Pt. Indo Persada Light. *Journal Of Agora*, 5 (1), 1–131. [Http://Eprints.Uny.Ac.Id/41801/1/Adityanurpratama_12808144059.Pdf](http://Eprints.Uny.Ac.Id/41801/1/Adityanurpratama_12808144059.Pdf)
- Forson, J. A., Ofosu-Dwamena, E., Opoku, R. A., & Adjavon, S. E. (2021). Employee Motivation And Job Performance: A Study Of Basic School Teachers In Ghana. *Future Business Journal*, 7(1), 30.
- Hasan, M. (2017). The Influence Of Teacher Professional Competence On The Performance Of Economics Teachers (Case Study At Public High Schools In Gowa Regency). *Journal Of Economics*, 5 (2).
- Hasibuan, M. (2016). *Human Resource Management* (Revi Edition). Script Earth.
- Kusuma, WT, Rikatsih, N., & Wardani, SI (2021). The influence of motivation, competence, and work environment on the performance of medical records employees at rsj dr. radjiman lawang. *Hesti Wira Sakti Health Journal*, 8 (1). <https://doi.org/10.47794/jkhwas.V8i1.281>
- Mangkunegara, AAAP (2014). *Human Resource*

Management.

- Muninjaya, AAG (2019). Quality Management Of Health Services. *Google Scholar*.
- Satria, RO, & Kuswara, A. (2013). The Influence Of Motivation And Training On Work Competency And Its Implications On The Productivity Of Bandung City Transportation Service Employees. *Journal Of Economics, Business & Entrepreneurship*, 7 (2), 74–83.
- Sedarwanti. (2017). Analysis Of Factors Influencing Employee Performance : Competence, Motivation And Work Environment (Research Et Al. Of Human Resource Management). *Journal Of Educational Management And Social Sciences*, 3 (1), 201–210.
- Shrivastava, S., & Prasad, V. (2019). Importance Of Effective Communication Strategies To Improve Workplace Communication!!! *International Journal Of Recent Technology And Engineering (IJRTE)*, 8(3S3), 161-168. Doi:10.35940/Ijrte.C1047.1183S319
- Sugiyono. (2014). *Quantitative, Qualitative, And Combination Research Methods (Mixed Methods*.
- Sutrisno, E. (2015). *Human Resource Management (Part Edition)*. Prenadamedia Group.
- Virgana, V. (2020). The effect of job performance through organizational culture, work environment, personality, and motivation. *jurnal manajemen dan kewirausahaan*, 22(2), 87-98. doi:10.9744/jmk.22.2.87–98
- Wibisono, C. (2017). Benedict's Contribution towards Job Performance through Quality Work Employees at the University of Batam, Indonesia. *Review of European Studies*, 9 (2), 179. <https://doi.org/10.5539/res.v9n2p179>
- Widodo Suparno Eko. (2015). *Human Resource Development Management*. Student Library.
- Yani, A., & Indrawati, A. (2016). The influence of the work environment and work motivation on the competence of certified teachers at SMK Negeri 1 Pasuruan. *JPBM (Journal of Business Education)*, 2 (1), 58–74.
- Zhenjing, G., Chupradit, S., Ku, K., Nassani, A., & Haffar, M. (2022). Environment on Employees' Performance: A Multi-Mediation Model. *Front. Public Health*, 10(890400). doi:10.3389/fpubh.2022.890400