

Impact of Employee Involvement on Performance in Zanzibar's Public Health Facilities: The Moderating Role of Employee Level of Education

**Shaaban Hassan Haji^{1,2}, Silvio Macha², Mansour Maulid Mshenga^{3,4},
Asha Ussi Khamis⁵, Rahibu Abdalla Abass¹, Saganga Mussa Kapaya²**

¹Shaaban Hassan Haji, Chief Administrative and Human resources Officer at the School of Health Sciences of the State University of Zanzibar, Tanzania

²Shaaban Hassan Haji, PhD Student at the Open University of Tanzania

²Silvio Macha, Senior Lecturer at the Open University of Tanzania

²Saganga Mussa Kapaya, Senior Lecturer at the Open University of Tanzania

³Mansour Maulid Mshenga, CTC Coordinator at Zanzibar Integrated HIV, Hepatitis, TB and Leprosy Programme, Ministry of Health, Zanzibar, Tanzania.

⁴Mansour Maulid Mshenga, MPH Student at the School of Public Health, Southern Medical University, Guangzhou, Guangdong, China.

⁵Asha Ussi Khamis, Senior Technical Advisor Surveillance at the Jhpiego, Tanzania

Corresponding Author: Shaaban Hassan Haji; jechah3@gmail.com

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ABSTRACT

This study investigates how employee involvement affects performance in public health facilities in Zanzibar, exploring the moderating role of employees' education levels. Employing a quantitative approach, the research seeks to uncover the complex interplay between employee involvement, educational background, and performance in the healthcare sector.

Utilizing a cross-sectional descriptive design and quantitative methods. Data collection involved randomly sampling 281 drawn from a population of 592 healthcare workers with a minimum three-month tenure of the four selected district hospitals in Zanzibar, using adapted questionnaires, and analysis was conducted using IBM SPSS (Version 25).

The findings emphasize the significant impact of involvement on healthcare employee performance, highlighting aspects of organizational effectiveness. Descriptive analysis showcases notable achievements in goal attainment, dedication, and policy adherence. Multiple regression analysis establishes a positive and significant relationship between involvement and employee performance, with no observable effect of education level in the moderation analysis. In conclusion, the study underscores the crucial role of involvement in healthcare, advocating for the prioritization of employee involvement and training. It suggests further research to explore additional moderating variables and proposes longitudinal studies for a more comprehensive understanding.

Keywords: Employee Involvement, Employee Performance, Healthcare, Level of Education, Moderation Analysis, Public Health Facilities.

INTRODUCTION

Employee involvement plays a crucial role in shaping the performance of organizations,

particularly in the context of public health facilities. The level of employee involvement can significantly influence the overall

efficiency, effectiveness, and quality of services provided in these facilities. However, the impact of employee involvement on performance is not uniform and can be influenced by various factors, one of which is the level of education of the employees.⁽¹⁾

The level of education of employees can moderate the relationship between employee involvement and performance. Highly educated employees may bring different perspectives, critical thinking skills, and problem-solving abilities to the table, potentially enhancing the impact of their involvement on organizational performance.⁽²⁾

Employee involvement encompasses the active participation of employees in decision-making processes, problem-solving, and contributing to the overall improvement of the workplace. In public health facilities, this can translate to better patient care, improved processes, and a more positive work environment.⁽³⁾

In the contemporary globalized world, the engagement of employees significantly impacts both individual and organizational performance. To effectively achieve established objectives, employees must focus intently on their responsibilities. Active involvement motivates employees to exert greater effort in executing their assigned tasks. Conversely, a lack of employee involvement results in a noticeable absence of enthusiasm, quick loss of motivation, and challenges in fulfilling duties.⁽⁴⁾

Several studies conducted in African, highlighted the involvement of employee plays a crucial role in shaping work environments inline by few studies conducted in Tanzania which have explored the effects of involvement on employee performance, considering sociodemographic characteristics as moderating variables.^(5,6,7,8)

In Zanzibar, a comprehensive understanding of the healthcare environment is imperative. The impact of employee involvement on performance in Zanzibar's public health facilities and the moderating role of

employee education level are both important areas of study. Fatma et al. (2021) Understanding the moderating role of employee education can help public health facilities in Zanzibar tailor their strategies for employee involvement. It highlights the need for targeted training and development programs to enhance the capabilities of employees at all education levels, thereby maximizing the impact of their involvement on performance.⁽⁹⁾

This study aims to investigate the relationship between employee involvement and performance, taking into account the moderating effect of employee education level. By examining these factors, we can gain a better understanding of how to optimize employee involvement and leverage the educational levels of employees to enhance performance in public health facilities. The findings of this study could have significant implications for the management and policy-making in Zanzibar's public health sector, ultimately contributing to the advancement of healthcare services and the well-being of the population.

MATERIALS & METHODS

A study used cross-sectional descriptive design, through quantitative multi-dimensional evaluation of organizational culture variables and moderating factor were used responding to the objectives. It was used to analyse data from study sample at a specific point in time which characterize the magnitude of an outcome in a high number of a specified population.

The targeted population was service providers from selected district hospitals whereby a purposive sampling technique used to select 4 district hospitals followed by probability proportionate to size (PSS) to select the required number of respondents included in the study per district and the minimum of 281 health care workers were considered as a sample of the population participated in the study.

The adapted questionnaires from Denison, (2016) and Wahyuningsih et al., (2019) were

used to collect data from the respondents. The Open Data Kit (ODK) used to collect data help to reduce errors during data collection. Pre-test was conducted at Fuoni and Magogoni health facilities which have the same characteristics with the selected study sites in Zanzibar.

To ensure the application of content validity, practitioners and management experts were approached for critical examination of the questions to carefully comment the structure, representativeness and suitability of questions and make necessary improvements prior to pilot testing.⁽¹⁰⁾ The items for measuring the constructs were obtained from the measurement scales of the previous empirical studies relevant to this topic. To suit the requirements of construct validity, the pre-testing instrument was conducted. To suit criterion validity, the correlation between employee performance and organizational culture variables was significant observed.

The dependent variable of this study is employee performance which has been adapted from study conducted by Denison et al; (2016). The most common dimensions to measure employee performance is employee satisfaction which is non-financial performance. The measure of this outcome was determined by asking respondents to rate their work performance against the set targets, goals or objectives within a specified time frame on a five Likert scale ranging from 1 to 5 scale. A correlation matrix was created to check the relationship between the identified variables of organizational culture towards employee performance. The independent variable was employee involvement and level of education was considered as a moderating variables to this study.

Regular verification of data and zoom meeting with data collectors was conducted to discuss the progress, but also to address any instance of protocol deviations and other critical problem identified.

Missing data were handled through a complete case analysis technique, involving the utilization of solely the observed variable

data from each time point, with any missing values were removed. This approach's simplicity is advantageous, yet brought about drawbacks in terms of a diminished sample size and decreased statistical power, which complicates the process of drawing statistical conclusions during analysis. Alternatively, the trimming method was employed to address outliers. Within this approach, data points that involve outliers were omitted from the analysis. However, employing trimmed estimators like the mean serves to decrease data variance but introduces bias. As outliers are still actual observed values, their exclusion from the analysis renders this approach unsuitable for effectively handling outliers.⁽¹¹⁾

STATISTICAL ANALYSIS

The data processing and analysis involved rigorous verification for accuracy, completeness, and consistency, followed by cleaning and application of IBM SPSS (Version 25). Descriptive statistics, including frequency distribution was employed to illustrate population traits.

Inferential statistical analysis, specifically multiple linear regression, was conducted to establish connections between employee involvement and the level of education of employee, and employee performance. The study incorporated a moderation model, considering the interaction between involvement and level of education variables. The interpretation involved observing coefficients to determine significance and involved calculations such as R-square to evaluate model contribution. Assumptions of multiple linear regressions, including normal distribution, linearity, reliability, homoscedasticity, and absence of multicollinearity, were thoroughly considered.

Ethical considerations were paramount, with explicit measures taken to protect participants' rights, ensure informed consent, maintain confidentiality, and prevent any harm or discomfort during data collection. The research adhered to ethical standards and

received authorization from relevant research bodies.

RESULT

The study's respondents were distributed across different regions, districts, and health facilities. In terms of regions, the highest percentage (34.4%) of respondents came from Kaskazini Pemba, followed by Kusini Pemba (30.6%). Kaskazini Unguja and Kusini Unguja had 21.5% and 13.5% of respondents respectively. In terms of districts and health facility, Wete had the highest (34.4%) percentage of respondents, followed by Chake Chake (30.6%). Kaskazini A and Kusini had 21.5% and 13.5% of respondents respectively. About one third (30% and 34%) of the respondents are working at Chake Chake and Wete District Hospitals in Kusini and Kaskazini Region of Pemba Island respectively. Both two District Hospitals in Unguja have less than one third of the study participants Table 1.1.

Table 1.1: Distribution of respondents by facility and geographical location N (288)

Variable	n (%)
Region	
Kusini Pemba	88 (30.6)
Kaskazini Pemba	99 (34.4)
Kaskazini Unguja	62 (21.5)
Kusini Unguja	39 (13.5)
District	
Chake Chake	88 (30.6)
Wete	99 (34.4)
Kakazini A	62 (21.5)
Kusini	39 (13.5)
Health Facility	
Chake Chake	88 (30.6)
Wete	99 (34.4)
Kivunge	62 (21.5)
Makunduchi	39 (13.5)

More than half (57.6%) of the respondents were female. The mean age of respondents was 33.5 (\pm 9.2). More than one third (47.9%) have a diploma level of education. Vast majority (86.1%) are the subordinates who have no leadership responsibility in their hospitals. More than one third of the respondents have three years experienced working in health sectors as well as experienced in their working hospitals (Table 1.2).

Table 1.2: Socio-demographic characteristics of the study participants (N=288)

Variable	n (%)
Gender	
Female	166 (57.6)
Male	122 (42.4)
Age group	
<30	137 (47.6)
31 – 40	101 (35.1)
41 – 50	27 (9.4)
51 +	23 (8.0)
<i>Mean age \pm SD</i>	33.5
Education	
Advance level	13 (4.5)
Certificate	28 (9.7)
Diploma	138 (47.9)
First Degree	33 (11.5)
Secondary	69 (23.9)
Primary	4 (1.4)
Master's Degree	3 (1.0)
Designation	
In charge	30 (10.4)
Head of Department	6 (2.1)
Matron/Patron	1 (0.4)
Manager/Coordinator	3 (1.0)
Subordinate	248 (86.1)
Working Experience in Health Sector	
< 1 year	68 (23.6)
2 – 3 years	79 (27.4)
>3 years	141 (49.0)
Working Experience in this health facility	
< 1 year	75 (26.0)
2 – 3 years	78 (27.0)
>3 years	135 (46.88)

Table 1.3 presents descriptive statistics for three constructs Empowerment, Team orientation, and Capacity development as construct of involvement, each assessed through five items. The mean values for all variables within the involvement ranged between 1.947 to 2.474 on a five-point Likert scale, with standard deviations varying from 0.165 to 0.619. All mean values were above the scale midpoint of 1.5, as confirmed by a one-sample z-test. Capacity development had the highest mean value of 2.474, while Team orientation had the lowest mean value of 1.947. Standard deviations indicated that Capacity development exhibited the highest dispersion (0.619), while Team orientation showed the lowest dispersion (0.165).

To examine the distribution shape, kurtosis and skewness were considered. For Empowerment, negative kurtosis (-0.910) and skewness (-0.773) suggested a flatter distribution slightly skewed to the left. Team orientation exhibited positive kurtosis (2.318), indicating a relatively peaked distribution, and negative skewness (-0.974),

suggesting a slight left-skewness. Capacity development displayed negative kurtosis (-2.216) and positive skewness (0.684), indicating a flatter distribution with a slight right-skew.

Respondents prioritize Capacity development, Empowerment, and Team

orientation in descending order. A higher standard deviation for Capacity development indicates diverse opinions. Deviations from normality in kurtosis and skewness suggest non-perfectly normal distributions, guiding potential analyses like hypothesis testing or regression modeling.

Table 1.3: Descriptive statistics of involvement

Constructs	Items	Mean	Standard Deviation	Kurtosis	Skewness
Empowerment	5	2.119	0.167	-0.910	-0.773
Team orientation	5	1.947	0.166	2.318	-0.974
Capacity development	5	2.474	0.620	-2.216	0.684

Table 1.4 indicate a regression model with one outcome variable (Performance) and two predictor variables (Involvement and Level of education), as well as an interaction term (Int_1) between Involvement and Level of education. The model was estimated using a

sample size of 288. Predictors (Involvement and Level of education) explain 30.24% of the variance in the outcome variable (Employee Performance). The F-test statistic is significant ($p < 0.001$), indicating that the model is a good fit for the data.

Table 1.4: Model Summary

R	R ²	MSE	F	Df1	Df2	P value
.5499	.3024	4.5471	41.0327	3.0000	284.0000	0.0000

The coefficients of the model indicate that Involvement has a positive effect on Employee Performance ($B = 0.1727$, $p < 0.001$), whereas Level of education has a negative effect on Employee Performance ($B = -0.1308$, $p = 0.1761$). The interaction term (Int_1) is not significant ($B = 0.0095$, $p = 0.4292$) as indicated in Table 1.4.

The Involvement variable is statistically significant predictor of the employee performance. The moderating variable of the level of Education on involvement variable (Int_1 variable) is not statistically significant in predicting the dependent variable based on the given p-values.

Table 1.4: Model's parameter estimates

	Coeff	Se	t-value	P-value	Low level CI	Upper-level CI
Constant	8.9419	.1257	71.1410	.0000	8.6945	9.1893
Involvement	.1727	.0161	10.7387	.0000	.1410	.2043
Level of education	-.1308	.0965	-1.3563	.1761	-.3207	.0590
Int_1	-.0095	.0120	.7917	.4292	-.0141	.0331

DISCUSSION

The findings of this study highlight that involvement emerges as the influential predictor of employee performance in the health sector. This positive correlation between involvement and employee performance aligns with the research conducted by Kasaya and Munjiri (2018), where it was observed that keeping employees informed about the organization's future direction and involving them through representative participation significantly enhanced job performance. The study further

revealed that teams within the institute had a role in decision-making processes related to their work, leading to increased job performance when employees were enabled to participate in matters affecting their roles. (7) Additionally, Aschalew Mulugeta (2020) discovered that employee involvement and innovation significantly contribute to employee job performance. (12) Similarly, study by Sendawula, Nakyejwe Kimuli, et al. (2018) indicated a significant positive relationship between employee involvement and employee performance. (5)

The study conducted by Andrew Patrick & Mukherjee (2018) revealed higher levels of involvement among doctors compared to nurses. Notably, it found a significant difference in work involvement levels between genders among doctors, with male doctors showing higher levels of work involvement, especially in the vigor dimension.⁽¹³⁾ Furthermore, the study by Pamungkas & Wulandari (2021) demonstrated a positive and significant influence of job involvement on employee performance, along with a similar positive impact of affective commitment on employee performance in the public service sectors in Indonesia.⁽¹⁴⁾

The findings presented in this study indicate a significant relationship between employee performance and the predictors of involvement and level of education. Specifically, involvement has a positive effect on employee performance, while the level of education has a negative effect. However, the interaction term between these two predictors is not deemed significant. The interpretation of a negative coefficient for the Level of Education variable suggests that, on average, as the level of education increases, employee performance is expected to decrease.

These findings contrast with the results of a study conducted by Thomas W. H. Ng and Daniel C. Feldman (2009), which indicated a positive relationship between education level and creativity and citizenship behaviors, and a negative relationship with on-the-job substance use and absenteeism. They also explored the moderating effects of sample and research design characteristics on the relationships between education and job performance, concluding with implications for future research and the management of an increasingly educated workforce.⁽¹⁵⁾

Additionally, the results of this study are supported by the findings of Aschalew Mulegeta (2020), who showed that the level of education does not significantly contribute to employee job performance. The study suggests that unless the Dire Dawa administration designs a new benefit package

for public service employees considering the level of education, the focus should not be solely on education to increase employee job performance and provide quality service to society.⁽¹²⁾

The comprehensive examination of organizational dynamics influencing employee performance in Zanzibar's public health facilities has revealed strong insights, particularly regarding the role of involvement, which aligns with existing literature as a key predictor. The positive correlation between employee involvement and performance underscores the importance of fostering a participatory environment within healthcare organizations.

The introduction of the moderating effects of education level adds complexity to the analysis, unveiling nuanced effects on employee performance. The study emphasizes the need to address burnout, outdated practices, and adaptability issues among experienced employees. Additionally, it calls for a closer examination of potential education-related issues, including mismatched expectations, job satisfaction, and career transitions.

It is essential to recognize that correlation does not imply causation, and the observed statistical relationship may be influenced by various factors, such as educational mismatch, job satisfaction, career transitions, specialization, and enhanced employee involvement.

To address the identified negative correlation and accommodate diverse educational backgrounds, organizations should explore contributing factors and develop strategies accordingly. Further investigation, incorporating additional variables, exploring interactions, or conducting qualitative research, is recommended to gain insights from individuals with different education levels within the specific context of the study.

CONCLUSION

Adopting a holistic approach to organizational development tailored to Zanzibar's public health sector is crucial.

Organizations are urged to actively involve healthcare professionals in decision-making processes, acknowledging differences in involvement levels and implementing targeted interventions to ensure a participatory environment aligned with job commitment and satisfaction. Implementation of the recommended strategies can create an environment that not only enhances employee satisfaction and performance but also contributes to the overarching goal of improving healthcare service quality in the region.

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