
USING ORDERED PROBIT REGRESSION MODEL TO EXAMINE THE EFFECT OF FINANCIAL INCENTIVE AND DEMOGRAPHIC FACTORS ON PERFORMANCE OF HEALTH WORKERS IN GAIRO DISTRICT, TANZANIA

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Abstract: *This study ought to find out how financial incentives and demographic factors influence the performance of health worker in Gairo District - Tanzania. The cross-sectional research design and semi-structured questionnaire was employed. The purposive non-probability sampling technique was used to select 100 respondents as a representative sample. The data was collected through questionnaire. The data was analyzed using ordered probit regression and descriptive analysis. The empirical finding suggests that cash incentive particularly compensation was less likely to influence high performance and moderate performance than lower performance of health workers. This simply shows when health worker compensated through extra time spent at work, probability of high performance reduced by 5.2%, moderate performance reduced by 24% while low performance increased by 29.15%. The study also shows that, worker relationship was less likely to influence high performance by 3.8%, moderate performance by 15.7% while low performance increased by 19.35%. The finding further suggests that male health workers were more likely to perform higher in health service delivery than female health workers while higher education was strongly associated with higher performance of health workers. The study concluded, management should employ more male workers and high educated health workers so as to improve to better health service provision to patients.*

Keywords: *Cash, Health, Incentive, Performance, Worker*

1.0 INTRODUCTION

Quality Health Service provision is fast growing in Sub-Saharan Africa. However, one of the major challenging aspect in the sector is magnified due to demand of high quality health service resulted from an increased population requiring modern medical attention. Sub-Saharan Africa has a population of about 800 million while 72% of them are in urban area (Aduo-Adjei et al., 2016). The health service sector in Sub-Sahara is embarked to shortage of medical drugs associated with poor communication between medical drug suppliers and health service centers. Unlikely developed countries, medical practioners in Sub-Sahara are more likely to be reluctant to offer and serve patients (Muthuri et al., 2020). There are evidence of medical practioners to have low response to help pregnancies, injuries and those who need close attention to medical care but they were not given at right. Some of the patients lost their life and family members blame the health service center for the loss of loved one due to poor medical health service provision (Mbachu et al., 2022). The patients need diagnostic test, medical drugs and other associated medical services at speed of provision that satisfy the patients and serve their needs. According to Ormel et al., (2019), patients find being hampered from fulfilling their health needs when the health workers are more likely not satisfied with working environment

Managing human resource in health sector is one of important aspect in improving health service provision. There is need to consider number of patients that health practioners need to service per day. According to Halldorsdottir et al., (2018), health worker patients' ratio in a day is estimated to be 1:10 signifying that one health officer provides services to 10 patients per day (Willis-Shattuck et al., 2008). The ratio is higher as compared to developed countries where the ratio stands at 1:5 implying that one health worker serve 5 patients per day (Mbindyo et al., 2009). This gives patient greater chances of being well attended and cared by health workers (Durocher et al., 2010). The availability and access to better health services are greatly affected by the availability of human resources (Ebenso et al., 2020). Unqualified health workers and multiple tasks allocate to workers have been considered as a major factors hampering the health sector system. Frumence et al., (2013) reported that poor financial and non-financial motivation affect the health workers direct on delivering of quality health services to patients.

Human resource in health service play important role but also need to be handled proper with consideration of their incentives. One of the motivational incentives could be financial and non-financial matters. Motivating of health workers is proposed to be a measure in solving the dissatisfaction of health workers. Abdel-All et al., (2019), pinpointed that, satisfaction of health workers enhances performance of health workers. Adams (2020) argued that, for the health sector to improve health services, qualified health workers and good quality facilities are required for provision of quality health services. Seitio-Kgokgwe et al., (2014) found that health service system has been challenged with low investment in human resource and poor facilities for supporting health service delivery. When health workers are dissatisfied with working environment or equipment they exhibit behaviour that might affect performance of health service provision (Divala et al., 2022). The well trained staffs are in a better position of providing better services in short time provided that medical facilities are provided because they happen to have been motivated. It was also argued that, young health workers are performer than old health worker, since younger one are energetic and powerful to work 24hours for delivering the health service (Bernard et al., 2004, Nct, 2016).

In Tanzania, many initiatives have made in health sector in cooperation with donor funding countries and international financial agencies like African Development Bank and World Bank (Olafsdottir et al., 2014). This leads to carrying out several construction activities of health service infrastructures. It also enabled to increase the number of dispensaries, health centers, hospitals, staff houses and offices to facilitate the smooth health service delivery in the country (Olafsdottir et al., 2014). For smoothing the delivery of healthcare service the equipment and tools include ambulances, diagnostic medical equipment, medications and other supplies for improving the health sector. The Government has been promoting the quality health service provision and extending from governmental level to private sectors through supporting them with human resources to both private and public hospitals (Fillol et al., 2019). The benefits of health workers have also been looked by increasing salaries of civil servants annually and protecting them, employing qualified health workers on permanent and pensionable basis. The government uses the performance control mechanisms such as Open Performance Review and Appraisal System (OPRAS). This is an open, formal and systematic procedure designed to help employers in planning, managing, evaluating and realizing performance improvement in the organization and to assess the performance of health workers.

The performance of health services is basically depending on the adequacy and availability of motivated human resource and other supporting facilities to health workers in provision of quality health services. However, worldwide and Tanzania in particular, health service sector has been facing various challenges such as lack of motivational health workers, high workloads and low knowledge which often hamper provision of quality of health services (Mayumana et al., 2017). Tanzania has various impeding factors on provision of health services, is encountered with a serious shortage of health workers whose performances are experienced to be low all over the country (Alanazy et al., 2021). Similarly Kok et al., (2019) reported that less than 50% of the available health workers serve 48 million of patients across the country while majority of such health workers seem as not satisfied with the existing working environment. Poor working facilities have often demotivated health workers in delivery of quality health services. It is further noted that, low salary and biased promotion among health workers discourage health workers from performing their duties at desired levels(Ormel et al., 2019). The situation have also been complained by the patients who are the primary beneficiaries of the health sector, regarding poor health services provided especially by public health service centers (Olafsdottir et al., 2014). Understanding of cash incentives and demographic factors can lead to better way to address the performance of health workers in Tanzania. Despite of studies such as Frumence et al., (2013b); Adams (2020); Halldorsdottir et al., (2018) who examined factors affecting the performance of workers in Tanzania. Little is known related to whether cash incentive and demographic factors influencing the performance of health workers in Tanzania. Understanding the relationship of cash incentive or demographic factors and performance of health workers could help policy makers and researchers to have better knowledge and take further action if needed to improve health service delivery in Tanzania.

2.0 THEORETICAL FRAMEWORK

Literature review was organized into theories and empirical studies. The theoretical part gives underlying theories that establishes relationship between motivational factors and health worker performance. Three theories were discussed based on their strength and weakness.

2.1 Theory of Maslow Hierarchy of Need

Theory of Maslow Hierarchy of Need was first worked by Abraham Maslow who discovered that people motivated by factors such as physiological, love, safety, esteem and self-actualization. The theory was invented in 1943 and it is known as theory of motivation (Maslow, 1943). This defined a need as something that individual seeks to satisfy his or her felling and motivation attempts to satisfy

a need. He developed theory of hierarchy of needs which identified employees had five levels of needs which represented in the form of a hierarchy ascending from the lowest to the highest (Yadav, 2019). When five levels of needs substantially satisfied, it creates motivational to workers, consequently, increases job performance. The theory emphasizes that the satisfaction directed to lower level of hierarchy of needs before moving to next subsequent higher level of hierarchy of needs (Wahba & Bridwell, 1976). The sequence relates to one another and promotes the employee once followed (Yadav, 2019). In order to fulfill the needs of workers, it is found of necessity for the employer to understand the hierarchy of needs that motivates the workers. Ma'ruf et al., (2019) managed to list down sequentially from the bottom level of hierarchy of needs to the top level. The physiological need focuses to basic need like food, water and shelter. Safety need refers being safe side from danger or injuries caused by human being or non-human being. Social need involves the love that fetch from communities or family members (Kaur, 2013a). Also, esteem need is what focusing on respect employees; they need respect from workplace or community. The need of esteem, it refers the respect, self-esteem and self-confidence. It is a human desire to be accepted and valued by others (Kaur, 2013b). It contains the progress of achieving the personal goal and objectives. It maximizes and accomplishes something that provides higher level of satisfaction.

2.2 Herzberg Two-Factor Theory

This theory was engineered by Hersberg, Mausner and Synderman. In different period of years starting from 1959 to 1966, they contributed a lot to understanding factors related to satisfaction and dissatisfaction factors to job performance (Ewen et al., 1966). The dual-factor theory which considered performance of employees could be increased or decreased by motivating factors or demotivating factors (Kotni & Karumuri, 2018). The underlying factors influencing the satisfaction or dissatisfaction in relation to workplace. There are set of factors that play important role in employee performance. There are different approach that employees used to report if they satisfied or dissatisfied with working environment and that said to increase the performance of employees (Kuijk, 2018).

The internal factors that controlled by organization and external factors that beyond the control of the organization could lead to high performance of employees if the satisfied with working environment (Alshmemri et al., 2017). Eliminating the dissatisfaction drivers could enable the employees remain at working environment that could increase the job performance. The factors that touch direct to employees like job security, employee relationship, compensation, salary and monetary rewards have great chance to motivate employees and increase the work performance (Kotni & Karumuri, 2018). However, organizational policy working condition, working environment and supervision also may satisfy or dissatisfy the employees. The work performance of employees is directly related to set of factors that are under control or out of control of the organization.

2.3 Utility Maximization Theory

Utility theory was developed by Lancaster in 1966 (Paul et al., 2018). The theory explained that, utility derived from product originated from attribute in the product. In a situation where an individual makes choice among alternatives, which in this case, a decision to either choose one among alternative level of performance (Li et al., 2018). From economic perspective, an individual makes a decision to choose a loan (V_{1j}) from alternative sources (V_{0i}) if utility associated with that source is higher than utility associated with other alternative sources. Several studied based choice in decision making has been used by utility theory (Paul et al., 2018).

The perspective grounded on Utility Maximization Theory framework. This theory assumes that individual makes a choice given various options to individual to choose that provides maximum utility. The characteristics that product or good possess are what made up various utilities from such good or product (Lamboglia et al., 2018). The performance of health worker is associated with utility that health worker derived from performing such work. This was the basis for individual's choice among level of health worker performance. However, this theory is limited on worker's choice for the given alternative level of health worker performance (Yang et al., 2017). The consumer theory parse cannot capture consumer who is facing choice decision among alternative goods or products available for consumption. In fact, utility theory typically developed for consumer and not specifically for health worker performance but has been used to access health worker performance on choice based problem (Sun et al., 2020). The main concern is more related on how health worker performance be measured, because, as observed by most researches on health worker have been used.

2.4 Empirical Studies

In developing countries, health service has been embarked to several challenges from which it constrained the provision of better health service to patients. Number of social, economic, cultural and institutional factors has been mentioned to impede the sector. Studies devoted to analyze the challenges facing health service provision is important in order to gain knowledge and thereafter to develop solution to eliminate the challenges. Aduo-Adjei et al., (2016) evaluated intrinsic and extrinsic factors that motivate health worker performance in Ghana. The study found that provision of logistic to health workers increase their performance and hence improve health service provision to patients.

Another study conducted by Fillol et al., (2019) investigated the contribution of leadership and organizational capacity to performance in Burkina Faso. The study found that leadership has important role to shape health worker performance and it also pointed out that patients may have likely to be served at right time without making delay in provision of health service to patients. The study further suggests that intervention must be done to ensure participation approach in leadership be likely to affect motivational capacity of health workers in the sector. Similarly the finding by Hotchkiss et al., (2015) confirmed that provision of financial reward could likely increases the performance of health workers. It advised that more financial resources must be set aside to provide financial rewards to health workers.

Krstic et al., (2018) conducted the study to observe the effects of health workers' motivations on performance in Nigeria. The study used cross section design with sample size of 105 health care workers. However, Tobit model and descriptive statistics were used. The finding demonstrates that more than half of the health workers were satisfied with their position. The study further discovered that age of health workers was important as it had positive relationship with performance of health workers. This justified by an increase of performance of health worker in connection with their age. Those with high age or oldest health workers were likely to have high performance than young health workers. Also, it was found that gender of health worker had negative relationship with performance of health workers. This suggests that female health workers were performing better in term of health service delivery than male counterpart. The study concluded that, government should increase age of retirement and employ more female than male.

The motivation factors could be traced from financial and non-financial resource that could be as activator to influence performance of health workers. Non-financial resource such as chairs, table and good office could be considered as one of the motivator to facilitate high performance of health workers or employees. Liga febrina et al., (2021) examined the employee Motivation as a key to effective Organizational management in Nigeria. The finding shows that employee motivation is an complicated and cultured subject perceived differently from one person to another, meaning, a thing motivating one person, cannot necessarily to motivate the other. The recognition of what employee has done is an important factor to create mood to employee and feel like has done great to contribute the organizational performance. The study by Dobre (2013) examined the employee motivation and Organizational performance. The study aimed to analyses the factors promoting the work performing at high levels of Organizational Performance. The reviews and other relevant reports were used. However, the study concluded that recognition is not expensive, it is urged that organization must consider it to improve organization performance and employee performance.

Motivating health workers are not only benefiting health workers but also improve health system service delivery in the public. The study Muthuri et al., (2020) examined the motivational factors that effecting the performance of the employees in the health sector. Under this study monetary and non-monetary factors were explored and it was found that both factors were essential to improve performance of the employees in the health sector. The finding suggests that feedback to employees and cash could have large impact on employee performance in health service sector. The finding also explores that when employees provided the facilities necessary for carrying out the jobs, performance in health service provision increase and hence employee performance become large. The study proposed that invention that focuses to facilitate good work environment can help to increase the organizational performance. So any effort to increase performance of employees, must consider the reward to employees in monetary matters.

Motivation is a basic element of attributes that influence organization to achieve the goal. In the health system, strengthening the quality health service provision requires to consider factors related to human resources that serve the health delivery to patients. This not only enable the country to attain its goal in health sector but also fulfill the global health goal that require the access to health sector be strengthening and ensure everyone has access to it. The response of health workers to client or patient is crucial if it is to improve the health sector. The study by Nizam & Shah (2015) revealed that health system with high performance need to ensure health worker are motivated through monetary and non-monetary matters. This creates mood to health workers and promote the better service delivery in health sector. Also, it was pointed that patients need quality healthcare but health workers need to fulfill their need so as to deliver the healthcare.

3.0 MATERIAL AND METHODS

This part presents the methodology of the study which included area of study, research design, sampling technique, sample size, data collection, data analysis techniques and ethical consideration.

3.1 Description of Study Area

The study was conducted in Gairo District Council which is one of the nine District Councils of Morogoro Region. The council has an area of 1,851.34 square kilometers which forms 2.6% of the regional total area. The Council lies between latitude 6.2667°S and 36.9167°E, and located at the North-western part of the Region. Headquarter of the Council is situated along Dares Salaam – Dodoma road. It borders with Kongwa and Mpwapwa Districts in the West, in South it borders with Kilosa and Mvomero in the East. The District borders with Kongwa, Kiteto and Kilindi in the North. According to the year 2012 Population and Housing Census, the Council had a population of 193,011 people including 93,206 males and 99,805 females with an average annual growth rate of 2.6%. However, the population projection released by The National Bureau of Statistics for the year 2017, the Council has 218,892 inhabitants (105,704 are males and 113,188 are females). The maternal deaths have mostly been caused by various reasons including anemia, obstructed labour, bacterial infection and upper respiratory system infections. During the period of 2015, 2016 and 2017 maternal deaths were as low as 3% per 4556 deliveries. The nutrition status to those children who attended health services provision centers shows that there has been a good improvement for the past two (2) years reduce from 4.9% in 2015 to 0.2% in 2017. The health service provision is observed to be promising as number of people suffering and incidence of diseases declined in recent years. However, there is limited information related to health service delivery, performance of employees and satisfaction of clients.

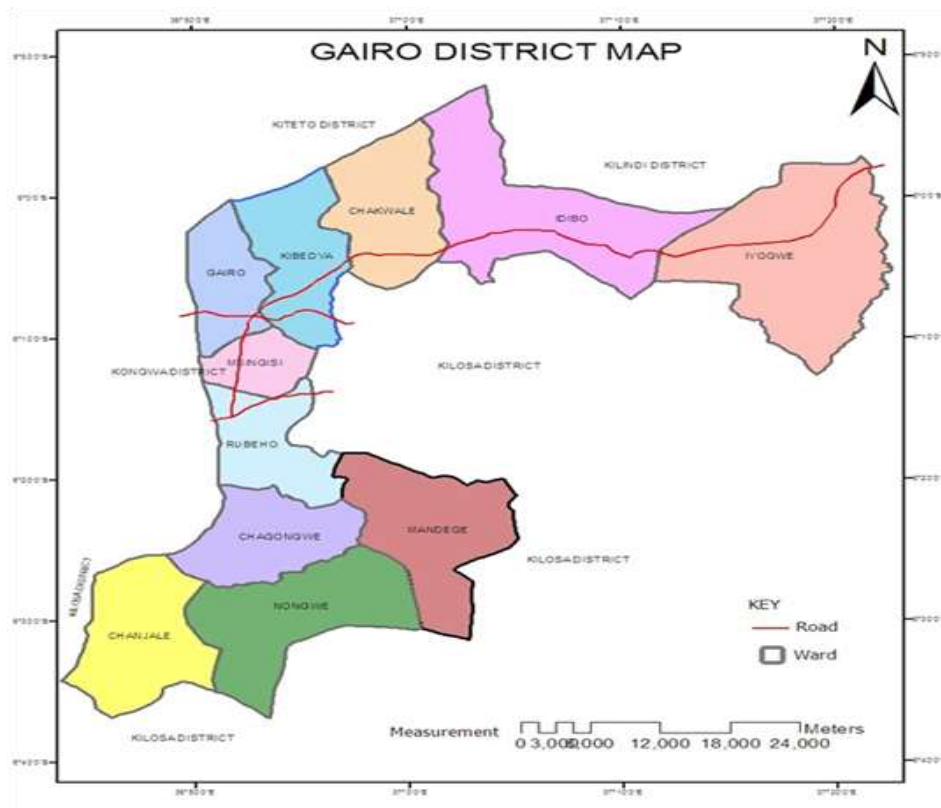


Figure 1: A Map of Gairo district

3.2 Sampling technique and Sample Size

This study use purposive non-probability sampling to select respondents since the research had greater knowledge related to kind of respondents that can provide truth information based on their experience and working position. The sample size was justified by Brown, (1988) and Ryan (2013) who propose the sample size of 30 to 500 individuals are suitable for survey study. With this

argument, the study opted the sample size of 100 respondents. In which health workers from health sector and purposive non-probability sampling technique was chosen under this study.

3.3 Data Collection

The questionnaire was developed as a tool for data collection with focus to collect primary data from field survey. The question was constructed in a simple way with close and open ended questions. The respondents were asked question from questionnaire and researcher filled the questionnaire.

3.4 Analytical Model

The ordered probit regression was opted for estimation motivational factors influence health worker performance. The dependent variable was categorical variable that is observed as follows;

$$Y = \begin{cases} 1, \mu_1 < Y \\ 2, \mu_1 < Y < \mu_2 \\ 3, \mu_2 < Y < \mu_3 \end{cases}$$

- is an error term, which we assume follows standard normal distribution $e_i \in N(0,1)$

In this regard, ϵ is threshold variable in the ordered probit model. The threshold variable is unknown and determined in the maximum likelihood estimation procedure for the ordered probit regression.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \epsilon$$

Here y is unobservable dependent variable known termed as health worker performance.

- Where, Y = Health worker Performance (Higher, Moderate, Lower).
- B = Coefficient
- X = Variable
- E = error term

3.5 Data Analysis

The analysis of the data start at a point of coding in SPSS before transferred to Stata for analysis of probit regression and result present into tables. The analysis accommodated the pre-testing that focus to evaluate of underlying assumption of regression violated. The multicollinearity, heteroscedasticity and model specification were done. The result of testing shows the model does not suffer the violation of the underlying assumptions.

4.0. RESULT AND EMPIRICAL FINDINGS

This part presents the results and discussion in detail of the study. The proposed study was investigating the motivational factors influencing health worker performance. The results presented in tables and figures with detailed discussion of the empirical findings on the motivational factors enhancing health worker performance.

4.1 Demographic characteristics

The demographic characteristics are important as they shape and situate the nature of the responses captured response include the age, gender, education and marital status who were given and interviewed through questionnaires as indicated in Table 1. It captured the response of the respondents who were interviewed and who provided responses to the questionnaires.

Table 1: Demographic Characteristics

Demographic Characteristics	Option	Frequency (N=100)	Percentage
Gender	Male	82	64.1

	Female	46	35.9
Age	19-30 years	32	25.0
	30-41 years	28	21.9
	41-52 years	42	32.8
	52-63 years	26	20.3
Education	Primary education	11	8.6
	Secondary education	62	52.1
	Certificate education	20	12.4
	Bachelor education	34	26.1
	Master education	1	0.8
Marital Status	Single	12	9.4
	Married	69	53.9
	Divorced	30	23.4
	Widowed	17	13.3

From the Table 1, it was observed that majority of respondents who occupied by 64.1% were male while female account for 35.9%. This findings suggests that more men became dominant in health public employment within health sector. This finding supported by Hotchkiss et al., (2015) who reported male in the family were more educated and give them opportunities to secure job in health sector than female. In regard with age distribution, 25% of respondents had aged 19-30 years, 21.9% of respondents had aged 30-41 years, 32.8% of respondents had aged 41-52 years while 20.3% of respondents had aged 52-63 years, This reveals that, large number of health workers had aged 41 to 52 years were more active in health sector and public employment since health workers of this age are thought to be more active than young workers. This may also be contrarily to large population size of Tanzania dominated by younger people who confirmed to be less active (Isaga, 2019).

Moreover, education of health workers were 8.6% of respondents had primary education, 52.1% of health workers had secondary education, 12.4% of health workers had certificate education, 26.1% of health workers had bachelor education while 0.8% of health workers had master education. The finding was predictable since large number of health workers had secondary education and may be considered as a minimum level of education for health worker to be employed by public in government although most of the people in the country fall into primary education level. However, most of health workers had secondary education. This was great for health workers to ensure better health service provision to patients and public as well. It was reported that 9.4 percent of health workers were single, 53.9% of health workers were married respondents, and 23.4% of health workers were divorced while 13.3% of health workers were widowed respondents. This finding discovered many health workers were married. The finding however justifies that married health workers were more active in health employment than any other group. With this finding, it confirmed that many health workers depend on government employment for their livelihoods particularly generating income.

4.2 Cash Incentives and demographic factors influencing the performance of health workers

Marginal effects show the change in probability when the predictor or independent variable increases by one unit. For continuous variables represent the instantaneous change, given the unit may be very small. The parameter estimates (coefficients) and marginal effects at the means of the ordered probit regression with their respective robust standard errors as shown in table 2.

Table 2: Results of Marginal effect from Ordered Probit Regression Analysis

Health Worker Performance	Lower	Moderate	Higher Performance
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	Performance		Performance		dy/dy	Std. Err.
	dy/dy	Std. Err.	dy/dy	Std. Err.		
Gender (1 if male worker, 0 otherwise)	0.3175***	0.0824	0.255***	0.068	0.062**	0.030
lnAge (Measured in year)	0.0550	0.1365	-0.045	0.111	-0.010	0.026
Education (1 if Bachelor degree , 0 otherwise)	0.3120***	0.0766	0.210***	0.061	0.101***	0.036
Marital status (1 if married, 0 otherwise)	-0.1492	0.0925	0.110*	0.066	0.040	0.031
Worker relationship (1 if good relation exist, 0 otherwise)	0.2261**	0.1016	-0.188**	0.088	-0.038*	0.021
Compensation (1 if compensated, 0 otherwise)	0.1935**	0.0884	-0.157**	0.073	-0.036*	0.022
Decision making (1 if participate, 0 otherwise)	0.2915***	0.0810	-0.240***	0.069	-0.052**	0.025
Training (1 if trained annually, 0 otherwise)	0.1220	0.0902	-0.101	0.076	-0.021	0.017
Job security (1 if permanent worker, 0 otherwise)	0.0121	0.0894	-0.010	0.073	-0.002	0.016

*, ** & *** represent 10%, 5% & 1% Level of significance respectively

The gender of health worker was expected to be significant influencing the performance of health worker performance. However the coefficient of gender was statistically significant and negatively influencing lower performance of health worker but positively influencing higher performance of health worker. This suggests that male health worker had more likely to perform high or moderate than performing lower in comparing with female health workers. Empirically male health worker was more likely to increase the performance from lower to higher while female health worker was recorded to have decreasing of their work performance from higher to lower performance. This probably explained that male health worker were dominated to health employment and give them confidence in working environment unlike female health worker who less dominant in health employment. Generally, male health worker was less expected to have low work performance in health services provision in comparison to female. This finding contradicts with Hasanuddin et al., (2019) who found that women were generally perform higher than men and reported to stay at worker for long time. Similarly Popaitoon (2020) who examined the employee Motivation as a key to effective Organizational management and major finding suggested that women had higher chance and perform better at work than male in public hospital.

Education was important factor and expected to significantly influencing health worker performance. The finding suggests that education of health worker had significantly effect on health performance as explained in empirical studies. The education was highly significant at all level of worker performance (Lower, Moderate and higher). The finding suggests that health worker with bachelor education had more likely to perform higher than lower compare with health worker without bachelor education. In this regard, higher education has contribution for higher worker performance since knowledge is provided through education provision and could really improve worker performance. This present finding conquers with Mbachu et al., (2022) who found similar results but contradicts with Hotchkiss et al., (2015) who reported that higher education was merely decrease health worker performance among health workers. Furthermore, the present finding was inconsistent with Ude (2012) who argued that well skilled and talented workers may easily find good job, position and workplace elsewhere however the effective way for retention these talented employees is to enhance friendly relationship between management and employees.

Theoretically it was expected that worker relationship to have significant influence on health worker performance and finding suggested that worker relationship had significantly influence health worker performance. It showed that good worker relationship with management is negatively related to higher worker performance likewise it positively related to lower worker performance. This finding implies that good worker relationship with management was highly enhancing low work performance than bad worker relationship in health service provision. Health worker who maintain good relationship with management was associated with low work performance in health services provision. The present study was inconsistent with the study by Krstic et al., (2018) who revealed that good worker relation influencing employees to work long time and better services provision. Likewise, Febrina et al., (2021) argues that the availability good relationship among workers for all employees facilitating Organizational growth and employees tend to work with the Organization for betterment of services.

Worker compensation was expected to be highly significant and statistically influencing higher worker performance. Armstrong (2010) considered compensation to be main motivator for employee performance. The finding however signifies that worker compensation was associated with lower worker performance but significantly decreasing higher worker performance. This further explained that health workers who competitively compensated were typically having low work performance than those who were not compensated in health services provision. The present finding conquers with Hotchkiss et al., (2015) who argued that compensation remuneration was key factor that influences high employee performance. Similarly, findings are consistent with the study by Willis-Shattuck et al., (2008) who revealed that many organizations Tanzania which improved its pay policy by providing employees with competitive salary allowances have doubled their worker performance in health service provision. Giving employees cash may significantly motivate the employee to increase the effectiveness on performance (Okello & Gilson, 2015). The monetary reward may likely promote performance of health workers but non-provision of monetary cash to health workers are more likely to reduce the performance of health workers (Chien et al., 2020). The underlying internal and external factors were discovered as important to contribute in better health service provision and performance of health workers (Muthuri et al., 2020),

Worker participation in decision making was highly negative and statistically significant influencing moderate or higher worker performance. Unlike lower worker performance was positive and highly influenced worker performance. The finding revealed that participation in decision making was negatively related to moderate or high worker performance. This finding implies that Participation in decision making was less likely to enhance high work performance compared to health workers not participated in decision making. Health worker who participated in decision making was actually expected to have high work performance in health services provision in comparison to health worker who not participated in decision making service provision. The present study was consistent to the study by Aduo-Adjei et al., (2016) who revealed that training opportunities influenced employees to work long time for South-western University in Philippine. Similarly, Hassan & Ndegwa (2019) reported that workers who participated in decision making had recorded high working performance than those who not participated in decision making due to managerial styles. This argued that the availability managerial style that allow employed to participate in management decision meeting facilitating Organizational growth and employees performance tend to work with the Organization for long period of time.

4.3 Conclusion and Recommendation

Improving health service delivery and quality require the consideration of cash incentives and demographic factors of health service providers or workers. As the health service improved, health workers become eager to achieve their personal goal and organizational goal. Motivating of health workers is important to realize their performance in the health sector. Despite of the challenges facing health sector in Tanzania, the study suggests that compensation was not found to have positively influence the performance of health workers. This justifies by the fact that, when health workers compensated, probability of having health worker performance declines from high level to lower level of performance. The study also shows similar result to decision making, when health workers participate in decision making, performance was more likely to reduce from high level to lower level of performance. However, the result was also surprising when gender and education found to have positive relationship with performance of health workers. This simply revealed that male health workers were more likely to have high performance than female counter part. The study further implies that the health workers with bachelor education were more likely to have high performance than those with lower education. This study recommends that large number of males be employed and workers with lower education should be promoted to upgrade their education to bachelor degree level. Since the compensation was negative associated with performance of health workers, its is not advised to compensate the health workers because it could not motivate health workers to improve their performance

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