Unravelling the Relationship between Strategic Human Resource Management Practices and Quality Health Service Delivery Using Canonical Correlation Analysis

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Abstract

This study examined the relationship between strategic human resource management (SHRM) practices and the provision of quality health services in four Tanzanian referral hospitals. It adopted quantitative approach with an explanatory cross-sectional design. A self-administered questionnaire was used to collect data from 333 employees who were the units of inquiry as well as units of analysis. The canonical correlation analysis (CCA) results showed that there is a statistically significant relationship between SHRM practices and the provision of quality health services evidenced by the level of significance, magnitude of the canonical correlation coefficients and the effect size. The communality coefficients showed that important variables contributing to this relationship were professional development, performance evaluation and employee compensation, with supervision making moderate contribution to this relationship. The findings imply that appropriate application of SHRM practices enables employees acquire the competencies needed and develop attitudes and behaviour that influence their commitment and willingness to exert considerable efforts to influence the quality dimensions of responsiveness, reliability, tangibility, assurance and empathy directly or indirectly. Therefore, the referral hospitals should fully comprehend SHRM practices as a sine qua non for providing quality health services.

Key words: Strategic human resource management, human resources, referral hospitals, provision of quality health services

Introduction

Owing to the ever-increasing global competitions, organizations constantly search for systems and practices which may enable them to gain competitive advantage. Many scholars consider SHRM to be important system for creating value and enabling organizations to achieve competitive edge (Kehoe &Wright, 2018; Opoku &Arthur, 2015; Zhang &Morris, 2014). This comes after realizing that human resources are the key resources without which organizations cannot survive (Kehoe &Wright, 2018). Therefore, they need to be managed effectively so that organizations achieve their goals. SHRM is considered as a model in which the human resources of an organization are deployed and utilized effectively to achieve goals set (Kehoe &Wright, 2018). It involves systems, processes and practices intended to influence the competencies, attitudes and behaviour of the workforce towards exerting much of their efforts to achieve strategic goals of the organization. The concept is derived from the concepts of HRM and strategy, which involves aligning the management of human resources with the strategic content of the organization to achieve organization goals. SHRM emerged as a new strategic approach to

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managing people in the early 1980s and continues to evolve as a field on its own rights. However, its roots go back to the 1950s when scholars such as Drucker and McGregor emphasized the need for visionary goal-oriented leadership and the management of business integration (Yahiaoui et al., 2015). These scholars placed great 'value' on human resources in organizations and emphasized that human resources are key to the success of any organization.

In effect, the proliferation of SHRM was intended to reverse the traditional HRM under which people were managed like any other resources and were not considered as strategic asserts to the performance of an organization. According to Kehoe and Wright (2018), traditional HRM helped managers perform their duties smoothly. In that case, their functions were administrative and were regarded as expensive to an organization and not as an integral part of the core functions in the organization. As such, it was considered bureaucratic and hierarchical in nature. It relied on strict rules, regulations and procedures to enhance efficiency and effectiveness. This implied that HRM professionals were not involved in making strategic decisions. In contrast, SHRM focuses more on the fit between human resources, management practices and organizational strategic goals than traditional HRM to make organizations successful (Mitchell et al., 2013). It aims at increasing efficiency and effectiveness in performance by relying on conditions that encourage employees' involvement in decision making and commitment to the goals of an organization and their willingness to exert considerable efforts so as to make organizations successful. Thus, Kehoe and Wright (2018) are of the opinion that SHRM places more emphasis on investments in human capital to enhance employees' productivity than traditional HRM. As such, HRM professionals are directly involved in making important decisions as well as formulating organizational strategies (Delery & Roumpi, 2017). These strategies enable employees to develop competencies, attitudes and behaviours which in turn impact hospital employees to deliver quality health services.

Zhang and Morris (2014) note that SHRM creates values, uniqueness, knowledge and skills that are not readily imitated by others which in turn lead to better individual and organizational performance. Furthermore, SHRM helps to communicate the underlying values of an organization which positively impact employees' attitudes and behaviours and creates a strong psychological and physiological bond between the organization and them (Katou, 2017). This implies that the success of an organization is dependent upon employees' attitudes and behaviours and upon how the implementation of SHRM influences employees' commitment to the goals of the organization. Therefore, when implementing SHRM practices such as professional development, employee compensation, supervision and performance evaluation, we do not only aim at developing employees' knowledge, skills and competencies, but we also aim to motivate them and give them an opportunity to participate effectively at work. This shows employees that they are valued and cared for. As a result, employees reciprocate this through commitment, positive attitudes and behaviours which translate into better individual and organizational performance (Kehoe & Wright 2018). Scholars such as Mitchell et al. (2013) anchored that an organization with a strategy for managing its workforce increases employees' competencies, loyalty, motivation and commitment to the organization and produces more committed competent and satisfied employees who can work to achieve the goals of the organization. This implies that integrating SHRM practices with the operations of an organization enables hospitals have a sustainable competitive edge.

Therefore, in today's competitive world, organizations seek to have committed, competent and satisfied employees who can work for the benefits of their organizations and for their own benefits as well (Nazir & Islam, 2017). Thus, organizations have adopted various methods to enhance employees' competencies, commitment, loyalty and satisfaction including training and development, fair compensation, performance evaluation and supervision. But irrespective of using multiple methods and ways of enhancing employees' motivation, organizations continuously face difficulties in maintaining competent, committed and satisfied employees (Yalabik et al., 2017). This situation is detrimental to the success and survival of organizations. It is even worse to the health sector and referral hospitals in particular where increased absence at work, increased attrition, increased cost of training and development, shortage of workers, rural-rural and rural-urban migration of workers are frequently reported (Sirili & Simba, 2020; Maestad 2006). The literature reviewed also shows that hospitals are experiencing difficulties in terms of human resources management. Scholars such as Pillai et al. (2019); Sundari and Rao (2017); Manimaran and Kumar (2016) have acknowledged this issue. Thus, according to Buchelt et al. (2017), hospital managers reported poor practices and lack of interest in implementing SHRM practices.

In Tanzania, the indispensable role of SHRM in the provision of health services has been given a due consideration since independence in 1961 by developing a national health system that committed to providing quality health services. This was done through the enactment of various laws and the formulation of programmes and strategies. The laws include the new Public Service Act No. 8 of 2002; Public Service (Amendment) Act, No. 18 of 2007; Employment and Labour Relations Act of 2004; Workers' Compensation Act No. 20 of 2008; National Health Insurance Fund Act No. 5 of 2012 and many others. Some of the programmes introduced include the Health Sector Reform Programmes (HSRPs) intended to among others create and sustain greater satisfaction to health care providers and consumers and to make health services more accessible, sustainable, effective and efficient.

The strategies implemented include the establishment of health training institutions to provide various training programmes so as to upgrade health workers' knowledge, skills and competencies. Various kinds of incentives have been introduced to motivate health workers and recruit health professionals committed to delivering quality health services. The government also introduced a performance-based system to motivate health workers and increase their productivity and improve their knowledge, skills and competencies. All these opened the door for offering more incentives to health workers including annual salary increments, flexible work schedules, the provision of housing for higher-level health professionals and NHIF–performance payment. The intension was to ensure that health workers are motivated, committed and work to achieve performance excellence. Therefore, referral hospitals were expected to provide quality health care services to carter for services provided in lower level hospitals.

Despite all these efforts, however, anecdotal evidence shows that referral hospitals still have difficulties in providing quality health services. This is evidenced by the long queues of patients and overcrowding in such places as laboratories, pharmacies and wards. Patients take long hours or even days to see specialists owing to the patients-specialists imbalances (Khamis & Njau, 2016; Manzi et al., 2012). It is also noted that a lack of career development, a lack of uniformity in the provision of financial incentives to health workers, fixed budgets and staff working for

long hours are among the factors preventing health workers from providing quality services (Manzi et al., 2012; Munga & Maestad, 2009). The literature review has also shown that health workers lack motivation and commitment to comply with the standards owing to the frequent unavailability of necessary resources, inadequate performance evaluation and provision of feedback, non-participation in decision making processes and a general lack of concern for worker's welfare by hospital management (Bremnes et al., 2017; Swere, 2016).

The most recent strikes by doctors in 2012 expressing their dissatisfaction not only with their low salaries but also the conditions under which they work, resulting in provision of compromised services where patients suffered, mirrored out the situation. The most recent and frequent managerial changes carried out in these hospitals (2015 – 2020) also show people's dissatisfaction with the services provided. All these problems are indicative of the underutilization of the skilled human resources in these hospitals. These problems can be eliminated and or reduced if SHRM practices are exploited to the maximum. There is a dearth of empirical evidence indicating how the implementation of SHRM practices motivates workers, helps to retain them and influence their performance.

Furthermore, unlike other organizations, hospitals have unique features. They produce services that cannot be stored for future use. They are also labour-intensive and life-saving, thus requiring employees who are satisfied, committed, motivated and competent enough to deliver quality services. According to Delery and Roumpi (2017), the adoption and application of SHRM practices differ across countries, continents and even between organizations because of the nature of economic growth, culture, structures and core functions of a particular organization. As such, results from manufacturing industries, profits and sales in profit-making organizations may not be relevant to hospitals because of the unique characteristics of hospitals. Thus, the things used to measure performance such as profits, the increase in sales, productivity, output levels and revenue generation may not be relevant when one is examining the relationship between SHRM and the performance of a hospital. Such things would not provide a better understanding about the underlying mechanisms as to how SHRM practices could impact employees' competencies, attitudes and behaviours necessary to the provision of quality health services. 'How' and 'why' such outcomes are generated questions the missing part which must be addressed by this study. Hence, a need to conceptualize performance in the form of quality health service delivery (desired performance outcome of any hospital) as opposed to other measures of performance outlined above. In this study, the provision of quality health services is explained in relation to its five quality dimensions of responsiveness, reliability, tangibility, assurance and empathy. These dimensions were suggested by Parassuraman et al. (1985).

The literature reviewed shows that SHRM practices significantly influence performance. However, the extent to which each practice contributes to this relationship is not known. Canonical correlation analysis (CCA) is used in this study to untie this paradox because of its advantages over other analysis techniques especially where multivariate data are involved. Similarly, the resource-based view (RBV) and social exchange theory (SET) have been used to establish the relationship between SHRM practices and the provision of quality health services. Thus, given the importance of SHRM practices to the performance of hospitals and owing to the dearth of empirical evidence on that matter, this study seeks (i) to establish the relationship

between SHRM practices and the provision of quality health services and (ii) to determine the usefulness of each SHRM practice in this relationship.

Literature Review

Theoretical framework

A theory guiding a particular study helps to provide a sound, scientific and logical conceptual basis upon which a study is grounded. This study is anchored on the resource-based view (RBV) and social exchange theory (SET). RBV suggests that the internal resources an organization possesses are the primary determinants of its success and may contribute to achieving a sustainable competitive advantage. As Barney (1991) notes resources influence the performance of an organization when they are valuable, rare, non-substitutable and cannot be easily imitated by other organizations. Human resources meet these criteria as they provide a pool of talents, knowledge, skills and competencies that are difficult to be imitated. Therefore, human resources need to be managed effectively so that an organization can achieve its goals. Wernerfelt (1984) holds that organizations can create economic value not only because they have resources, but also because of effective and innovative management of the resources. This implies that the potentiality of resources is dependent upon the strategy of an organization and how the strategy is implemented and resources utilized. In tandem to this line of argument, Wright and McMahan (1992) hold that internal policies and systems can be a source of competitive advantage when aligned with organization's competitive strategy. That means that SHRM practices create exceptionality that makes management of human resources difficult to be imitated. It therefore, satisfies the conditions necessary for organizations to achieve competitive advantage. In this case, human resources (human capital) need to be properly coordinated and managed to influence the performance of an organization. Given these arguments, RBV provides a theoretical lens for asserting that proper management of human resources in a hospital is a panacea to deliver quality health services and enable the hospital gain its competitive edge. Hospitals need to ensure that human resources' crucial attributes of knowledge, skills, knowhow and talents are better harnessed through effective implementation of SHRM practices to bring efficiency and effectiveness in providing quality health services.

By contrast, social exchange theory is based on the assumption of norms of reciprocity within social relationships (Blau, 1964). Reciprocity represents quid pro quo propensities which can either be positive or negative. Negative reciprocity means the tendency to return negative treatment for negative treatment. Positive reciprocity involves the tendency to return positive treatment for positive treatment (Cropanzano & Mitchell, 2005). Scholars such Kehoe and Wright (2018) suggest that when employees are satisfied with the outcomes of their workplace relationships, they are highly likely to fulfil their obligations to help achieve goals of an organization. In referral hospitals, employees' decision to make efforts to achieve high performance depends on the worthiness of the relationship between employees and management. Where employees think that a referral hospital values and deals with them equitably, they reciprocate these good deeds by adopting positive work attitudes and behaviours. For instance, if employees are provided with professional development opportunities, they see this as support from the employer. This perception makes them loyal and more committed to provide quality services. It also enables employees develop self-confidence and handle stress, tension and even some job-related frustrations. Hence, they will provide quality health services. If employees are compensated fairly and given good supervision they become satisfied, loyal and committed

(Hameed et al., 2014). This stimulates innovation and creativity, and produces new ideas which help employees achieve quality dimensions of responsiveness, reliability, tangibility, assurance and empathy.

Empirical literature

The theoretical literature reviewed suggests that SHRM practices can definitely impact the performance of an organization. However, the linkage between SHRM practices and the provision of quality services particularly in hospitals is scanty. Thus, scholars suggest that continuous research be undertaken to understand clearly what SHRM practices impact the provision of quality health services in hospitals (Khatri et al., 2017). In this study, four SHRM practices were considered noteworthy is assessing this relationship. They include professional development, employee compensation, performance evaluation and supervision.

Professional development

Professional development (PD) refers to the training and development of employees in all spheres of personal growth (Tahir et al., 2014). It usually includes a mix of training and development and a blend of formal and informal learning activities aimed at enhancing employees' knowledge, skills and abilities. Employees are essential assets to an organization and according to Hameed and Waheed (2011) they should be treated as the human capital of the organization. Some scholars are of the opinion that there is no relationship between PD and employees' satisfaction, retention, commitment and the provision of quality health services as it makes employees less available to patients and gives them more workloads (Ott & Van Dijk, 2005). Likewise, scholars such as Mozael (2015) noted that many employers are opposed to PD initiatives because it is schools that are responsible for training people and not organizations.

In contrast, other scholars are of the opinion that PD improves employees' knowledge, skills and competencies and that it helps to change employees' attitudes and behaviours (Karia et al., 2016; Ojo et al., 2014). As a result of improved competencies, employees perform better in terms of providing quality services. Obi-Anike and Ekwe (2014) anchored that PD enables employees to understand the scope, expectations and depth of their work and acts as a building block of employees' professionalism as they progress through their careers. As such, employees become more competent and confident to provide better health services. Likewise, scholars such as Anvari et al. (2010) hold that PD increases employees' commitment. Employees' commitment to the goals of hospitals implies their willingness and readiness to make an effort to influence the quality dimensions of responsiveness, reliability, tangibility, assurance and empathy. Furthermore, Tahir et al. (2014) consider PD as a critical factor in reducing costs because it reduces not only the level of employee turnover, but also organizations' dependence on external consultant. As such, hospitals can improve their efficiency and effectiveness in providing quality health services and widen their provision horizons.

It is therefore hypothesized that *professional development enhances the provision of quality health services.*

Employee compensation

Employee compensation (EC) refers to the totality of the financial and non-financial rewards provided to employees in return for their performance of organizational tasks (Ibojo & Asabi,

2014). In the employee-employer relationships, compensation can be direct or indirect. Direct compensation includes salaries, wages, bonuses and overtime payments. Indirect compensation includes things like medical benefits, housing allowances, meal allowances, annual leave allowances and other fringe benefits. While some scholars argue that compensation improves employees performance (Ibojo &Asabi, 2014; Yamoah, 2013), other scholars are of the opinion that compensation increases costs on the part of the organization and in that case, outweighs the efficiency and effectiveness of the organization (Owen et al., 2014). Their argument is that the higher the compensation, the more it is associated with negative financial performance. Carr (2014) has shown mixed results on whether compensation directly affects employees' retention, absenteeism and competencies. The experts involved in this study as respondents stated that increased pay did not directly lead to increased performance. In a study by Agathanisa and Luturlean (2019) compensation did not have any effect on work stress which also negatively influenced job satisfaction.

In contrast, scholars such as Ramli (2018) contended that good compensation for employees stimulate innovation and creativity while making the health of the employees also good. Healthier employees make maximum performance to influence quality dimensions of responsiveness, reliability, tangibility, assurance and empathy. Hameed et al. (2014) noted that effective compensation has positive influence in terms of attracting, retaining and motivating employees. This is directly related to employees' performance. Likewise, Teoh et al. (2011) explain that the level of earnings is substantial and has a positive impact on employees' job satisfaction. In the context of a hospital, job satisfaction signifies better performance. That is, if health workers are satisfied, they are more motivated to serve patients better. In a study by Yamoah (2013) 53% of the respondents agreed that good compensation increased their efficiency and effectiveness. According to Yaseen (2013), low compensation triggers employees to try to do their own businesses or side activities. The side activities or businesses lower the quality of employees' work and concentration. Low concentration has a negative impact on the quality of services.

It is therefore hypothesized that *employees' compensation enhances the quality of health services.*

Supervision

Supervision refers to the process of guiding the day-to-day activities of a work group by stimulating, directing and coordinating workers and their efforts so that the goals of an organization are realized (Purity et al., 2017). With respect to organizations, Rulandari (2017) argues that a leader frequently supervises his subordinates, delegating authority, duties and responsibilities to them. In the context of management, supervision means overseeing all the tasks subordinates do so that they don't commit both technical and procedural errors. The relationship between supervision and service provision is not smooth. Some scholars argue that supervision is a panacea to the effectiveness and efficiency of an organization (Rulandari, 2017; Delano & Shah, 2007) and others argue that supervision is a threat to the performance of an organization (Guest, 2001; Ettner & Grzywacs, 2001). Those who argue against supervision are of the opinion that closer supervision makes employees feel more prone to exploitation. This affects their level of commitment and performance, something that results in lower productivity (Guest, 2001; Ettner & Grzywacs, 2001).

In contrast, scholars such as Purity et al. (2017) hold that supervision is an important factor in managing human resources so as to increase their productivity. This implies that in a hospital appropriate supervision can enhance employees' productivity in terms of providing quality services. This is because, according to Rulandari (2017), improved supervision reduces the number of complaints and staff absenteeism. Furthermore, Delano and Shah (2007) argue that proper supervision creates dynamic growth, establishes high professional standards and produces high quality services. It can also create a parallel relationship between employees and management which can be replicated to the relationship between employees and customers. Management gurus such as Henry Fayol argue that supervision helps to ensure that subordinates' efforts are properly directed towards the set plans. This helps to identify weaknesses and correct mistakes so as to increase efficiency and effectiveness in the overall performance of the organization.

It is therefore hypothesized that *supervision enhances the quality of health services.*

Performance evaluation

Performance evaluation (PE) refers to a periodical evaluation of the output of an employee measured against certain pre-determined standards (Choudhary & Puranik, 2014). The process involves observing and evaluating employees' performance at the workplace in relation to the set goals. Although many studies glorify PE, its putative implications to employees' performance have been questioned by many scholars. Such scholars show that PE does not always increase productivity. It may be biased, not accurate and not acceptable to users (Kim & Rubianty, 2011). It has occasionally been linked to increased dissatisfaction at work, lack of motivation and employees resistance owing to the absence of fairness and a lack of employees' participation in the evaluation process. Negative feedback of PE not only fails to motivate employees but can as well cause employees to perform worse (Nurse, 2005).

In contrast, scholars who support PE argue that PE may be used to improve employees' performance, provide feedback on employee performance, increase motivation, identify training needs and provide information necessary for making promotion-related decisions (Mathew & Johnson 2015). In a hospital, it may be used to monitor employees' performance, motivate employees and raise their morale (Choudhary & Puranik, 2014). It may be used to identify and overcome the problems facing employees and could possibly increase hospital workers' motivation to provide better services to patients (Nikpeyma et al., 2014). Therefore, PE may be a tool for helping hospitals to organize and coordinate the power of every employee to provide quality health services to satisfy patients' needs

It is therefore hypothesized that *performance evaluation enhances the quality of health services*

Provision of quality services

Parassuraman et al. (1985) define service quality as how well the service consistently meets or exceeds customer expectations. Unlike other products, services are produced and consumed simultaneously in the presence of customer and service producer. This indicates that the presence of the human element during the service delivery process influences the perception of service consumers. Because services are provided during the interaction of a service provider and a

consumer, employees' attitudes and behaviours influences customers' perceptions of the quality of services. However, many studies on service provision have focused only on consumers' perception of the quality of services (Atinga & Abuosi, 2013). Very little attention has been paid to the SHRM practices that impact employee' attitudes and behaviours with regard to the provision of quality services in hospitals in particular.

Parassuraman et al. (1985) have developed a model for assessing quality with five dimensions namely responsiveness, reliability, tangibility, assurance and empathy. In this model, responsiveness is the willingness of employees to help customers and provide prompt services. Reliability is the employees' ability to provide the services promised dependably and accurately. Tangibility refers to the availability of physical facilities, equipment and the appearance of personnel. Assurance is knowledge and courtesy as well as their ability to inspire trust and confidence. Empathy is the caring for and individualized attention to customers. This study uses five quality dimensions of responsiveness, reliability, tangibility, assurance and empathy to examine the relationship between SHRM practices and the provision of quality services in four Tanzanian referral hospitals.

The Research Gap and the Conceptual Framework

The literature reviewed shows that no thorough study on the role of SHRM practices in enhancing the provision of quality health services in referral hospitals has been done. Many studies have focused on profit-oriented organizations like manufacturing industries, hotels, banks, logistics and insurance industries. In fact, the literature review done has shown that a few studies have been conducted in the hospital industry. However, the studies were based on a single case setting and sought to find solutions to particular problems. Others assessed the quality of services without incorporating SHRM issues. This limits the generalizability of their findings. Therefore, this study examines the influence of SHRM practices on the provision of quality health services in Tanzanian referral hospitals. The conceptual framework guiding the study is presented in Figure 1, which shows the SHRM practices that influence the provision of quality health services. Quality service provision is measured in terms of responsiveness, reliability, tangibility, assurance and empathy.

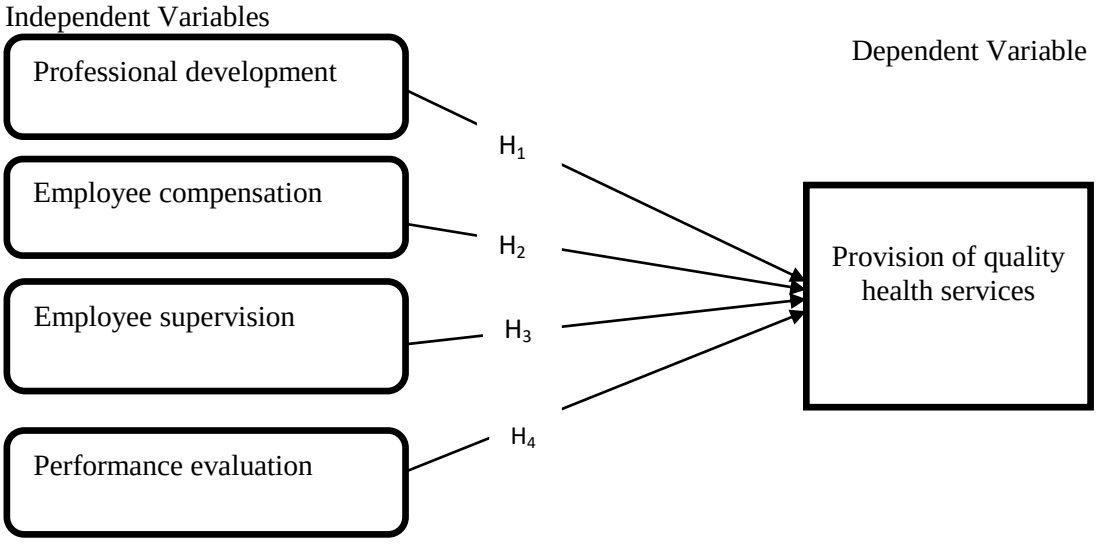

Figure 1: A conceptual framework developed by the researchers from the literature reviewed

Hypotheses

This study was guided by the following four hypotheses:

H_1-Professional development contributes to the improved provision of quality health services

H_2-Employee compensation contributes to the improved provision of quality health services

H_3-Supervision contributes to the improved provision of quality health services

H_4-Performance evaluation contributes to the improved provision of quality health services

Research Methodology

Based on philosophical orientation, the study falls under positivist paradigm where explanatory cross-sectional study with quantitative approach was conducted. This research design gave researchers an opportunity to review the existing literature and propose the existing relationships. The study was conducted in four zonal referral hospitals namely Muhimbili National Hospital, Mbeya Referral Hospital, Bugando Medical Centre and Kilimanjaro Christian Medical Centre. The reason for selecting these hospitals is that they are at the highest administrative level in the Tanzanian health system. Thus, they provide outreach services and conduct clinical supporting supervision to the lower-level hospitals in their respective zones. Therefore, their adoption and implementation of SHRM practices are more covered and advanced than the adoption and implementation of the same at the lower-level hospitals.

The study targeted a population of 1992 people, notably doctors, nurses, laboratory technologists, dentists and pharmacists (MoHSW, 2014). These were drawn from various departments including internal medicine, emergency outpatients, obstetrics and gynaecology, central pathology, dental, pharmacy, laboratories, paediatric, child health and nursing. Given the nature of respondents, the study used Yamane's formula ($s = n/ (1+ n (e)^2$ to obtain the sample size. So, a total of 333 participants were selected. The sample size was calculated at a 5% margin error and a 95% confidence interval in order to arrive at the maximum sample size. Given the requirements of a multivariate analysis of a large sample size (Nunnally, 1978), this sample size was considered sufficient. All the respondents selected were employees of the hospitals mentioned above.

The study adopted a sampling strategy suggested by Teddlie and Yu (2007), notably purposive-mixed-probability sampling. A multistage sampling technique was used to cluster the population into its respective clusters. Four zonal referral hospitals were picked purposively on the basis of the pyramidal nature of the Tanzanian health system. Then, more complex random sampling procedures were followed. Stratified random sampling was used to categorize the population into its respective strata consisting of doctors, nurses, laboratory technologists, dentists and pharmacists. In each stratum, respondents were selected using a simple random sampling technique.

Self-administered questionnaire based on the Likert scale of measurement was used to collect the data. The scale was used to measure the respondents' perceptions of the study constructs. After the data were collected, all the questionnaires were coded and entered into a computer for analysis purposes. The analysis was done using IBM SPSS software version 23. During and after data entry, both possible-code cleaning and contingency cleaning strategies were applied. Possible-code cleaning involved ensuring that only the codes assigned to the answer choices for each question appeared in the data. This was done by manually searching for the corresponding

codes of the questionnaire. Contingency cleaning involved ensuring that only the cases that should have data on a particular variable had such data. This was done by generating a frequency table and descriptive statistics for each variable and cross-checking all the items entered into the table. A descriptive analysis was done and the data were presented in frequency distribution tables. Inferential statistics were produced through a canonical correlation analysis (CCA) given the multivariate nature of the study constructs.

Reliability and validity were also considered key components in ensuring consistency and that tools measure what they are designed to measure. Taherdoost (2016) sees reliability as the consistency of data over time. By contrast, validity refers to the degree to which research tools measure what they are designed to measure (Neuman, 2013). Therefore, validity shows the truthfulness of results based on the correctness of the items measured. In this study, efforts were made to ensure that the research instruments were both valid and reliable. In this regard, the study used Cronbach's alpha to assess reliability and pre-tested the questionnaire for validity. Cronbach's alpha coefficients vary from 0 to 1, where 0 means there is no relationship between the items on a given scale and 1 means absolute internal consistency. To ensure validity of the instrument, researchers' construction was based on previous studies. Furthermore, some experts of HRM were consulted to ensure that there was a close fit between the constructs it supposedly measures and actual observations made with the instrument. The instrument was also pilot-tested to ensure that it adequately covered the themes and variables defined by the study and that the questions were clear.

Results

The first objective of this study was to examine the relationship between SHRM practices and the provision of quality health services. A canonical correlation analysis was conducted using four SHRM practices as predictor variables on five quality service delivery dimensions as criterion variables to evaluate the multivariate shared relationship between the two variable sets. As Table1shows, the results on the tests for the significance of canonical correlation between the variables indicated that the full canonical model across all functions was statistically significant, with Wilks's λ of 0.218, F (20, 1075.54) = 31.304, P < .001. Because Wilks's λ represents the variance unexplained by the model, 1 - λ yielded the full model effect size in a r^2 metric. Thus, with respect to the four canonical functions, the r^2 type effect size was 0.782 for the full canonical model (Table 1). This means that the full model explained a substantial portion, about 78.2% of the variance shared between the variable sets. This signifies that there is statistical significant relationship between SHRM practices and the provision of quality health services.

Table 1: Multivariate tests of significance

Test name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	0.837	17.311	20.00	1308.00	0.000
Hotellings	3.328	53.659	20.00	1290.00	0.000
Wilks	0.218	31.304	20.00	1075.54	0.000
Roys	0.765				

Source: Research data, (2019)

The canonical correlation analysis yielded four functions with canonical correlation coefficients of 0.875; 0.241; 0.109 and 0.048 and squared canonical correlations(R_C^2) of 0.765; 0.058; 0.012

and 0.002 for each successive function. The dimension reduction analysis allows a researcher to test the hierarchal arrangement of functions for statistical significance (Table 2). As already mentioned, the full model was statistically significant (function 1 to 4 and function 2 to 4), F (20, 1075.54) = 31.304, P < .001 and F (12, 860.16) = 2.040, P = .019, respectively. Function 3 to 4 and function 4 to 4 did not explain a statistically significant amount of shared variance between the variable sets, F (6, 652.00) = 0.778, P = 0.587 and F (2, 327.00) = 0.373, P = 0.689. Given the(R_c^2) effects for each function, only the first two functions were considered useful as they explained 76.5% and 5.8% of their variance within their functions. Root 3 to 4 and root 4 to 4 were discarded during the interpretation since they only explained 1.2% and 0.2% of the variance by themselves. That means, only two canonical functions are used to determine the contribution of each SHRM practice in the relationship between SHRM practices and the provision of quality health services. Therefore, basing on the two functions interpreted, there was a noteworthy relationship between the two variable sets evidenced by the level of significance, magnitude of the canonical correlation coefficients and the effect size.

Table 2: Canonical functions

Canonical function	Wilks's lambda	Canonical correlations	Squared canonical correlations	Significance of F
1 to 4	0.218	0.875	0.765	0.000
2 to 4	0.928	0.241	0.058	0.019
3 to 4	0.986	0.109	0.012	0.587
4 to 4	0.998	0.048	0.002	0.689

Source: Research data, (2019)

The second objective of this study was to determine the usefulness of each SHRM practice in the relationship in question. The standardized canonical function coefficients, structure coefficients, squared structure coefficients and communality coefficients in Table 3 were used for that matter. The standardized canonical function coefficients for function 1 on criterion variables indicated that empathy was the primary contributor in this relationship with tangibility, reliability, responsiveness and assurance making modest contributions to the synthetic criterion variable set. Further examination of the coefficients in question revealed that with the exception of tangibility which indicated an inverse relationship with professional development, other variables were positively related. This may imply that the more a hospital utilizes its resources for professional development purposes, the less likely it is to invest in physical facilities, equipment and tools needed to provide quality health services, all other factors being constant. Regarding the predictor variables in function 1, professional development was the primary contributor to the predictor synthetic variable set. The other variables including performance evaluation, employee compensation and supervision indicated modest function coefficients. Further examination of the coefficients showed that with the exemption of employee compensation, all the other predictor variables were positively correlated with the criterion variables with an exemption of tangibility which was inversely related.

In function 2, the results in Table 3 suggest that the criterion variables of great importance were assurance, reliability and responsiveness. The other variables indicated modest coefficients. The other side of the equation showed that performance evaluation and professional development were the main contributors to the predictor variate. The other variables including employee

compensation and supervision had a modest contribution. The structure coefficients of each variable in the synthetic predictor variable set, showed that professional development was the most important predictor variable and empathy was the primary contributor to the synthetic criterion variable set. In function 2, the main contributors to the synthetic predictor variable set were performance evaluation and employee compensation, and assurance, tangibility and reliability were the main contributors to the criterion variable set.

The squared structure coefficients for function 1 showed that the important criterion variables were empathy and assurance while for the predictor variables the most important variable was professional development. For function 2, the main criterion variables were assurance, tangibility and reliability while performance evaluation and employee compensation were the relevant predictor variables. As Table 3 shows, the communality coefficients for the criterion variable set revealed that with the exception of responsiveness, all the other criterion variables had a high proportion of variance that is above 45% (the highest level of usefulness in the canonical model). Similarly, all the communality coefficients for the predictor variables were above 45%. This indicates the highest level of variance across the canonical functions interpreted. The results suggest the expected relationship between SHRM practices and the provision of quality health services.

Table 3: Standardized weights and structure coefficients

	Function 1			**Function 2**			
Variables	**Coeff.**	r_s	r_s^2 **(%)**	**Coeff.**	r_s	r_s^2 **(%)**	h^2
Responsiveness	.019	-.019	.037	.471	-.145	2.111	2.147
Reliability	.037	-.019	.037	-.517	-.729	53.224	53.261
Tangibility	-.061	-.047	.221	-.326	-.745	55.459	55.679
Assurance	.001	-.090	.803	-.567	-.789	62.311	63.114
Empathy	.999	.999	99.706	-.067	-.014	.021	99.727
R_c^2			76.48			5.82	
Professional development	.929	.989	97.889	-.594	-.106	1.133	99.022
Employee compensation	-.383	.477	22.707	-.334	.809	65.417	88.125
Supervision	.066	.460	21.177	-.015	.519	26.915	48.092
Performance evaluation	.444	.524	27.446	1.439	.844	71.195	98.641

Source: Research data, 2019

Note:

Coeff = a standardized canonical function coefficient; r_s = a structure coefficient; $r_s^2 =$ a squared structure coefficient; h^2 = a communality coefficient; R_c^2 = a squared canonical correlation

The structure coefficients above 45%represent variables with the highest level of usefulness in the canonical model

The communalities above 45% represent variables with the highest level of usefulness in the entire analysis

Discussion of Findings

The findings revealed that there is a statistically significant relationship between SHRM practices and the provision of quality health services with 78.2% of the variance shared between the variable sets. The results further showed that professional development is the most influential variable in this relationship. The variable is positively related to responsiveness, reliability, assurance and empathy, but it is inversely related to tangibility. This implies that any change in professional development could directly or indirectly influence responsiveness, reliability, assurance and empathy. It also implies that proper management of professional development practices could improve employees' skills, knowledge and competencies and influence their attitudes and behaviour such as commitment, motivation and job satisfaction. The findings are similar to the findings of previous studies. For example, Abeguki et al. (2014) observed that professional development has a positive effect on the quality of work as it influences employees' knowledge, skills and self-esteem. In turn, this influence leads to higher individual performance.

The findings support the RBV assumption that, if internal resources (human resources) are managed effectively organizations can achieve their goals. The findings indicated that proper application of SHRM practices in the hospital could make employees provide quality health services. Practices such as PD can produce human resources with knowledge, skills and competencies necessary for enhancing the quality dimensions of responsiveness, reliability, tangibility, assurance and empathy. Likewise, the results support social exchange theory. That is, if employees think that the referral hospitals value and deal with them equitably, they will reciprocate these good deeds by doing good work. The professional development opportunities provided make employees see this as support from the employer and therefore, they become loyal, committed and satisfied. PD may stimulate innovation and creativity and may make employees come up with new ideas important for improving the quality of services.

The results further indicated that performance evaluation was the second most influential predictor variable of the relationship between SHRM practices and the provision of quality health services. It was positively related to empathy, reliability, responsiveness and assurance, but inversely related to tangibility. This suggests that PE can directly and indirectly influence employees' performance. In the hospitals, PE can make employees provide better health services. It further suggests that PE makes employees gain a good understanding of their weaknesses and strengths and increases their job satisfaction and motivation to provide better services to patients. The results are supported by Ademola (2017) who indicated that PE could be used to monitor employees' performance, motivate employees and improve their morale.

The findings revealed that employee compensation was also a very useful variable in the entire canonical model suggesting that as employees see fairness in compensation, they develop attitudinal and behavioural outcomes that influence their performance. This indicates that overtime allowances, house allowances, NHIF-performance payments, flexible working schedules and other non-financial rewards such as recognition improve employee's morale, satisfaction and commitment to the hospital goals. The findings are supported by Osibanjo et al. (2014) who note that effective compensation enables employees to acquire the necessities of life. In turn, this makes them work hard and provide quality health services.

Although the results indicated that supervision had moderate influence, it was still a useful variable in the relationship between SHRM practices and provision of quality health services. This suggests that good supervision is an indispensable factor in the hospitals. It creates satisfaction, commitment and enthusiasm among employees while at the same time reducing work-related stress. Supervisors ensure that material resources, tools and equipment are available so that the workers do their best to achieve the set goals. The results are consistent with the findings of Delano and Shah (2007), who observe that good supervision increases employees' self-confidence and makes them do their best so as to achieve the goals.

Conclusion and Implications

Over the past decades, organizations continuously search for strategies to improve their performance. This comes after it had been realized that human resources are the key resources for organizations to achieve their goals. SHRM practices are considered important strategies to improve performance of the organizations. However, the adoption and implementation of such practices particularly to the hospital industry has not been smooth to bring the intended results. Therefore, this study opted to examine the influence of SHRM practices on the provision of quality health services in Tanzanian referral hospitals. Specifically, the study sought to increase knowledge with respect to the application of SHRM practices to the health sector in Tanzania. Basing on the findings, the study affirms that there is a significant relationship between SHRM practices and provision of quality health services. Furthermore, results showed that the most important variables in this relationship are professional development, performance evaluation and employee compensation with supervision making moderate contribution in this relationship. The results showed that SHRM practices have ability to enhance quality dimensions of responsiveness, reliability, tangibility, assurance and empathy directly and indirectly. Hence, proper application of SHRM practices can enable referral hospitals provide quality health services. Therefore, referral hospitals should have a clear strategic direction and clear goals to improve application of SHRM practices in order to provide quality health services.

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