

The Effect of Innovative Culture on Performance of Public Hospitals in Embu County, Kenya

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Abstract

The government of Kenya has invested heavily in public health institutions and continues to do so, with a view to providing quality and affordable healthcare. Despite this, the performance of public hospitals continues to raise serious concerns about customer satisfaction, leading to many patients seeking alternative avenues of treatment. This study therefore sought to examine the effect of innovative culture on the performance of public hospitals in Embu County, Kenya. The study adopted a cross-sectional research design. A sample of 132 employees was selected from a target population of 437 employees drawn from the common departments in all the public hospitals in Embu County. Primary data were collected using a semi-structured questionnaire and analyzed using descriptive and inferential statistics. The results showed that the adjusted R² is 0.802. This shows that innovative culture contributed 80.2% to the performance of public hospitals in Embu County, while 19.8% was due to other factors not included in the study. It is recommended that innovative culture be encouraged in public hospitals by automation of services and more use of ICT, and embracing innovative ideas that help to improve efficiency and ultimately, performance.

Keywords: Innovative Culture, Performance, Public Hospitals.

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BACKGROUND OF THE STUDY

Public hospitals globally face performance issues, with most countries attempting to strike a balance between patient satisfaction and resource utilization while trying to improve efficiency (Mohammed & Amr, 2016). According to the World Bank Global Report (2018), improving performance in healthcare starts with improving policy-making and coordination processes. Furthermore, many countries implement sensible measures that fail to improve healthcare. Since persistent and serious service delivery problems in India could not be resolved by service provider regulation, the government intervened (World Bank, 2018). The Public Service Guarantee Act (PSGA) of 2010 set new cultural requirements for government employees, which enhanced performance.

According to WHO (2006), health worker shortages are disproportionately concentrated in African and Sub-Saharan countries.

These countries currently bear 24% of the global disease burden, but they have only 3% of the workforce in health and less than 1% of the global financial wealth to deal with it (WHO, 2006). Low incomes, poor working conditions, and inadequate health systems, among other factors, have contributed to migration. Low health worker density is a result of migration, as well as other causes such as low incomes, weak working conditions, and inadequate health services in Sub-Saharan African countries with the worst health indicators (Nair & Webster, 2013). Prakash (2016) asserts that to deal with the issues raised by the triple burden of disease and the ongoing infectious disease agenda of the twenty-first century, India's health system must be modernized as it is now overburdened. Both the newborn and maternal mortality rates (MMR and IMR) are still far too high in India. IMR is now forty per one thousand live births, according to the 2015 Sample Registration System (SRS) survey. Except for Pakistan, mortality rates are decreasing at a relatively slow pace in comparison to other South Asian countries.

According to Okeke (2008), many countries in Sub-Saharan Africa have experienced a brain drain of healthcare workers, especially doctors and nurses, from public health institutions. Many Sudanese health workers, especially doctors, have immigrated to developed countries, resulting in poor health outcomes (Okeke, 2008). This has been necessitated by a lack of functional regulatory policies on personnel resource management that promote a pleasant working atmosphere (Ibrahim, 2014). Poor healthcare performance is also linked to the population, which puts a strain on the limited services available, resulting in ill health and other social ills.

According to a WHO study from 2006, a healthcare system with sufficient, trained, and well-distributed human capital would aid in the treatment of diseases and other ailments. Empirical evidence suggests that when employees are devoted and adhere to the same standards and values as the organization, efficiency and target achievement will improve (Shahzad et al, 2012). The performance of Kenya's public hospitals is hampered by high labor turnover among healthcare staff across the country (KPMG International, 2013). According to the WHO report (2006), Sub-Saharan Africa comprises 36 countries, including Kenya, and is one of 57 countries worldwide facing a serious health workforce shortage.

Organizational Performance

Organizational performance, according to Daft (2000), is the capacity of the organization to achieve its objectives through the effective and efficient use of resources. Non-financial and financial metrics may be used to assess this (Kirkbesoglu & Ozder, 2015). The definition of

good organizational performance is multi-dimensional, encompassing multiple facets of business operations such as customer service, creativity, adaptability, change management, employee stewardship, and social responsibility (Oduor, 2015).

According to Korte (2013), underinvestment in the healthcare sector has resulted in bad working conditions, low-paying salaries, low worker satisfaction, poor results, and high labor turnover. Furthermore, many clients are unable to obtain healthcare facilities since most public hospitals are inefficient, resulting in healthcare inequity (Melitta, 2002).

Excessive controls, mismanagement, constant political intervention, and a multiplicity of values are all linked to poor performance (RBM Guide, 2005). According to a report by the Departmental Committee on Health in Kenya (2019) on the performance of Kenya's five National Referral Hospitals, the key issues affecting performance in these hospitals are insufficient funding, obsolete and inadequate equipment, a lack of expansion space, and staffing issues. In this study, performance was measured using efficiency, effectiveness, employee satisfaction, and customer satisfaction. It was conducted in one Level 5 hospital and four Level 4 hospitals in Embu County, Kenya.

Organizational Innovative Culture

Organizational culture is the attitudes and beliefs that establish standards for expected behaviors that employees may adhere to (Schein, 1992). These beliefs make a difference in how an organization performs (Stewart, 2010). One important resource in the service industry is organizational culture (Chan et al., 2004). Internal structure efficiency, increased innovativeness, increased cooperation with other organizations, and excellent customer service are all linked to a good culture. Bendak et al (2020), define innovation as the departure from existing knowledge, principles, products, and/or practices to newly created or significantly improved ones. They further say that changing organizational culture can enhance innovation and keep the organization ahead of its competitors. Deutschman (2004) posits that an innovative culture is characterized by innovation and vigor, with leaders seen as pioneers or innovators and workers encouraged to take risks. Innovative societies are adaptable and versatile, and they experiment with new concepts, resulting in improved results. He further states that experimentation, which emphasizes individual independence and imagination, holds the company together. Organizational culture, according to theorists Ostroff et al (2003), is one of the big obstacles in the implementation of technological advancement and exploiting new information. In this study, the variables used to measure innovative culture were: creativity, employee freedom, technology, flexibility, adaptability, and celebration of successes and failures.

Health Sector in Kenya

In Kenya, many healthcare facilities are managed by a range of groups, including the government, religious institutions, non-governmental organizations (NGOs), foreign organizations, and the commercial sector. According to the Kenyan health system, hospitals are classified into six levels as follows: Community services at Level 1, clinics and dispensaries at Level 2, health centers, maternity and nursing homes at Level 3, sub-county hospitals and medium-sized private hospitals at Level 4, and other services at Level 1. Level 5 refers to large private hospitals and those in counties; Level 6 refers to large private teaching hospitals in the country. In total, there are 7,795 of these facilities located around the nation. The majority of the facilities are owned by the government, which has 3,956 in total. The private sector is second with 2,652, followed by FBOs and NGOs with 881 and 306 facilities, respectively

(KHSSP, 2017). According to the Ministry of Medical Services, Health Facts and Figures, 2012, Kenya established a decentralized government in 2010 to realize Vision 2030 as well as the national health goals outlined in the 3rd National Health Sector Strategic Plan (NHSSP) and the Millennium Development Goals (MDGs). In the Kenyan context, it was anticipated that the establishment of a decentralized health system would increase service delivery efficiency, equity, and access, encourage innovation across the sector, and advance openness and accountability in care provision (Nyongesa et al., 2015). A study by Kaberia et al. (2016) in Kisii County revealed that health facilities in Kenya are fairly funded by county and central governments, and donors. The study showed that most people seeking health services are willing to pay for health care, but there was poor operational performance to improve the level of performance.

In Embu, where the study was conducted, there is one level-five hospital and six level-four Sub-County hospitals, which include: Runyenjes, Siakago, Kianjokoma, Kiritiri, Kairuri, and Ishiara. The County has opened more clinics and dispensaries, including the following, to increase access to and use of health services: Ngiori, Karurah, Kamweli, Kiogogo, Ciakanthukuri, Kanyangi, Kithunguthia, Nduuri, Malikini, Karurina and Kiriari (MOH, 2017). A study by Waititu (2021) established that the public health facilities in Embu County were characterized by scarcity of food, inadequate bed capacity, and shortage of medicines, leading to serious patient dissatisfaction. The research was conducted in the following hospitals in Embu County: Embu Level 5 Hospital and four Level 4 hospitals, specifically: Runyenjes, Siakago, Kianjokoma, and Ishiara. Sub-County Hospitals. This comprised a total of five (5) public hospitals in Embu County. Kiritiri Hospital was used to conduct a pilot study, whose results did not form part of the actual results of the research itself.

Statement of the Problem

The government of Kenya continues to invest heavily in public health with a view to providing quality and affordable healthcare. Despite this, inefficiencies within public hospitals remain profound, leading to customer dissatisfaction.

Government interventions, by incrementally allocating resources, with Kenya's public-health budget being at an all-time high of KES 146 billion (MoH, 2023), have yielded minimal results. Moreover, patient satisfaction in public hospitals is sustainably low, with outpatient turnaround time per patient averaging 3.2 hours. This is compounded by perennial drug-stock-outs reported in a majority of facilities (KNBS, 2022).

The persistent inefficiencies cost the government resources, diminish public trust, and, in extreme cases, lead to loss of lives. A majority of Kenyan studies have focused specifically on duration of service delivery, employee motivation, policy frameworks, and the role of politics in hospital management (Githae et al., 2019). These studies, however insightful, major on isolated aspects of organizational culture that contribute to the general performance of public hospitals.

This current study, therefore, sought to examine the effect of innovative culture on performance using health practitioners (employees) within public hospitals in Embu County, Kenya. Insights from this study will inform novel, actionable, and context-specific approaches in managing public hospitals.

Objective of the Study

To examine the effect of innovative culture on the performance of public hospitals in Embu County, Kenya.

Research Question

What is the effect of innovative culture on the performance of public hospitals in Embu County, Kenya?

Significance of the Study

By understanding organizational culture and public performance, health practitioners are guided in identifying client-specific dissatisfactions.

They are also informed on ways of aligning their service delivery, thus making them more responsive to customer needs. The findings are useful to the policy and lawmakers in the Ministry of Health in not only refining the existing regulatory frameworks but also formulating new ones. The county governments, a primary player in health care provision, are the immediate beneficiaries of the study. They are enlightened on the lessons and experiences that can be realized to improve and strengthen the performance of public hospitals. The study enriches the existing scholars who may be interested in undertaking similar or related studies.

Scope of the Study

The study examined the effect of organizational culture; innovative culture, bureaucratic culture, collaborative culture, and customer service culture on the performance of public hospitals in Embu County. Semi-structured questionnaires were used to collect primary data from one Level 5 hospital and four Level 4 hospitals: Embu Level 5 Hospital and Runyenjes, Kianjokoma, and Ishiara Level 4 Hospitals. The respondents were drawn from 5 key departments, namely: Outpatient, Pharmacy, Laboratory, Nutrition, and Administration. The sample size was 132, comprising Nurses (89), Doctors (13), Pharmacists (3), Administrators (2), Laboratory Technicians/Technologists (10), Nutritionists (2), and Clinical Officers (13). Data were collected in three months.

THEORETICAL LITERATURE REVIEW

The study was anchored on Chatman and Caldwell's Theory.

Chatman and Caldwell Theory

This theory was developed by Caldwell and O'Reilly Chatman in 1991. The theory defines the primary features of organizational culture as follows: risk-taking and inventiveness, focus on detail, result-oriented, people and team-oriented, aggressive, and stable. It was asserted that these characteristics are present at varying degrees within each organization.

After innovativeness, the second primary characteristic identified by Chatman and Caldwell (1991) is attention to detail, which indicates how important precision and detail are to a company. Chatman and Caldwell (1991) identified the production, outcomes, or success as the third primary characteristic of outcome orientation.

The other primary trait identified by Chatman and Caldwell (1991) was team culture and aggressiveness, which leads to a more cohesive team that achieves better results than individual efforts.

The primary characteristic of stability, according to Chatman and Caldwell (1991), is the organization's stable operations in terms of processes, systems, and policies that control the organization's daily actions. It refers to the group's unique identity and public image, which contributes to employee cohesion because of a shared group belief (Chatman & Jehn, 1994).

All aspects of the Chatman and Caldwell (1991) theory are relevant to this research: Innovation and risk are positively linked to enhancing organizational processes by means of experimentation and creativity. The study looked at innovative culture, to check its effect on the performance of the public hospitals in Embu County, Kenya. All these were measured to see how they contribute to the unique identity, public image, employee cohesion, and performance and the stability or performance of public hospitals.

Empirical Literature Review

Innovative Culture and Performance

Research indicates that IT capabilities and organizational innovativeness are direct precursors to organizational performance. Furthermore, innovativeness favorably moderates the impact of IT capabilities on organizational performance (Marchiori et al., 2022). Furthermore, Afcha et al. (2011) carried out numerous studies that highlighted the positive impact of innovativeness on operational efficiency or performance.

Vijaya (2023) researched Heart Disease Prediction using Clustered Genetic Optimization Algorithm in India. Experimental design and cluster sampling were used for data collection and the genetic optimization approach. The findings of the study revealed that digital medicine and health have ushered in a new era of scientific advancements, including certain mobile applications, wearable technology, and tele monitoring, remote patient monitoring, and digital platforms, and some other healthcare equipment to improve healthcare quality and responsiveness in almost any circumstance.

Mohammed et al. (2020) investigated the connection between organizational culture, innovation, and the success of Palestinian banks. The study, which involved 186 employees from the Palestinian banking sector, utilized the PLS-SEM approach for data analysis. The outcomes show that organizational culture and marketing innovation positively impact the growth of banks.

Lægreid et al. (2011) conducted a research study to investigate the innovative culture and activity of 121 Norwegian and Flemish state agencies, utilizing survey data analysis. They examined innovative culture and activity from various perspectives, including structural-instrumental, cultural-institutional, task-related, and environmental-institutional. The study's main findings indicated a relatively high level of innovation within state agencies. Additionally, an organizational culture focused on performance and individual incentives significantly influences both innovative culture and activity. The research also uncovered that result-oriented control indirectly impacts innovative activity.

Hanifah et al.(2019) conducted research focusing on the primary drivers of innovation performance: specifically, how SMEs in Malaysia can leverage innovation culture. The research delved into the impact of ambidextrous orientation and innovation strategy on

innovation culture, as well as how innovation culture can act as a mediator in the relationship between ambidextrous orientation, innovation strategy, and innovation performance. The results indicated that organizations with a strong ability to fund innovation initiatives experienced a 12 percent annual increase in business value and a 7 percent annual growth in gross profit over five years.

Bowen (2009) conducted a study on a meta-analysis of the relationships between organizational performance and innovation. The findings were that the relationship between innovation and performance has been uncertain. This is further supported by another study by Wolff (2007), which states that the amount of inputs that firms assign to the innovation process varies. The study revealed that cumulative inputs into the innovation process do not guarantee successful results. This is because the process of creating innovation is complicated and coupled with dangers. According to Zhang, 2011, even with some contradictory evidence, concepts and practical studies indicate that innovation and organizational performance are related.

There is a gap in the understanding of how performance and innovation interact and how they affect both organizational and personal success (Naranjo-Valencia, 2016; Kotler, 2003).

According to Gilson (2008) and Simonton (2000), innovativeness is widely believed to be necessary for both employee and organizational performance. Moreover, Rosen Busch (2010) indicated that organizations should allocate considerable resources to innovation development and turn them into creative offerings to avoid squandering resources and resulting in the failure of the organization. There is a discrepancy in the literature about whether innovation leads to efficiency or not. Most of the studies were carried out in manufacturing industries, banks, SMEs, and state agencies, and hardly in public hospitals. Most of the studies were conducted using experimental design, cluster sampling, and some genetic optimization. This study used random sampling and organizational culture-related theories.

RESEARCH METHODOLOGY

Research Design

The study adopted cross-sectional and explanatory research designs. Cross-sectional design is suitable when collecting data at a specific point in time. This aligns with the dynamic processes within public hospitals like workforce challenges, resource constraints, and restrictive policies. Moreover, the design enables the collection of data within a limited research participation time occasioned by the hospital operational procedures and the high workload characterized by public hospitals. Through the cross-sectional design, the study captured the current state of organizational cultures and performance, providing analysis of the association between the independent and dependent variables at a specific point in time. To complement the cross-sectional design, the explanatory research design provides causal mechanisms, deepening the understanding of organizational culture and performance in public hospitals in Embu County.

Target Population

The study targeted 437 healthcare workers working in public hospitals in Embu County. They included: Doctors, Nurses, Pharmacists, Administrators, Laboratory Technicians/Technologists Nutritionists and Clinical Officers. These are the top and middle level staff at the hospitals. They were seen to be in daily contact with the patients and the day-to-day running

of the hospital operations. The study excluded patients and other lower level staff like clerks, security personnel, messengers and cleaners. They were seen not to be in daily direct operations of the hospital and their contact with the patients is minimal. The patients were excluded from the study. It was considered inconvenient for them, tedious and biased to some extent. The healthcare workers were from one (1) level five hospital (Embu Level Five Hospital) and four (4) level four hospitals, namely: Runyenjes, Kianjokoma, Siakago, and Ishiara Sub-District Hospitals (MoH Embu County, 2019).

Table 1: Target Population

Category of Employee	Hospitals					Total
	Embu Level 5 Hospital	Runyenjes Level 4 Hospital	Kianjokoma Level 4 Hospital	Ishiara Level 4 Hospital	Siakago Level 4 Hospital	
Doctors	35	2	0	4	1	42
Nurses	210	27	11	37	13	298
Clinical Officers	20	7	3	8	5	43
Lab Tech	15	4	3	6	3	31
Admin Staff	3	1	1	1	1	8
Nutritionist	1	1	1	1	1	5
Pharmacist	5	2	1	1	1	10
Total	42	298	43	34	5	437

Source: MoH, Embu County (2019)

Sampling Procedure and Sample Size

The study included all five public hospitals in Embu County as the study sites. A 30% rule was used to select one hundred and thirty-two (132) respondents from a target population of 437. According to Mugenda and Mugenda (2003), a sample size of 10% to 30% of the target population is large enough for descriptive research, keeping the main features of the large group safe in the small group. Proportionate stratified random sampling was utilized to pick respondents from five departments, namely: pharmacy, administrative offices, laboratories, out-patient, and in-patient. The respondents were: Nurses (89), Doctors (13), Pharmacists (3), Administrators (2), Laboratory Technicians/Technologists (10), Nutritionists (2), and Clinical Officers (13).

Table 2: Sample Size

Category of Employee	Total No. Available	Multiplier 0.3(30%)	Sample Size	Percentage Sample size
Doctors	42	0.3	13	9.85%
Nurses	298	0.3	89	67.42%
Clinical Officers	43	0.3	13	9.85%

Lab Tech	31	0.3	10	7.57%
Nutritionists	5	0.3	2	1.52%
Pharmacists	10	0.3	3	2.27%
Administrators	8	0.3	2	2.4%
Grand Total	437	0.3	132	100

Source: Researcher (2024)

Data Collection Instrument

The study leveraged a semi-structured five-point Likert Scale questionnaire in collecting data. The questionnaire was organized into two parts: Part A and Part B. Part A captured background information of the respondents. Part B was subdivided into two sections based on the study variables.

The first sub-sections comprised questions related to the study objective(Independent Variable), while the remaining sub-section consisted of the questions of the dependent variable.

Validity Test of the Instrument

This study focused on examining the modified, tested, validated, and deemed suitable variables' items from previous research. Content validity was enhanced by ensuring that the literature reviewed and questions constructed fully reflect the themes, aspects, and variables that were under study.

Reliability of the Research Instrument

The reliability of the research instrument was determined by Cronbach's alpha and then the computation of the correlation coefficient of the questionnaire for each variable. The reliability of the instruments was set at a significance level of 0.7. Cronbach's alpha value of 0.7 and above is the recommended level in order to indicate reliability (Sekaran, 2009).

Prior to data collection, a pilot study was conducted in Kiritiri level-four hospital. Comparable to the other hospitals in Embu, Kiritiri hospital shares similar cultural, economic, and social characteristics. The hospital also has similar structures to the other Level 4 hospitals in Embu County, which made it possible to conduct the pilot study. The respondents were: Nurses, Doctors, Pharmacists, administrators, Laboratory Technician/Technologist, nutritionists, and Clinical Officers. These were seen to be in daily contact with the patients and the day-to-day running of the hospital operations. From the pilot study, a number of issues were pointed out: Three items of the questionnaire were found to be unclear or ambiguous, while two other questions under section B had been repeated. These were adjusted accordingly to give the questionnaire a clearer understanding by the respondents.

Data Collection Procedure

Following the approval of the proposal by the University Board of Postgraduate Studies, a research permit was obtained from the National Commission for Science, Technology and Innovation (NACOSTI). The research permit, alongside an introductory letter, was presented to the Embu County Ministry of Health office for further permission to carry out the study in the hospitals within the County. The County authorization permit was handy in introducing the researchers to the hospital management, who later extended the introduction to the respondents.

An appointment was then sought with the respondents through their various section heads two weeks before the data collection exercise.

Prior to the administration of the questionnaires, the study participants were enlightened on the purpose of the exercise and had the opportunity to raise any concerns, which were addressed accordingly. Each respondent was given a copy of the questionnaire and requested to fill it in within ten to fifteen minutes. The questionnaires were collected, verified, and kept safely for analysis.

Data Analysis and Presentation

The collected data were collated, coded, and entered into the Statistical Package for Social Science (SPSS, Version 28.0) for analysis. Descriptive statistics (Frequencies and percentages) were used to statistically describe the data. Inferential statistics of simple linear regression were utilized to determine the relationship between the independent and dependent variable. The findings are presented in table format.

Empirical Model

The research employed multiple linear regression to examine quantitative data in accordance with the suggestion of Cooper & Schindler (2022), who propose that linear regression is suitable for situations with one independent variable. The empirical model for the study is shown below:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where:

Y = Performance in public health institutions

X_1 = Innovative culture

β_0 = Constant

β_1 = Regression Coefficients of the independent variables, that is, X_1 , respectively

ε = Error term (comprises other factors not included in the study).

Ethical Considerations

According to Njue (2011), ethical observation in research helps the researchers treat participants as persons, human beings with feelings and not just as mere objects.

This study was keen to adhere to ethics and ensure the participants were treated with confidentiality and, at the same time, their welfare protected.

To carry out the study and collect data, the researcher acquired the following: an approval letter from the Graduate School, Kenyatta University, a permit from NACOSTI, approval from the Director, Medical Services, Embu, consent from participants, and assured the respondents of confidentiality.

The logistics of the study took ethical considerations into account. For this reason, ethics and logistics are closely intertwined (Palliat, 2008).

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The researcher administered questionnaires to 132 respondents from public hospitals in Embu County. Out of the questionnaires distributed, 120 respondents completed and submitted the questionnaire, resulting in a rate of response of 90.9%. This is consistent with the recommendation by Mugenda and Mugenda (2003) that data analysis requires a response rate of at least 70%. The results are shown in Table 3.

Table 3: Response Rate

Item	No.	%
Questionnaires administered	132	100
Questionnaires returned	120	90.9
Questionnaires not returned	12	9.1

Source: Researcher (2024)

Table 4: Demographic Characteristics of Respondents

Variable	Category	Frequency	%
Gender	Male	68	56.67
	Female	52	43.33
Total		120	100
Age Groups	20 - 29 yrs.	41	34
	30 - 39 yrs.	39	33
	40 - 49 yrs.	24	20
	50-59 yrs.	16	13
Total		120	100
Education Level of the respondents	Certificate holders	14	11.7
	Diploma holders	20	16.7
	Bachelor's degree holders	61	50.8
	Master's degree holders	13	10.8
	PhD holders	12	10
Total		120	100

Source: Researcher (2024)

From Table 4 on Demographic Characteristics, there were 120 respondents in the study. Out of these respondents, 68 (56.67%) were male, and 52(43.33%) were female. This shows that

there was gender parity and the one-third government gender rule under Article 27(8) of the Constitution of Kenya, 2010, of the government policy was fulfilled. The majority of respondents, 41(34.17%), were in the 20-39 years' bracket, with 39 (32.5%) in the 30-39 years' bracket. Only 24(20%) participants were in the 40-49 years' bracket and 16 (13.33%) in the 50-59 years' bracket. This showed that the majority of the workers were in the most productive stage in their lives.

Holders of Bachelor's degrees formed the majority of the respondents with 61(50.8%), Diploma holders with 20(16.7%), Certificate holders with 14(11.7%), holders of PhD and Master's degrees forming the least with 12(10%) and 13(10.8%) respectively. 86 respondents had a bachelor's degree and above. This means that they were the right respondents for the research.

Descriptive Statistics

Descriptive statistics were used to analyze the quantitative data.

Effect of innovative culture on performance of public hospitals in Embu County

The research aimed to determine the effect of an innovative culture on the performance of public hospitals in Embu County. Respondents were given questionnaires to fill and were gauged on their level of agreement with statements related to the influence of an innovative culture on the success of government hospitals in Embu, using a scale of 1-5 where: 1 is Not at All, 2 is Small Extent, 3 is Moderate Extent, 4 is Large Extent, 5 is Very Large Extent.

Table 5: Innovative culture

Statement	n	Min	Max	Mean	Std. Dev
Reminding patients appointment on SMS	120	1	5	2.53	1.098
Management encouraging employees to come up with new ways of performing tasks	120	1	5	2.82	1.136
Employees allowed to work from home	120	1	5	1.57	0.772
Employees enjoy breaks in between during working hours	120	1	5	2.69	0.782
Employees are allowed to take leave during the year for personal issues	120	1	5	3.23	0.845
Staff possess skills for the existing ICT infrastructure	120	1	5	3.14	0.851
Hospital embraces modern ICT for its operations	120	1	5	3.61	0.992
The ICT infrastructure has improved the performance of the Hospital	120	1	5	3.64	1.171
Rotation of employees from one department to another	120	1	5	2.38	0.879
Hospital sets aside days for celebrating her success during the year	120	1	5	2.54	0.873
The Hospital rewards individual employee	120	1	5	2.95	0.951

achievements

Overall Aggregate	3.42	1.821
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Source: Researcher (2024)

Based on the data presented in Table 5, it can be observed that the statement regarding employees being allowed to work from home had the lowest mean score of 1.57, with a standard deviation of 0.772. This indicates that respondents only slightly agreed with this statement and had similar opinions. On the other hand, the statement about ICT infrastructure improving the performance of public hospitals in Embu had the highest mean score of 3.64, with a standard deviation of 1.171.

This suggests that respondents largely agreed with this statement and had varying opinions. The overall aggregate mean score was 3.42, with a standard deviation of 1.821, indicating that respondents moderately agreed with statements related to innovative culture, but had differing views.

Performance of Public Hospitals in Embu County

The respondents generally concurred with most of the statements to a moderate degree and shared similar perspectives. The statement that received the highest mean score, 3.85, with a standard deviation of 0.908, indicated that the hospital's service charter is strategically positioned for guidance to the clients. This suggests that the respondents largely agreed and held similar opinions. The overall mean score was 3.53, with a standard deviation of 1.079. This indicates that all respondents moderately agreed with statements concerning customer service culture, but their views were varied.

Table 6: Performance of Public Hospitals in Embu

Statements	N.	Min.	Max.	Mean.	Std. Deviation
The system at the hospital is automated, clear, easy, and functional	120	1	5	3.3333	0.89789
Most outpatients are served within an hour or less unless it is a complicated case	120	1	5	3.1034	0.95277
The hospital records very few complaints from patients	120	1	5	3.1034	1.03468
Employees have a channel through which they escalate their issues at work for action	120	1	5	3.3448	0.80446
The hospital is rated highly in performance in the region	120	1	5	3.4713	0.98641
Transfers to other hospitals from the hospital are straightforward	120	1	5	3.2299	1.04215
Aggregate Overall				3.2824	0.95006

Source: Researcher (2024)

From Table 6, the statement with the lowest mean score, i.e., 3.103 with a standard deviation of 0.952, was that most outpatients are served within an hour or less unless it is a complicated case. The respondents generally concurred to a moderate degree and shared similar perspectives. The statement that received the highest mean score, specifically 3.471 with a standard deviation of 0.986, indicated that public hospitals in Embu are highly regarded for their performance in the region. This suggests that the respondents largely agreed and held similar opinions. The overall mean score was 3.28 with a standard deviation of 0.95, signifying that all respondents moderately agreed with the statements concerning performance and shared similar viewpoints.

Inferential Statistics

The study used simple linear regression for the analysis of the quantitative data. From Table 6, the $F(4,120)$ statistic was 124.30 with a P value of $.000^b < 0.05$. The model utilized was deemed statistically significant, indicating its suitability for statistical analysis.

Table 7: Results of Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.901 ^a	0.811	0.802	0.32081

a. Independent Variable:(constant): Innovative culture.

b. Dependent Variable: Performance of public hospitals in Embu County, Kenya.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.294	4	9.074	124.30	.00 ^b
	Residual	8.439	115	0.073		
Total		44.733	119			

a. Dependent variable: performance

b. Independent variable: (Constant): innovative culture

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig.
1		B	Std. Error	Beta		
	(Constant)	0.400	0.164		2.443	0.017
	Innovative culture	0.297	0.080	0.270	3.714	0.000

a. Dependent variable: performance

b. Independent variable:.(Constant): innovative culture

Source: Researcher (2024)

From Table 7, the adjusted R² is 0.802. This means that the independent variable that is: innovative culture, contributed 80.2% to the performance of public hospitals in Embu County, while 19.8% was due to other factors not included in the study.

Based on Table 7, the regression coefficient for innovative culture is 0.297 with a p-value of 0.00<0.05, indicating a statistically significant positive impact on the performance of public hospitals in Embu County. A one-unit increase in innovative culture would result in a 0.297 increase in hospital performance.

The study established that innovative culture had a positive statistically significant effect on the performance of public hospitals in Embu County. These findings are in line with Yidaan and Nyeya (2022), who established that there was a significant relationship between organizational culture and performance. The study corroborates that of Grant and Shamonda (2013), which found that organizations that had a high capacity to finance innovation programs saw an increase in their business value by 12 percent faster per year, and their gross profit grew by 7 percent per year over five years.

These findings can be represented by the equation model:

$$Y = 4.1 + 0.297X_1 + \epsilon,$$

Where Y represents the performance of public hospitals,

X₁ represents innovative practices, and ϵ accounts for other unexamined factors.

SUMMARY OF THE FINDINGS

The study was carried out to investigate the effect of innovative culture on the performance of public hospitals in Embu. The study targeted 437 employees of public hospitals in Embu, while the size of the sample was 132 staff. The study used a descriptive research design.

The study used a cross-sectional and explanatory design. The data were analyzed using descriptive and inferential statistics. The study established that innovative culture had a positive statistical significant effect on the performance of public hospitals in Embu County.

STUDY CONCLUSION

Based on the study's findings, it is evident that innovative culture has a positive significant effect on performance. Most of the public hospitals in Embu County have embraced ICT functions in most of their operations, among other innovations.

Study Recommendations

The study recommends that innovative culture be encouraged in public hospitals and other organizations to improve performance. ICT and automation of services are one such innovation that should be given priority by the government and other policymakers to ensure that the country is moving with the current global economic trends. ICT innovations will help the country to thrive in the industrialization sector, thus reducing the costs of importation and helping in the creation of employment for the unemployed yet skilled. Innovation may also be improved by rewarding innovative employees and giving them freedom to participate in policy-

making and key decisions at whatever level. Flexibility of working hours for employees is important as it will allow staff time to have enough time to build their careers and innovations. It is recommended that the celebration of success is key in encouraging innovativeness.

Suggestion for Further Research

The researcher suggests that studies can be conducted on the other culture types and check their effect on performance in other different organizations or public hospitals.

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