ADAPTIVE LEADERSHIP, AFFECTIVE COMMITMENT AND INDUSTRIAL HARMONY IN KENYAS' DEVOLVED PUBLIC HEALTH SECTOR

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RESEARCH THESIS SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE CONFERMENT OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN HUMAN RESOURCE MANAGEMENT OF KARATINA UNIVERSITY

OCTOBER, 2023

DECLARATION

Declaration by the Student

This research thesis is my original work and has not been presented for conferment of a degree in any other University or for any other award.

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Declaration by Supervisors

We confirm that the work reported in this research thesis was carried out by the candidate under our supervision and has been submitted with our approval as the university supervisors.

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DEDICATION

I dedicate this thesis to God the father for His immense grace that enabled me to carry out this work. I also dedicate it to my mother Grace Wangui Waweru, my wife Emily Njeri Mwangi and my children Benson and Claire for the moral support, prayers and encouragement that they gave me while undertaking this study.

ACKNOWLEDGEMENT

First and foremost, I wish to acknowledge the almighty God for giving me the opportunity, strength and courage to carry on with this work. Secondly, this work could not be in its current shape and content without the contribution and dedicated guidance from my supervisors; Dr. Ann Kariuki and Dr. Edward Mburu. Their commitment is greatly appreciated. Special thanks to the management of Karatina University, the School of Business, the Post Graduates Board and the other departments for availing the opportunity, the resources and human resources that contributed immensely to the development of this thesis. Appreciation also goes to my classmates, whom we have worked with and supported each other throughout this undertaking. I appreciate the contribution made by my research assistants Mr. Nickson Karanja and Nancy Kisoi who were very instrumental during data collection. I wish to acknowledge the almighty God for giving me the opportunity, strength and courage to carry on with this course. His grace was sufficient for me all through. My sincere appreciation to the County Executive Officers, Medical Superintendents (MS), Kenya Medical Practitioners and Dentists Union (KMPDU) and Kenya National Union of Nurses (KNUN) officials for granting permission as well as taking part in this study. Without your support this study would not have succeeded. My appreciation also goes to all the respondents who took part in this study.

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LIST OF ABBREVIATIONS AND ACRONYMS

CES-Health:	County Executive Secretary in charge of Health
CoK:	Constitution of Kenya
Covid-19:	CoronaVirus Disease of 2019
GDP:	Gross Domestic Product
CBA:	Collective Bargaining Agreement
CEREB:	Central Region Economic Block
CVI:	Content Validity Index
EAC:	East African Community
EPDM:	Employee Participation in Decision Making
EU:	European Union
HCWs:	Healthcare Workers
HR:	Human Resource
HRH:	Human Resources for Health
KHFA:	Kenya Harmonized Health Facility Assessment
KLRC:	Kenya Law Reform Commission
KMTC:	Kenya Medical Training College
KMPDU:	Kenya Medical Practitioners, Pharmacists and Dentists Union
KNBS:	Kenya National Bureau of Statistics
KNUN:	Kenya National Union of Nurses
MOH:	Ministry of Health
MS:	Medical Superintendent
NACOSTI:	National Commission for Science, Technology and Innovation

NCDs:	Non-Communicable Diseases
NHS:	National Health Service (NHS)
OQM:	Organizational Commitment Questionnaire
PPE:	Personal Protective Equipment
R&D:	Research and Development
SDG:	Sustainable Development Goals
SPSS:	Statistical Package for Social Sciences
USAID:	United States Aid
UK:	United Kingdom
VIF:	Variance Inflation Factor
WHO:	World Health Organization

ABSTRACT

A harmonious workplace that guarantees satisfaction of workers and employers' aspirations is essential for enhanced services provision in Kenya's devolved public health sector. Since the devolution of healthcare services in 2013, the devolved public health sector has been affected by frequent and often localized health workers' industrial actions. These industrial actions have an effect not only on the citizens well-being but also affects the economic growth of the country. The general objective of this study was to determine the influence of adaptive leadership on industrial harmony mediated by affective commitment in Kenya's devolved public health sector. The specific objectives of the study were; to determine the influence of collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning and leaders' relational authenticity on industrial harmony and to examine the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenya's devolved public health sector. The study was guided by three theories namely; Attitudinal Commitment Theory, Experiential Learning Theory and Social Exchange Theory. To achieve these objectives, the study used pragmatic research paradigm. The study research design was concurrent mixed methods research methodology. The target population for this study was 3,355 health workers in level 5 County referral hospitals, in the Central Economic Regional Bloc (CEREB). The study selected 351 respondents using stratified random sampling. In addition, 10 Medical Superintendents (MS), 10 Secretary Generals from Kenya Medical Practitioners and Dentists Union (KMPDU) and Kenya National Union of Nurses (KNUN) were selected for participation in the study through purposive sampling. The research instrument was tested for validity using content validity, criterion validity and construct validity and for reliability, using Cronbach alpha coefficient. The pilot study was carried out at Karatina Level 4 Hospital in Nyeri County as the cadre of staff employed in level 4 hospitals are similar and with almost similar facilities as those of level 5 hospitals. Data analysis involved both qualitative and quantitative analysis. Qualitative data collected through the interview guide was analyzed using content analysis technique. Quantitative data collected using the questionnaire was analyzed using descriptive and inferential statistics. Descriptive statistics comprised means and standard deviation while inferential statistics comprised simple linear regression and multiple regression analysis. The study established that collaborative stakeholder engagement had a positive and significant influence on industrial harmony (β=1.255, p-value=.000); that employee involvement in decision making had a positive and significant influence on industrial harmony (β=.939, p-value=.000); that continuous organizational learning had a positive and significant influence on industrial harmony (β=1.093, p-value=.000); that leaders' relational authenticity had a positive and significant influence on industrial harmony (β=.703, p-value=.000). Collaborative stakeholder engagement had the highest influence explaining 18.5% of industrial harmony. It was followed by continuous organizational learning at 14%, employee involvement in decision making at 10.3% and finally leaders' relational authenticity at 5.8%. Affective commitment was found to have a positive and significant mediating influence on the relationship between adaptive leadership and industrial harmony (β=.141, p-value=0.018). The study concluded that collaborative stakeholders' engagement, employee's involvement in decision making, continuous organizational learning, leaders' relational authenticity and affective commitment enhanced industrial harmony in the Kenya's devolved public health sector. The study recommends the expansion of the workplace stakeholders engagement systems, strengthening of suggestion schemes and brainstorming sessions and that more efforts be put in creating, retaining and transferring knowledge within the sector. It further recommends setting up of high moral and ethical standards among managers and that employees should be part and parcel of the team(s) that develop strategic plans and policies in the sector so as to encourage co-ownership of sector goals and objectives. This research contributes to the body of knowledge by providing a model of determining the level of industrial harmony given the influence of affective commitment and adaptive leadership.

CHAPTER ONE

INTRODUCTION

1.0 Chapter Overview

This chapter presents the background of the study, statement of the problem, research objectives, research hypothesis, significance of the study, scope of the study, limitations of the study, operational definition of terms and assumptions of the study.

1.1 Background of the Study

The life of citizens and by extension the economy depends largely on an effective and efficient health care system (Waithaka *et al.,* 2020). Work stoppages involving health workers have the potential to significantly disrupt operations, with potentially serious consequences on patients (Shitsinzi, 2015). Sustainable Development Goal 3 (SDG 3) prioritizes health and well-being of the people. SDG 3 aims at ensuring healthy lives and promoting the well-being for all, at all ages. Health and well-being are important at every stage of one's life. However, statistics show that at least 3.9 billion of the worlds' population cannot obtain essential health services and the situation is worse in developing countries (WHO, 2017).

Industrial harmony in the public healthcare institutions is a critical component of quality service delivery but many health service providers have struggled to operationalize it in practice. It is a state of relative peace and stability which involves trust among work groups, employee – management understanding as well as absence of discontent between members of an organization (Bassey *et al.,* 2017). It is concerned with the relationship between management and employees with respect to the terms and conditions of employment at the

workplace (Puttapalli & Vuram, 2012). According to Kuluski, Reid and Baker (2021) public healthcare institutions face immense pressure in terms of service quality expectations and ability to create a favorable working environment for their employees.

Industrial conflicts usually arise due to a breakdown in negotiation as well as disagreements between the employer(s) and the employees and connote a temporary stoppage of work resulting from the pursuance of grievance(s) by a given group of workers or when two or more parties have opposing attitudes of approaches to a particular situation, issue, or person (Osakede & Ijimakinwa, 2014). Nwabueze (2014) noted that while no health worker likes to engage in industrial action contravening the Hippocratic Oath, they nonetheless do it as a means to demonstrate their grievances related to their well-being, terms and working conditions.

Industrial action includes a cessation of work or a refusal to work or to continue to work by employees, in combination, in concert or in accordance with a common understanding, a slowdown of work, demonstrations, picketing and work-to-rule or other concerted activity on the part of employees in relation to their work that is designed to restrict or limit output (Adebayo *et al.,* 2010). Bassey *et al.,* (2017) opined that issues of industrial disharmony between employees and employers are common in the public health sector.

Health Care Workers (HCWs) industrial actions have become a global phenomenon with increasing incidences in many countries and the potential to impact on the quality of healthcare service delivery and the doctor-patient relationship which is based primarily on the fiduciary duty of trust (Chima, 2013). Employees taking part in industrial action may face loss of income, job insecurity and emotional distress plus long hours of work for those

who choose not to participate in industrial action (Russo *et al.,* 2019). Despite the demands made, health workers involved in industrial actions are left disfranchised and hence re-think about their occupation within the country or outside the country as result of lack of confidence and trust in health sector management teams (Ibezim, 2013). Industrial actions also disturb the economic, social and political life of a country (Raj & Rajakrishnan, 2014).

Industrial actions are global phenomena. Weber and Nevala (2011) established that industrial actions have been experienced in the health care sector across Europe. In some cases, industrial action has been the result of disputes affecting either the whole public sector or the health sector as a whole. In the United Kingdom, Cylus *et al.,* (2015) noted that effective adaptive leadership is vital for efficient healthcare service delivery for a country spending 8% of GDP on healthcare. This kind of leadership has to be truly effective, and must involve all clinical professions. However, issues of industrial disharmony among healthcare workers still characterize the UK public health sector (Bassey *et al*., 2017).

In the United States, health workers' industrial actions are some of the major concerns in the public health sector. In 2020; 2,800 nurses in Pennsylvania, Washington DC, New York, and California went on industrial action protesting against the lack of Personal Protective Equipment (PPE), low pay, and understaffing that resulted in them working extended hours while taking care of Covid-19 patients (Lee, 2021).

In South Korea, despite the advanced public health care system, industrial action is still witnessed among healthcare workers which is attributed to perceived poor leadership and

management of public hospitals. Major causes of industrial actions among health care workers in South Korea have been linked to leadership and management of the public hospitals (Lee, 2021). In India, industrial actions are rampant among public healthcare workers. Iyengar, Jain and Vaishya (2020) attributed industrial actions among health workers as due to lack of adaptive leadership in the changing working environment, low commitment to service tasks among health workers, poor salaries and access to medical facilities.

In Africa, industrial actions are a common occurrence in many countries. In South Africa, industrial actions among health workers have been linked to weak leadership and management of the public hospitals as well as pay and access to medical facilities (Rikwe, 2018). Poor healthcare leadership and management were cited as the most common causes of healthcare workers' industrial actions at 92% (Dhai & Mahomed, 2018). Ani, Goodman and Dyages (2019) linked industrial action in Nigeria to inefficient and ineffective leadership and management, gross underfunding, shortage of skilled medical personnel and low commitment to quality health service delivery by health workers.

Tanzania reported 63 industrial action cases in 2019 by workers in public hospitals. Disharmony was attributed to poor leadership and management of the hospitals (Russo *et al.*, 2019). In neighboring Uganda, reported industrial actions were thirty-seven in 2017. The causes of industrial actions were linked to style of leadership and governance driven by lack of commitment to healthcare workers' issues (Zang, Fink & Cohen, 2021).

Kenya has experienced many and longer health workers' industrial actions in its history before and after devolution in 2013. Between 2013 and 2016 there were six nation-wide industrial actions and many more regional industrial actions (Irimu, Ogero & Mbevi, 2018). These include that of doctors in 2017 which lasted 100 days and the nurses' one that lasted 140 days being a total of 240 industrial action days in a span of 11 months (Tsofa *et al.,* 2017). There have been many more health workers' industrial actions across counties in Kenya through the years 2018-2020 (Waithaka *et al.,* 2020). The inability of the county governments to prevent industrial actions from occurring or escalating is a demonstration of their limited leadership capacity to manage and negotiate industrial disputes (McCollum *et al.,* 2018). Industrial actions among health workers have been tied to poor pay, lack of access to medical equipment and poor leadership and management of the hospitals (Sitienei, Manderson & Nangami, 2021).

In a bid to streamline the public health sector in Kenya, the 2010 constitution provided a legal framework that guaranteed all-inclusive rights-based approach to health service delivery by devolving health care services to counties (Constitution of Kenya, 2010, County Governments Act No. 17 of 2012, Kenya Health Policy; 2012-2030). These measures however appear not to have streamlined health care services with the issue of industrial disharmony and ineffective healthcare service delivery still featuring in Kenya's devolved public health sector (Waithaka *et al*., 2020). From the synthesis of literature in the healthcare sector across countries, industrial disharmony has been linked to poor organizational commitment and leadership inefficiency, though this is yet to be investigated in the context of the Kenyas' devolved public health sector.

1.1.1 Industrial Harmony

Industrial harmony is a situation where the employees and the management cooperate willingly for the organizations' commercial objectives and the employees' benefits (Kinzley, 2018). According to Bassey *et al*., (2012) industrial harmony is a state of relative peace and stability which involves trust among work groups, employee – management understanding as well as absence of discontent between members of an organization. It is concerned with the relationship between management and employees with respect to the terms and conditions of employment at the workplace (Puttapalli & Vuram, 2012). Industrial harmony covers the following areas of cooperation: industrial democracy, employee loyalty, communication and consultation, shared vision and responsibilities (Onyeizugbe *et al.,* 2018).

According to Kinzley (2018) industrial harmony requires that people in management understand their responsibilities and possess the requisite training and authority to discharge them. Employees must understand their duties and responsibilities and be abreast with the organizational objectives and make progress towards achieving them (Adekunle, Abimbola & Ehimen, 2019). There should therefore be effective interchange of information between management and employees, a phenomenon that requires effective adaptive leadership.

Employees through trade unions ought to work together with employers in establishing effective procedures for negotiations on terms and conditions of service, and conflict resolution (Kinsley, 2018). Employers should ensure that they honour agreements with employees as failure to do so may result in agitation by employees expressing their

demands (Chukwuka, 2013). Dis-harmony at the workplace usually occurs when employees perceive management as being exploitative, nonchalant about their work conditions and also without regard for their opinion or efforts. Igbaji (2009) observed that conflicts arise between workers and managers chiefly because of their differing ideologies and opposing interests. The disharmonies at the workplace arise when there is deviation from the expectation relating to the terms and conditions of work especially when it affects the employees (Alkerman & Torenvlied, 2017).

According to Bhuiyan and Machowski (2012), lack of industrial harmony in the public health sector is experienced globally, but the effects have been argued to be worse in low and middle-income countries because the health sector remains under-resourced in terms of facilities, funding and healthcare personnel. Many scholars have studied drivers of industrial harmony identifying some research gaps for further studies. A study by Asif *et al*., (2019) on adaptive leadership, affective commitment, work engagement, and creativity focusing on Chinas' health sector revealed that affective commitment partially mediates the relationship between adaptive leadership and workplace harmony.

The results by Asif *et al*., (2019) concur with attitudinal commitment theory that argues that organizational commitment through workers' desire cultivates workplace harmony. However, Chin (2014) studying the effect of adaptive leadership on the relationship between affective commitment and workplace harmony indicated that affective commitment does not mediate the relationship between adaptive leadership and workplace harmony in Chinas' health sector. The results indicate that there is no consensus on the

influence of affective commitment on the relationship between adaptive leadership and workplace harmony among scholars.

1.1.2 Adaptive Leadership

In adaptive leadership, the leader must encourage the follower to adapt to issues and challenges confronting the temporary or permanent organization (Heifetz, Linsky & Grashow, 2009). Adaptive leadership embraces complexity and ambiguity in situations, is authentic, embraces complexity and actively pursues innovative solutions through organizational learning, creative problem solving, experiments and collaboration with the leader taking a positive role and, at the same time, facilitating teamwork through the development of a robust interactive arrangement with the team members (Kezar & Holcombe, 2017).

According to Doyle (2017), adaptive leadership is the intersection of people as the core strategy for problem-solving. The intersection of people as the core strategy is the leader taking a positive role and, at the same time, facilitating teamwork through the development of a robust interactive arrangement with the team members. Adaptive leaders navigate through the business environment, embrace uncertainty, and encourage the organization to look for new approaches, lead with empathy and create a team attitude instead of an atmosphere of divide and conquer (Kezar & Holcombe, 2017).

Adaptive leaders learn through self-awareness and encourage experimentation; some experiments will fail, but those failures can serve as lessons for the future. Adaptive leaders create win-win situations and value platforms for cooperation and build on them (Mulder,

2017). To enable, public health institutions to deliver high-quality care for all, effective adaptive leadership is vital at every level within a participatory approach (Cyrus *et al.,* 2015). Often, organizations face new problems termed as adaptive problems in the sense that they are not well defined and hence, the solutions are not known in advance (Kezar & Holcombe, 2017). Alhosis (2019) argued that the dynamic work environment necessitates rational adaptive leadership qualities.

According to Awee *et al.,* (2014) and Donkor, Dongmei and Sekyere (2021) adaptive leadership is likely to build employees affective commitment to the organization. The core of adaptive leadership is the people-centric model, which encourages leaders to address complex and challenging issues by involving stakeholders (Doyle, 2017). Adaptive leadership is managing, with the involvement of team members and stakeholders, consequential changes in an uncertain environment with limited solutions available (Mulder, 2017; Wong & Chan, 2018).

Adaptive leaders are keen in diagnosing what the problems are, defining them carefully, and finding appropriate solutions. Klonsky (2010) identified psychological courage, wisdom-in-action, emotional competence, core values, relational authenticity, compassionate truth-telling, paradoxical tensions, narrative and content analysis as core constructs of adaptive leadership. Disharmonies in the work place require adaptive leaders who can create an environment in which employees and leaders combine efforts in solving emerging problems (DeRue, 2011). However, critics of adaptive leadership state that even though it is effective for organizations planning for change, many organizations are actually resistant to an adaptive leadership approach (Yukl & Mahsud, 2010).

In the Kenyan context, most studies have focused on effect of adaptive leadership on organizational performance and employee performance and few studies have attempted to investigate the effect of adaptive leadership on industrial harmony with the mediating effect of affective commitment (Sitienei, Manderson & Nangami, 2021; Agunga, 2018). Empirical review has shown that despite the many studies that have been done on affective commitment and industrial harmony there is still inadequate information on the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector (Thuku *et al.*, 2020; Wanjau *et al*., 2021).

1.1.3 Affective Commitment

Securing employees' affection and subsequently, demonstrated commitment is a rising concern emerging in organizational development and human resource development practice (Bal, Kooij & De Jong, 2013). Dey (2012) conceptualized affective commitment as an employees' emotional attachment to, identification with, involvement in and enjoying membership in an organization and that it influences personal characteristics, structural characteristics, and work experiences. Affective commitment has been argued and shown to be more strongly and more consistently associated with organizational-relevant and employee-relevant outcomes (Asif *et al.,* 2019).

Awee *et al.,* (2014) and Donkor, Dongmei and Sekyere (2021) noted that affective commitment to an organization is linked to the type of leadership displayed by the management of the organization. Studies into the conceptualization, measurement, and theoretical framework of organizational commitment are varied, but the most widely

accepted model remains the Meyer and Allen (1991) three-component model (Llobet & Fito, 2013; Gatling, Kang & Kim, 2018). Meyer and Allen conceptualized commitment as a psychological state, or mind-set, which increases the likelihood that an employee maintains membership in an organization.

They defined organizational commitment as comprising of affective commitment (desire to remain and emotional attachment), continuance commitment (recognition that there are costs associated with leaving the organization), and normative commitment (sense of obligation/duty to remain in the organization) and argued that employees can experience varying combinations of all three mind-sets simultaneously (Balassiano & Salles, 2012).

Affective commitment captures how employees experience a sense of belonging within an organization (Contreras-Pacheco *et al.,* 2020). It contributes to a mind-set that involves a cognitive recognition that there is an important purpose in what one does in an organization characterized by a desire to follow a course of action and exert effort to achieve organizational goals (Nkhukhu-Orlando *et al., 2019*). Increasingly, leaders in modern organizations are tasked with attracting, cultivating and retaining talent with the skills and capabilities to maintain a firms' competitive advantage (Albrecht & Marty, 2020).

Research has also shown that human resource (HR) practices that affect levels of affective commitment also include recruitment and selection, socialization, mentoring and social networking as well as training and development. Morrow (2011) demonstrated that work experiences such as socialization, high commitment human resource practices and interpersonal relationships positively correlates with high levels of affective commitment. Different authors have used different measures of affective commitment including

organizational support (Allen & Shanock, 2013), work experience and trust (Bal, Kooij & De Jong, 2013) as well as contentment (Mercurio, 2015). Studies corroborate the finding that employees' perceptions of, access to, and involvement with organizational practices have an effect on an individuals' level of affective commitment (Allen & Shanock, 2013).

The extent to which employees feel psychologically attached to their workplace has been shown to relate with increased employee satisfaction, performance, citizenship behaviors, decreased absenteeism and turnover (Breitsohl & Ruhle, 2013). There is a growing interest among researchers in public administration in understanding how employees in government agencies become psychologically attached to their workplace (Hassan & Rohrbaugh, 2011). Contentment among employees defines work happiness in the organization and if an organization only emphasizes on the economic contract, ignoring the psychological contract, employees often manifest lower satisfaction (Breitsohl & Ruhle, 2013). On the other hand, if the employees' psychological expectations and economic aspirations are met, they tend to experience satisfaction and are willing to stay in such an organization (Davila & Garcia, 2012).

Abdullah, Ling and Ping (2017) noted that workplace happiness has successfully become a significant predictor towards affective commitment. Semedo, Coelho and Ribeiro (2019) further argued that employees' happiness and affective commitment are central to helping organizations meet competitive challenges and take advantage of the opportunities that arise.

1.1.4 Kenyas' Devolved Public Health Sector

The 2010 Constitution of Kenya (CoK) ushered the devolution of healthcare services to the counties to support an all-inclusive healthcare access for all Kenyans (Munywoki *et al.,* 2020). The CoK provided a legal framework that guarantees an all-inclusive rights-based approach to health service delivery for all Kenyans. The health sector was the largest service sector to be devolved under this new governance arrangement (Masaba *et al.,* 2020). The rationale for devolving the healthcare sector was to allow the County Governments to design innovative models and interventions that suited the unique health needs in their contexts (Kimathi, 2017). The 2010 Constitution provides that all citizens are entitled to the highest attainable standards of health, which includes the right to healthcare services including reproductive health care (Article 43).

To actualize these rights, the constitution divided the healthcare responsibilities between the National and County Governments. The fourth schedule of the Constitution provides specific guidance on which services the County and National Governments are to provide (CoK, 2010). Essential health service delivery is assigned to County Governments, while the National Government retains health policy, technical assistance to counties, and management of National Referral Health facilities (Masaba *et al.,* 2020). The counties are responsible for three levels of care: community health services, primary care services and County referral services which consists of levels 1, 2, 3, 4, 5 hospitals in Kenya devolved public health sector. The National Government has responsibility for National referral services (GoK, 2013).

While these two levels of government are distinct in the sense that each exists separately and have their own competencies, they are at the same time interdependent and must conduct their relations on the basis of consultation and cooperation. Counties enjoy some degree of autonomy and, while the National Government has some supervising role, this is very limited and exercisable rather sparingly. Counties enjoy the competence to establish offices and appoint officers (County Governments Act, No. 17 of 2012). They can determine and structure their own administrative or devolved offices. The Constitution, while limiting the number of members that can make up the county executive committee, does not dictate which specific offices must exist and hence Counties do enjoy some level of discretion in this regard.

Since devolution, integration amongst counties has been witnessed through the formation of County regional economic blocs, pegged on a desire to optimize the comparative advantage of counties, their economies of scale and ability to attract investments. The six regional economic blocs are: The Lake Region Economic Bloc (13 counties), the North Rift Economic Bloc (7 counties), the Central Region Economic Bloc (10 counties), the *Jumuiya ya Kaunti za Pwani* (6 counties), the South Eastern Kenya Economic Bloc (3 counties) and the Frontier Counties Development Council (7 counties) – (KLRC, 2018).

The Kenya Health Policy 2012-2030 proposes that each County is to establish a health department whose role is to create and provide an enabling institutional and management structure whose responsibility is to coordinate and manage the delivery of healthcare services at County level. Despite these health policy provisions, the devolved health sector still suffers inefficiency characterized by lack of commitment to the affairs of healthcare

employees by healthcare authorities, lack of HCWs commitment to work and frequent industrial actions that undermine healthcare service provision to Kenyans (Brownie & Oywer, 2016).

In addition, lack of HCWs commitment to work has resulted in brain drain with qualified HCWs relocating to developed countries like the United States of America, Canada, Australia and Europe where better employment terms are perceived to be offered. It is reported that 30-40% of the healthcare workers in Kenya emigrate to developed countries every year (Brownie & Oywer, 2016). WHO recommends a doctor to population ratio at 1:1000. However, Kenyas' ratio of doctor to population ratio is 1: 16,000 further undermining the efficiency of the country's health care sector (Ndiso, 2018). This ratio is further violated during industrial actions when health workers down their tools.

1.2 Statement of the Problem

Russo *et al*., (2019) in the World Health Organization (WHO) bulletin identified mismanagement of the healthcare system, lack of commitment, poor leadership and management and constrained health facilities as challenges that continue to undermine the provision of quality health services and achievement of the SDG 3. Muthuri, Senkubuge and Hongoro, (2020) cited disharmony at the workplace particularly in the developing countries as one of the undermining factors in the provision of quality healthcare.

The dilemma of the right of employees to industrial action and the citizens' right to health care are two delicate and conflicting constitutional provisions that continue to elude policy and legislative environment (Sitienei, Manderson & Nangami, 2021). While there is

consensus that the right to industrial action is an instrument for the exercise of workers' economic and social rights, there is need for a balance between the protection of these rights and the need to guarantee essential public services in order to safeguard citizens and their well-being (Kangasniemi, Viitalahde & Porkka, 2010).

Kenya's health system continues to experience many chronic challenges which include industrial actions, drug shortages, understaffing and underfunding, and gaps in the coordination of health in counties with workers' unions demanding that the health function be reverted back to the National Government owing to serious health mismanagement in the Counties (Agunga, 2018; Kubai, 2019).

Since the devolution of health care functions to Counties, numerous industrial actions have been witnessed among health workers across all counties in Kenya. Between 2010 and 2020 there were six nation-wide major industrial actions and many more regional industrial actions (Sitienei, Manderson & Nangami, 2021). The downing of tools by healthcare workers resulted in suffering and loss of lives which is against the provision of the 2010 constitution on right to health and life (Mugo *et al.,* 2018).

According to Barker *et al.,* (2014), Counties were less prepared to provide appropriate healthcare services under the devolved system which has resulted in the rampant industrial actions. For instance, during an industrial action by health workers in Mombasa County Referral Hospital, outpatient attendance declined by 64.4%, special clinics attendance by 74.4%, deliveries by 53.5%, inpatient admissions by 57.8% and inpatient deaths by 26.3% (Njuguna, 2014). Irimu *et al.,* (2018) remarked that admissions across all wards decreased dramatically during the industrial action period. A study by Friedman and Keates (2014),

on the impact of health workers' industrial actions established that babies born during industrial actions are less likely to survive and less likely to receive valuable early-life health inputs and medical care. The rising industrial actions among health care workers in counties have been linked to inefficient county leadership on devolved health care services (Waithaka *et al*., 2020).

Various scholars have studied drivers of industrial harmony identifying some research gaps for further studies. However, few studies have attempted to investigate the influence of adaptive leadership on industrial harmony under the mediating influence of affective commitment (Auvinen, 2017; Onyeizugbe *et al*., 2018; Thondoo *et al.,* 2020). Empirical review has also shown that despite the many studies that have been done on affective commitment and industrial harmony there is still inadequate information on the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector (Thuku *et al*., 2020; Wanjau *et al.*, 2021).

1.3 Objectives of the Study

The study sought to achieve the following objectives;

1.3.1 General Objective of the Study

The general objective of this study was to determine the influence of adaptive leadership on industrial harmony mediated by affective commitment in Kenyas' devolved public health sector.

1.3.2 Specific Objectives of the Study

The specific objectives of this study included:

i. To determine the influence of collaborative stakeholder engagement on industrial harmony in Kenyas' devolved public health sector.

ii. To establish the influence of employees' involvement in decision making on industrial harmony in Kenyas' devolved public health sector.

iii. To assess the influence of continuous organizational learning on industrial harmony in Kenyas' devolved public health sector.

iv. To establish the influence of leaders' relational authenticity on industrial harmony in Kenyas' devolved public health sector.

v. To examine the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

1.4 Research Hypotheses

The study tested the following hypotheses;

$H_0$1 There is no statistically significant relationship between collaborative stakeholder engagement and industrial harmony in Kenyas' devolved public health sector.

$H_0$2 There is no statistically significant relationship between employees' involvement in decision making and industrial harmony in Kenyas' devolved public health sector.

$H_0$3 There is no statistically significant relationship between continuous organizational learning and industrial harmony in Kenyas' devolved public health sector.

$H_0$4 There is no statistically significant relationship between leaders' relational authenticity and industrial harmony in Kenyas' devolved public health sector.

$H_0$5 Affective commitment does not have statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

1.5 Justification of the Study

There have been challenges in the Kenyas' devolved public health sector which have at times paralyzed operations of the health facilities. The challenges have greatly affected the level five hospitals which are also known as County referral hospitals. The inability of these hospitals to function has greatly affected the well-being of the citizenry and the economy of the country. The study findings are of importance to County devolved health sector management and County governments as they highlight the form of leadership required in enhancing harmony among health-care workers for effective health care service delivery.

Lessons learnt can be used in planning and implementation of policies regarding employees' well-being by the County governments and policy makers in the public health sector as well as other related sectors. The ministry of health at the national level, county health departments, public health institutions and healthcare workers' unions can also benefit while formulating work policies and guidelines that may help harmoniously run the devolved public health care institutions. This will help them in making prudent management decisions as well as assist in formulation of policies. The study findings also helped to identify mechanisms to be adapted in addressing health care employees'

grievances in a harmonious way so that health service delivery is not unduly interrupted due to industrial actions.

Scholars and other researchers may find the outcomes of this study relevant as reference material to advance in their studies as well as assist health practitioners and sector managers connect research to the real world of work. The study also provided a worthy benchmark to future research work on adaptive leadership and industrial harmony under the mediating influence of affective commitment in the health care sector.

1.6 Scope of the Study

The scope of the study was Kenyas' devolved public health sector level 5 county referral hospitals in CEREB. Since devolution, integration amongst counties was witnessed through the formation of County regional economic blocs, pegged on a desire to optimize the comparative advantage of counties, their economies of scale and ability to attract investments. The six regional economic blocs are: The Lake Region Economic Bloc (13 counties), the North Rift Economic Bloc (7 counties), the Central Region Economic Bloc (10 counties), the *Jumuiya ya Kaunti za Pwani* (6 counties), the South Eastern Kenya Economic Bloc (3 counties) and the Frontier Counties Development Council (7 counties) – (KLRC, 2018).

In the absence of an overarching policy and legislative framework for their establishment, the County governments have adopted, with variations, the EU, EAC and Lehigh Valley Economic Development Region models to guide the set up and operationalization of the regional economic blocs (KLRC, 2018). The level 5 hospitals play a major role in curative

care and act as referrals from the low tier health care providers and they are under the devolved governments and every county has at least one level five hospital.

The study variables included collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning and leaders' relational authenticity as independent variables; industrial harmony as the dependent variable and affective commitment as the mediating variable. The study population was the health workers in level 5 county referral hospitals in CEREB, MS and KMPDU and KNUN union officials. The research focused on the 10 counties because the region has been experiencing rampant industrial disharmony. Laikipia and Kirinyaga counties for example permanently sacked some of the medical personnel because of industrial actions and the matters are ongoing industrial cases (Kenya Law, 2019; Kenya Law, 2020; Sitienei, Manderson & Nangami, 2021).

1.7 Limitations of the Study

The study anticipated that a number of limitations would be encountered. The use of self-report was anticipated to result in social desirability which could affect the results outcome. This was mitigated by encouraging the participants to be thoughtful and articulate when providing answers to the questions. The study sample was limited for generalization and the operationalization of the variables posed a challenge to the respondents. However, this was mitigated by employing concurrent mixed methods methodology by combining quantitative and qualitative data.

A major limitation was the study's' scope was that it was limited to Kenyas' devolved public health sector and thus the findings might be generalized to only to this context. Since the factors that affect performance in Kenyas' devolved public health sector may be significantly unique to the country, the findings of this study may not be relevant in the context of sectors in other countries. The variables in this research may also react contrarily to contextual dynamics in other jurisdictions.

The study did also encounter slow response rates due to time constraint by some respondents who were having busy schedules that made them not find time to fill in the questionnaires. To address this scenario, the researcher followed up through phone calls as well as collection of filled up questionnaires on a later date from the respondents. In some instances, the researcher identified a central point where the filled-up questionnaires were dropped for ease of collection.

1.8 Operational Definition of Terms

Adaptive Leadership: a leadership style that is authentic, embraces complexity and actively pursues innovative solutions through organizational learning, creative problem solving, experiments and collaboration with the leader taking a positive role and, at the same time, facilitating teamwork through the development of a robust interactive arrangement with team members (Kezar & Holcombe, 2017). In this study it was operationalized in terms of collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning and leader relational authenticity.

Industrial Harmony: a state of relative peace and stability which involves trust among work groups, employee – management understanding as well as absence of discontent between members of an organization (Bassey, Ojua & Achibong, 2012). In this study it was operationalized in terms of industrial democracy, employee loyalty and shared vision.

Affective Commitment: the level of attachment that employees have to their employing organization, their willingness to work on behalf of the organization and their likelihood to remain members of the organization and entails contentment, organizational support and trust (Dey, 2012). In this study it was operationalized in terms of work experience, perceived organizational support, and trust.

Collaborative stakeholder engagement: The involvement of various agents or partners in the management of a project or when undertaking certain tasks (Zwikael, Elias & Ahn, 2012). In this study it was operationalized in terms of dispute resolution mechanisms, policy formulation and information sharing.

Continuous organizational learning: The periodic development of insights, knowledge creation, knowledge sharing and knowledge retention, associations between past actions and the effectiveness of those actions and future actions (Argote & Miron-Spektor, 2011). In this study it was operationalized in terms of knowledge creation, knowledge sharing and knowledge retention.

Employees' involvement in decision making: refers to the extent to which employees are engaged in day to day operations of an organization giving them an opportunity to achieve their goals, contribute their ideas and take responsibilities (Irawanto, 2015). In this study it was operationalized in terms of suggestion schemes, collective bargaining, and feedback.

Leaders' Relational Authenticity: Leaders being deeply aware of how they think and behave and are perceived by others as being aware of their own and others' values/moral perspectives, knowledge and strengths; aware of the context in which they operate; being confident, hopeful, optimistic, resilient, and of high moral character (Kempster, Iszatt-White & Brown, 2019). In this study it was operationalized in terms of relational transparency, balanced processing and internalized moral perspective.

Hippocratic Oath: physicians' pledge to prescribe only beneficial treatments according to ability and judgment; to refrain from causing harm or hurt and to live an exemplary personal and professional life (Askipotoulou & Vigontzas, 2018).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter discusses the theoretical framework of the study and contains empirical review on literature related to the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector. The review was organized around five variables which included collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning and leaders' relational authenticity as independent variables and affective commitment as the mediating variable. The chapter also contains the conceptual framework of the study, empirical studies and literature review.

2.2 Theoretical Review

A theory is a set of systemic interrelated concepts, definitions and propositions that have been advanced to predict and explain a phenomenon (Cooper & Schidler, 2011). This study was anchored on Attitudinal Commitment Theory. In addition, the study was guided by the Experiential Learning Theory and Social Exchange Theory.

2.2.1 Attitudinal Commitment Theory

Theories that are based on attitudinal commitment focus on the desire of the individual to remain in an organization (Meyer & Herscovitch, 2001). Kanter (1968) pioneered the theory of attitudinal commitment by hypothesizing that feelings of cohesion or involvement with an organization likely contribute to an individual's commitment to that organization.

Meyer and Allen (1984; 1991) termed this attitudinal type of commitment affective commitment and based their term on Mowday (1999) work in developing the Organizational Commitment Questionnaire (OQM). QOM measures affective commitment to organizations by measuring values congruence with the organization, feelings of care for the organization, pride in the organization and willingness to put forth extra effort into the organization.

Attitudinal commitment is a psychological attachment based on different mindsets that can play a role in shaping behaviors for different reasons and with different motives (Meyer & Herscovitch, 2001; Meyer *et al.*, 2004). Meyer and Herscovitch (2001) based on an extensive review of literature, theorized that affective commitment is developed primarily by an individuals' involvement in and identification with the organization. More specifically, they asserted that individuals become intrinsically motivated or involved in a course of action that develops from an identification, association, and attachment with the larger organizations' values and objectives.

Jaros (2009) critiqued the Attitudinal Commitment Theory pointing out the weakness of commitment measures, by asserting that the scale used to measure the sub-constructs of organizational commitment at one point in time, may, as time goes by, be less and less accurate and valid. Attitudinal Commitment Theory is helpful in understanding collaborative stakeholders' engagement, employee's involvement in decision making and the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector.

The theory argues that involvement with an organization likely contributes to an individuals' commitment to that organization. According to Wael (2018) the main difference between the social exchange theory and the attitudinal approach is that in the former, employees give and take their loyalty and commitment in return for incentives from their organizations while the latter approach emphasizes that employees willingly offer themselves to the organization and its welfare, regardless of reciprocal treatment, believing 'it is the right and moral thing to do'.

A healthcare facility at the county that engages all parties including employees, community and management and other stakeholders in its daily operations is likely to witness smooth operations in terms of health service delivery. The involvement of employees particularly on employment matters is helpful in addressing any emerging issues in the Kenyas' devolved public health sector thus promoting industrial harmony.

2.2.2 Experiential Learning Theory

Experiential Learning Theory was advanced by Kolb (1984). Experiential learning theory offers a dynamic theory based on a learning cycle driven by the resolution of the dual dialectics of action/reflection and experience/abstraction. These two dimensions define a holistic learning space wherein learning transactions take place between individuals and the environment (Kolb & Kolb, 2009). The learning space is multi-level and can describe learning and development in commensurate ways at the level of the individual, the group, and the organization.

According to the theory, individual learning styles, managerial problem solving/decision making, the process of team learning and organizational learning define the holistic learning process in the organization. Experiential learning theory differs from cognitive and behavioral theories in that cognitive theories emphasize the role of mental processes while behavioral theories ignore the possible role of subjective experience in the learning process (Biro, 2014). The experiential theory proposed by Kolb takes a more wholistic approach and emphasizes how experiences, including cognition, environmental factors, and emotions, influence the learning process.

The theory is built on six propositions: the first proposition is that learning is best conceived as a process, not in terms of outcomes. The second proposition is that learning is best facilitated by a process that draws out the learners' beliefs and ideas about a topic so that they can be examined, tested, and integrated with new, more refined ideas. As per the third proposition, learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world. Conflict, differences, and disagreements are what drive the learning process (Kolb & Kolb, 2009).

The Fourth proposition argues that learning is a holistic process of adaptation to the world and not just the result of cognition, but involves the integrated functioning of the total person - thinking, feeling, perceiving and behaving. In the fifth proposition, learning results from synergetic transactions between the person and the environment whereas, as per the sixth proposition, learning is the process of creating knowledge. Experiential learning theory proposes a constructivist theory of learning whereby social knowledge is created

and recreated in the personal knowledge of the learner (Mollae & Rahnama, 2012). However, there are some criticisms leveled against the Experiential Learning Theory.

While the theory is good at analyzing how learning occurs for individuals, it does little to look at learning that occurs in larger social groups (Wael, 2018). Landers (2014) explains that experiential learning theory has not been studied from a theoretical perspective by saying that the use of experiential learning on employees is becoming increasingly popular but without theoretical models.

Paddlerford (2010) criticized experiential learning as an instructional method for time and money. In contrast, Mollae and Rahnama (2012) asserted that experiential learning is a powerful way to address individual growth and potential and is adaptable for individual style, preferences, strengths and direction. Similarly, Wurdinger and Carlson (2010) indicated that in experiential learning, the instructor guides rather than directs learners where they are naturally interested in learning.

The devolved healthcare sector needs to support staff through continuous learning and work-related job aids. Healthcare is a segment that requires continuous learning to support the changing work dynamics in the medical field. Healthcare employees have to be provided with a platform to learn and improve on knowledge, experience and competence in their areas of specialization. This theory is useful in comprehending the relationship between continuous organizational learning, leader's relational authenticity and affective commitment on industrial harmony in the Kenyas' devolved public health sector.

2.2.3 Social Exchange Theory

The Social Exchange Theory as formulated by Blau (1964) is based on the prism that employees' perceived organizational support creates a sense of indebtedness and an obligation within an individual to repay the organization. The theory explains the interaction of two parties that is based on cost-benefit analysis to determine risks and benefits. Social exchange reciprocity and indebtedness occurs at all levels of the organization and also with immediate supervisors through reciprocation.

Employees' reciprocation is a way of giving back what they interpret to be a fair and kind consideration from the organization and associated with role behaviors, citizenship behavior and organizational commitment (Zhang & Jia, 2010). Another key behavioral assumption of the theory is that of distributive justice, equity or fairness in non-economic relations. For instance, a prior relationship between parties can have an influence on the exchange, and the exchange can contribute to the development of continued relationships. This debate is yet to be solved as scholars use the terms; transaction and relations interchangeably (Moracortez & Johnson, 2020; Davlembayeva, Papagiannidis & Alamano, 2020).

Social exchange builds trust among employees towards the organization that it will fulfill its exchange obligations (Ko & Hur, 2014). Molm (2010) describes the leader member exchange to be the cordial relationship between the employee and the supervisor arising out of the perception that the supervisor represents the organization to which the employee is indebted to. Social exchange is more associated with role behavior with the employee developing personal obligation to undertake extra duties, put in more time and minimize

conflicts with the supervisors (Lloyd & Mertens, 2018). However, the Social Exchange Theory has been criticized for lacking sufficient theoretical precision, and thus has limited utility (Cropanzano *et al*., 2017).

Prominent scholars have questioned the degree to which humans are rational and thus make conscious, continuous cost-benefit analysis in their analysis (Redmond, 2015). The theory has also been criticized as it relies more on observations than on studying humans' calculated decision making and reality as well as the variability of reward values. Employees working at the health facilities need to be supported in terms of capacity building and mentorship with the aim of supporting the objectives of the organization.

Social exchange has an effect on organizational commitment and organizational socialization. According to the theory, concrete rewards and other benefits make employees spend extra effort and not leave their organizations. The theory is helpful in understanding collaborative stakeholder engagement, employees' involvement in decision making, leaders relational authenticity as well as the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector.

2.3 Empirical Review

This section reviews literature on past studies in relation to the study objectives covering the concepts of adaptive leadership (collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning and leaders' relational authenticity), affective commitment and industrial harmony. The review was helpful in identifying research gaps.

2.3.1 Collaborative Stakeholder Engagement and Industrial Harmony

Stakeholders are any group or individuals who can affect or are affected by the achievement of organizations' objectives (Miles, 2011). The idea of stakeholders originated at the Stanford Research Institute (RSI) in the 1960s which defined them as those groups without whose support the organization would cease to exist. Collaborative stakeholder engagement stands for the involvement of various agents or partners in the management of a project or when undertaking certain tasks in terms of dispute resolution mechanisms, activity coordination, policy formulation and information sharing (Zwikael, Elias & Ahn, 2012). Collaborative stakeholder engagement is an important area for enhancing organizational performance, establishing long-term relationships and creating value.

The role of stakeholders and their relationships with other team members are critical in harmonious operations in organizations. It is an important area for establishing long-term relationships between workers and management of an organization, among team members and promoting harmonious operations in organizations (Auvinen, 2017). Stakeholder engagement in the management of public services; supports greater public acceptance, higher likelihood of intervention success, expanded communication and increased likelihood of impact on decision-making (Havedaway *et al*., 2017). However, if unchecked, collaborative stakeholder engagement may delay decision-making. Nonetheless, the negative impacts should not be taken as a reason to avoid stakeholder engagement, but highlight the need for carefully planned, unbiased and balanced engagement.

Auvinen (2017) researching on stakeholders' engagement as a success factor for effective occupational health care, established that stakeholders serve an organization and its various actors as guides in identifying, planning and implementing strategies for managing stakeholder relationships to develop occupational health care. The argument by the authors is that stakeholder engagement rotates around shared responsibilities. However, it is argued that collaborative stakeholder engagement is beyond this, and may be expanded to activity coordination and information sharing as in the context of this study.

The constructs of collaborative stakeholder engagement in academic research, however, vary among scholars. Thuku *et al*., (2020) studying the coordination of health workforce management in the devolved healthcare in Kenya noted that; strengthening coordination mechanisms at the national and county levels, through stakeholder coordination forums, capacity building, policy formulation, HRH regulation, and provision of standards and stakeholder collaborative platforms helped harmonize HR practices.

Sitienei, Manderson and Nangami, (2021) investigated community participation in the collaborative governance of primary health care facilities in Kenya by utilizing a multiple case study methodology. The study established that community members participate in decision-making, management, oversight, service provision and problem solving. Data was collected through document review, key informant interviews and observations taken were analyzed through frequencies and percentages. The roles of stakeholders in organizations differ depending on the authority.

In the context of healthcare facilities, stakeholders including facility management and sponsors have different roles which may include conflict management, activity coordination and information sharing. This study focused on the role of collaborative stakeholder engagement in promoting industrial harmony where community members participated. The study stakeholders were managers, trade unions and employees.

Wanjau *et al.*, (2021) studied stakeholder perceptions of current practices and challenges in priority setting for Non-Communicable Disease (NCDs) control in Kenya using qualitative analysis. The study identified political leadership, government policies and budget allocation for NCDs, stakeholder engagement, media, peoples' cultural and religious beliefs as key stakeholder processes. Accordingly, there was no generally acceptable scope in the applicability of collaborative stakeholder engagement in organizations and thus the scope differs from scholar to scholar based on the contextual use of the term.

Collaboration considers the sharing of roles and responsibilities among individuals within a group. Modha (2021) studied collaborative leadership with a focus on stakeholder identification and engagement and ethical leadership in dental clinics. The researcher pointed out that collaborative stakeholder engagement is manifested through shared authority, responsibility and accountability for a common goal. However collaborative stakeholder engagement includes information sharing and dispute resolution mechanisms which the study by Modha (2021) did not consider, presenting a conceptual argument.

2.3.2 Employees' Involvement in Decision Making and Industrial Harmony

Participation of workers in decision-making processes has resulted in successful value creation in many organizations; though the extent to which employees should participate in organizational decision making is still a matter of debate among scholars (Irawanto, 2015). Employee involvement is one of the most important aspects of organizational life to achieve increased organizational effectiveness and positive employee perceptions (Phipps, Prieto & Ndinguri, 2013). According to Noah (2008), employees' involvement is a special practice where the management allows employees greater engagement with respect to bridging the gap between management and employees through their involvement in strategic planning activities.

In todays' turbulent work environment and intense competition, organizations are forced to seek ways to be more flexible, adaptive and competitive as they are faced with competition pressures and rapidly changing markets (Irawanto, 2015). Employees must be involved if they are to understand the need for creativity and must be involved if they are to be committed to changing their behaviors at work, in new and improved ways (Kumar & Saha, 2017). Through involvement in decision making, productivity is expected to increase, and overall organizational goals will be high which helps reduce agitations, misconceptions and lack of commitment on the part of employees.

Employee Participation in Decision Making (EPDM) is the extent to which employers allow or encourage employees to share or participate in organizational decision making. EPDM has been recognized as a managerial tool for improving organizational performance by striving to achieve shared goals by employees and managers (Dede, 2019). This is

actualized by way of allowing employees' input in developing the mission statement, establishing policies and procedures, promotion and determining perks.

Decision making however, in many organizations is done by top management teams without considering the input of the employees at the lower managerial levels (Ijeoma, 2020). Success depends on involving the workforce's entire capacity to generate new ideas and ways of working to enhance organizational competitiveness and efficient product and service delivery (Sharif, 2020). It sometimes becomes difficult for some of the decisions taken by top management to be implemented, especially when it seems not to be favorable to the employees who are mostly the implementers. In the context of this study, the inability to seek employees' views and opinions regarding issues related to human resource management, task management and delivery may result in a lack of industrial harmony.

Employees play a critical role in organizational and decision-making processes to usher industrial and organizational efficiency. However, the extent to which employees should participate in organizational decision making is still a matter of debate (Irawanto, 2015). Sharif (2020) argued that participation of employees in decision-making processes has resulted in successful value creation in many organizations. It is argued that decision making regarding matters of an organization is traditionally seen as reserve for the management of the organization. However, the changing dynamics in the business environment has called for the need to consider the role of employees in matters related to decision making in organizations (Ijeoma, 2020).

Cheng (2014) carried out a study on the effects of employee involvement and participation on subjective well-being in urban China using data from the Chinese General Social

Survey. The study established that employees' involvement and participation was in terms of participative and consultative management. It also consisted of freedom of expression and effective discussion between employees and their supervisors and participation in workplace reforms. In the same line, Dixit and Sharma (2014) study on maintaining industrial harmony through employees' involvement established that proper implementation of employee involvement activities contributes positively in maintaining industrial harmony. However, the two studies did not address clarity of roles and tasks as crucial concepts for employee involvement in decision making.

In addition, Cheng (2014); Dixit and Sharma (2014) argued that employee involvement in decision making is not an aspect of adaptive leadership which is contrary to Mulder (2017); Wong and Chan (2018) who defined involvement of team members as a crucial facet of adaptive leadership. Nwokocha (2015) studied the role of employers in enhancing industrial harmony in private sector organizations in Nigeria. The study indicated that lack of effective communication, non-recognition of trade unions as bargaining parties are barriers towards promotion of industrial harmony. Likewise, Brijesh and Pachauri (2017) employed a desktop review method to study significance of workers' participation in management in an organization; noted that workers' participation in management reduces industrial unrest and promotes industrial peace by maintaining harmonious relations between the workers and the management. However, the two studies did not address the influence of employees' involvement in decision making on industrial harmony.

A study on employee involvement and workplace harmony in manufacturing companies in Port Harcourt, Nigeria by Tamunosiki and Sorbarikor (2018) established a positive significant relationship between employees' involvement and workplace harmony. Onyeizugbe *et al.,* (2018) conducted a study on industrial harmony and employee performance in food and beverage firms in Anambra State of Nigeria and established that there was a strong significant positive relationship between joint consultation and employee engagement. The study also established that there is a very strong positive relationship between industrial harmony and employee performance.

The study intimated that industrial harmony is good for organizational performance, yet it did not exhaustively conceptualize the concept of industrial harmony limiting itself to only employees participating in decision making and suggestion schemes. This study further expounded on industrial harmony to include employee loyalty, industrial democracy and shared vision. Thondoo *et al.*, (2020) in a study on framework for participatory quantitative health impact assessment in low-and middle-income countries established that involvement in decision making is useful in mitigating the escalation of industrial actions. Nonetheless, the study did not highlight the key platforms for employee participation in decision making as there are numerous methods of involving employees in decision making.

2.3.3 Continuous Organizational Learning and Industrial Harmony

Continuous organizational learning is a transformational process through which different stakeholders contribute their learning experiences both individually and collectively to attain organizational goals (Akhtar & Arif, 2011). Argote and Miron-Spektor (2011)

defined organizational learning as the periodic development of insights, knowledge creation, knowledge sharing and knowledge retention, associations between past actions and the effectiveness of those actions and future actions. Further, McCharen and Martens, (2011) defined organizational learning as a change process which enhances the ability of an organization to acquire and develop new knowledge.

Wagner (2008) identified three major components of knowledge management in organizations; people, who create, share and retain knowledge; processes that acquire, create, capture, organize, share, transfer and apply knowledge; and technology that stores and provides access to knowledge. Organizational learning is holistic in nature considering the individuals' dynamic use of knowledge to direct behaviors in ways that would help the organization to adapt to the changing scenarios. It defines the specific strategies, policies and rules which are supportive for promoting learning and affecting decisions and actions (Namada, 2018). The organizations' ability to learn, acquire knowledge and innovate has emerged as an important factor influencing organizational performance and survival.

Organizational learning is a multi-dimensional construct and researchers have proposed various dimensions to measure learning processes (Akhtar & Arif, 2011). Majority of the researchers have focused on the seven dimensions proposed by Watkins and Marsick (1996) namely: continuous learning, dialogue and inquiry, team learning, embedded system, system connections, empowerment, and leadership. A strong relationship exists between organizational learning and organizational performance because the performance of an organization increases with the rate of organizational change which leads towards improvement of organizational performance (Hussein *et al.*, 2014).

Organizational learning enables firms to respond quickly and adapt to the turbulent business environment. Similarly, competitive advantage through innovation, focus, leadership or differentiation strategies enables firms in various sectors to grow (Ratnapalan & Uleryk, 2014). The importance of organizational learning in health care systems is to provide the framework for complex interconnected dynamic systems where all operational units have to learn and execute their assigned functions to collectively improve safe patient care.

In todays' business world, attention has shifted dramatically from just acquiring wealth in the organization to an era where knowledge and learning within the organization becomes more critical and important to the organizations' survival and continuous growth. Tan and Olaore (2021) investigated the effect of organizational learning and effectiveness on operations, employee productivity and management performance by analyzing data using confirmatory factor analysis. The findings showed a positive relationship between organizational learning and effectiveness, operations, employees' productivity and management performance.

Kinzley (2018) argued that organizational training is crucial in promoting industrial harmony. However, the studies have not elaborated this claim through a quantitative study. Tan and Olaore (2021) and Kinzley (2018) relied on desktop review which limited the comprehensiveness of result findings resulting in a methodological gap. This study determined the influence of continuous organizational learning on industrial harmony by employing both quantitative and qualitative research methods.

Landau and Cooke (2017) indicated that employee training is not significant in cultivating industrial harmony. Jusnitah and Linneria (2016) employing desktop review research methodology established that training contributes to harmonious industrial relations. The study relied on desktop review which limited the comprehensiveness of research findings resulting in a methodological gap. This study determined the influence of continuous organizational learning on industrial harmony by employing both quantitative and qualitative research methods. The study results by Jusnitah and Linneria (2016) and Landau and Cooke (2017) imply lack of consensus among authors on the effect of continuous organizational learning on industrial harmony hence the need to undertake this study.

Osaro and Charles (2014) carried out a study on industrial harmony and effective healthcare delivery in Nigeria by interrogating past studies and noted that organizational learning has a positive significant effect on industrial harmony. However, a study by Alonazi (2021) to determine the effect of building learning organizational culture during Covid-19 outbreak using cross-sectional study realized that internal learning culture and continuous learning did not have an effect on industrial harmony. The studies by Osaro and Charles (2014), and Alonazi (2021) imply that there is no consensus among scholars on the relationship between continuous organizational learning and industrial harmony. This called for further study and hence the undertaking of this study to clarify the relationship between organizational learning and industrial harmony.

2.3.4 Leaders' Relational Authenticity and Industrial Harmony

Authentic Leadership (AL) has become a significant area of research in the academic arena with the emergence of the positive-psychology movement. Authentic leadership is

assumed to motivate followers and promote individual, team, and organizational effectiveness (Gardner *et al*., 2011). It has come up as a form of leadership style which has gained the attention of numerous practitioners and scholars (Alilyyani, 2018; Iqbal, 2018). This kind of leadership has attracted researchers' attention due to its positive influence on employees' job outcomes and organizational-goal achievements and the call for more empirical work (Gardner, 2011; Walumbwa *et al*., 2011, Avolio & Walumbwa 2014; Alilyyani, 2018).

An authentic leader is true and the exhibited behavior positively transforms or develops associates into leaders themselves (Besen, Tecchio & Fialho, 2017). An authentic leader is confident, hopeful, optimistic, resilient, ethical, future-oriented, and gives priority to developing associates to be leaders (Kempster, Iszatt-White & Brown, 2019). In addition, they are honest, unselfish, and act with kindness, justice and responsibility. Proponents of authentic leadership point to the desire of training and developing leaders who proactively foster positive environments and conduct business in an ethical and socially responsible way.

Authentic leaders are deeply aware of their way of thinking and acting, as well as the context in which they operate. They are perceived to be aware of moral perspectives, knowledge of their own and other forces (Kempster *et al.*, 2019). These leaders tend to genuinely serve others with their leadership. They delegate so that employees make a difference instead of worrying about power, money or prestige for themselves.

According to Walubwa *et al*., (2008) authentic leadership is made up of four components; self-awareness, relational transparency, balanced processing and an internalized moral perspective. Internalized moral perspective is based on self-regulation, anchored by ones' mission, deep seeded values and a desire to make a difference. Balanced processing includes considering others opinions and all available relevant information in decision making. Relational transparency refers to one showing one's true self to others and openly but appropriately sharing information regarding one's thoughts and emotions.

Authentic leaders' welcome openness and self-disclosure in close relationship with others. Authentic leadership helps employees find meaning and connection at work through creating awareness (Leroy *et al*., 2015). Painter-Morland and Deslandes (2017) noted that authentic leaders can make a difference in organizations, being important to its success and contributing effectively to knowledge management. Empirical evidence reveals the significant role of authentic leadership in affecting employees' workplace outcomes (Boehm *et al*., 2015).

Authentic leadership has been revealed to enhance employees' Organizational Citizenship Behavior (OCB) (Walumbwa *et al*., 2010; EduValsania, 2012; Avolio & Walumbwa, 2014) positively related to an ethical culture (Morris, 2014), improving employees' organizational commitment (Gatling, 2016), increasing employees' work engagement (Bamford, Wong, & Laschinger, 2013; Hassan & Ahmed, 2011), better employee performance (Leroy *et al.*, 2015), and trust (Wong, SpenceLaschinger & Cummings, 2010;

Hassan & Ahmed, 2011). However, little research exists on the influence of leaders' relational authenticity on industrial harmony.

Fallatah (2020) undertook a study on the effect of authentic leadership on new graduate nurses' organizational identification, trust in the manager, patient safety climate, and willingness to report errors using non-experimental cross-sectional design. The study established that authentic leaders are able to create work environments that support new graduate nurses' error reporting by strengthening their personal identification with the leader and building trusting relationships. Likewise, Muceldili *et al.,* (2013) examined the relationship of authentic leadership and creativity of nurses working at public hospitals through the mediating role of resilience and established that authentic leadership positively predicts hope among employees.

Studying the influence of authentic leadership on organizational citizenship behaviour, through workplace trust among public health care employees in South Africa using quantitative cross-sectional survey design, Coxen *et al.,* (2016) indicated that authentic leadership has a significant influence on employee's trust to the organizations. However, the conceptualization of relational authentic leadership is not consistent among authors. Muceldili *et al.,* (2013) operationalized authentic leadership as leadership with ability to resolve conflicts and full of optimism while Coxen *et al.,* (2016) operationalized it as leadership featured with optimism, honesty and resilience.

Kim (2018) examining the effect of authentic leadership on employees' well-being in a leading manufacturing firm in Korea demonstrated that team leaders' authentic leadership increased employees' eudemonic well-being but did not significantly affect hedonic well-

being. In the same note, Miidom, Dyke-Ebirika and Tidjoro (2021) in a study on authentic leadership and workplace harmony, ascertained that authentic leadership enhances workplace harmony. The study considered authentic leadership as a composition of ethics, inspirational, balanced sharing of information and leadership transparency to improve workplace harmony.

The lack of uniform definition of authentic leadership among scholars may have varying impact on employee perception of workplace harmony hence the need to investigate the effect of leaders' relational authenticity on industrial harmony in the public health sector. Using descriptive research design, Waweru (2021) examined the effect of authentic leadership on good industrial relations in tea estates in Kenya. The study revealed that a leader' self-awareness, balanced processing, relational transparency and internalized morals have statistically significant influence on good industrial relations.

According to Waweru (2021) authentic leadership is characterized by transparency, trust, confidence and upholds morals, values and ethical leadership. Qureshi and Alemi (2018) investigating the effect of authentic leadership on turnover intention in the healthcare sector of Pakistan suggested that authentic leadership significantly and negatively impacts turnover intention with partial mediating effect of workplace harmony. It is argued that the impact of authentic leadership on industrial harmony tends to differ because of contextual differences of organizations.

Further, Anwar, Abid and Waqas (2020) explored authentic leadership and creativity under the mediating role of resilience and hope in the health sector and showed that authentic

leadership significantly predicts hope while cultivating creativity among employees. Studying the mediating role of work climate on the relationship between authentic leadership and psychological well-being of nurses at work; Nelson *et al.,* (2014) indicated that authentic leadership impacts the work climate in a positive manner; thereby, increasing levels of psychological well-being at work. Well-being is one of the aspects that define industrial harmony and this study further unpacks industrial harmony into other aspects that include shared vision, democracy, and employee loyalty in the context of the healthcare sector.

Based on the reviewed studies, the relationship between leaders' relational authenticity and industrial harmony in the public health sector remains contentious as some studies indicate positive relationship (Muceldili *et al.,* 2013; Nelson *et al.,* 2014) while others presented negative relationship (Qureshi & Alemi, 2018) calling for further in-depth research to clarify the nexus between the two variables in the context of the Kenyas' devolved public health sector.

2.3.5 Mediating Influence of Affective Commitment on Adaptive Leadership and Industrial Harmony

Asif *et al*., (2019) explored adaptive leadership, affective commitment, work engagement, and creativity focusing on Chinese public sector employees. The study revealed that affective commitment partially mediates the relationship between adaptive leadership and work engagement, while both affective commitment and work engagement fully mediate the relationship between ethical leadership and employees' creativity. Likewise, Chin (2014) while studying the effect of adaptive leadership on the relationship between

affective commitment and workplace harmony indicated that affective commitment did not mediate the relationship between adaptive leadership and workplace harmony in the Chinese public sector.

The results by Asif, Qing, Hwang and Shi (2019) indicate that there is no consensus on the effect of adaptive leadership on the relationship between affective commitment and workplace harmony among scholars. This study expounded on the relationship between adaptive leadership and industrial harmony under the mediating effect of affective commitment. Scales and Brown (2020) investigated the effect of affective commitment and harmonious passion on voluntary turnover among social workers using concurrent mixed methods research design. Data was collected using questionnaires and interviews. The study established that affective commitment and harmonious passion influences voluntary turnover among social workers. The study however, treated affective commitment as an independent variable, while in this study; affective commitment was the mediating variable.

In another study by Alhosis (2019) on adaptive leadership and work harmony in the presence of affective commitment, the study established that adaptive leadership has a significant effect on workplace harmony among nurses but insignificant in the presence of affective commitment. Using structural equation modeling Donkor, Dongmei and Sekyere (2021) investigated the mediating effect of organizational commitment on adaptive leadership and employee performance in state-owned enterprises in Ghana and established that organizational commitment mediates adaptive leadership and employee performance.

The study by Donkor, Dongmei and Sekyere (2021) however, focused on employee performance as the dependent variable. This study focuses on industrial harmony as the dependent variable, seeking to determine the mediating influence of affective commitment, on the relationship between adaptive leadership and industrial harmony. Harris and Mayo (2018) carried out a study to determine the mediating influence of leadership authenticity on a peaceful work environment at the workplace, in the presence of affective commitment by firm managers. Data was collected using questionnaires.

The study established that leader conscientiousness strongly predicts the nature of the working environment under the influence of affective commitment. However, the study relied more on use of structured questionnaires with closed ended questions that limited in-depth inquiry on the subject matter by interrogating respondents. This was addressed in this study by using semi structured questionnaires with both closed and open-ended questions and interview schedule.

2.4 Research Gap

Various scholars have studied drivers of industrial harmony identifying some research gaps for further studies. However, most studies focused on the effect of adaptive leadership on organizational performance or employee performance and few studies have attempted to investigate the effect of adaptive leadership on industrial harmony under the mediating effect of affective commitment. The theoretical framework has focused on the understanding of the research by reviewing the theories related to the study.

The conceptual framework has shown the variables of the study and their relationships. The empirical review has shown that despite the many studies that have been done on affective commitment and industrial harmony; there is still inadequate information on the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector. Sitienei, Manderson and Nangami (2021) established that community members participate in decision-making, management, oversight, service provision and problem solving.

Thuku *et al.*, (2020) noted that strengthening coordination mechanisms at the national and county levels, through stakeholder coordination forums, capacity building, policy formulation, HRH regulation, and provision of standards and stakeholder collaborative platforms helped harmonize HR practices. However, the roles of stakeholders in organizations differ depending on the authority. In the context of healthcare facilities, stakeholders including facility management, employees and sponsors have different roles which may include conflict management, activity coordination and information sharing.

Auvinen (2017) established that stakeholders serve an organization and its various actors as a guideline in identifying, planning and implementing strategies for managing stakeholder relationships to develop occupational health care. Modha (2021) argued that collaborative stakeholder engagement is manifested through shared authority, responsibility and accountability for a common goal. The argument by the two authors is that stakeholder engagement rotates around shared responsibilities. However, it is argued that collaborative stakeholder engagement is beyond this, and may include others like

policy formulation, information sharing and dispute resolution mechanisms as in the context of the current study.

Tamunosiki and Sorbarikor (2018) established a positive significant relationship between employee involvement and workplace harmony in manufacturing firms in Port Harcourt. Thondoo *et al*., (2020) established that participating in decision making is useful in mitigating the escalation of industrial action and that costs for participation impact participatory quantitative health impact assessment. However, both studies did not highlight the key platforms of employee participation in decision making. There are numerous methods of involving employees in decision making including suggestion schemes, collective bargaining and feedback. This study identified the platforms of employee involvement in decision making and how these platforms enhance industrial harmony.

Osaro and Charles (2014) carried out a study on workplace harmony and effective healthcare delivery in Nigeria by interrogating past studies and noted that organizational learning has a positive significant effect on industrial harmony. However, a study by Alonazi (2021) to determine the effect of building learning organizational culture during Covid-19 outbreak using cross-sectional study found out that internal learning culture and continuous learning did not have an effect on industrial harmony. The studies by Osaro and Charles (2014) and Alonazi (2021) imply that there is no consensus among scholars on the relationship between organizational learning and industrial harmony.

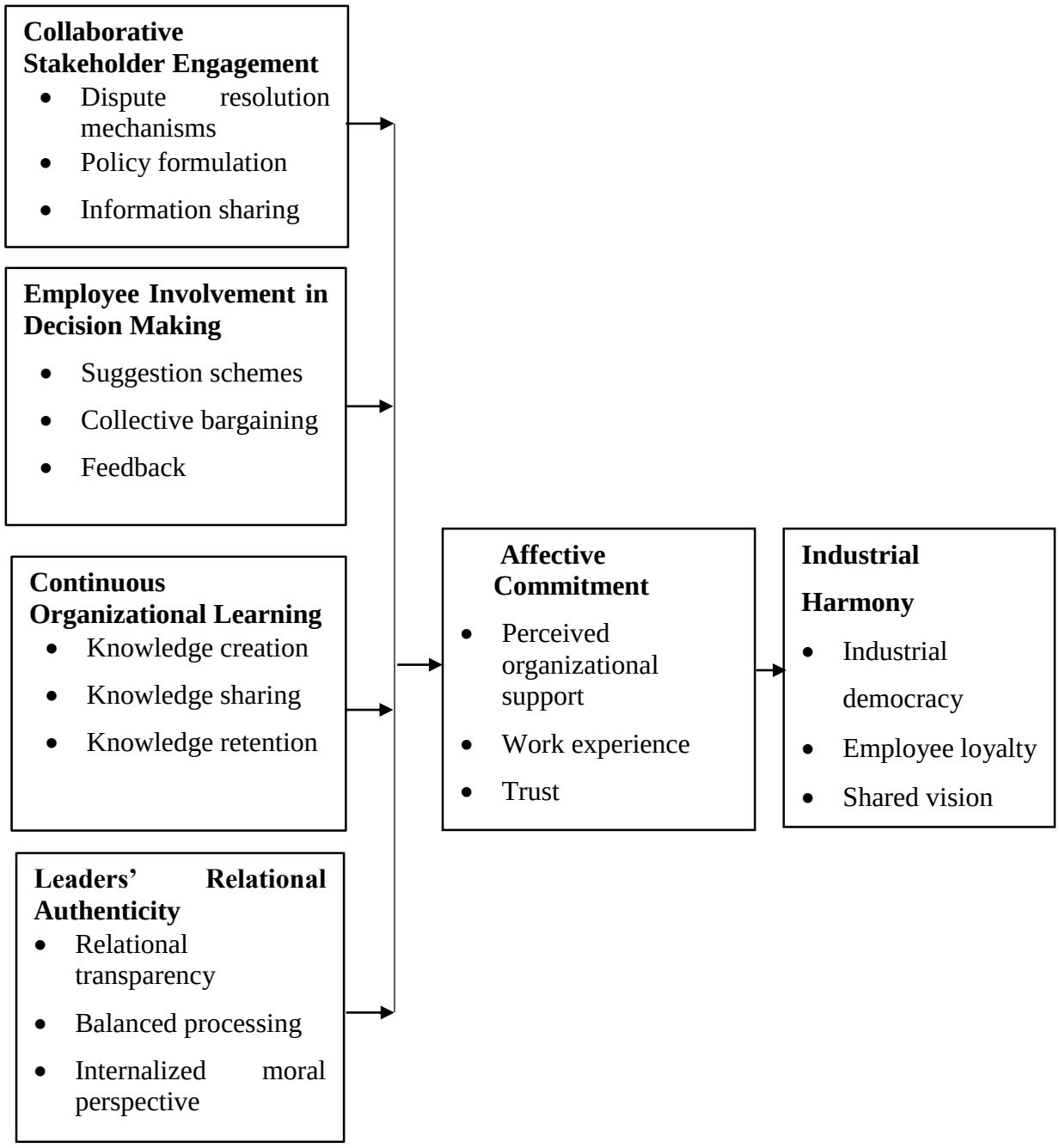
Kim (2018) examining the effect of authentic leadership on employees' well-being in a leading manufacturing firm in Korea demonstrated that team leaders' authentic leadership increased employees' eudaimonic well-being but did not significantly affect hedonic well-being. In the same note, Miidom *et al*., (2021) in a study on authentic leadership and workplace harmony, established that authentic leadership enhances workplace harmony.

The lack of uniform definition of authentic leadership among scholars may have a varying impact on employee perception of workplace harmony hence the need to investigate the effect of leaders' relational authenticity on industrial harmony in the devolved public health sector. The various research gaps necessitate the need to determine the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector.

2.5 Conceptual Framework of the Study

The study was modeled on the conceptual framework that shows adaptive leadership as the independent variable, affective commitment as the mediating variable and industrial harmony as the dependent variable. This study adopts a configurational approach which does not focus on one variable but models' inter-relationships between variables hence being multi-dimensional (Delery & Doty, 1996).

Adaptive Leadership



Independent Variable **Mediating Variable** **Dependent Variable**

Figure 2.1 Conceptual Framework of the Study

Source: Author, 2018

Adaptive leadership mobilizes employees to tackle tough challenges and thrive. Adaptive leadership entails collaborative stakeholder engagement which incorporates dispute resolution mechanisms, policy formulation and information sharing), employee involvement in decision making which incorporates suggestion schemes, collective bargaining and feedback), continuous organizational learning which incorporates knowledge creation, knowledge sharing and knowledge retention) and leaders' relational authenticity which incorporates relational transparency, balanced processing and internalized moral perspective).

It is hypothesized that adaptive leadership influences industrial harmony directly and indirectly through employee affective commitment. Industrial harmony is defined as the pleasing combination of elements of a system to form an all- inclusive, all involving and more productive team. Industrial harmony refers to a friendly and cooperative agreement on working relationships between employers and employees for their mutual benefit. According to Puttapalli and Vuram (2012) industrial harmony is concerned with the relationship between management and employees with respect to the terms and conditions of employment and the workplace.

In this study it was conceptualized as industrial democracy, employee loyalty and shared vision. Adaptive leadership is likely to supplement affective commitment in order to enhance industrial harmony. Affective commitment is the level of attachment that employees have to their employing organization, their willingness to work on behalf of the organization and their likelihood to remain members of the organization and entails

contentment, organizational support and trust (Dey, 2012). In this study it was operationalized in terms of work experience, perceived organizational support, and trust. This study therefore, investigated the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research philosophy on which the study is anchored, the research design, target population for the study, sampling design, data collection methods and instrumentation. In addition, the chapter addresses validity and reliability of research instruments as well as diagnostic tests, data analysis and presentation as well as ethical considerations.

3.2 Research Philosophy

According to Creswell (2013) research philosophy is a pattern of beliefs on the procedural steps of research design on how data should be gathered and analyzed. Research philosophy is the foundation of knowledge on which a study is based and assists the research to expose, understand and minimize research biases (Sekaran & Bougie, 2013). This study adopted a pragmatic research paradigm. According to Saunders, Lewis and Thornhill (2011) there are four types of philosophies which could be opted for this research; positivism, interpretivism, realism and pragmatism. The pragmatism philosophy was preferred for this study because it influences the way knowledge is studied and interpreted (Yvonne-Feilzer, 2010). It also integrates multiple approaches and strategies such as qualitative, quantitative research methods.

Pragmatism argues that knowledge arises from actions, situations, and consequences rather than antecedent conditions (Creswell & Plano-Clark, 2011). The concern in this paradigm is the application of what works and solutions to problems. Instead of methods being the

first priority, the problem is most important, and the researcher uses all approaches to understand the problem. This philosophy allowed the study to use both quantitative and qualitative methods of inquiry. This is because the nature of the constructs that were being investigated required interpretations to be derived from the subjects of the study in order to gain deeper and wider understanding (Creswell, 2013; Hall, 2013; Shannon-Baker, 2016). Pragmatic paradigm assisted in understanding the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector.

3.3 Research Design

Research design is the road map of how the researcher intends to go about answering the research questions (Lewis, 2014). The research design set the procedure on the required data, the methods to be applied to collect and analyze this data, and how study findings answered the research question (Gray, 2014). In designing a research, scholars are guided by issues such as the type of data to be collected, method of data collection and the purpose of the study (Saunders, 2011).

The study employed concurrent mixed methods research design by combining qualitative and quantitative data in drawing conclusions. Concurrent mixed methods research design is a methodology that incorporates multiple methods to address research questions in an appropriate and principled manner (Creswell & Plano-clark, 2011; Bryman, 2012; Creswell, 2015). This method is appropriate in collecting both quantitative and qualitative data. The use of this method enables researchers to answer research questions with sufficient depth and breadth (Enosh, Tzafrir & Stolovy, 2014). The quantitative approach

helps the researcher to collect data from a large number of participants; thus, increasing the possibility to generalize the findings to a wider population.

The qualitative approach, on the other hand, provides a deeper understanding of the issue being investigated and brings out in-depth views of its participants (Bryman, 2012; Creswell & Plano Clark, 2018). Concurrent mixed methods research design, therefore, offered the best chance of answering the research questions by combining two sets of strengths while compensating at the same time for the weaknesses of each method (Saville, 2012; Plano Clark & Ivankova, 2016).

The use of structured questionnaires formed the quantitative aspect of research in this study and this targeted the health workers. Expert opinion from the trade union representatives and management representatives was sought using an interview guide, this formed the qualitative aspect of research in this study.

3.4 Target Population

A target population is classified as all members of a given group to which the investigation is related (Neuman, 2014). Cooper and Schindler (2011) defined population as the collection of elements about which the study refers to. Ott and Longnecker (2015) describe a target population as the total number of individuals that the research undertaking intends to collect data on and draw conclusions from. The study targeted respondents from the level 5 hospitals from the Central Region Economic Block (CEREB) which comprises ten counties.

The counties include Kiambu County, Murang'a County, Embu County, Nyeri County, Meru County, Tharaka Nithi County, Nakuru County, Laikipia County, Kirinyaga County and Nyandarua County. The selected counties were representative of the other counties as all counties are governed using the same structures as outlined in the Constitution of Kenya 2010 and the County Government Act of 2013.

The research focused on the 10 counties because the region experienced rampant industrial disharmony. In counties like Laikipia and Kirinyaga there were stand offs and protracted court battles between the county governments and the trade unions (Kenya Law, 2019; Kenya Law, 2020; Sitienei, Manderson & Nangami, 2021). The study also operated with budget constraints and could not optimally fund the study in some other regions experiencing similar problems. It was also seen as a more expansive region than the Mount Kenya region or former Central Province which only consisted of 5 counties and hence a more representative sample. It is also the bloc that contributes the largest share of the Country's economy at over 26% of the total National GDP based on data from the Kenya National Bureau of Statistics (KNBS, 2020). It also has a population of over 10.7 million as per the population census of 2019.

There have also been major industrial actions in the health sector within the region resulting to dismissals and court cases where for instance in Laikipia and Kirinyaga counties, there were stand offs and protracted court battles between the county governments and the trade unions (Kenya Law, 2019; Kenya Law, 2020; Sitienei, Manderson & Nangami, 2021).

The level five hospitals within the region are presented in table 3.1. Focusing at level 5 hospitals was based on the fact that these are the major health referral hospitals at the County level and play a critical role of attending to cases that are life threatening and which the lower tier hospitals are unable to undertake due to limited infrastructure and expertise. Many hospitals that were formally provincial and district hospitals were upgraded to level 5 to ensure that at least each county has a referral hospital.

Table 3.1: List of Level 5 Hospitals in CEREB

Thika level 5 hospital
Embu level 5 hospital
Nyeri county referral hospital
Meru teaching and referral hospital
Chuka County Referral Hospital
Nakuru County Referral Hospital
Nanyuki Teaching & Referral Hospital
Kerugoya level 5 hospital
Muranga County Referral hospital
J. M. Kariuki Memorial Hospital

Source: Hosi (2021). https://hosi.co.ke/category/county-referral-hospital

The unit of observation were the medical doctors, pharmacists, clinical officers, nurses, medical laboratory technologists and technicians, public health officers, radiologists, dieticians and nutritionists, consultants, trade union leaders and MS. The MS are involved in day to day leadership and management of the level 5 county referral hospitals whereas the trade union leaders play a critical role of championing their members' rights. The health workers' categories were as shown in table 3.2.

The target population for this study was 3,355 health workers, 10 MS, 10 union officers from Kenya Medical Practitioners, Pharmacists and Dentists Union (KMPDU) and 10 from Kenya National Union of Nurses (KNUN) represented by the secretary general and in absence; the chairman. The two unions hold the highest number of union is able members in Kenyas' devolved public health sector hence representative of the employees within the sector.

Table 3.2: Population Size

Medical practitioners	Target population
Medical doctors	266
Clinical officers	411
Nurses	2,053
Medical Laboratory Technicians and Technologists	242
Pharmacists	150
Public Health Officers	39
Radiologists	53
Dieticians and Nutritionists	59
Consultants	82
Total	**3,355**

Source: Kenya Harmonized Health Facility Assessment (KHFA) 2020/2021

3.5 Sampling Size and Sampling Procedure

A sample is a deliberate number of respondents who are to provide data from which a study draws conclusions about some larger group whom these people represent (Blumberg, Cooper & Schindler, 2014). The sample size is a subset of the population that is taken to be representatives of the entire population (Lampard, 2015). Using Bartlett, Kotrlik and Higgins table, the study selected 351 respondents as presented in table 3.3. Since the data that was collected in this study was largely categorical, the categorical data (margin of error= .05) as stipulated by Bartlett, Kotrlik and Higgins (2001) was adapted.

According to Bartlett, Kotrlik and Higgins (2001) rresearchers may use this table if the margin of error shown is appropriate for their study; however, the appropriate sample size must be calculated if these error rates are not appropriate. To ensure equal representation of the population stratified random sampling was used. Stratified random sampling was appropriate as it ensured equal representation of participants in the study by eliminating any possible bias (Blumberg, Cooper & Schindler, 2014).

Table 3.3: Sample Size

Medical Practitioners	**Target population**	**Sample size**
Medical doctors	266	28
Clinical officers	411	43
Nurses	2,053	214
Medical Laboratory Technicians and Technologists	242	25
Pharmacists	150	16
Public Health Officers	39	4
Radiologists	53	6
Dieticians and Nutritionists	59	6
Consultants	82	9
Total	**3,355**	**351**

Source: author 2021

From Table 3.3 the total sample size was 351 respondents. Aside from the 351 medical practitioners, 10 Medical Superintendents (MS), 10 union officials from KMPDU and 10 from KNUN respectively were selected for participation in the study through purposive sampling. According to Saunders and Thornhill, (2009) purposive sampling requires selecting participants who are knowledgeable about the issue in question, sheer involvement in and experience of the situation.

Purposive sampling is appropriate when the targeted respondents are not readily available because of their busy schedules or positions (Saunders & Thornhill, 2009). Scales and Brown (2020) in a study on the effect of affective commitment and harmonious passion on voluntary turnover among social workers using mixed research design used stratified sampling method to select the most resourceful respondents to enrich the study with expert opinions. The researcher believed that the MS and union officials were knowledgeable about the issues under this study. Purposive sampling enabled the researcher to use judgment to select cases that were best in answering the research question(s) and also meet the research objectives (Saunders & Thornhill, 2019).

3.6 Data Collection, Methods and Instrumentation

Primary data was collected using questionnaires and interview guides. Primary data was preferred for this study because the researcher wanted to get first-hand information which accurately described the current phenomenon as noted by Robinson (2014). The questionnaire had both closed and open-ended questions. The close-ended questions were ordered on a 5-point Likert scale where the respondents were required to make a choice that best described the situation. Each Likert item generated a response from an ordinal 5-point Likert response categories where strongly agree = 5, Agree = 4, Neutral= 3, Disagree = 2 and Strongly Disagree = 1 as shown in appendix ii.

The open-ended questions brought out respondents' views that were not addressed sufficiently by the research tool. The researcher contacted administrators of the respective county referral hospitals by physical visits, phone calls and e-mails seeking appointments.

Most of the county referral hospitals are located in county headquarters making it more accessible since infrastructure is moderately established in these areas. The introductory letter from the institution of learning and NACOSTI license were presented to the respective sector administrators. Upon receiving these request forms, an appointment was scheduled where the researcher engaged the administrators on the logistics of the research, harmonization and some other in-house issues before the research was conducted. Upon agreement on the modalities of how the exercise was to be conducted, the researcher proceeded to the data collection exercise.

The questionnaires were distributed through a drop and pick method by use of well-trained research assistants to the health workers at the county referral hospitals. The study faced challenges at initial stages because some of the respondents were not willing to respond and this was attributed to some having busy schedules that made them not find time to fill in the questionnaires. To address this challenge of slow start in data collection, the researcher followed up through phone calls as well as physical collection of filled up questionnaires on a later date from the respondents. In some instances, the researcher identified a central point and a contact person within a facility where the filled-up questionnaires would be dropped for ease of collection.

To ensure competency of the research assistants; they were trained on various aspects of handling the respondents in the process of administering the questionnaires and on the ethical procedures while conducting the research (Vu & Hoffmann, 2011). The questionnaire was accompanied with a cover letter introducing the researcher and the

purpose of the study as well as a letter of introduction from the university and the research permit which was acquired from the NACOSTI.

Interview guide was developed as per the objectives guiding the study and administered to MS of the hospitals and the KMPDU and KNUN union officials. The interview guide was unstructured and this gave a lee way for the respondents to enrich the study with information that questionnaires may not have captured clearly. This approach allowed participants to set the parameters of conversation rather than be constrained by a predetermined research agenda. The interview questions were exploratory, and served as a guide to understanding the participants' perceptions (Aarons & Sommerfeld, 2011; Tran, 2014). Interviews were productive since the interviewer pursued specific issues of concern that led to focused and constructive suggestions (Saunders, Lewis & Thornhill, 2019).

Interviews involved individual and direct contact between the interviewees and interviewer, henceforth dispensing with non-reaction rates. Interviews are an appropriate source for collecting data that is difficult to obtain through a written response, such as personal experiences (Phillippe *et al*., 2010; Ocak, 2011). The use of interviews enabled deeper understanding of the topic by facilitating open conversation with study participants. It also allowed triangulation of findings by complementing quantitative data collected via questionnaires (Saunders, 2011).

The study adopted an in-depth interview technique into the state of industrial harmony in the Kenyas' devolved public health sector. The MS of level 5 county referral hospitals were engaged in the interview at their respective offices. The MSs' are involved in day to day

leadership and management of the level 5 county referral hospitals. The union leaders were also engaged through interviews at their respective stations or other agreed upon points which were found conducive for the engagement. The union leaders are often in the fore-front championing for their members' rights, involved in planning of medical workers' potential industrial actions and negotiation with their employers and thus it was important to involve them in the study.

3.6.1 Pilot Study

According to Cooper and Schindler (2011) a pilot study is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample. The pilot test was done to ensure that the research tool was valid and reliable and also to help improve its face validity (Smith, 2015). The pilot study was carried out at Karatina level 4 hospital in Nyeri County as the cadre of staff employed in level 4 hospitals are similar to those in level 5 hospitals. The exercise was carried out there because the level 4 hospital shared similar characteristics with other facilities where the study was to be undertaken. Reliability was tested by use of thirty-five questionnaires which were piloted with randomly selected medical practitioners which represents 10% of the population.

According to Mugenda and Mugenda (2013), when the study population is less than 10, 000 a sample size of between 10 and 30% is a good representation of the target population and hence 10 % is adequate for analysis. Cooper and Schilder (2011) indicated that, the rule of the thumb suggests that 5% to 10% of the sample for the study should be adequate for the pilot test. The questionnaires were issued to randomly selected employees from the various categories under the study.

The interview schedule was also tested so as to observe the respondents' attitudes and reactions as they answered the questions and assisted in assessing the wording, layout, content, form, sequence, instructions and the difficulty of questions asked. Sekaran and Bougie (2013) recommends that the pre-test should be done by use of personal interviews so as to observe the respondents' attitudes and reactions as they answer the questions.

The process of refinement was necessary so as to detect weaknesses in the research instrument, check on the language used, help in estimating the time allocation for items and to enhance the validity and reliability of the items. The pilot exercise helped to improve both the questionnaire and the interview schedule where questions were re-structured to a language where all the respondents would understand and give correct responses. Some of the questions which were lengthy were re-structured, the unclear and obscure ones were amended, and the ineffective and non-functioning questions discarded.

3.6.2 Validity of Research Instruments

The research tool was tested for validity to establish if it was accurate and able to give meaningful results as recommended by Taylor, Bodgan and Devault (2015). Validity is the ability of the research instruments to measure what the researcher intends to measure (Bolarinwa, 2015). The three types of validity used in this study included construct validity, content validity, and criterion validity. Construct validity refers to the degree to which inferences can legitimately be made from operationalization' in a study of the theoretical concept on which that operationalization was based (Drost, 2011; Houser, 2011).

Construct validity refers to the degree which inferences can legitimately be made from the operationalization of studying variables to the theoretical and empirical constructs. For construct validity, the questionnaire was divided into several sections to ensure that each section assesses information for a specific objective, and also ensure that the same closely ties to the conceptual framework of the study (Mahoney, 2008). The main aim of the researcher using construct validity was to determine whether the inferences made about the results of the assessment were meaningful and served the purpose of the assignment. A construct composite validity (Cronbach alpha) of 0.6 or above, is considered adequate (Bryman & Bell, 2015). Based on this argument, a coefficient of 0.6 or above for all the constructs was accepted.

Content validity refers to the extent to which the items on a test are fairly representative of the entire domain the test seeks to measure (Cooper & Schidler, 2014). To uphold content validity, the researcher formulated a draft questionnaire which was presented to trade union representatives by the virtue of the offices they hold, supervisors and other lecturers for fine tuning, reviewing and improving on the content. Expert opinion helped in ensuring that the questions and response categories allowed comparisons to other existing data (Salkind, 2010). Feedback received was used to fine-tune the questionnaire before embarking on the actual data collection.

Criterion validity is used to predict future or current performance. It correlates test results with another criterion of interest (Burns *et al*., 2017). It deals with the relationship between scale scores, and some specific measurable criterion. It tests how the scale differentiates individuals on a criterion it is expected to predict (Pallant, 2011). It is demonstrated when

there is a strong relationship between the scores from the two measurement procedures, which is typically examined using a correlation. For example, participants that score high on the new measurement procedure would also score high on the well-established test; and the same would be said for medium and low scores.

3.6.3 Reliability of Research Instrument

Reliability refers to the extent to which the measurement of a test remains consistent over repeated tests of the same subject under identical conditions (Churchil, Lacobucci & Israel, 2010). This implies that stability or consistency of scores over time or across raters (Arghode, 2012). According to Chakrabartty (2013) reliability measures consistency, precision, repeatability, and trustworthiness of a research instrument. It indicates the extent to which it is without bias (error free), and hence ensures consistent measurement across time and across the various items in the instruments (the observed scores). Reliability of the research instrument in this study was tested using an internal consistency test. Internal consistency was measured using Cronbachs' alpha coefficient (α).

The coefficient indicates how well the items in a set are positively correlated to one another (Benjamin & Orodho, 2014). The alpha ranges from 0, indicating no internal consistency to 1 showing complete internal consistency (Creswel, 2010). In this study a cut off co-efficient point of 0.7 and above was taken as an adequate level of reliability (Cronbach, 1951). The internal consistency of the questions was determined via Cronbachs' co-efficient alpha (Cronbach, 1951): $\alpha = \frac{k}{(k-1)}\left(1 - \frac{S\left(s^2 i\right)}{\left(s^2 sum\right)}\right)$ where:

k = the number of individual questions;

$s^2 i$ = the variances for all the individual questions, and

$s^2 sum$ = the variance for the sum of all the questions.

Table 3.4: Cronbachs' Alpha

Cronbachs Alpha	Internal Consistency
a≥0.9	Excellent
0.9>a≥0.8	Good
0.8>a≥0.7	Acceptable
0.7>a≥0.6	Questionable
0.6>a≥0.5	Poor
0.5>α	Unacceptable

Source: Cronbach, 1951

3.6.4 Reliability Test Results

This is the degree at which a specific measuring method provides comparable outcomes over a number of repeated tests that are related to the reliability measurements (Wilson, 2014). It also relates to an instrument of consistency to produce comparable outcomes at various moments. The questionnaires of the respondents were evaluated using a split-half method after pilot research. In this process, the system split odd and even numbers into two equal halves and scored individually after the test had been undertaken. The coefficient on each half of the test should be between 0 and 1.0 and was computed with the results closest to 1.0 being a more accurate tool. The coefficient correlation of 0.7 was adopted. The reliability test results are as shown in table 3.5.

Table 3.5: Reliability test

Variable	Cronbach's Alpha	Conclusion
IH	.79	Reliable
CSE	.92	Reliable
EIDM	.94	Reliable
COI	.81	Reliable
LRA	.96	Reliable
AC	.91	Reliable

IH- industrial harmony, CSE- collaborative stakeholder engagement, EIDM- employees' involvement in decision making, COL- continuous organizational learning, LRA- leaders' relational authenticity and AC- Affective commitment to adaptive leadership

The findings in Table 3.5 depicted that reliability test output was above the lower limit of acceptability of 0.7 alpha. The alpha coefficient of industrial harmony was 0.79, collaborative stakeholder engagement was 0.923, employees' involvement in decision making was 0.94, continuous organizational learning was 0.808, leaders' relational authenticity was 0.960 and affective commitment to adaptive leadership was 0.913. The Cronbach alpha coefficients were more than 0.7 and so the instrument was suitable to be used in collecting data (Cronbach, 1951).

3.7 Diagnostic Tests

Diagnostic tests are done on the data collected before it can be analyzed to determine if the findings from the data are valid (Harlow, Mulaik and Steiger, 2016). The relationship between the dependent and the independent variable according to Henwood (2014) should satisfy the assumption of normality, linearity and multi-collinearity. Normality tests, linearity tests and multi-collinearity tests were conducted to ensure model test assumptions are considered before running any regression model.

3.7.1 Normality Test

Normality test is the likelihood that the collected data has a normal distribution over the sampled population (Henwood, 2014). Gujarati and Porter (2009) explain that it is necessary to ensure that the data collected passes the normality test before subjecting it to analysis. The normality assumption is required in order to conduct single or joint hypothesis tests about the model parameters (Brooks & Condori, 2018). Normality test was checked using Kolmogorov-Smirnov test. The test compares the ordered sample values with the corresponding order statistics from the specified distribution. If p value <0.05, data is not normally distributed; otherwise, if p value> 0.05 the data is normally distributed (Razali & Wah, 2011).

3.7.2 Multi-collinearity Test

Multi-collinearity test is done to deduce if there is a linear relationship between the explanatory variables included in a multiple regression analysis (Lacobucci *et al.*, 2017). If the correlation value is found to be 0 then the conclusion is that correlation does exist between the explanatory variables (Field, 2009). In case the value obtained is 1 or -1 then the independent variables have perfect multi-collinearity. To test for multi-collinearity, Variance Inflation Factor (VIF) was carried out.

As explained by Lacobucci *et al.,* (2017), if the VIF value is lower than 3, it shows lack of multi-collinearity; when VIF ≥ 5 there is presence of multi-collinearity. However, if VIF values ≥10 or tolerance values lower than 0.1 there is a high multi-collinearity problem. If multi-collinearity exists, it means that some variables have to be excluded from the model

or re-defined. This allows for many variables to be removed or condensed into fewer dimensions or factors (James *et al*., 2013).

3.7.3 Linearity Test

Linearity test is used to test whether all linear regression models between a dependent variable and an independent variable are related to a straight line to the right or bottom right. Compare means were used to test for linearity and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out regression analysis. Regression models can only accurately estimate the relationship between dependent and independent variables if the relationship is linear (Williams, Grajales & Kurkiewcz, 2013).

3.8 Data Analysis and Presentation

Data analysis refers to a process through which users convert raw data into useful information for decision making (Hox, Moerbeek & Van de Schoot, 2010). It involves a step by step process that seeks to derive useful information from the raw data obtained from the field (Hair *et al*., 2010). Data once collected was diagnosed for, coded and cleaned. In this study data was analyzed using Statistical Package for Social Sciences (SPSS).

Data analysis involved both qualitative and quantitative analysis. Qualitative data collected through use of the interview schedule was analyzed using content analysis technique. The data was analyzed thematically, presented in narrative form, compared and integrated with quantitative results to draw conclusions. Quantitative data was analyzed using descriptive

statistics such as means and standard deviation and presented in the form of tables. Inferential analysis was also carried out using correlation, simple and multiple regression analysis to establish the nature and magnitude of the relationships between the variables.

Pearson's correlation was carried out to determine the nature and strength of the relationship that exists among the study variables. Pearson's correlation coefficient (r) ranges between ±1. Where r= +0.7 and above it indicates a very strong correlation; r=+0.5 to below 0.7 is a strong correlation; r=0.3-0.49 is a moderate correlation while r=0.29 and below indicates a weak correlation. Where r=0 it indicates that there is no correlation (Danacica, 2017). Regression analysis was conducted using simple linear regression models to determine the extent to which affective commitment influences the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector.

Hypothesis testing was conducted using p calculated values. The acceptance/rejection criterion was that, if P-value is > than 0.05, we accept the H_o but if it is <0.05, the H_o is rejected. In testing the significance of the model, the study followed the recommendations of Blumberg, Cooper and Schidler (2011) by using the adjusted coefficient of determination (R^2) to indicate the extent to which the variation in industrial harmony is explained by the variations in affective commitment. F-statistic was computed at 95% confidence level to test whether there is any significant effect of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector. If $p<0.05$, the H_0 was rejected; while if $p>0.05$ H_0 was accepted.

The model of the study is summarized in table 3.6.

Table 3.6: Summary of the model

$Y1 = \beta 0 + \beta 1X1 + \varepsilon$

Where;

Y1- Industrial harmony

X_1- collaborative stakeholder engagement

β_1 = the co-efficient of the independent variable

ε= Random error

$Y1 = \beta 0 + \beta 1X1 + \varepsilon$

Where;

Y1- Industrial harmony

X1- Employees' involvement in decision making

$\beta 1$ = The co-efficient of the independent variable

ε= Random error

$Y1 = \beta 0 + \beta 1X1 + \varepsilon$

Where;

Y1- Industrial harmony

X1- continuous organizational learning

$\beta 1$ = the co-efficient of the independent variable

ε= Random error

$Y1 = \beta 0 + \beta 1X1 + \varepsilon$

Where;

Y1- Industrial harmony

X1- Leaders' relational authenticity

$\beta 1$ = the co-efficient of the independent variable

ε= Random error

Mediation was tested using stepwise regression technique as proposed by Baron and Kenny approach (1986). When testing mediation, the study monitored changes in R-squared (R^2) from step i to step iv.
Industrial harmony =function (adaptive leadership, affective commitment)

Step i

Industrial harmony = $\beta 0 + \beta 1$ Adaptive leadership + ε

Adaptive leadership is statistically significant with Industrial harmony.

Step ii

Affective commitment = $\beta 0 + \beta 1$Adaptive leadership + ε

Affective commitment is statistically significant with adaptive leadership.

Step iii

Industrial harmony= $\beta 0 + \beta 1$Adaptive leadership + $\beta 2$ Affective commitment + ε

Affective commitment is statistically significant with industrial harmony.

Step iv

Sobel test was conducted to establish the indirect influence of affective commitment on the relationship between adaptive leadership and industrial harmony.

Saunders (2011) affirms that after data entry, checking of errors and data analysis, the next stage is presentation. Use of Statistical Package for Social Sciences (SPSS) made it easier

to present data through tables and diagrams generated electronically. Graphs, charts and tables were used. Quantitative data was presented by use of statistical tables and bar graphs while qualitative data was presented descriptively (Sekaran & Bougie, 2013).

3.9 Ethical Considerations

A letter of introduction from the university outlining the purpose of the study was presented to each of the selected MS and in some cases, permission was sought from the County Executive Secretary in charge of Health (CES - Health) so as to be allowed to collect the necessary data from the respondents. This was necessary so as to ensure that the data collection exercise was lawful and had the consent of the relevant authorities. In addition, the researcher obtained a research permit from the NACOSTI that was presented to the hospital administrators, union leaders and the respondents which assured them that the data intended to be collected was for academic purposes only. This also included having sought and being issued with an ethical letter from Karatina University. As such the researcher observed the standards of behaviour in relation to the rights of the study subjects.

All the respondents were informed of the objective of the study and the confidentiality of obtained information which gave informed consent. According to Cooper and Schindler (2011) ethics in research ensures voluntary participation and that no harm is inflicted on the respondents. The respondents were instructed not to record their names or contacts in the questionnaire so as to have their personal information remain undisclosed.

Personal information relating to the individual respondents' identities remained confidential and the researcher collected none of names or other identifying information during the survey. The researcher also ensured that there was informed consent by the

respondents. To this end, caution was taken to ensure that no participant was coerced into taking part in the study and the researcher sought to use minimum time and resources in acquiring the information required. Privacy and confidentiality was observed as recommended by Houghton, *et al.,* (2010). Moreover, the researcher did not offer any inducement to participants nor contact them at unreasonable hours and places.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings, analysis of data and the interpretation and presentation of this data. The chapter analysis the response rate, demographic data and provides the descriptive statistics and inferential analysis results on the influence of adaptive leadership on industrial harmony mediated by affective commitment in Kenyas devolved public health sector. The chapter also presents the results of the hypothesis testing, analyses and presentation of quantitative and qualitative data.

4.2 Analysis of Response Rate

The study target population was 3,355 medical practitioners. The sample size for the study was 351 medical practitioners drawn from the Kenyas' devolved public health sector in CEREB. The medical practitioners were medical doctors, pharmacists, clinical officers, nurses, medical laboratory technologists and technicians, public health officers, radiologists, dieticians and nutritionists and consultants. The data collection exercise was carried out in a period of three months and was collected through use of questionnaires and interviews.

The questionnaires were distributed through a drop and pick method to the 351 medical practitioners whereas interviews were conducted with MSs', KNUN and KMPDU officials. The data collection process was slow and this was occasioned by busy schedules of most of the respondents. To address this problem, constant follow ups were made over the phone as well as physical visits by the researcher and research assistants to check progress and assist those who required clarification in filling the questionnaires.

Out of 351 questionnaires distributed, 255 of the questionnaires were returned. The response rate was 72.6% and was above 60% that is considered good enough for data analysis and reporting. According to Fincham (2008), 60% response rate is considered good while that of 70% and above is considered excellent. A sample size of 72.6% is representative and was thus considered for further analysis. The interview schedule consisted of six questions interrogating the five variables of the study and was meant to correlate the leaders' views with those of the employees. The response rate for MSs' was 6 out of 10 representing 60% response rate, for KMPDU 7 out of 10 representing 70% response rate and for KNUN 6 out of 10 representing 60% response rate.

4.2.1 Gender of the Respondents

This research sought to establish the gender of the respondents. The findings are as presented in Table 4.1

Table 4.1: Gender of the Respondents

	Frequency	**Percentage**
Male	110	43.1
Female	145	56.9
Total	**255**	**100.0**

From the results in table 4.1, the findings revealed that the majority of the respondents were female constituting 56.9% while the male gender constituted 43.1%. The results imply that the majority of the staff working in the sector were female. More females have ventured into the medical field in the recent decade and this can be attributed to the massive campaigns undertaken by government and non-governmental organizations on affirmative action empowering women at all aspects of life (National Policy on Gender and

Development, 2019). The health sector is also looked into as an area of tender care which is mostly associated with the female gender (Mbanya *et al*., 2020).

4.2.2 Age of the respondents

The research study sought to establish the age of the respondents in the study. The findings are as presented in Table 4.2

Table 4.2: Age of the respondents

	Frequency	**Percentage**
18 to 30 years	66	25.9
31 to 40 years	98	38.5
41 to 50 years	73	28.6
51 to 60 years	18	7.0
Total	**255**	**100.0**

The results in Table 4.2 revealed that the majority of the respondents were in the age bracket of 31- 40 years representing 38.5% of the respondents. The respondents within the age bracket of 41-50 years, was the second largest constituting 28.6% of the respondents. Health workers falling in the age bracket of 18-30 years constituted 25.9% and those between 51-60 years constituted 7% of the respondents. Majority of the respondents were in the age bracket of 31-40 years.

A young and middle-aged workforce is aggressive and expressive and hence are able to speak out their ideas and suggestions. Their majority could be by virtue of having had the devolved government system of governance established from 2013 and many of the workers having been employed by the inaugural County Governments in their early and late 20s. This also meant that the respondents had more experience on health matters and therefore felt capable of answering the questionnaires as they felt competent and knowledgeable on the matters in question.

4.2.3 Number of years worked in the devolved public health sector

The study sought to establish the period that the respondents had worked in the devolved public health sector. The findings are as shown in Table 4.3.

Table 4.3: Number of years worked in the devolved public health sector

	Frequency	Percentage
Less than 1	18	7.1
1-3 years	66	25.9
3-6 years	106	41.6
Over 6 years	65	25.4
Total	**255**	**100.0%**

From the results in Table 4.3, most of the staff had worked for between 3-6 years and constituted 53.3%, staff who had worked for a period between 1-3 years constituted 25.9%. Employees who had worked for over 6 years in the Kenyas' devolved public health sector constituted 25.4%. The study further revealed that employees who had worked for a period of less than 1 year were the least in terms of the workforce composition, constituting a paltry 7.1%. These results show that most of the participants had over 3 years' experience in the sector implying that they were well conversant with the sector's operations and could therefore give informed opinions about the sector.

4.2.4 Highest level of education

The study sought to establish the respondents' highest level of education. The results are as shown in Table 4.4.

Table 4.4: Level of education

	Frequency	Percentage
Certificate	8	3.1
Diploma	147	57.7
Undergraduate	81	31.8
Postgraduate	19	7.4
Total	**255**	**100.0%**

The respondents were requested to indicate their highest education qualification. The results of educational attainment are presented in Table 4.4. The findings revealed that 57.7% of the respondents were Diploma holders and 31.8% had Bachelors' Degree as the highest qualification. The study further revealed that 7.4% of the respondents had pursued Post Graduate studies while only 3.1% of the respondents were Certificate holders. The results thus showed that the majority of the staff had at least a Diploma level of education implying that they had adequate academic qualifications to understand the constructs in the study and hence the study could rely on their opinions to make inferences.

Majority of the respondents had Diploma level of education. This can be explained by the virtue of having the Kenya Medical Training Colleges offering Diploma certificates and that this qualification is considered adequate for majority of the professions in the sector. The Bachelor's degrees are offered at universities and have a higher qualification entry points.

4.2.5 Job Designation

The study sought to establish the job designation of the respondents. The findings of job designation are presented in Table 4.5.

Table 4.5: Job designation

	Frequency	Percentage
Medical doctors	18	7.1
Clinical Officers	64	25.1
Nurses	127	49.8
Medical Laboratory technicians and technologists	22	8.6
Pharmacists	11	4.3
Public Health Officers	2	0.7
Radiologists	3	1.2
Dieticians and Nutritionists	3	1.2
Consultants	5	2.0
Total	**255**	**100.0**

From the results in Table 4.5, the majority of the respondents worked as nurses representing 49.8%, clinical officers constituted 25.1%, medical laboratory technicians; 8.6%, while medical doctors constituted 7.1%. The pharmacists consisted of 4.3%, consultants at 2.0%, radiologists & dieticians and nutritionists constituted 1.2 % respectively whereas public health officers constituted 0.7%. The nurses were the majority respondents. Their being majority respondents can be explained by virtue of their roles in the sector being the primary care workers who spend most of the time with patients both in the casualty and in the wards. They also attend to more patients and are charged with administering treatments and performing follow-ups on those patients who are on medication (Wakaba *et al*., 2014).

4.3 Diagnostic Tests

The study estimated various diagnostic tests before running a regression model to determine the influence of adaptive leadership on industrial harmony mediated by affective commitment in Kenyas' devolved public health sector. It is important to estimate diagnostic tests before running a statistical model in order to investigate if the calculated model and the assumptions made about the data and the model, are consistent with the

recorded data. Failure to undertake diagnostic tests may result in the computation of incorrect model parameters. The diagnostic tests estimated in this model included normality tests, linearity tests and multi-collinearity tests.

4.3.1 Normality Test

Normality test is the likelihood that the collected data has a normal distribution over the sampled population (Henwood, 2014). The study conducted analysis of the Kolmogorov-Smirnov test. The test was employed to determine if the data was fit for regression analysis. According to Ahad *et al*., (2011) a P-value >0.05 implies that the data is normally distributed and is fit to carry out regression analysis. However, a P-value of less than 0.05 would mean that the data is not normally distributed and hence not stable for regression model estimation. The results are as shown in Table 4.6.

Table 4.6: Normality Test

Variable	Kolmogorov-Smirnov Statistic	Sig.
Collaborative Stakeholder Engagement	0.113	0.72
Employees' Involvement	0.070	1.02
Continuous Organizational Learning	0.104	0.61
Leaders' Relational Authenticity	0.088	0.84
Employee Affective Commitment	0.091	0.94

The findings in Table 4.6, show that estimate P-value >0.05 for collaborative stakeholder engagement, employees' involvement, continuous organizational learning, leaders' relational authenticity and employee affective commitment indicating that the data set in the study was normally distributed and subsequent inferential analysis could be carried out.

4.3.2 Linearity Test

Compare means were used to test for linearity and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out regression analysis. Regression models can only accurately estimate the relationship between dependent and independent variables if the relationship is linear. If the linear sig value is >0.05, a linear relationship is found. Regression models can only accurately estimate the relationship between dependent and independent variables if the relationship is linear (Williams, Grajales & Kurkiewcz, 2013).

Table 4.7: Linearity Test

			Sig.
Industrial Harmony * Collaborative stakeholder engagement	Between Groups	(Combined)	0.000
		Linearity	0.000
		Deviation from Linearity	0.612
Industrial Harmony * Employee Involvement	Between Groups	(Combined)	0.000
		Linearity	0.008
		Deviation from Linearity	0.845
Industrial Harmony * Continuous Organizational Learning	Between Groups	(Combined)	0.000
		Linearity	0.000
		Deviation from Linearity	0.632
Industrial Harmony * Leaders' Relational Authenticity	Between Groups	(Combined)	0.000
		Linearity	0.000
		Deviation from Linearity	0.065
Industrial Harmony * Affective Commitment	Between Groups	(Combined)	0.003
		Linearity	0.000
		Deviation from Linearity	0.615

As shown in Table 4.7, the sig. deviation from linearity for collaborative stakeholder engagement against industrial harmony was 0.612>0.05, employee involvement 0.845>0.05, continuous organizational learning, 0.632>0.05, leader's relational authenticity, 0.065>0.05, and affective commitment and industrial harmony sig. value deviation from linearity was 0.615> 0.05. The linearity test results indicated that the data set was exhibiting a linear pattern hence linear regression modeling could be conducted since all the linearity tests for the variables were > 0.05 and regression analysis could be done.

4.3.3 Multi-Collinearity Test

Collinearity test was conducted to ascertain whether the data suffered from severe multi-collinearity. Multi-collinearity is the occurrence of high intercorrelations among two or more independent variables in a multiple regression model. Collinearity is determined based on the nature of correlation between study variables. Variance Inflation Factor (VIF) is a tool that is used to help identify the degree of multi-collinearity. It quantifies the severity of multi-collinearity in an ordinary least squares' regression analysis. AVIF value >5 implies presence of severe multi-collinearity (Kock & Lynn, 2012). Collinearity test results are presented in Table 4.8.

Table 4.8: Collinearity Test Findings

Model	Collinearity Statistics	
	Tolerance	VIF
Collaborative Stakeholder Engagement	.608	1.644
Employee Involvement	.528	1.893
Continuous organizational Learning	.472	2.120
Leaders Relational Authenticity	.645	1.551
Employee Affective Commitment	.590	1.695
Industrial Harmony	.497	1.821

The tolerance for collaborative stakeholder engagement was 1.644<5, employee involvement in decision making was 1.893<5, continuous organizational learning was 2.120<5, leaders' relational authenticity was 1.551<5, affective commitment was 1.695<5 and for industrial harmony was 1.821<5. The results indicated that VIF statistics were <5 for all the variables which signify that the data did not suffer from severe multi-collinearity and hence suitable for regression analysis.

4.4 Descriptive Statistics

This study used both descriptive and inferential statistics to analyze data. Descriptive statistics were used to describe the demographic characteristics of the sector and the respondents' opinions, and were computed to obtain information about measures of central tendency and dispersion such as mean and standard deviation. The descriptive results present the summary of the variable characteristics as indicated by the respondents. The respondents were requested to respond to a number of statements based on the extent to which each of the statements applied in a Likert scale of 1-5; where 5 represented strongly agree, 4 represented agree, 3 represented not sure, 2 represented disagree and 1 represented strongly disagree.

The study used descriptive measures (mean and standard deviation) to carry out this analysis. The mean score was calculated as the average of the scores for an attribute by all the respondents and was interpreted based on the Likert scale. Standard deviation was used to measure how far the individual responses deviated from the mean.

4.4.1 Descriptive Statistics for Collaborative Stakeholder Engagement

This research sought to establish the influence of collaborative stakeholder engagement on industrial harmony in Kenyas' devolved public health sector. To establish the level of collaborative stakeholder engagement the research used a set of nine statements. The table 4.9 shows the responses of the set questions.

Table 4.9: Descriptive Statistics for Collaborative Stakeholder Engagement

	Statement	Mean	SD
i.	Negotiation as one of conflict resolution mechanisms is largely employed in this hospital to address any employment conflicts	2.17	1.29
ii.	In case of conflict on any agreed terms of employment between hospital management and employees, mediation by labour unions and national government are employed	2.37	1.33
iii.	Discussions held by the health workers associations organizations and hospital management are often fruitful	2.44	1.44
iv.	This hospital is responsive to the needs of the hospital employees in terms of communicating any information in time	2.36	1.40
v.	Revision of human resource policies are communicated to health care workers in time	2.33	1.43
vi.	Health care workers are actively involved in the formulation of human resource policies in this hospital	2.22	1.36
vii.	There is timely communication of feedback to employees regarding any work-related complaints	2.47	1.43
viii.	Hospital management work hand in hand with employees to resolve any employment conflicts	2.31	1.36
ix.	The policies guiding recruitment and remuneration are tied to the needs of health workers	2.37	1.38
Mean of means		**2.34**	**1.38**

N=255

Item i sought to establish the extent to which negotiation as one of conflict resolution mechanisms is employed in the sector to address employment conflicts. The results recorded a mean score of 2.17 showing that the extent to which negotiation as one of conflict resolution mechanisms is employed in the sector to address employment conflicts is low. The standard deviation was 1.29 showing that there was minimal variation among the respondents. Item ii sought to establish whether in case of conflict on any agreed terms of employment between management and employees, mediation by labour unions and national government are employed. The results recorded a mean score of 2.37 and a standard deviation of 1.33.

The results indicated that the rating on mediation by labour unions and national government was low and there was minimal variation among the respondents. Item iii sought to establish whether the discussions held by the health workers' unions and management are often fruitful. The results recorded a mean score of 2.44 and a standard deviation of 1.44. The results portrayed that the respondents did not agree that discussions held by the health workers' associations and management are often fruitful.

Item iv sought to establish whether the sector is responsive to the needs of the employees in terms of communicating any information in time. The results recorded a mean score of 2.36 and a standard deviation of 1.40. The results show that the respondents disagreed that the management responds to the needs of the employees on time. Item v assessed on whether revision of human resource policies is communicated to health care workers in time. The results recorded a mean score of 2.33 and a standard deviation of 1.43 showing that there are gaps of engagement in the sector. Item vi assessed on health care workers

being actively involved in the formulation of human resource policies in the sector. The results recorded a mean score of 2.22 and a standard deviation of 1.36. This signifies a low score which signifies lack of engagement between the two parties.

Item vii assessed on there being timely communication of feedback to employees regarding any work-related complaints. The results recorded a mean score of 2.47 and a standard deviation of 1.43. The results showed that timely communication of feedback to employees regarding any work-related complaints was moderately rated. The standard deviation of 1.43 indicated minimal deviation among the respondents. Item viii assessed on whether management works hand in hand with employees to resolve any employment conflicts. The results recorded a mean score of 2.31 showing that the extent to which management works hand in hand with employees to resolve any employment conflicts is moderate. The standard deviation of 1.36, showed that there was minimal variation among the respondents.

The last item number, ix assessed on whether the policies guiding recruitment and remuneration are tied to the needs of health workers. The results recorded a mean score of 2.37 and a standard deviation of 1.38. The results show that the respondents disagreed that policies guiding recruitment and remuneration are tied to the needs of the health workers. The mean of means score was 2.34 signifying that the level of collaborative stakeholder engagement was low with the standard deviation of 1.38 signifying that there was minimal variation among the respondents.

> *The findings were also collaborated with the open-ended questions responses from the respondents. Opinion was sought from the respondents on how collaborative stakeholder engagement influenced industrial harmony in Kenyas' devolved public health sector. The respondents' views were that; improvements are evident, though*

much still needs to be done, that most goals are yet to be met, the recruitment process is not collaborative and hence not transparent, employees rarely voice their issues because they might be fired when they provide strong points and that employees rarely get chances for engagements by management.

These results were supported by results from interviews with MS, KNUN and KMPDU officials who posted mixed results. 67% of MSs' reported that there was collaborative stakeholder engagement whereas 86% of KMPDU and 83% of KNUN officials disagreed that there is collaborative stakeholder engagement. The MSs' reported that there are grievance handling mechanisms in place. However, the KNUN discredited this argument by saying that outcomes at times are dictated by management leading to legal tussles.

The union officials also cited that CBAs are not fully implemented leading to disharmony and that negotiations are at times affected by red tape procedures. In addition, they reported that employee satisfaction surveys are carried out, but employees rarely get feedback on such exercises and that information is released selectively and there is no transparency.

These findings concur with the study findings of Thuku *et al*., (2020) who established that strengthening coordination mechanisms at the national and county levels helped harmonize health care services. Similarly, Modha (2021) found out that collaborative stakeholder engagement that manifests through shared authority, responsibility and accountability for a common goal brings about work harmony.

4.4.2 Descriptive Statistics for Employees' Involvement in Decision Making

Participation of employees in decision-making processes has resulted in robust decisions that significantly enhance organizational value; though the extent to which employees should participate in organizational decision making is still a matter that there is no consensus and under what terms and conditions of engagement (Irawanto, 2015). The descriptive findings of employees' involvement in decision making was analyzed based on the mean and standard deviation as presented in Table 4.10.

Table 4.10: Descriptive Statistics for Employees' Involvement in Decision Making

Statement		Mean	SD
i.	Both the supervisors and employees agree on performance targets and regularly review the agreed targets	2.30	1.26
ii.	In this hospital, the exchange of ideas between the management and employees has helped promote a friendly working environment	2.33	1.25
iii.	Employees are actively involved during performance appraisal	2.36	1.31
iv.	The working schedules for workers in the hospital are agreed upon through consultation between employees and hospital management	2.38	1.33
v.	Employees input and ideas are sought before major decisions that affect them are made	2.33	1.31
vi.	Collective bargaining mechanisms focusing on safety and welfare of employees in this hospital are regarded so as to enhance favorable work environment	2.35	1.34
vii.	There is a well-structured mechanism to recognize the input of employees in this hospital	2.44	1.34
viii.	During pay review processes consideration is given to the suggestions of the health care workers	2.49	1.37
ix.	There is a suggestion scheme where employees can present their views for consideration in decision making	2.39	1.32
Mean of means		**2.37**	**1.31**

N=255

Item i sought to assess whether the supervisors and employees agree on performance targets and regularly review the agreed targets. The results recorded a mean score of 2.30 and a standard deviation of 1.26. Lack of agreement on performance targets can adversely affect industrial harmony. Item ii assessed whether exchange of ideas between the management and employees has helped promote a friendly working environment. The results recorded a mean score of 2.33 and a standard deviation of 1.25. These findings signified that there is a challenge of having a conducive working environment.

Item iii, iv and v sought to assess whether employees are actively involved during performance appraisal exercises, whether working schedules for workers are agreed upon through consultation between employees and management and whether employees input and ideas are sought before major decisions that affect them are made. The results produced mean scores of 2.36, 2.38 and 2.33 respectively and standard deviations of 1.31, 1.33 and 1.31 respectively.

These findings showed that the respondents disagreed that there were healthy consultations and this could lead to apathy and disorientation. Item vi sought to assess whether collective bargaining mechanisms focusing on safety and welfare of employees are regarded so as to enhance a favorable work environment. The results recorded a mean score of 2.35 and a standard deviation of 1.34. These findings revealed that there was a challenge of a favorable work environment. Item vii and viii assessed on whether there are well-structured mechanisms to recognize the input of employees and whether during pay review processes consideration is given to the suggestions of the healthcare workers.

The results recorded mean scores of 2.44 and 2.49 and standard deviation of 1.34 and 1.37 respectively. The results projected that the respondents were neutral signifying that employees' suggestions are not prioritized in the sector. The standard deviations signifying that there was minimal variation among the respondents. Item ix sought to assess whether there were suggestion schemes where employees could present their views for consideration in decision making. The results recorded a mean score of 2.39 and a standard deviation of 1.32. The results signified a situation whereby the respondents had no trust with the suggestion scheme system. On aggregate, the results showed a mean of means

score of 2.37 indicating that majority of the employees rated lowly that the management was involving them in decision making with minimal variation of 1.31 as indicated by the standard deviation.

> *These results concurred with the responses from the open-ended questions by the respondents. The respondents were asked of their opinion on how employee participation in decision making has influenced industrial harmony in Kenyas' devolved public health sector. The respondents were of the view that employee participation in decision making has been partially addressed, but improvements are still needed, that there is minimal consideration of employee participation during decision making, that employees should be given equal chances of participation, that the voices of employees are not heard, and that at times the decisions made are ineffective because they are not considerate of the input of the employees.*

In a related question item, an interview was carried out on the MSs', the KNUN and KMPDU officials. They were asked to give their views on how employees involvement in decision making has influenced industrial harmony in Kenyas' devolved public health sector. Responses by union officials seemed to render support to the views put forth by the respondents whereas those of the MSs' varied.

> *100% of the MSs' acknowledged that the management and workers' unions hold joint meetings which promotes cooperation and increases productivity and that the anonymous nature of suggestion schemes helps in bringing out issues that some employees cannot openly speak about. However, majority of the union officials (86% from KMPDU and 83% from KNUN) were of the view that not all decisions have been implemented fully, saying that the feedback mechanisms are bureaucratic which take long to get responses from management and this hampers harmonious relationships. They were also of the view that suggestion schemes are meant to fulfill government policy but not for employees benefit. This conflicting information from the management and the employee representatives revealed that there is a gap of involvement between the two parties.*

The results are in tandem with the findings by Sharif (2020) that the success of an organization depends on involving the workforce's entire capacity to generate new ideas and ways of working to enhance organizational competitiveness and efficient product and service delivery. Likewise, Dixit and Sharma (2014); Tamunosiki and Sorbarikor (2018)

established that proper implementation of employee involvement activities contributes positively in maintaining industrial harmony. However, Irawanto (2015), argues that employee involvement in decision making should be limited.

4.4.3 Descriptive Statistics for Continuous Organizational Learning

Continuous organizational learning is a transformational process through which different stakeholders contribute their learning experiences both individually and collectively to attain organizational goals. The study sought to investigate the influence of continuous organizational learning on industrial harmony within Kenyas' devolved public health sector. The descriptive statistics findings are presented in Table 4.11.

Table 4.11: Descriptive Statistics for Continuous Organizational Learning

Statement	Mean	SD
i. The management encourages research initiatives through funding innovati and helpful ideas from employees	2.08	1.35
ii. There are strategies and tactics to make knowledge accessible throu mentoring and apprenticeship	2.33	1.47
iii. The mentoring services provided by medical senior officers towards junic is inspiring and makes one feel part and parcel of the institution	2.31	1.43
iv. Refresher training is periodically undertaken by the hospital for its work in the respective sections.	2.29	1.46
v. The management emphasizes capacity building through project teams.	2.13	1.36
vi. There is a well-structured platform where medical employees can create a share knowledge in the hospital	2.19	1.47
vii. The hospital has partnered with other learning institutions like universit and medical training colleges to better equip their workers with necessa knowledge	2.24	1.43
viii. Continuous medical research, creation and utilization of contempora knowledge has helped this hospital deliver well its mandate	2.27	1.49
ix. There are established mechanisms of storing learnt lessons to make available for future reference	2.24	1.40
Mean of means	**2.23**	**1.36**

N=255

Item i sought to establish whether the sector management encourages research initiatives through funding innovative and helpful ideas from employees. From the results in Table 4.9, the respondents disagreed as shown by the mean score of 2.08 and a standard deviation of 1.35 signifying that more needs to be done in this area. Item ii sought to know whether there are strategies and tactics to make knowledge accessible through mentoring and apprenticeship. The mean score was 2.33 implying that majority of the respondents rated it moderately. Item iii sought to establish whether the mentoring services provided by medical senior officers towards juniors was inspiring and makes one feel part and parcel of the institution.

The respondents rated it at a mean score of 2.31 and a standard deviation of 1.43. This shows that the sense of belonging and inclusiveness was lacking and the standard deviation of 1.43 signifying minimal variation among the respondents. Item iv on the other hand sought to establish whether refresher trainings are periodically undertaken by the sector for its workers in the respective sections. Most of the respondents did not agree that the trainings are periodically undertaken as shown by the mean score of 2.29 and a standard deviation of 1.46. Item v sought to assess whether the management emphasizes capacity building through project teams. The respondents rating was a mean score of 2.13 and a standard deviation of 1.36 signifying that it was lowly rated and requires improvement.

Item vi sought to establish whether there is a well-structured platform where medical practitioners can create and share knowledge within the sector. Most of the respondents felt that there were no well-structured platforms as shown by the mean score of 2.19 and a standard deviation of 1.47. Item vii sought to establish whether the sector has partnered

with other learning institutions like universities and medical training colleges to better equip their workers with necessary knowledge. From the respondent's responses it was lowly rated with a mean score of 2.24 and a standard deviation of 1.43 showing that there was minimal variation among the respondents.

Item viii sought to assess whether continuous medical research, creation and utilization of contemporary knowledge has helped the sector deliver well its mandate. The respondents disagreed as shown by the mean score of 2.27 and a standard deviation of 1.49. Item ix sought to assess whether there are established mechanisms of storing knowledge to make it available for future reference. The results registered a mean score of 2.24 and a standard deviation of 1.40 signifying a low rating.

All the statements attracted a mean of means of 2.23 with a standard deviation of 1.36 which implied that the respondents lowly rated the Kenyas' devolved public health sector in terms of continuous organizational learning. These results suggest that even though Kenyas' devolved public health sector has embraced continuous organizational learning in achieving industrial harmony it is only to a moderate extent.

> *These results concurred with the responses from the open-ended questions by the respondents. The respondents were asked of their opinion on how continuous organizational learning has influenced industrial harmony in Kenyas' devolved public health sector. The respondents were of the view that continuous organizational learning was but to a moderate extent, that mostly learning that is prioritized is for the managers and only a few members in the junior cadres' benefit, that if emphasized it could make much improvement in service delivery.*

In a related question item, an interview was carried out on the MSs', the KNUN and KMPDU officials. They were requested to give their views on the platform of continuous

organizational learning and how that has influenced industrial harmony in Kenyas' devolved public health sector. Responses by union officials seemed to render support to the views put forth by the respondents whereas the MSs' differed.

> *83% of the MSs' reported that they carry out monthly training and mentoring sessions on different matters. The union representatives were of a contrary opinion however, saying that the training is limited and hence hampers knowledge creation and that training opportunities and that funds are always limited making it difficult to learn new knowledge. The scores being 71% for KMPDU and 83% for KNUN. The union representatives felt that proper mechanisms should be put in place to enhance knowledge acquisition, knowledge transfer and knowledge retention.*

The results concur with Kinzley (2018) that organizational learning is crucial in promoting industrial harmony. Similarly, Jusnitah and Linneria (2016) established that continuous organizational learning contributes to harmonious industrial relations. The findings however disagree with the findings of Landau and Cooke (2017) which indicated that employee training is not significant in cultivating industrial harmony.

4.4.4 Descriptive Statistics for Leaders' Relational Authenticity

Relational authentic leadership motivates followers and promotes individual, team and organizational effectiveness. Authentic leadership arises from the crossing of various aspects of leadership, ethical issues and positive organizational behavior. The authentic leader is confident, hopeful, optimistic, resilient, ethical, future-oriented and gives priority to developing associates to be leaders (Kempster, Iszatt-White & Brown, 2019). The descriptive statistics results are presented in Table 4.12.

Table 4.12: Descriptive Statistics for Leaders Relational Authenticity

Statement		Mean	SD
i.	The leadership in this hospital work towards creating win-win situations in case of internal conflict between the hospital management and workers	2.24	1.43
ii.	Managers are self-controlled and have a sober approach to issues	2.26	1.44
iii.	The management of this hospital has assisted employees to find meaning and connect with work	2.27	1.47
iv.	The leadership of the hospital considers employees opinions and views	2.47	1.56
v.	Hospital leaders have contributed in creation of a harmonious work environment	2.29	1.49
vi.	The leaders encourage openness and self-disclosure between management and employees	2.30	1.38
vii.	Hospital managers have a sense of self-correction and reflection in pursuing a harmonious work environment for all workers	2.38	1.46
viii.	Leadership in this hospital offers hope and encouragement to employees	2.30	1.47
ix.	The leaders in this hospital encourage sharing of information	2.35	1.51
Mean of means		**2.31**	**1.47**

N=255

On item i, majority of the respondents disagreed that the leadership works towards creating win-win situations in case of internal conflict between the management and workers as depicted by the mean scores of 2.24 and a standard deviation of 1.43. On item ii, the study sought to assess whether managers are self-controlled and have a sober approach to issues. The results recorded a mean score of 2.26 and a standard deviation of 1.44. The results indicated that the respondents disagreed with the statement that managers in the Kenyas' devolved public health sector are self-controlled and have a sober approach to issues.

Item iii and iv sought to assess whether the management assisted employees to find meaning and connect with work as well as consider employees' opinions and views. The

scores of 2.27 and 2.47 and standard deviations of 1.47 and 1.56 respectively showed that the employees felt left out in connecting with the work environment and having their opinions given attention. On item v, it was noted that most of the respondents disagreed with the statement that the leadership has contributed in creation of a harmonious work environment as shown by the mean score of 2.29 and standard deviation of 1.49. This can explain why there have been unrest in the sector.

Item vi and vii sought to assess whether leaders encourage openness and self-disclosure between management and employees and whether managers have a sense of self-correction and reflection in pursuing a harmonious work environment for all workers. The results recorded mean scores of 2.30 and 2.38 with standard deviations of 1.38 and 1.46 respectively. This suggests that the respondents felt that there was lack of openness and that managers were not working towards creating a harmonious work environment.

Item viii and ix sought to assess whether leadership offers hope and encouragement to employees and whether the leaders encourage sharing of information. The results show that the respondents disagreed that leadership offers hope and encouragement to employees as well as encourage sharing of information as shown by the mean scores of 2.30 and 2.35 and standard deviations of 1.47 and 1.51 respectively indicating that there is a need to create hope and openness for cohesion. On aggregate the results recorded a mean of means score of 2.31 indicating that the level of leaders' relational authenticity was low in the Kenyas' devolved public health sector.

> *The respondents were also asked to share their opinions on how leaders' relational authenticity has influenced industrial harmony in Kenyas' devolved public health sector. Their responses were that there has been slow decision making from the*

> *employers leading to poor performance, that managers sometimes mistreat workers because they lack understanding of the employee's needs, leaders need to make some improvement so that there can be industrial harmony, leaders lacking authenticity has brought about poor relations and that some managers have basically made working life feel as a burden to employees.*

In a related question item, an interview was carried out on the MSs' and the KNUN and KMPDU officials. They were requested to give their views on leaders' relational authenticity and how it has influenced industrial harmony in Kenyas' devolved public health sector.

> *On being interviewed 86% of the MSs' felt that leadership is transparent and open to constructive criticism and tolerant to divergent views. However, 71% of KMPDU and 67% of KNUN reported that employees' opinions are not sought or are disregarded making implementation of certain decisions difficult and cumbersome. Some managers were also said to be harsh and had dictatorial tendencies which make balanced processing a challenge. They reported that union officials do not get comprehensive feedback to give to their members as the managers keep telling them to wait without giving them specific timelines.*

Leaders' relational authenticity is an ingredient of conflict resolution at the workplace. Sector leadership displaying relational authenticity would cultivate trust among workers. The study findings concur with Fallatah (2020) who established that authentic leaders are able to create work environments that support and build trusting relationships. Miidom, Dyke-Ebirika and Tidjoro (2021) in a study on authentic leadership and workplace harmony, ascertained that authentic leadership enhances workplace harmony. However, Qureshi and Aremi (2018) established that authentic leadership significantly and negatively impacts turnover intention with partial mediating effect of workplace harmony.

4.4.5 Descriptive Statistics for Affective Commitment

Affective commitment captures how employees experience a sense of belonging and entitlement within an organization. Securing employees' affection and subsequently,

demonstrated commitment is a rising concern emerging in organizational development and human resource development practice. Descriptive results of affective commitment are presented in Table 4.13.

Table 4.13: Descriptive Statistics for Affective Commitment

	Statement	Mean	SD
i.	The recruitment, selection and promotion processes in this hospital are transparent and based on merit	2.46	1.39
ii.	The hospital management is compassionate towards the employees needs and requirements	2.43	1.42
iii.	Trust Employees have confidence in the manner in which the hospital management handles their affairs	2.40	1.40
iv.	Employees are psychologically empowered enhancing their competencies	2.45	1.40
v.	Working conditions in this hospital are conducive and favorable to workers resulting to greater job satisfaction	2.31	1.38
vi.	There is a sense of pride and ownership by employees as they feel as part and parcel of this hospital	2.35	1.38
vii.	Employees are assured of job security in this hospital and in case of separation due process is followed	2.37	1.42
viii.	Employees are recognized for new ideas and exceptional work increasing their morale	2.38	1.35
ix.	The hospital management is honest and supportive towards employees welfare	2.44	1.38
Mean of means		**2.39**	**1.39**

N=255

From Table 4.13, item i sought to establish whether the recruitment, selection and promotion processes in the sector are transparent and based on merit. It was deduced that most of the respondents disagreed that the recruitment, selection and promotion processes are transparent and based on merit as indicated by mean of 2.46 and a standard deviation of 1.39. On the other hand, item ii sought to assess whether, the sector management is

compassionate towards the employees needs and requirements. Majority of the respondents disagreed with the statement as shown by the mean score of 2.43 and a standard deviation of 1.42 signifying a moderate rating by the respondents.

Item iii sought to establish whether employees have confidence in the manner in which the sector management handles their affairs. The results recorded a mean score of 2.40 and a standard deviation of 1.40, showing a moderate rating by the respondents. Item iv sought to know whether employees are psychologically empowered enhancing their competencies. Most of the respondents disagreed that employees are psychologically empowered, enhancing their competencies as depicted by the mean score of 2.45 and standard deviation of 1.40.

These results signify that the recruitment processes and employee empowerment were lowly rated by the respondents. Item v sought to establish whether working conditions in the sector are conducive and favorable to workers resulting to greater job satisfaction. Majority of the respondents disagreed that working conditions in the Kenyas' devolved public health sector are conducive and favorable to employees resulting in greater job satisfaction as shown by the mean of 2.31 and a standard deviation of 1.38. The results signified that the working conditions were not conducive and favorable to the employees.

Item vi sought to assess whether there was a sense of pride and ownership by employees as they feel as part and parcel of sector. Most of the respondents disagreed that there is a sense of pride and ownership as depicted by the mean score of 2.35 and a standard deviation of 1.38. This implies low level of pride among the workers. Item vii sought to establish on

whether employees are assured of job security in the sector and in case of separation if due process is followed. The respondents did not agree as shown by the mean score of 2.37 and a standard deviation of 1.42. Item viii and ix sought opinion on whether employees are recognized for new ideas and exceptional work increasing their morale and the sector management is honest and supportive towards employee's welfare.

Most of the respondents disagreed as shown by the mean scores of 2.38 and 2.44 respectively and with standard deviations of 1.35 and 1.38 respectively. This is an indication that employees' confidence with the management is neutral and there is need for improvement. The mean of mean score was 2.39 with a standard deviation of 1.39 implying that the respondents disagreed that they are affectively committed in the Kenyas' devolved public health sector.

> *The respondents were requested to give their opinion on how affective commitment has mediated the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. This was done through open ended questions. Their responses were as follows; that every organization today needs to have employees who have affective commitment, that the leadership in Kenyas' devolved public health sector is less concerned of employees issues as they are merely addressed, satisfied employees offer excellent services which are needed to promote harmony in the health sector, employees are not satisfied with their current work environment, leaders are slow to adopt to the emerging changes in the health sector and that if employees were motivated to work, the level of absenteeism would reduce.*

On being asked how affective commitment influences the nature of leadership that they display and how this promotes industrial harmony in the sector the MSs', KNUN and KMPDU officials shared the following remarks.

> *MSs' had this to say "it gives one a feeling of inspiration and a feeling that one has played a role for and on the employees' success. KNUN representatives opined that; "One feels representative and continues to endear self to the employees to*

enable them continually have a sense of belonging and trust in the leader. KMPDU representative had this to say; "One feels happy, motivated and hence able to work more and better to create a harmonious conducive environment"

Affective commitment connects the health care workers to the work place bringing in a sense of belonging. The study findings align with Donkor *et al.,* (2021) that organizational commitment mediates adaptive leadership and employee performance and thus creating a harmonious working environment. The study findings also agree with the findings of Asif *et al*., (2019) whose study revealed that affective commitment partially mediates the relationship between adaptive leadership and work engagement. However, Chin (2014) while studying the effect of adaptive leadership on the relationship between affective commitment and work place harmony indicated that affective commitment did not mediate the relationship between adaptive leadership and workplace harmony in Chinese public sector.

4.4.6 Descriptive Statistics for Industrial Harmony

Industrial harmony was the dependent variable in this study. Industrial harmony is a state of relative peace and stability which involves trust among work groups, employee – management understanding as well as absence of discontent between members of an organization. The study sought to investigate the respondents' views on industrial harmony in the Kenyas' devolved public health sector using a set of nine statements. The findings were as presented in Table 4.14.

Table 4.14: Descriptive statistics for industrial harmony

Statement		Mean	SD
i.	Employees are involved in making crucial decisions pertaining issues in the hospital	2.48	1.34
ii.	Employees are ready to deliver on their obligations to this hospital because the management is conscious of their well being	2.40	1.36
iii.	Joint consultations are regularly held between the management and the workers representatives	2.46	1.37
iv.	Employees are committed to the strategic goals and objectives of the hospital to diligently offer health services guided by morals, competency and professionalism	2.45	1.39
v.	Performance appraisals are carried out jointly and matters arising addressed amicably.	2.43	1.32
vi.	Employees are willing to stay longer in this hospital because remuneration and other employees benefits address their needs	2.42	1.33
vii.	Work committees comprise of management and workers representatives	2.41	1.44
viii.	Employees are well equipped with resources, information and support to cope with difficult situations and setbacks at work.	2.43	1.38
ix.	Both management and employees focus at delivering quality service in serving clients in this hospital	2.35	1.30
Mean of means		**2.43**	**1.36**

N=255

Item i sought to assess whether employees are involved when the sector is making crucial decisions. The results indicate that the sector engaged employees to a low extent in decision making, as depicted by the mean score of 2.48 and a standard deviation of 1.34. Item ii sought to establish whether employees are ready to deliver on their obligations because the management is conscious of their well-being. The results recorded a mean score of 2.4

suggesting that the employees feel moderately that their well-being is not a priority of the management. Item iii sought to assess whether joint consultations are regularly held between the management and the workers' representatives.

The results show that the majority of the respondents did not agree that industrial democracy, joint consultations are regularly held between the management and the workers' representatives as depicted by the mean of 2.46 and standard deviation 1.37. The results suggest that dialogue between employees and management is not prioritized. Item iv sought to establish whether the employees are committed to the strategic goals and objectives of the sector to diligently offer health services guided by morals, competency and professionalism. Majority of the employees disagreed as depicted by mean of 2.45 and standard deviation of 1.39 signifying that there was minimal variation among the respondents.

Item v sought to assess whether performance appraisals are carried out jointly and matters arising addressed amicably in the sector. The mean score of 2.43 indicates that the respondents disagreed with this view implying that there was a gap in addressing the issue. Item vi sought to assess whether employees are willing to stay longer in the sector because remuneration and other employees' benefits address their needs. Majority differed on this statement as shown by the mean score of 2.42 with the standard deviation of 1.33 signifying that there was minimal variation among the respondents. Item vii sought to establish whether work committees comprise of management and employees' representatives.

Majority of the respondents did not agree as shown by the mean score of 2.41 and a standard deviation of 1.44 signifying a need to address the ambiguity. Item viii sought to establish whether employees are well equipped with resources, information and support to cope with difficult situations and setbacks at work. The respondents disagreed as deduced by the mean score of 2.43 and standard deviation of 1.38.

Item ix sought to establish whether both management and employees focus at delivering quality service in serving clients in the sector. The results recorded a mean score of 2.35 and a standard deviation of 1.30. The results showed that the respondents disagreed that there was cooperation between management and employees focusing on delivery of quality service to the clients. From the mean of means score of 2.43 and a standard deviation of 1.36; it is clear that most of the employees are not satisfied with the interventions undertaken by the sector towards achieving industrial harmony.

> *The respondents were requested to give their views on the status of industrial harmony in Kenya's devolved public health sector. Their responses were that democracy in the Kenya's devolved public health sector is minimal at the current state; attempts have been made, but much still needs to be done to achieve industrial harmony; that there are numerous issues raised by employees and not substantially responded to and this has limited achievement of industrial harmony.*

These results agree with the findings of Bhuiyan and Machowski (2012) that lack of industrial harmony in the public health sector is experienced globally, but the effects have been argued to be worst in low and middle-income countries. Locally, in Kenya Sitienei, Manderson & Nangami (2021) established that industrial disharmony has been on the rise resulting in suffering and loss of lives among the patients.

4.5 Inferential Statistics

The study had a set of five objectives. The study used correlation, simple and multiple regression analysis to achieve these objectives and test the hypothesis.

4.5.1 Correlation Between Collaborative Stakeholder Engagement and Industrial Harmony

The first objective of the study was to determine the influence of collaborative stakeholder engagement on industrial harmony in Kenya's devolved public health sector. It was hypothesized that collaborative stakeholder engagement has no significant correlation with industrial harmony. To achieve this objective, the research used correlation analysis. Table 4.15 shows the correlation between collaborative stakeholder engagement and industrial harmony in Kenyas' devolved public health sector.

Table 4.15: Correlation Analysis between Collaborative Stakeholder Engagement and Industrial Harmony in Kenyas' devolved public health sector.

		Industrial Harmony
Collaborative Stakeholder Engagement	Pearson Correlation	.430**
	Sig. (2-tailed)	0.000

The study found out that the correlation between collaborative stakeholder engagement and industrial harmony was (r=0.430). This implied that the correlation was positive and moderate.

4.5.2 Regression Analysis between Collaborative Stakeholder Engagement and Industrial Harmony

The study went further and carried out simple regression analysis between collaborative stakeholder engagement and industrial harmony in Kenyas' devolved public health sector. Table 4.16 shows the research findings.

Table 4.16: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2	Sig. F Change
1	.430[a]	.185	.182	4.57350	.185	57.340	1	253	.000

a. Dependent Variable: Industrial Harmony Score

b. Predictors: (Constant), Collaborative Stakeholder Engagement

The study found out that (R^2=.185) which means that collaborative stakeholder engagement explained 18.5% of industrial harmony. Thus, the findings signified that there are other factors other than collaborative stakeholder engagement that influence industrial harmony in Kenyas' devolved public health sector. This implies that the remaining percentage is explained by other factors other than collaborative stakeholders' engagement.

Table 4.17: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1199.374	1	1199.374	57.340	.000[b]
	Residual	5291.975	253	20.917		
	Total	6491.349	254			

a. Dependent Variable: Industrial Harmony Score

b. Predictors: (Constant), Collaborative Stakeholder Engagement

The ANOVA results in table 4.17 shows an F value of 57.340 and p-value of .000. The calculated p-value of .000<0.05 is an indication that collaborative stakeholder engagement is a significant predictor of industrial harmony in Kenyas' devolved public health sector. The ANOVA table results confirm that the overall model is statistically significant in explaining the relationship between collaborative stakeholder engagement and industrial harmony in the devolved public health sector.

Table 4.18: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
(Constant)	35.231	.286		123.013	.000
Collaborative Stakeholder Engagement	1.255	.166	.430	7.572	.000

a. Dependent Variable: Industrial Harmony Score

b. Predictors: (Constant), Collaborative Stakeholder Engagement

The findings in Table 4.18 show that the constant had an unstandardized coefficient of 35.231 which means that holding all other factors constant and collaborative stakeholder engagement at zero (0), industrial harmony level would be equal to 35.231. The t-statistic for the constant was found to be 123.013 which was greater than the t-critical value (at 152 df and 0.05 significance level= 1.655). The t-test statistic for this coefficient was found to be 7.572 which was greater than the t-test critical value (t-critical at 152 df and 0.05 significance level= 1.655).

The P-value for the collaborative stakeholder engagement coefficient was 0.000 which was lower than the 0.05 significance level which led to the rejection of the null hypothesis that collaborative stakeholder engagement has no significant influence on industrial harmony

in Kenyas' devolved public health sector and conclusion made that collaborative stakeholder engagement has a significant influence on industrial harmony in Kenyas' devolved public health sector.

The study established that the beta coefficient value of collaborative stakeholder engagement (β=1.255, p<.000) was positive and statistically significant implying that a change in collaborative stakeholder engagement had a 1.255 change in industrial harmony. In this regard, the first hypothesis that collaborative stakeholder engagement has no statistically significant influence on industrial harmony in Kenyas' devolved public health sector, was rejected. Conclusion was made that collaborative stakeholder engagement has statistically significant influence on industrial harmony in Kenyas' devolved public health sector.

The findings indicated that the correlation coefficient between collaborative stakeholder engagement and industrial harmony was 0.430 indicating a moderate and positive correlation between collaborative stakeholder engagement and industrial harmony. The coefficient value of collaborative stakeholder engagement (β=1.255, P-value 0.000<0.005) was positive and statistically significant implying that collaborative stakeholder engagement enhances industrial harmony in the devolved public health sector.

The summarized model was in the form of; $Y1= \beta0 + \beta1X1+\varepsilon$ thus,

Industrial Harmony= 35.231+ 1.255 Collaborative Stakeholder Engagement + error.

This shows that stakeholder engagement through various platforms such as meetings help in restoring industrial harmony. Modha (2021) noted that collaborative stakeholder engagement is manifested through shared authority, responsibility and accountability for a common goal. The trade union representatives largely argued that stakeholder engagement on industrial matters have not been fully entrenched in Kenyas' devolved public health sector in resolving employees' grievances. There are several issues that have hindered this processes that include dysfunctional disciplinary committees, bureaucracy, lack of involvement in policy making process and refusal to have employees' engagement as part of solutions to the challenges affecting the devolved public health sector. Overall, the findings of this study compare well with those of other studies.

The research findings agree with Auvinen (2017) whose study on stakeholders' engagement as a success factor for effective occupational health care, established that stakeholders serve an organization and its various actors as guides in identifying, planning and implementing strategies to develop occupational health care. These findings concur with the study findings of Thuku *et al.*, (2020) studying the coordination of health workforce management in the devolved healthcare in Kenya noted that strengthening coordination mechanisms at the national and county levels helped harmonize health care services. Similarly, Modha (2021) studying collaborative leadership with a focus on stakeholder identification and engagement and ethical leadership in dental clinics pointed out that collaborative stakeholder engagement that manifests through shared authority, responsibility and accountability for a common goal brings about work place harmony.

Wanjau *et al.,* (2021) studied stakeholder perceptions of current practices and challenges in priority setting for Non-Communicable Diseases (NCDs) control in Kenya using qualitative analysis. The study identified political leadership, government policies and budget allocation for NCDs, stakeholder engagement, media and peoples' cultural and religious beliefs as key stakeholder processes. The findings agree with the current study findings which shows that stakeholder engagement is key in bringing about industrial harmony. The current study has however also established that information sharing and dispute resolution mechanisms are also part and parcel of collaborative stakeholder engagement and contribute to industrial harmony.

4.5.3 Correlation Between Employees Involvement in Decision Making and Industrial Harmony

The second objective of the study was to determine the influence of employees involvement in decision making on industrial harmony in Kenyas' devolved public health sector. It was hypothesized that employee involvement in decision making had no statistically significant relationship with industrial harmony. To achieve this objective, the research used correlation analysis. Table 4.19 presents the correlation research findings.

Table 4.19: Correlation analysis between employee involvement in decision making and industrial harmony in Kenyas' devolved public health sector

		Industrial Harmony
Employee Involvement	Pearson Correlation	.322**
	Sig. (2-tailed)	0.000

The study established that the correlation between employee involvement in decision making and industrial harmony was (r=0.322). This implied that the correlation was positive and moderate.

4.5.4 Regression Analysis Between Employees Involvement in Decision Making and Industrial Harmony

The research went further and carried out simple regression analysis on the relationship between employees' involvement in decision making and industrial harmony in Kenyas' devolved public health sector. Table 4.20 shows the research findings.

Table 4.20: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.322[a]	.103	.100	4.79923	.103	29.052	1	252	.000

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (Constant), Employee involvement in decision making

The findings shown in Table 4.20, revealed an R square of .103. This implied that employee involvement in decision making explains 10.3% of industrial harmony in Kenyas' devolved public health sector. The R square is quite low because the model focused on a single predictor leaving out other predictors that would assert more influence on the outcome of the model. However, as per Bala (2018), a low R square does not necessarily mean the model is bad as long as the predictors are significant and can offer unique contributions to the outcome of the model. Thus, the finding signified that there are other factors other than employee involvement in decision making that influence industrial harmony.

Table 4.21: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	669.146	1	669.146	29.052	.000[b]
	Residual	5804.228	252	23.033		
	Total	6473.374	253			

a) Dependent Variable: Industrial Harmony Score

b) Predictors: (Constant), Employee involvement in decision making

The Analysis of Variance (ANOVA) was also done to determine if the model was fit to predict industrial harmony. The result shows an F value of 29.052 and P-value of .000. The calculated P-value .000<0.05 is an indication that employees' involvement in decision making is a significant predictor of industrial harmony in Kenyas' devolved public health sector. The ANOVA table results confirm that the overall model is statistically significant in explaining the relationship between employee involvement in decision in Kenya' devolved public health sector.

Table 4.22: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.248	.301		117.052	.000
	Employee Involvement	.939	.174	.322	5.390	.000

a. Dependent Variable: Industrial Harmony Score

b. Predictors: (Constant), Employee involvement in decision making

The study established that the beta coefficient value of employees' involvement in decision making (β=0.939, p<.000) was positive and statistically significant. In this regard, the first hypothesis that collaborative stakeholder engagement has no statistically significant influence on industrial harmony in Kenyas' devolved public health sector, was rejected.

Conclusion was made that employee involvement in decision making has statistically significant influence on industrial harmony in Kenyas' devolved public health sector.

The findings demonstrated that the constant had an unstandardized coefficient of 35.248 which means that holding all other factors constant and employee involvement at zero (0), industrial harmony level would be equal to 35.248. The t-statistic for the constant was found to be 117.052 which was greater than the t-critical value (at 152 df and 0.05 significance level= 1.655). The results also show that the standardized beta coefficient for employee involvement was 0.322. This means that if all the factors are held constant, a rise in employee involvement in decision making by a single unit leads to a 0.322 rise in industrial harmony in Kenyas' devolved public health sector.

The t-test statistic for this coefficient was found to be 5.390 which was greater than the t-test critical value (t-critical at 152 df and 0.05 significance level= 1.655). The P-value for employee involvement in decision making coefficient was 0.000 <0.05 significance level which led to the rejection of the null hypothesis that employee involvement has no significant influence on industrial harmony in Kenyas' devolved public health sector. Conclusion was made that employee involvement in decision making has a significant influence on industrial harmony in Kenyas' devolved public health sector.

The summarized model was in the form of; $Y1= \beta0 + \beta1X1+\varepsilon$ thus,

Industrial Harmony= 35.248+ .939 Employee Involvement in decision making+ error.

The findings indicated that the correlation coefficient between employee's involvement in decision making and industrial harmony was 0.322 indicating a moderate and positive

correlation. The coefficient value of employee's involvement in decision making (β=0.939, P,.0.000<0.05) was positive and statistically significant implying that employee's involvement in decision making enhances industrial harmony in the devolved public health sector.

The model summary implies that employee involvement explains 10.3% of industrial harmony in the Kenyas' devolved public health sector. This implied that employee involvement was only able to influence 10.3% of industrial harmony. The influence of employee involvement in decision making on industrial harmony was positive and statistically significant. Employees' involvement in decision making gives them an opportunity to express their opinions regarding certain issues.

Dede (2019) noted that allowing employees' input in developing the mission statement, establishing policies and procedures, promotion and determining perks is very important in increasing both productivity and enhancing peaceful coexistence within the workplace. Collective bargaining is very vital when it comes to negotiation of employees' remunerations and every employer should implement it fully to avoid industrial disharmony. Suggestion schemes are essential in improving any related employees' welfare and forms a major component of feedback mechanisms in institutions. Organizations should involve employees' in decision making through platforms such as engaging them through collective bargaining, setting up feedback mechanisms and establishing suggestions schemes.

The union representative's opinion was that not all CBAs have been implemented and that feedback mechanisms are not comprehensive. They also felt that the suggestion schemes are only meant to fulfill government policies but not for employees' benefit. They proposed that there should be timelines to handle CBAs, suggestions and feedback offered and that the processes should be inclusive.

Feedback is one of the most critical communication channels in realizing industrial harmony at the workplace. Feedback will help management to link the current actions of employees with future outcomes and try to resolve issues based on the current situation. Suggestions schemes enable organizations to leverage on creative and innovative ideas from their employees' which may not be expressed during formal meetings. Through the suggestion schemes the organization will be able to utilize the untapped talents and ideas from their employees and this will boost industrial harmony if employees' suggestions are handled effectively. Management discretion on whether to implement suggestions from employees can derail industrial harmony.

The results are in tandem with the findings by Sharif (2020) that the success of an organization depends on involving the workforce's entire capacity to generate new ideas and ways of working to enhance organizational competitiveness and efficient product and service delivery. Likewise, Dixit and Sharma (2014), Tamunosiki and Sorbarikor (2018) established that proper implementation of employee involvement activities contributes positively in maintaining industrial harmony. However, Irawanto (2015), argues that employee involvement in decision making should be limited.

4.5.5 Correlation Analysis of Continuous Organizational Learning and Industrial Harmony

The third objective of the study was to determine the influence of continuous organizational learning on industrial harmony in Kenya's' devolved public health sector. It was hypothesized that continuous organizational learning had no statistically significant relationship with industrial harmony. To achieve this objective, the research used correlation analysis. Table 4.23 presents the correlation research findings between continuous organizational learning and industrial harmony.

Table 4.23: Correlation analysis between continuous organizational learning and industrial harmony in Kenyas' devolved public health sector

		Industrial Harmony	
Continuous Organizational Learning	Pearson Correlation	.374**	
	Sig. (2-tailed)		0.000

The study established that the correlation between continuous organizational learning and industrial harmony was (r=0.374). This implied that the correlation was positive and moderate.

4.5.6 Regression Analysis Between Continuous Organizational Learning and Industrial Harmony

The study went further and carried out simple regression analysis on the relationship between continuous organizational learning and industrial harmony in Kenyas' devolved public health sector. Table 4.24 shows the research findings.

Table 4.24: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.374[a]	.140	.136	4.70623	.140	40.939	1	252	.000

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (Constant), Continuous Organizational Learning

The model summary implies that continuous organizational learning explains 14.0% of industrial harmony in Kenyas' devolved public health sector. Conversely, the finding implied that continuous organizational learning was only able to influence 14.0% of industrial harmony. Thus, the finding signified that there are other factors other than continuous organizational learning that affect industrial harmony.

Table 4.25: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	906.753	1	906.753	40.939	.000[b]
	Residual	5581.455	252	22.149		
	Total	6488.209	253			

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (Constant), Continuous Organizational Learning

The ANOVA was carried out to determine if the model was fit to predict industrial harmony. The results show an F value of 40.939 and a p-value of .000. This signified that the model was statistically significant.

Table 4.26: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	35.224	.295		119.285	.000
1	Continuous Organizational Learning	1.093	.171	.374	6.398	.000

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (Constant), Continuous Organizational Learning

The study established that the beta coefficient value of continuous organizational learning (β=1.093, p<.000) was positive and statistically significant. In this regard, the first hypothesis that continuous organizational learning has no statistically significant influence on industrial harmony in Kenyas' devolved public health sector, was rejected. Conclusion was made that continuous organizational learning has statistically significant influence on industrial harmony in Kenyas' devolved public health sector. The findings in Table 4.26 showed that the constant had an unstandardized coefficient of 35.224 which means that holding all other factors constant and continuous organizational learning at zero (0), industrial harmony level would be equal to 35.224.

The t-statistic for the constant was found to be 119.285 which was greater than the t-critical value (at 152 df and 0.05 significance level= 1.655). The results also show that the standardized beta coefficient for continuous organizational learning was 1.093. This means that if all the factors are held constant, a rise in continuous organizational learning by a single unit leads to a 1.093 rise in industrial harmony in Kenyas' devolved public health

sector. The t-test statistic for this coefficient was found to be 6.398 which was greater than the t-test critical value (t-critical at 152 df and 0.05 significance level= 1.655).

The P-value for the continuous organizational learning coefficient was 0.000 which was <0.05 significance level which led to the rejection of the null hypothesis that continuous organizational learning has no significant influence on industrial harmony in Kenyas' devolved public health sector. The study concluded that continuous organizational learning has a significant influence on industrial harmony in Kenyas' devolved public health sector.

The summarized model was in the form of $Y1= \beta0 + \beta1X1+\varepsilon$ thus;

Industrial Harmony= 35.224+1.093 continuous organizational learning +error.

The findings of simple regression indicated that continuous organizational learning explained 14.0% of industrial harmony in Kenyas' devolved public health sector. The coefficient of continuous organizational learning and industrial harmony was found to be positive and significant. The findings indicated that the correlation coefficient between continuous organizational learning and industrial harmony was 0.374 indicating a moderate and positive correlation between continuous organizational learning and industrial harmony. The coefficient value of employee's involvement in decision making (β=1.093, p-value 0.000<0.005) was positive and statistically significant implying that continuous organizational learning enhances industrial harmony in the devolved public health sector.

Continuous organizational learning is vital for innovation and is accompanied by change geared towards combating emerging challenges in the market so that there is harmony at

the workplace. Thus, organizational learning is an enabler of development and realization of efficiency within a business environment. Further, the delivery of quality services largely depends on the level of learning that the employees are exposed to. Increased organizational learning equips employees with skills and knowledge and this results in better service delivery. This also makes employees motivated because they are more equipped to handle the tasks at hand and more importantly their level of job satisfaction is likely to be enhanced and thus industrial harmony will be strengthened.

Organizational learning enables firms to respond quickly and adapt to the turbulent business environment. Proper management of knowledge gives an organization a competitive advantage because the institution will be able to have competent personnel that can formulate innovative solutions to emerging problems. Namada (2018) pointed out that organizations' ability to learn, acquire knowledge and innovate has emerged as an important factor influencing organizational performance and survival.

MSs' remarks during the interview were that there are mentoring sessions where skills are enhanced and that employees are taken for both short and long-term courses whereas the union representatives remarked that the mentorship programs need to be strengthened to enable junior staff tap knowledge from the more senior and experienced experts in different fields. This shows that both parties agree that organizational learning is a key ingredient in every organization's success.

The findings of this study were in tandem with other studies; for instance, studies by Kinzley (2018), and Tan and Olaore (2021) which revealed that continuous organizational learning improves industrial harmony through sharing knowledge in various platforms such as training and mentorships. Further Kinzley (2018) acknowledged that some training programs are tailored in promoting harmony at the workplace. This includes the establishment of knowledge retention schemes especially tapping from the most experienced employees to the incoming or the least experienced employees.

According to Jusnitah and Linneria (2016) training offers various avenues in which knowledge could be created and recreated to enhance a harmonious working environment. The study findings noted that the only way continuous learning can be sustained is through having units that create, share and retain knowledge for continuous learning in an organization so that the working environment becomes harmonious. This is also echoed by the findings of a study by Osaro and Charles (2014) who established that continuous learning supports industrial harmony through knowledge sharing. However, studies by Landau and Cooke (2017) and Alonazi (2021) found out that continuous organizational learning has insignificant influence on industrial harmony contradicting the current study finding which established that continuous organizational learning significantly influences industrial harmony in Kenyas' devolved public health sector.

4.5.7 Correlation between Leaders Relational Authenticity and Industrial Harmony

The fourth objective of the study was to determine the influence of leaders' relational authenticity on industrial harmony in Kenyas' devolved public health sector. It was hypothesized that leaders' relational authenticity had no statistically significant

relationship with industrial harmony. To achieve this objective, the research used correlation analysis. Table 4.27 presents the correlation research findings between leaders' relational authenticity and industrial harmony.

Table 4.27: Correlation analysis between leaders' relational authenticity and industrial harmony in Kenyas' devolved public health sector

		Industrial Harmony
Leaders Relational Authenticity	Pearson Correlation	.241**
	Sig. (2-tailed)	0.000

The study established that the correlation between leaders' relational authenticity and industrial harmony was (r=0.241). This implied that the correlation was positive and weak.

4.5.8 Regression Analysis between Leaders Relational Authenticity and Industrial Harmony

The study went further and carried out simple regression analysis on the relationship between leaders' relational authenticity and industrial harmony in Kenyas' devolved public health sector. Table 4.28 shows the research findings.

Table 4.28: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.241[a]	.058	.052	4.91630	.058	15.570	1	253	.000

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (constant), Leaders Relational Authenticity)

The model summary implies that leaders' relational authenticity explains 5.8% of industrial harmony in Kenyas' devolved public health sector. Conversely, the finding implied that leaders' relational authenticity was only able to influence 5.8% of industrial harmony. This finding signified that there are other factors other than leaders' relational authenticity that affect industrial harmony in Kenyas' devolved public health sector. The R square is low because the model focused on a single predictor leaving out other predictors that would assert more influence on the outcome of the model. Itaoka, (2012) observed that high R square does not necessarily determine the effectiveness of a predictor and a model with low R square can still have effective predictors explaining the outcome of the dependent variable in a model.

Table 4.29: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	412.720	3	137.573	5.681	.001[b]
	Residual	6078.629	251	24.218		
	Total	6491.349	254			

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (constant), Leaders Relational Authenticity)

The Anova was carried out to determine if the model was fit to predict industrial harmony. The results show an F value of 5.681. The conclusion made was that the model was good fit to predict the dependent variable. Further the study found the p-value for the F-statistic value was 0.01 which was lower than the 0.05 significance level. Therefore, based on the significance level, the conclusion made was that the model was a good fit to predict industrial harmony in Kenya's devolved public health sector. The coefficients obtained are indicated in Table 4.30

Table 4.30: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.231	.308		114.436	.000
	Leaders Relational Authenticity	.703	.178	.241	3.946	.000

a. Dependent Variable: Industrial Harmony Score
b. Predictors: (constant), Leaders Relational Authenticity

The study established that the beta coefficient value of leaders' relational authenticity (β=.703, p<.000) was positive and statistically significant. In this regard, the null hypothesis that leaders' relational authenticity has no statistically significant influence on industrial harmony in Kenyas' devolved public health sector, was rejected. Conclusion was made that leaders relational authenticity has statistically significant influence on industrial harmony in Kenyas' devolved public health sector.

ANOVA was also carried out to determine if the model was fit to predict industrial harmony. The findings in table 4.30 shows that the constant had an unstandardized coefficient of 35.231 which means that holding all other factors constant and leaders' relational authenticity at zero (0), industrial harmony level would be equal to 35.231. The t-statistic for the constant was found to be 114.436 which was greater than the t-critical value (at 152 df and 0.05 significance level= 1.655). The results also show that the standardized beta coefficient for leaders' relational authenticity was 0.703. This means that

if all the factors are held constant, a rise in leaders' relational authenticity by a single unit leads to a.703 rise in industrial harmony in Kenyas' devolved public health sector.

The t-test statistic for this coefficient was found to be 3.946 which was greater than the t-test critical value (t-critical at 152 df and 0.05 significance level= 1.655). The P-value for leaders' relational authenticity coefficient was 0.000 which was <0.05 significance level which led to the rejection of the null hypothesis that, leaders' relational authenticity has no significant influence on industrial harmony in Kenyas' devolved public health sector. The study concluded that leaders' relational authenticity has a significant influence on industrial harmony in Kenyas' devolved public health sector.

The summarized model was in the form of $Y1= \beta0 + \beta1X1+\varepsilon$ thus;

Industrial Harmony= 35.321+0.703 leaders' relational authenticity + error.

The findings indicated that the correlation coefficient between leader's relational authenticity and industrial harmony was 0.241 indicating a weak and positive correlation between leader's relational authenticity and industrial harmony. The coefficient value of leaders' relational authenticity (β=0.703, P,.0.000<0.005) was positive and statistically significant implying that leader's relational authenticity enhances industrial harmony in the devolved public health sector.

The model summary implied that leaders' relational authenticity explains 5.8% of industrial harmony in Kenyas' devolved public health sector. The coefficient of leaders' relational authenticity and industrial harmony was found to be positive and significant.

Authentic leadership enhances trust at the workplace which automatically improves working relationships. Authentic leadership tends to satisfy workers' demands on safety and sense of ownership as well as self-actualization.

The study concluded that leaders' relational authenticity has a significant influence on industrial harmony in Kenyas' devolved public health sector. Employees' behaviors tend to resonate with leadership that is transparent, ethical and that handles issues objectively without bias. Management ability to cultivate ethical and honest behavior among workers is an ingredient of a disciplined workforce that adheres to rules and regulations hence minimizing the probability of work-related conflicts in an organization.

Authentic leadership will enable employees to acquire intellectual simulation where they can be in a position to address issues and come up with solutions. Whenever employees have solutions at their disposal, it becomes easier to resolve any industrial related conflict before the crisis deepens. This enhances industrial harmony within the workplace. This concurs with a study by Boehm (2015) which established that moral traits exhibited as citizenship behavior are crucial in enhancing a harmonious working environment.

A transparent employer discloses all the required information pertaining to employee welfare and any form of agreement regarding their welfare. Lack of disclosure of sensitive information might promote suspicion, mistrust and lack of accountability which might cause a lot of unease at the workplace. The sector leadership was found not to be transparent, open to criticism and tolerant to divergent views. This can have a negative

influence on industrial harmony as there will be no comprehensive feedback to the employees. Feedback without set time frames can also be detrimental to good working relationships.

The managers were said not to be role models and some were said to have self-interests and that some were not psychologically qualified to manage employees or institutions. It will be imperative for the sector to enhance subordination of individual interests to organizational interests and as well as enhance managerial skills development for effective handling of employee issues. Management approach in processing information among employees should depict a balanced, transparent and harmonious formula in order to have a conducive working environment.

The findings of this study are in line with Fallatah (2020) study on the effect of authentic leadership on new graduate nurses' organizational identification, trust in the manager, patient safety climate, and willingness to report errors using non-experimental cross-sectional designs. The study established that authentic leaders are able to create work environments that support new graduate nurses' error reporting by strengthening their personal identification with the leader and building trusting relationships.

Muceldili *et al.,* (2013) observed that authentic leadership is an ingredient to conducive working environment. Internalized moral perspective in an organization is entrenched through elaborate processes such as cultivating trust through the leadership ranks. According to Coxen *et al.,* (2016) trust in a workplace is vital in enhancing a harmonious

working environment. This is because trust is considered a crucial tool in closing ranks and strengthening relationships among employers and employees thus promoting a harmonious working environment. Miidom, Dyke-Ebirika and Tidjoro (2021) in a study on authentic leadership and workplace harmony, ascertained that authentic leadership enhances workplace harmony.

A study by Waweru (2021) also observed that various authentic leadership aspects such as balanced processing, relational transparency and internalized morals significantly influence the industrial harmony at the workplace. However, the current study findings differed with Qureshi and Alemi (2018) who established that authentic leadership significantly and negatively impacts turnover intention with partial mediating effect of workplace harmony. The findings differed because the current study established a positive and significant relationship between authentic leadership while the previous study established a negative and significant relationship with the corresponding study variables.

4.5.9 Mediating Influence of Affective Commitment on the Relationship Between Adaptive Leadership and Industrial Harmony

The fifth objective of the study sought to establish the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony. To achieve the objective, the study tested the null hypothesis that affective commitment does not have statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

The study adopted the Baron and Kenny (1986) steps to establish the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony. The first step involved determining the influence of adaptive leadership on industrial harmony which was conducted using simple linear regression of adaptive leadership predicting industrial harmony. Thereafter, the second step involved simple regression analysis conducted with adaptive leadership predicting affective commitment in Kenyas' devolved public health sector.

The third step involved multiple regression analysis with affective commitment and adaptive leadership predicting industrial harmony in Kenyas' devolved public health sector. The final step involved sobel test analysis involving affective commitment and industrial harmony in the devolved public health sector. The direct influence of adaptive leadership on industrial harmony in Kenyas' devolved public health sector is shown in Table 4.31.

Table 4.31: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.442	.195	.192	.49925

From the findings in Table 4.31 adaptive leadership explains 19.5% of industrial harmony. Conversely, the finding implied that adaptive leadership was only able to influence 19.5% of industrial harmony. This finding signified that there are other factors other than adaptive leadership that affect industrial harmony in Kenyas' devolved public health sector.

Table 4.32: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	15.313	1	15.313	61.437	.000
	Residual	63.060	253	.249		
	Total	78.373	254			

The ANOVA was carried out to determine if the model was fit to predict industrial harmony. The results show an F value of 61.437 and a p-value of .000. This signified that the model was statistically significant.

Table 4.33: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	1.162	.165		7.060	.000
	Adaptive leadership	.546	.070	.442	7.838	.000

a. Dependent variable industrial harmony, b constant, predictors adaptive leadership

As can be seen in Table 4.33, it was established that adaptive leadership is a statistically significant predictor of industrial harmony (β=.546, p-value=0.000). One unit change in adaptive leadership alone explains 0.546 units of the total variations in industrial harmony in Kenyas' devolved public health sector. This means that in the absence of other variables influencing industrial harmony in Kenyas' devolved public health sector, adaptive leadership when left to act alone is responsible for 0.546 units of industrial harmony. In step one, the first condition for testing mediating influence was satisfied since adaptive leadership had a positive and significant influence on industrial harmony in the devolved public health sector.

In step two, simple regression analysis was conducted with adaptive leadership predicting affective commitment in the devolved public health sector. In step two, the independent variable should significantly influence the mediating variable. Variable in step two of testing for mediating influence was satisfied and the findings are as shown in Table 4.34.

Table 4.34: Regression Coefficient of Adaptive Leadership and Affective Commitment

a. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.473	.224	.221	.52688

b. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	20.283	1	20.283	73.065	.000
	Residual	70.234	253	.278		
	Total	90.517	254			

c. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	.945	.174		5.437	.000
	Adaptive leadership	.629	.074	.473	8.548	.000

a. Dependent variable affective commitment, b constant, predictors' adaptive leadership

From the results in Table 4.34c it was established that adaptive leadership is positive and statistically significant in predicting affective commitment in Kenyas' devolved public health sector (β=.629, p-value=.000). The second condition that the independent variable must be significant in predicting the mediator variable in step two of testing for mediating influence was satisfied. Step three involved conducting multiple regression analysis with

affective commitment and adaptive leadership predicting industrial harmony in Kenyas' devolved public health sector. In step three, the mediator should significantly predict the dependent variable for the test to proceed to the last step.

Table 4.35: Regression Coefficient of Adaptive Leadership and Affective Commitment on Industrial Harmony

a. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.462[a]	.213	.207	.49471

b. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	16.700	2	8.350	34.118	.000
	Residual	61.673	252	.245		
	Total	78.373	254			

c. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.030	.172		5.972	.000
	Adaptive leadership	.458	.078	.371	5.841	.000
	Affective Commitment	.141	.059	.151	2.380	.018

a. Dependent variable industrial harmony, b constant, predictors adaptive leadership, affective commitment

From the results in Table 4.35c the analysis of affective commitment as an independent variable explains 0.141 units of industrial harmony in the devolved public health sector. Affective commitment is statistically significant in explaining industrial harmony in Kenyas' devolved public health sector (β=.141, p-value=0.018). Adaptive leadership explains 0.458 units change of industrial harmony in Kenyas' devolved public health sector and is statistically significant (p-value=0.018<0.05).

It was established that adaptive leadership and affective commitment explains 21.3% of industrial harmony (Table 4.34a). Both adaptive leadership and affective commitment are significant predictors of industrial harmony in the devolved public health sector. It therefore means that there exists a partial mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the devolved public health sector. The test proceeded to step four where Sobel test was conducted to establish the indirect influence of affective commitment on the relationship between adaptive leadership and industrial harmony.

Table 4.36: Sobel Test Finding of Indirect Influence of Mediating Variable

T-Testing	Std error	P-value	Indirect influence of affective commitment on industrial harmony
2.30062862	0.0385499	0.02141263	0.088689

The Sobel test revealed that affective commitment mediated the relationship between adaptive leadership and industrial harmony by yielding an indirect influence of 0.088689 that is statistically significant (P=0.02141263<0.05). This implied that affective commitment improved the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

The study rejected the null hypothesis that affective commitment does not have statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. The conclusion made was that affective commitment has statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

The four steps for testing mediating influence advanced by Baron and Kenny (1986) were partially satisfied. These steps are highlighted as follows; In step one, adaptive leadership had a positive and significant influence on industrial harmony in the Kenyas' devolved public health sector(β=.546, p-value 0.000<0.05). Similarly, in step two adaptive leadership had a positive and statistically significant in predicting affective commitment in Kenyas' devolved public health sector (β=.629, p-value .000<0.005).

In step three, the predictor variable and the presumed mediating variable were regressed jointly as independent variables to establish the net influence on the dependent variable. In this case both adaptive leadership (β=.458, p-value .000<.005) and affective commitment (β=.141, p-value=0.018<.005) were found to be significant predictors of industrial harmony in the devolved public health sector.

When predictor and mediating variables are both statistically significant regarding their influence on the dependent variable as a result of multiple regression then an inference is drawn that the mediation is partial (Agler & De Boeck, 2017). Finally, in step four, the sobel test revealed that affective commitment mediated the relationship between adaptive leadership and industrial harmony by yielding an indirect influence of 0.088689 that is statistically significant (P=0.02141263<0.05). This implied that affective commitment improved the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

This indicates that there exists a partial mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. The study rejects the null hypothesis that affective commitment does

not have statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. The study concludes that affective commitment has statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

Affective commitment captures how employees experience a sense of belonging within an organization. Affective commitment contributes to a mind-set that involves a cognitive recognition that there is an important purpose in what one is doing in an organization characterized by desire to follow a course of action and exert effort to achieve organizational goals. Affective commitment as a mediator partially explains the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. A settled employee who adheres to terms and regulations of service will always be committed to industrial harmony.

The fact that an employee is committed to fulfill a certain course is always an incentive to realization of industrial harmony within an organization. The findings of this study agree with the findings of Asif *et al*., (2019) study which explored adaptive leadership, affective commitment, work engagement and creativity focusing on Chinese public sector employees. The study revealed that affective commitment partially mediates the relationship between adaptive leadership and work engagement, while both affective commitment and work engagement fully mediate the relationship between ethical leadership and employees' creativity. Likewise, Scales and Brown (2020) investigating the effect of affective commitment and harmonious passion on voluntary turnover among social workers established that affective commitment and harmonious passion influences voluntary turnover among social workers.

A study by Donkor, Dongmei and Sekyere (2021) on the mediating effect of organizational commitment on adaptive leadership and employee performance in state-owned enterprises in Ghana established that organizational commitment mediates adaptive leadership and employee performance. On the contrary however, Chin (2014) while studying the effect of adaptive leadership on the relationship between affective commitment and workplace harmony indicated that affective commitment did not mediate the relationship between adaptive leadership and workplace harmony in the Chinese public sector.

4.5.10 Adaptive Leadership and Industrial Harmony

The main aim of the study was to determine the influence of adaptive leadership on industrial harmony mediated by affective commitment. Adaptive leadership is a broad concept that has four aspects in accordance with this study. The four aspects of adaptive leadership in this study included; collaborative stakeholder engagement, employee involvement in decision making, continuous organizational learning and leaders' relational authenticity. The findings of the study revealed that collaborative stakeholder engagement, employee involvement in decision making, continuous organizational learning and leaders' relational authenticity had a positive and significant influence on industrial harmony in the Kenyas' devolved public health sector.

Overall, it was established that adaptive leadership is a statistically significant predictor of industrial harmony and had a positive and significant influence on industrial harmony (β=.546 p-value=.000). Adaptive leadership was also found to explain 19.5% of industrial harmony. Adaptive leadership is instrumental in offering solutions when there is a crisis such as industrial unrest. Adaptive leadership is essential in navigating through uncertain

times in an organization. The participatory nature of adaptive leadership increases quality of services in an organization thus making the working environment conducive and harmonious.

Today, the working environment is becoming dynamic and adaptive leadership is needed to offer solutions to emerging issues, especially rational ingredients such as involvement, collaboration and continuous learning. It is through adaptive leadership that employees will commit to an organization thus promoting conducive working environment. The core principle of adaptive leadership is bringing people together so as to get to an agreed position amicably. Adaptive leadership is keen in finding solutions by defining them carefully, and remedying appropriately. The study findings agree with the study by Alhosis (2019) on adaptive leadership and work harmony in the presence of affective commitment, which established that adaptive leadership has a significant effect on workplace harmony among nurses.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter the study findings are summarized according to the objectives as discussed in the previous section. Recommendations are also discussed based on the study findings and conclusions. The chapter finalizes by proposing areas that should be considered for further research.

5.2 Summary of Findings

The objective of this study was to determine the influence of adaptive leadership (collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning and leaders' relational authenticity) on industrial harmony mediated by affective commitment in Kenya's devolved public health sector.

5.2.1 Collaborative Stakeholder Engagement and Industrial Harmony

The first objective of the study was to determine the influence of collaborative stakeholder engagement on industrial harmony in Kenyas' devolved public health sector. The null hypothesis of the study was that there is no significant influence of collaborative stakeholder engagement on industrial harmony.

Based on the findings of the study, the null hypothesis was rejected and an inference made that collaborative stakeholder engagement significantly influences industrial harmony in Kenyas' devolved public health sector. Stakeholder engagement in the running of public services enhances public acceptance, successful intervention, effective and elaborate communication and improves decision-making processes.

It is through this process that long term relationships are established between employees and management in the health sector which brings about harmony within the working environment. Strengthening coordination mechanisms at the national and county levels through stakeholder coordination forums, capacity building, policy formulation, HRH regulation, and provision of standards and stakeholder collaborative platforms help harmonize HR practices.

5.2.2 Employees' Involvement in Decision Making and Industrial Harmony

The second objective was to establish the influence of employees' involvement in decision making on industrial harmony in Kenyas' devolved public health sector. The null hypothesis of the study stated that there is no statistically significant relationship between employees' involvement in decision making and industrial harmony in Kenyas' devolved public health sector. The descriptive findings of the study established that most of the respondents were in consensus that employees' involvement in decision making affected industrial harmony in Kenyas' devolved public health sector. However, employees' input of ideas was not reflected in policy, collective bargaining agreements were not fully implemented and employees' suggestions were not considered by management.

The study established that employees' involvement in decision making had a positive and significant influence on industrial harmony in Kenyas' devolved public health sector. The study established that even though CBAs were in place, not all of them have been implemented fully as the sector has been reluctant in actualizing them. Feedback mechanisms were found to be incomprehensive, bureaucratic and hence making it take long to get responses and thus hampering harmonious relationships.

Results also revealed that even though suggestion schemes are in place they are not trusted by employees who see them as only meant to fulfill government policy. It was also established that the process was not inclusive and that there were no set timelines in which feedback is offered. Cognizant to the findings of the study, the null hypothesis was rejected and inference made that employees' involvement significantly affects industrial harmony in Kenyas' devolved public health sector.

5.2.3 Continuous Organizational Learning and Industrial Harmony

The third objective of this study was to assess the influence of continuous organizational learning on industrial harmony in Kenyas' devolved public health sector. The null hypothesis of the study stated that there is no statistically significant relationship between continuous organizational learning and industrial harmony in Kenyas' devolved public health sector. The descriptive finding of the study established that most of the respondents agreed that continuous organizational learning affects industrial harmony in Kenyas' devolved public health sector. Nonetheless, the sector did not encourage research initiatives by funding, emphasizing on capacity building and lacked well-structured platforms of sharing, storing and retaining knowledge.

With the adoption of simple regression model, the study deduced that continuous organizational learning had a positive and significant influence on industrial harmony in Kenyas' devolved public health sector. As deduced from the interview schedule, mentoring sessions where skills are enhanced should be prioritized. Training opportunities and funds being limited making it difficult to learn new knowledge is retrogressive as it hampers acquisition of new skills and knowledge. The short and long-term courses, use of

consultants/experts invited to train staff, mentorship/attachment are a necessity in the sector and should be enhanced further.

Based on the findings of the study, the null hypothesis was rejected and an inference made that continuous organizational learning significantly affects industrial harmony in Kenyas' devolved public health sector. Organizational learning is a continuous action which forms the fundamental substance that gives a firm competitive edge over others. The sector should empower employees through learning in order to stay ahead because competition is no longer about physical resources but rather, includes other investments such as skills and knowledge.

5.2.4 Leaders' Relational Authenticity and Industrial Harmony

The fourth objective of the study was to establish the influence of leaders' relational authenticity on industrial harmony in Kenyas' devolved public health sector. The null hypothesis indicated that there is no statistically significant relationship between leaders' relational authenticity and industrial harmony in Kenyas' devolved public health sector. The descriptive statistics from the study depicted that many of the respondents were of the view that leaders' relational authenticity influenced industrial harmony in Kenyas' devolved public health sector. However, sector management has not been working hand in hand with the employees' and their representatives to create a win-win situation. Leadership in the sector does not offer hope and encouragement as well as consider opinions of employees.

The coefficient of leaders' relational authenticity was positive and statistically significant with industrial harmony in the devolved public health sector. Regarding the findings of the study, the null hypothesis was rejected and an inference made that leaders' relational authenticity significantly affects industrial harmony in Kenyas' devolved public health sector.

Interview results showed that the existing policies, at times, hinder balanced processing. This is an area that requires to be addressed and reviewing of the policies done through participative forums. Seeking employees' opinions can make implementation of decisions easy and effective. Disregarding employees' views is retrogressive and should be shunned. The sector leadership should be transparent and open to criticism as well as be tolerant to divergent views. This will have a positive influence on industrial harmony. Work progress feedback should also be given within time frames agreed on and where not possible progress reports should always be provided.

The managers should be role models and hence setting good examples for others to follow, should not be self-seekers and should be psychologically qualified to manage employees or institutions and adhere to the core values. The ability and willingness of leaders with these qualities to foster self-awareness and internalized moral perspectives through supporting mechanisms targeting ethical and physiological traits in employees, improves industrial harmony at the workplace. Management-employee engagement should depict a balanced, transparent and harmonious co-existence in order to have a conducive working environment.

5.2.5 Mediating Influence of Affective Commitment on Adaptive Leadership and Industrial Harmony

The fifth objective of the study was to examine the mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. The null hypothesis predicted that affective commitment does not have statistically significant influence on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

Collaborative stakeholder engagement, employee involvement in decision making, continuous organizational learning and leaders' relational authenticity were subjected to simple regression to test their relationship with industrial harmony and affective commitment as the mediating variable. It was established that affective commitment has a significant mediating influence on the relationship between leaders' relational authenticity, employees' involvement in decision making, collaborative stakeholder engagement and continuous organizational learning on industrial harmony in Kenyas' devolved public health sector.

The four steps for testing mediating influence advanced by Baron and Kenny (1986) were partially satisfied. In step one, adaptive leadership had a positive and significant influence on industrial harmony in the devolved public health sector. Similarly, in step two; adaptive leadership was found to be positively and statistically significant in predicting affective commitment in the devolved public health sector. Further, step three was satisfied since affective commitment had a positive and significant influence on industrial harmony. Both adaptive leadership and affective commitment were significant predictors of industrial

harmony in the devolved public health sector. This indicates that there exists a partial mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

In step four, the sobel test revealed that affective commitment mediated the relationship between adaptive leadership and industrial harmony. Based on these findings, the study rejected the null hypothesis that affective commitment does not mediate the relationship between adaptive leadership and industrial harmony. Conclusion was made that affective commitment mediates the relationship between adaptive leadership and industrial harmony in Kenya's devolved public health sector. Affective commitment captures how employees experience a sense of belonging within an organization.

Affective commitment contributes to a mind-set that involves a cognitive recognition that there is an important purpose in what one is doing in an organization characterized by desire to follow a course of action and exert effort to achieve organizational goals.

5.3 Conclusions

The conclusions in this section were derived from the key findings of the study. Conclusions are based on the strength and nature of relationship between the study variables that include collaborative stakeholder engagement, employees' involvement in decision making, continuous organizational learning, and leaders' relational authenticity as the independent variables and affective commitment as the mediating variable on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector.

The first objective of this study was to establish the influence of collaborative stakeholder engagement on industrial harmony in Kenyas' devolved public health sector. Collaborative stakeholder engagement was found to have a positive and significant influence on industrial harmony in Kenyas' devolved public health sector. The findings indicated that the correlation coefficient between collaborative stakeholder engagement and industrial harmony was 0.430 indicating a moderate and positive correlation. This shows that stakeholder engagement through various platforms such as meetings help in restoring industrial harmony. The study concluded that collaborative stakeholder engagement enhances industrial harmony.

The quality service delivery of medical services in the sector is a collaborative task that brings on board all stakeholders in the sector. Stakeholder engagement will assist the sector in identifying, planning and implementing strategies that will enhance effective and efficient service delivery. The study findings were also in support of the social exchange theory based on the prism that employees' perceived organizational support creates a sense of indebtedness and an obligation within an individual to repay the organization. The results were also in line with the existing empirical literature which supports that there is a positive relationship existing between collaborative stakeholder engagement and industrial harmony. In addition, literature supports that collaborative stakeholder engagement promotes industrial harmony.

The second objective of this study was to establish the influence of employees' involvement in decision making on industrial harmony in Kenyas' devolved public health sector. The study established that employees' involvement in decision making had a

positive and significant influence on industrial harmony in Kenya's' devolved public health sector. Employees' involvement was positively correlated with industrial harmony in Kenyas' devolved public health sector.

The results were consistent with propositions of social exchange theory which outlines that employees develop personal obligations to undertake extra duties, put in more time and minimize conflicts with the managers based on how well they are involved in managing the affairs of the organization. The results were also in line with existing empirical literature which shows that employees must be involved if they are to understand the need for creativity and if they are to be committed to changing their behaviors at work, in new and improved ways. Through involvement in decision making, productivity increases, overall organizational goals are achieved which help reduce agitations, misconceptions and lack of commitment on the part of employees. Literature also shows that employees' involvement in decision making can make or break relationships at the workplace.

The third objective of the study was to establish the influence of continuous organizational learning on industrial harmony. The coefficient of continuous organizational learning and industrial harmony was found to be positive and significant. The findings indicated a moderate and positive correlation between continuous organizational learning and industrial harmony.

Organizational learning in the health care system provides a framework for complex interconnected dynamic systems where all operational units have to learn and execute their mandate. The results agreed with the provisions of the experiential learning theory which

is, based on the assumption that, conflict differences and disagreements are what drives the learning process. The findings further concurred with the existing empirical literature which shows that continuous organizational learning is a transformational process through which different stakeholders contribute their learning experiences both individually and collectively to attain organizational goals.

The fourth objective of this study was to establish the influence of leaders' relational authenticity on industrial harmony in Kenyas' devolved public health sector. Leaders' relational authenticity was found to have had a positive and significant influence on industrial harmony in Kenyas' devolved public health sector. The findings indicated a weak and positive correlation between leader's relational authenticity and industrial harmony. The coefficient of leaders' relational authenticity and industrial harmony was found to be positive and significant. Authentic leadership enhances trust at the workplace which automatically improves working relationships. Authentic leadership tends to satisfy workers' demands on safety and sense of ownership. Through authentic leadership, recognition of workers is a priority and this will strengthen self-actualization of workers.

The results were consistent with the theoretical foundations of social exchange theory which postulates that employees' reciprocation is a way of giving back what they interpret to be a fair and kind consideration from the leaders and associated with role behaviors, citizenship behavior and organization commitment. Based on the postulates of this theory it is deduced that a cordial relationship between the employee and the manager arises out of the perception that the manager positively predicts hope among employees. The findings

were also consistent with empirical literature as they showed that authentic leadership helps employees find meaning and connection at work through creating awareness.

The fifth objective of the study was to establish the influence of affective commitment on the relationship between adaptive leadership and industrial harmony. The study concluded that affective commitment has a significant mediating influence on the relationship between leaders' relational authenticity, continuous organizational learning, employees' involvement in decision making, collaborative stakeholder engagement and industrial harmony. The four steps for testing mediating influence advanced by Baron and Kenny (1986) were partially satisfied.

This implied that affective commitment improved the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. This indicates that there exists a partial mediating influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. The findings were in line with attitudinal commitment theory which postulates that affective commitment is developed primarily by an individuals' involvement and identification with the organization. The findings were also in line with empirical literature that supports that affective commitment mediates adaptive leadership and workplace harmony among scholars.

5.4 Recommendations of the Study

This section gives recommendations, which are based on the conclusion and the objectives of the study.

The study recommends the expansion of engagement mechanisms between management and employees/employee representatives so that employees can channel their issues without being victimized. Expanded communication will bring out issues of concern that may not be disseminated in the common official communication structures. The sector can also establish effective internal dispute resolution mechanisms. The dispute resolution mechanisms should have a fair representation where decisions arrived at will not be presumed biased. The study recommends the expansion of the workplace engagement systems so that employees can channel their issues, suggestions and opinions without fear or intimidation.

The study further recommends comprehensive implementation of CBAs. Collective bargaining is a product developed out of full employees' involvement and any violation will result in industrial disharmony. Collective bargaining is one of those sensitive components that are so attached to employees' since it takes care of their needs. Government should initiate a policy that strengthens implementation of collective bargaining agreements and transparency therein.

The second objective of this study was to establish the influence of employees' involvement in decision making on industrial harmony in Kenyas' devolved public health sector. The study recommends the strengthening of suggestion schemes within the sector

so that employee's suggestions can inform policies. Policies that do not reflect the wishes of employees or those that are not taking care of their interest are likely to face resistance and to some extent jeopardize industrial harmony.

Employees also need to be part of the decision-making processes as involving them will bring in innovative ideas that can enable the sector to thrive and enhance competitiveness. It also recommends re-designing of suggestion schemes to enhance employees confidence and carrying out of brainstorming sessions within the sector so that employees' suggestions can inform policies. Talented employees can incorporate their creative ideas which will inform the decision-making process.

Employees' involvement in decision making is crucial in their affective commitment to an organization. Employees are more involved in executing organizational strategies conceptualized by management. The study therefore recommends involvement of employees in decision making and that they be part of the team that develops strategic ideas and plans in the sector. Employees will use their talent and innovativeness to help the management in formulating strategies that will not only improve productivity, but also improve the welfare of the employees and ultimately increase their affective commitment to the course that they are proudly associated with because they extensively took part in formulating.

The third objective of this study was to establish the influence of continuous organizational learning on industrial harmony in Kenyas' devolved public health sector. The study recommends training of employees to gain more knowledge and sharpen their skills. Training of employees will lead to talent acquisition and exploration which later may be

nurtured to incorporate innovativeness and creativity within the workplace. Talent retention is very critical to performance of an organization and industrial harmony to a larger extent. Intensive training will always improve and leverage efficiency of individual talent. It is through training that talent is nurtured and utilized to strengthen competitive advantage.

There is a need for the sector to strengthen mentorship programs in order to equip employees with more updated knowledge. Today, organizations' over reliance on physical resources is not enough for them to remain competitive and efficient. The study recommends that more efforts be undertaken in creating, retaining and transferring knowledge within the sector as well as benchmarking with best practices. The sector should invest in mentorship programs that develop, retain and share knowledge appropriately.

Further, the study recommends organizational learning to enable the sector to respond quickly and adapt to the turbulent business environment. This can be made possible by having these three major components of knowledge management in organizations; people who create, share and retain knowledge; processes that acquire, create, capture, organize, share, transfer and apply knowledge; and technology that stores and provides access to knowledge. The study also recommends re-training of managers within the sector in human resource management so that they become psychologically attached to the needs, and become emotionally attached to the general well-being of employees. The training curriculum should be tailored towards the uniqueness of the needs in the sector as well as its unique challenges and opportunities.

The fourth objective of this study was to establish the influence of leaders' relational authenticity on industrial harmony in Kenyas' devolved public health sector. The study recommends setting up of high moral and ethical values between management and employees. Ethical and moral values define cordial working relationships which are vital for a harmonious working environment. Ethics define trust that can be bestowed on leadership and how that trust can play out whenever issues arise and need to be resolved. The study recommends setting up high moral and ethical standards among managers, enhancing honest, genuine and timely work progress feedback.

High levels of morals and ethics define integrity which is very paramount when dealing with industrial issues. The study recommends a transparent process through which management conveys information to employees relating to industrial matters. Full disclosure of information to employees by management builds confidence and trust between management and employees. Trust is very vital when it comes to dealing with industrial related matters. Morals and ethics are core to the discipline of any manager or employee in an organization. Discipline is synonymous with focus and concentration on a given course of action.

Responsible stakeholders engaged in the sector need to propose policies of institutionalizing ethical and moral values within the sector. Ethical values foster trust and confidence within a working environment. Establishing codes of conduct and signing by managers and employees as a way of commitment is not enough to enforce moral and ethical values. The sector should look into ways of rewarding those managers and

employees who exemplify good ethical and moral values as well as monitoring adherence continuously so as to enhance industrial harmony.

The fifth objective of this study was to establish the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in Kenyas' devolved public health sector. The study recommends that employees should be part and parcel of the team/s that develop strategic plans and policies in the sector so as to encourage co-ownership of sector goals and objectives. The study recommends the need for enhanced employees organizational support from Kenyas' devolved public health sector management to bring in a sense of belonging. The support should be in terms of provision of adequate health care equipment, conducive and safe working environment and social support. There is also a need for Kenyas' devolved public health sector management to create trust with employees by keeping their work related and remuneration memoranda.

5.5 Suggestions for Further Research

The study suggests the following areas for further research.

i. The study found out that among the independent variables, collaborative stakeholder engagement had the highest positive correlation with industrial harmony. However, the mean of means score for collaborative stakeholder engagement was 2.34 signifying that the level of collaborative stakeholder engagement was low. Thus, there is need for future studies to establish the most effective way of enhancing collaborative stakeholder engagement.

ii. The study targeted the Kenyas' devolved public health sector in a specific economic

region (CEREB). This block comprises ten Counties. There is thus need for future studies to focus on other regional economic blocks.

iii. The study also covered the level 5 hospitals in CEREB. It is suggested that further studies can be done in level 1, 2, 3 and 4 hospitals.

iv. Adaptive leadership as mediated by affective commitment explained 21.3% of industrial harmony in the Kenya's devolved public health sector meaning that, there are other factors that influence industrial harmony not explained by this study.

v. Current study used regression analysis. Other studies may explore other methods such as structural equation modelling among others.

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APPENDICES

Appendix I: Letter of Introduction

Beauttah Mwangi Waweru

Karatina University

P. O. Box 1957-10101

Karatina

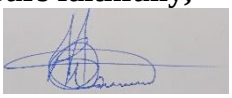
Dear Participant,

RE: REQUEST FOR RESEARCH PARTICIPATION

I am a student of Karatina University currently undertaking a PhD research in Human Resource Management entitled: the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector. I am kindly requesting you to find time and complete this questionnaire. The information provided for this research was treated with utmost confidentiality and was used purely for academic purposes. If you require any clarification, please feel free to contact the undersigned.

Thanking you in advance.

Yours faithfully,



Beauttah Mwangi

Mobile No.0721-200679

Email address- beauttahem@yahoo.com

Appendix II: Questionnaire

This questionnaire is designed to collect data to establish the relationship between adaptive leadership, affective commitment and industrial harmony in Kenyas' devolved public health sector. Please answer all questions as indicated by either filling in the blank or ticking the option that applies.

Section A: Demographic Information

I. Name of Hospital……..

II. County……..

III. Kindly indicate your designation……..

[ ] Doctor [ ] Clinical Officer

[ ] Medical laboratory technicians and technologists [ ] Public Health Officer

[ ] Pharmacist [ ] Radiologist

[ ] Dietician and Nutritionist [ ] Nurse

[ ] Consultant [ ] Other (specify) ……

IV. Kindly indicate your gender [ ] Male [ ] Female

V. Kindly indicate your age [ ] 18-30 [ ] 31-40 [ ] 41-50

[ ] 51-60 [ ] Over 60 years

VI. How many years have you worked in the level 5 County referral hospital?

[ ] Less than 1 year [ ] 1-3 years

[ ] 3-6 years [ ] Over 6 years

VII. Kindly indicate your educational level attainment

[ ] Certificate [ ] Diploma

[ ] Undergraduate [ ] Postgraduate

VIII. What is your overall working experience while in this hospital.....

.....

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SECTION B

(I). Collaborative Stakeholder Engagement and Industrial Harmony in the Devolved Public Health Sector

1. Please indicate the extent to which you agree with the following statements on collaborative stakeholder engagement and how they influence industrial harmony in the Kenyas' devolved public health sector.

Where 5- Strongly Agree 4-Agree 3-Not Sure
2- Disagree 1-Strongly Disagree

	Collaborative stakeholder engagement	**Strongly agree**	**Agree**	**Not Sure**	**Disagree**	**Strongly disagree**
CSE1	Hospital management work hand in hand with employees to resolve any employment conflicts					
CSE2	Negotiation as one of conflict resolution mechanisms is largely employed in this hospital to address any employment conflicts					
CSE3	In case of conflict on any agreed terms of employment between hospital management and employees, mediation by labour unions and national government are employed					
CSE4	The policies guiding recruitment and remuneration are tied to the needs of health workers					
CSE5	Health care workers are actively involved in the formulation of human resource policies in this hospital					
CSE6	Revision of human resource policies are communicated to health care workers in time					
CSE7	This hospital is responsive to the needs of the hospital employees in terms of communicating any information in time					
CSE9	Discussions held by the health workers associations organizations and hospital management are often fruitful					
CSE10	There is timely communication of feedback to employees regarding any work related complaints					

2. In your own opinion how has collaborative stakeholder engagement influenced industrial harmony in the Kenyas' devolved public health sector?.....

.....

.....

(II). Employee Involvement in Decision Making and Industrial Harmony in the Devolved Public Health Sector

3. Please indicate the extent to which you agree with the following statements on employee involvement in decision making and how they affect industrial harmony in the Kenyas' devolved public health sector.

Where 5-Strongly Agree 4-Agree 3-Not Sure
2- Disagree 1-Strongly Disagree

	Aspects of employee involvement in decision making	**Strongly agree**	**Agree**	**Not Sure**	**Disagree**	**Strongly disagree**
EI1	There is a suggestion scheme where employees can present their views for consideration in decision making					
EI2	Employees input and ideas are sought before major decisions that affect them are made					
EI3	There is a well-structured mechanism to recognize the input of employees in this hospital					
EI4	Mechanisms focusing on safety and welfare of employees in this hospital are regarded so as to enhance favourable work environment					
EI5	During pay review processes consideration is given to the suggestions of the health care workers					
EI6	The working schedules for workers in the hospital are agreed upon through consultation between employees and hospital management					
EI7	In this hospital, the exchange of ideas between the management and employees has helped promote a friendly working environment					
EI8	Employees are actively involved during performance appraisal					
EI9	Both the supervisors and employees agree on performance targets and regularly review the agreed targets					

4. In your own opinion how has employee participation in decision making influenced industrial harmony in the Kenyas' devolved public health sector.

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(III). Continuous Organizational Learning and Industrial Harmony in the Devolved Public Health Sector

5. Please indicate the extent to which you agree with the following statements on continuous organizational learning in this hospital and how they affect industrial harmony in the devolved public health sector.

Where 5- Strongly Agree 4-Agree 3-Not Sure
2- Disagree 1-Strongly Disagree

	Aspects of continuous organizational learning	**Strongly agree**	**Agree**	**Not Sure**	**Disagree**	**Strongly disagree**
COL1	Refresher trainings are periodically undertaken by the hospital for its workers in the respective sections.					
COL2	There is a well-structured platform where medical employees can create and share knowledge in the hospital					
COL3	The hospital has partnered with other learning institutions like universities and medical training colleges to better equip their workers with necessary knowledge					
COL4	This hospital emphasizes on capacity building through project teams.					

COL5	Continuous medical research, creation and utilization of contemporary knowledge has helped this hospital deliver well its mandate					
COL6	The hospital encourages research initiatives through funding innovative and helpful ideas from employees					
COL7	There are strategies and tactics to make knowledge accessible through mentoring and apprenticeship					
COL8	The mentoring services provided by medical senior officers towards juniors is inspiring and makes one feel part and parcel of the institution					
COL9	There are established mechanisms of storing learnt lessons to make it available for future reference					

6. In your own opinion how does continuous organizational learning influence industrial harmony in the Kenyas' devolved public health sector?.....

.....

.....

.....

(IV). Leaders' Relational Authenticity and Industrial Harmony in the Devolved Public Health Sector

7. Please indicate the extent to which you agree with the following statements of leaders' relational authenticity and how they influence industrial harmony in the devolved public health sector.

Where 5- Strongly Agree 4-Agree 3-Not Sure
2- Disagree 1-Strongly Disagree

	Aspects of Leaders' relational authenticity	**Strongly agree**	**Agree**	**Not Sure**	**Disagree**	**Strongly disagree**
LRA 1	The leaders in this hospital encourage sharing of information					
LRA 2	Hospital leaders have contributed in creation of a harmonious work environment					
LRA 3	The leaders encourage openness and self-disclosure between management and employees					
LRA 4	Managers are self-controlled and have a sober approach to issues					
LRA 5	Hospital managers have a sense of self-correction and reflection in pursuing a harmonious work environment for all workers					
LRA 6	Leadership in this hospital offers hope and encouragement to employees					
LRA 7	The leadership of the hospital considers employees opinions and views					
LRA 8	The leadership in this hospital work towards creating win-win situations in case of internal conflict between the hospital management and workers					
LRA 9	The management of this hospital has assisted employees to find meaning and connect with work					

8. In your own opinion how has leaders' relational authenticity influenced industrial harmony in the Kenyas' devolved public health sector?.....

.....

.....

.....

(V). Mediating Influence of affective commitment on the relationship between adaptive leadership and Industrial Harmony in the Devolved Public Health Sector

9. Please indicate the extent to which you agree with the following statements of affective commitment and how they influence the relationship between adaptive leadership and industrial harmony in the devolved public health sector.

Where 5-Strongly Agree 4-Agree 3-Not Sure
2- Disagree 1-Strongly Disagree

	Affective Commitment	**Strongly agree**	**Agree**	**Not Sure**	**Disagree**	**Strongly disagree**
EAC1	The recruitment, selection and promotion processes in this hospital are transparent and based on merit					
EAC2	Working conditions in this hospital are conducive and favourable to workers resulting to greater job satisfaction					
EAC3	There is a sense of pride and ownership by employees as they feel as part and parcel of this hospital					
EAC4	Employees are assured of job security in this hospital and in case of separation due process is followed					
EAC5	Employees are recognized for new ideas and exceptional work increasing their morale					
EAC6	Employees are psychologically empowered enhancing their competencies					
EAC7	Employees have confidence in the manner in which the hospital management handles their affairs					

EAC8	The hospital management is compassionate towards the employees needs and requirements					
EAC9	The hospital management is honest and supportive towards employees welfare					

10. In your own opinion how has employee affective commitment influenced the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector?.....

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VI. Industrial Harmony in the Devolved Public Health Sector

11. Please indicate the extent to which you agree with the following statements on industrial harmony in the devolved public health sector.

Where 5-Strongly Agree 4-Agree 3-Not Sure
2- Disagree 1-Strongly Disagree

	Aspects of Industrial Harmony	**Strongly agree**	**Agree**	**Not Sure**	**Disagree**	**Strongly disagree**
IH1	Joint consultations are regularly held between the management and the workers representatives					
IH2	Employees are involved in making crucial decisions pertaining issues in the hospital					
IH3	Work committees comprise of management and workers representatives					
IH4	Employees are ready to deliver on their obligations to this hospital because the management is conscious of their well being					

IH5	Employees are committed to the strategic goals and objectives of the hospital to diligently offer health services guided by morals, competency and professionalism					
IH6	Employees are willing to stay longer in this hospital because remuneration and other employees benefits address their needs					
IH7	Both management and employees focus at delivering quality service in serving clients in this hospital					
IH8	Performance appraisals are carried out jointly and matters arising addressed amicably.					
IH9	Employees are well equipped with resources, information and support to cope with difficult situations and setbacks at work.					

12. How has industrial harmony been in the Kenyas' devolved public health sector, in terms of industrial democracy, employee loyalty and shared vision?.....

.....

.....

Thank you for your Participation

Appendix III: Interview Schedule

Beauttah Mwangi Waweru

Karatina University

P. O. Box 1957-10101

Karatina

Dear Participant,

RE: REQUEST FOR RESEARCH PARTICIPATION

I am a student of Karatina University currently undertaking a PhD research in Human Resource Management entitled: the influence of affective commitment on the relationship between adaptive leadership and industrial harmony in the Kenyas' devolved public health sector. I am kindly requesting you to find time and participate in this interview. The information provided for this research was treated with utmost confidentiality and was used purely for academic purposes. If you require any clarification, please feel free to contact the undersigned.

Thanking you in advance.

Yours faithfully,

Beauttah Mwangi Waweru

Mobile No.0721-200679
Email address- beauttahem@yahoo.com

INTERVIEW SCHEDULE

County_____ Date _____

Hospital _____

[ ]Medical Superintendent [ ] KNUN [ ] KMPDU

1. How is leadership structured to enhance industrial harmony in this hospital? Probe adaptive leadership among hospital administrators of the hospitals.....

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2. How does collaborative stakeholder engagement in the hospital promote industrial harmony in the hospital? Probe;

   i. Dispute resolution mechanisms, ...

   .....

   .....

   .....

   ii. Policy formulation, ...

   .....

   .....

   .....

   iii. Information .....

   .....

   .....

   .....

3. How does involving employees in key decision-making influence industrial harmony in the hospital? Probe;

   i. Suggestion scheme .....

   .....

   .....

   .....

ii. Collective bargaining .....

.....

.....

.....

iii. Recognition and feedback .....

.....

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.....

4. Is there any platform for continuous learning among health workers in this hospital?

Yes [ ] No [ ]

If yes, how has it influenced industrial harmony in the hospital? Probe;

i. Knowledge creation.....

.....

.....

.....

ii. Knowledge sharing .....

.....

.....

iii. Knowledge retention .....

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5. How does leaders' relational authenticity influence industrial harmony in the hospital? Probe;

i. Relational transparency (Showing ones' true self to others) .....

.....

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ii. Balanced processing (considering others opinions and internalized moral perspective) .....

.....

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iii. Internalized moral perspective (self-regulation, anchored by ones' mission, deep seeded values and desire to make a difference) .....

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6. How does employees' affective commitment influence the nature of leadership you display and how does it promote industrial harmony in the hospital? .....

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Thank you for your participation

Appendix IV: Schedule of Regional Economic Blocs in Kenya

1. Frontier Counties Development Council (FCDC) comprising of seven (7) counties namely; Garissa, Wajir, Mandera, Isiolo, Marsabit, Tana River and Lamu.
2. North Rift Economic Bloc (NOREB) comprising of seven (8) counties namely Uasin Gishu, Trans-Nzoia, Nandi, ElgeyoMarakwet, West Pokot, Baringo, Samburu and Turkana.
3. Lake Region Economic Bloc (LREB) comprising of thirteen (14) counties namely Migori, Nyamira, Siaya, Vihiga, Bomet, Bungoma, Busia, Homa Bay, Kakamega, Kisii, Kisumu, Nandi, Trans Nzoia and Kericho.
4. JumuiayaKaunti za Pwani comprising of six (6) counties namely, Tana River, Taita Taveta, Lamu, Kilifi, Kwale and Mombasa
5. South Eastern Kenya Economic Bloc comprising of three (3) counties namely Kitui, Machakos and Makueni.
6. Mt. Kenya and Aberdares Region Economic Bloc Comprising of ten (10) counties namely Nyeri, Nyandarua, Meru, Tharaka Nithi, Embu, Kirinyaga, Murang'a, Laikipia, Nakuru and Kiambu.

Source: Council of Governors website

Appendix V: List of Level 5 County Referral Hospitals in CEREB

1. Chuka County Referral Hospital
2. Embu Level 5 Hospital
3. J.M. Kariuki Memorial Hospital
4. Kerugoya County Referral Hospital
5. Kiambu County Referral Hospital
6. Meru Teaching & Referral Hospital
7. Murang'a County Referral Hospital
8. Nakuru County Referral Hospital
9. Nanyuki Teaching & Referral Hospital
10. Nyeri County Referral Hospital
11. Thika level 5 Hospital

Source: Hosi (2021). https://hosi.co.ke/category/county-referral-hospital

Appendix VI: Bartlett, Kotrlik and Higgins (2001) Table

Table 1: Table for Determining Minimum Returned Sample Size for a Given Population Size for Continuous and Categorical Data

	Sample size					
	Continuous data (margin of error = .03)			Categorical data (margin of error = .05)		
Population size	alpha = .10 t = 1.65	alpha = .05 t = 1.96	alpha = .01 t = 2.58	p = .50 t = 1.65	p = .50 t = 1.96	p = .50 t = 2.58
100	46	55	68	74	80	87
200	59	75	102	116	132	154
300	65	85	123	143	169	207
400	69	92	137	162	196	250
500	72	96	147	176	218	286
600	73	100	155	187	235	316
700	75	102	161	196	249	341
800	76	104	166	203	260	363
900	76	105	170	209	270	382
1,000	77	106	173	213	278	399
1,500	79	110	183	230	306	461
2,000	83	112	189	239	323	499
4,000	83	119	198	254	351	570
6,000	83	119	209	259	362	598
8,000	83	119	209	262	367	613
10,000	83	119	209	264	370	623

NOTE: The margins of error used in the table were .03 for continuous data and .05 for categorical data. Researchers may use this table if the margin of error shown is appropriate for their study; however, the appropriate sample size must be calculated if these error rates are not appropriate. Table developed by Bartlett, Kotrlik, & Higgins.

Appendix VII: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **247620**

Date of Issue: **24/December/2021**

RESEARCH LICENSE

This is to Certify that Mr.. Beauttah Mwangi Waweru of Karatina University, has been licensed to conduct research in Baringo, Bomet, Bungoma, Busia, Elgeyo-Marakwet, Embu, Garissa, Homabay, Isiolo, Kajiado, Kakamega, Kericho, Kiambu, Kilifi, Kirinyaga, Kisii, Kisumu, Kitui, Kwale, Laikipia, Lamu, Machakos, Makueni, Mandera, Marsabit, Meru, Migori, Mombasa, Muranga, Nairobi, Nakuru, Nandi, Narok, Nyamira, Nyandarua, Nyeri, Samburu, Siaya, Taita-Taveta, Tanariver, Tharaka-Nithi, Transnzoia, Turkana, Uasin-Gishu, Vihiga, Wajir, Westpokot on the topic: Affective Commitment, Adaptive Leadership and Industrial Harmony in the Devolved Public Health Sector in Kenya for the period ending : 24/December/2022.

License No: **NACOSTI/P/21/15010**

247620

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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Appendix VIII: Introduction Letter from University

Inspiring Innovation and Leadership

KARATINA UNIVERSITY
SCHOOL OF BUSINESS
OFFICE OF THE DEAN
Email: deansob@karu.ac.ke

Tel: +254-(0)729721200

P.O. BOX 1957 – 10101,
KARATINA,
KENYA.

14th December, 2021

TO WHOM IT MAY CONCERN:

RE: WAWERU BEAUTTAH MWANGI – B402/1489P/18

This is to confirm that the above named is a bonafide student at Karatina University School of Business; he is pursuing a PhD in Human Resource Management.

Mr. Beauttah has successfully defended his PhD proposal and he has been permitted to collect data on his thesis titled: ***"Affective Commitment, Adaptive Leadership and Industrial Harmony in the Devolved Public Health Sector in Kenya".***

Any assistance accorded to him will be highly appreciated.

Thank you.

DEAN,
SCHOOL OF BUSINESS
14 DEC 2021
KARATINA UNIVERSITY
P.O. Box 1957-10101 KARATINA

Dr. David Gichuhi
DEAN, SCHOOL OF BUSINESS

KARATINA UNIVERSITY

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TO WHOM IT MAY CONCERN

REQUEST TO CONDUCT RESEARCH IN YOUR INSTITUTION- MWANGI BEAUTTAH WAWERU

The above-named person is a student of good standing at Karatina University pursuing a Ph.D. in Human Resource Development in the School of Business.

I wish to request that you provide the necessary assistance he may require to collect the data he needs from your institution to enable him complete his project in good time. The research only involves interaction with top management as is evident in the title of his project, "***Affective commitment, adaptive leadership and industrial harmony in devolved public health sector in Kenya.***" By the provisions of our Ethical Research Guidelines, any information obtained from your institution by Mr. B. M. Waweru will be used strictly for academic purposes only.

Please feel free to contact us should you require further information about the student or any other relevant issue.

Any support offered to him to achieve his study objectives will be greatly appreciated.

Prof. P. Aloo-Obudho, PhD, EBS,
Ag. VICE CHANCELLOR

Appendix IX: List of Publications from Thesis

- Influence of Collaborative Stakeholder Engagement on Industrial Harmony in the Devolved Public Health Sector in Kenya. Management and Economics Research Journal, 9(2): 9900079. https://doi.org/10.18639/MERJ.2023.9900079
- Nexus between Employees Involvement in Decision Making and Industrial Harmony in the Devolved Public Health Sector in Kenya. International Journal of Academic Research in Economics and Management and Sciences, 12(2), 370 – 394. DOI:10.6007/IJAREMS/v12-i2/17289

Appendix X: Summary for testing Mediating effect of affective commitment on the relationship between adaptive leadership and industrial harmony

Steps	Results	Conditions	Inference
Step 1; Influence of adaptive leadership on industrial harmony (total effect)	(β=.546, R^2= .195, F=61.437, p-value=0.000<0.05)	Adaptive leadership significantly influences industrial harmony.	The first condition was satisfied since the predictor variable was statistically significant when regressed against the dependent variable.
Step 2; Influence of adaptive leadership on affective commitment	(β=.629, R^2=. .224, F=20.283, p-value=0.000<0.05)	Adaptive leadership significantly influenced affective commitment.	The second condition was satisfied since the predictor variable has a significant association with the presumed mediating variable.
Step 3a; direct influence of adaptive leadership on industrial harmony by multiple regression model with affective commitment and adaptive leadership as predictors of industrial harmony.	(β=.458, R^2=.213, F=34.118, p-value=0.000<0.05)	Adaptive leadership had a significant effect on industrial harmony.	The third condition was satisfied since the presumed mediating variable had a significant association with the dependent variable. Adaptive leadership also has a significant influence on industrial harmony thus resulting to partial mediation.
Step 3b; direct influence of affective commitment on industrial harmony by multiple regression model with affective commitment and adaptive leadership as predictors of industrial harmony.	(β=.141, R^2=.213, F=34.118, p-value=0.018<0.05)	Affective commitment had a significant effect on industrial harmony.	
Step 4 Conduct a sober test to establish the mediation effect of affective commitment on the relationship between adaptive leadership and industrial harmony	(Sober test= 2.30062862, P= 0.0214126, indirect effect of the mediator=0.089)	Affective commitment partially mediates the relationship between adaptive leadership and industrial harmony.	The fourth condition was met since affective commitment was statistically significant after the Sober test was conducted. Additionally, adaptive leadership was statistically significant during the multiple regression analysis thus affective commitment offers partial mediation.