

**TOPIC: CLUSTER STRUCTURE APPROACH ON PERFORMANCE OF  
DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT  
(GIZ) DEVELOPMENT PROJECTS IN NAIROBI COUNTY, KENYA.**

**BY**

**Elizabeth Sheena Nyawira Mwangi**

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**DECLARATION**

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

Signature .....  .....

Date: 18/August/ 2023

**Elizabeth Sheena Nyawira Mwangi**

Reg. No. L50/38380/2020

This research has been submitted for the examination with my approval as a university supervisor.

Signature.....  .....

Date: 08/09/2023

**Dr Reuben Kikwatha**

Faculty of Business and Management Science

Department of Management Science and Project Planning

University of Nairobi

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## **ABBREVIATIONS AND ACRONYMS**

AV - Project Manager

CC - Cluster Coordinator

DV - Implementation Manager

GIZ - The Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH

HR – Human Resource

SDGs - Sustainable Development Goals

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

Project performance looks at the quality of a project, its impact, its value on the targeted group and beneficiaries, its effectiveness, how sustainable a project is as well as its efficiency (Chandes, 2010). The assessment to determine if a project accomplished its goals, specifications for the timeline, cost and scope, is done on a regular basis over the monitoring and controlling stages, where the execution of the project is observed to identify any deviations from the project management plan in order to proactively initiate mitigation. (Chandes, 2010).

An organization's structure demonstrates functions, identifies linkages, maps out responsibilities and duties, and documents reporting lines. Not only are relationships important to achieve a desired goal but resources and systems need to be in place to support the organizational structure (Steger et al, 2014). In his research, Steger et al (2014), demonstrated how the different types of organizational structure can lead to different output in performance i.e., job satisfaction, innovativeness, quick decision making etc.

The anchoring theories for this study are the systems theory, which indicate that a change in one or more components of a system may impact other components. Changes in the independent variable in this study will have an effect on the outcome of project performance, notably the dependent variable. The alternative theory, the theory of change (TOC), which implies that effectiveness can be explained through clear mapped out pathways showing logical relationship to outcome. That the result in this study will give clear assessment of the changes that have been brought about with the change in the independent variable.

Change in an organization can be implemented by just tweaking a single component of the structure without evidence of how its connection to other components. In our study, to guarantee that the organizational structure newly implemented by The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is successful, it's paramount that there is need to ensure that the structure implemented has no detrimental influence on the company's performance or other functions that are already in place. As the systems theory propagates, functions and systems in an organization are interconnected and interrelated

and a change in one components of a system might affect other components or the whole system.

### **1.1.1 Cluster organizational structure**

Organizational structures are complex due to the evolution of business strategies in adaptation to their different environments. Management and organization are constantly rethinking of ways to better increase performance and adjust to their evolving environment. In the case of organizational structure of cluster approach, at i.e., national level or with SMEs, the cluster concept has demonstrated to serve as an effective tool for fostering regional or national economies and increasing the competitive edge of participating SMEs. (Giacomin, 2017), (Osarenkhoe et al, 2017). National competitiveness is strengthened for example, through national cluster formation of industries, linked vertically (vertical links for buyer and supplier of the same supply chain) and horizontally (horizontal linkages of customers with common interests, technology competing for the same market, etc.). An example is the Biopharmaceuticals cluster in Boston, Silicon Valley or the KwaZulu-Natal industrial clusters (Moloi et al, 2019). These “industry” clusters are predominant in the medical industries, fishing industries, aquaculture industry, automotive industries or fashion industries. Porter M. (1998) acknowledges clusters as noticeable trait of almost all economies, particularly in more developed nations.

Clusters, according to Porter M. (1998), are spatial concentrations of related enterprises and institutions in a certain field. According to Porter M. (1998) definition, with the concentrations of companies, businesses or organizations in clusters, there is a greater access to supply chains, research of relevance, mentors and other events that connect individuals and companies with common interests. It is important for businesses to know the type of cluster they would wish to join or building, to optimizes their chances of success.

Karaev et al (2007) in their study acknowledged the benefits of establishing clusters. They portrayed clusters as effective instruments for overcoming size constraints and geographical closeness by generating an agglomeration effect on the basis of greater specialization, innovation, knowledge and information transfer, leading to cost savings and increased competitiveness. International cooperation service companies such as The



Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, have not been left behind in the implementation of this structure concept. In project management, cluster structure can be viewed as groups, unit-based goals developed for effective and efficient communication and problem solving (Karaev et al, 2007).

In this study, we will define cluster as a are spatial concentrations of related projects in a common field for increased innovation, knowledge and information transfer, cost effectiveness and competitiveness as Porter M. (1998) describes it. Furthermore, organizational structure will be defined in this study as a framework that dictates way work duties, tasks or responsibilities are formally separated,, organized, and coordinated inside an organization. This is how Robbins et al (2014) described it.

### **1.1.2 Project performance**

The performance of a project may vary based on its type or the area in which it is executed. Hence performance and benchmarks and criteria of evaluation will vary from i.e., the NGO sector, manufacturing company or industrial field or from even public implemented projects. Essentially project managers cannot overlook how their projects are managed since without knowledge, success factors cannot be transferred. Micheli et al (2017) and Singh et al (2016) observed that project failure can be traced to inadequate systems. As a result, it is critical that managers consider appropriate organizational strategies as well as structures toward successful performance.

Since this study has taken project performance as the outcome variable, there is need to understand what performance is. To make informed decision on improvement, risk mitigation and target objectives, organizational activities need to be quantified to determine their level of performance. Although defining, generating, and measuring performance hasn't always been simple, managers should be aware of the aspects that affect their organization's success. (Richard et al. 2009).

Historically, performance indicators in organizations were predominantly in with regard to financial measures for instance revenue, return, net operating income and the likes. . Richard et al. (2009) argue that the success of a company is determined by various factors, including financial performance measures like profits, return on assets (ROA), return on investment (ROI), as well as shareholder return parameters like shareholder return and

economic value added. Additionally, product market performance measures like sales and a company share of the market are also considered important determinants of success.

Nevertheless, researchers have progressed towards adopting a more well-rounded approach to measuring performance by incorporating both financial and non-financial aspects. Performance is considered an outcome of an Organizational initiatives to fulfill its goals by Shafiq et al (2019), Micheli et al (2017), and Singh et al (2016). The output can be either financial in terms of dividends, market share and growth in sales etc. or non-financial such as how satisfied customers are, client referral rates, delivery time, wait time, employee satisfaction, and employee turnover. Collings et al (2021) views performance measurement as interactive process that considers also environmental factors e.g. the COVID-19 pandemic. He says approaches or strategies should then be in place on how organizations consider how they deal or have dealt with environmental factors in their performance systems.

Aubry et al (2011) illustrated a balanced approach to performance on a quadrant, adopting the Competing Values Framework by Cameron et al (2011, 2006) study on organizational effectiveness. The quadrant shows dimensions of performance attainment through human development and high commitment. Through stability/control, efficiency with capable processes, through growth brought by innovativeness, vision and constant adoption to change, through aggressively competing and keeping customer in focus.

The horizontal axis on the quadrant, alternates between internal processes within an organizational emphasis on the left and on the right extreme end is an outward focus, while the vertical axis offers a variety of flexibility to control at the underside of the model. The quadrant seems to be four different perspectives however according to Cameron et al (2011, 2006) the quadrants are closely related and interwoven. None of the quadrant function well without the other. An organization is only as good as its weakest link.

With regards to organizational behavior in the “Create profile/Open system model/Adhocracy”, that is the profile that is within the flexibility and external quadrant, significant features are that of a visionary and innovative organization but also a high-risk taking organization. An organization that is directly opposite to it, that is the quadrant that denotes focused/stable/control/hierarchy organization. An organization where innovation

is incremental, under control measure and systematic. The high-risk characteristic that signified in the opposite quadrant are mitigated with systematic and control measures.

The other half of the quadrant, lies an organization on the axis of external and control, also known as compete quadrant. This quadrant characterizes an organizational behavior that is goal focused, market-oriented, competitive, and focused on making money, profitability. On the opposition side is the quadrant features an organization that has a collaborative behavioral style. That is an organization that lies within the internal and flexible axis. This is an organization whose style reflects more on sustainability, commitment to personal growth, cooperation, and teamwork (Cameron et al, 2011,2006). Organizational performance of the Competing Values Framework by Cameron et al (2011,2006) of a balancing scorecard will be applied in the context of this study.

### **1.1.3 Cluster organizational structure and project performance**

Structure is an important aspect of any organization. Organizations need to establish rules and procedures that gives its members guidance on how things need to be done, define relationships, map out responsibility and roles as well as document reporting lines in line with the organizational strategy. The strategy established by a company and the degree to which it is implemented determines its organizational structure (Mintzberg, 2009).

Robbins et al (2005) argue that there is no standard organizational structure, a one cap fits it all Structure. One way to explain this conclusion is that structure for an organization that operate only in one location will be different from an organization that has international operations. In addition, organization do not have the same job's goal or strategy. Nevertheless, when selecting an organizational structure, it is crucial to align it with the organization's objectives, mission, environmental factors, and available resources. They also argue that organizational structure serves mainly as a control and coordination function. Considering the recognized structural features by Daft (1995) of job specialization, departmentalization, chain of command, span of control, centralization, and formalization, it is clear to see that organizations will all be very divers.

The evaluation of the observed theories and research conducted for this study, signify that structure does has indeed influence on project performance and based on the structure that a company has put in place, the impact could be positive or negative to the performance.

#### **1.1.4 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) development Projects in Nairobi**

One of the development agendas for Kenya under vision 2030 is for the development of industrial Cluster: Specifically, the meat and leather clusters will be established through the creation of meat processing facilities; tanneries and other associated businesses will be established in Isiolo, Garissa, and Kajiado; and dairy products processing will be promoted in Kiganjo (Nyeri). The clusters are anticipated to focus on market-focused research, value addition, and marketing of region-specific commodities with the assistance of academics, the business sector, and other stakeholders.

In the year 2020, the GIZ strategy committee gave guidelines and recommendation regarding the set up and design of cluster structures. Subsequently the Kenyan chapter, redesigned its operations to five thematic areas “clusters” that deal with agriculture, sustainable economic development, combatting climate change, minimizing the drivers of the displacement and illegal migration, fostering the rule of law. Aimed at improving performance, efficiency and improved quality in project and programme management, the formation of cluster meant that projects and programmes based in Kenya do not work in isolation. At a glance, the move from focus on projects could be viewed as a step toward combined efforts to address the sustainable development goals (SDGs).

The process of change is about helping people within an organization on how to work and interact with others and the ability to plan and manage change is an essential leadership skill (Vallien, 2021). The organizational change in GIZ has brought, impact in human resource management, in leadership, in technical coordination and in cost of management among others.

#### **1.2 Research Problem**

As the systems theory propagates, functions and systems in an organization are interconnected and interrelated and a change in one components of a system might affect other components or the whole system. Project managers hence need to be able to identify how the changes the initiated with the change in structure affect the various functions in the organization and subsequently the performance of the project.

There appears to be a gap in context across the empirical studies since the researcher hasn't observed an identical research project with the current one about to begin. Despite the fact that these studies were centered on organizational structure and its impact on performance, the identified studies, were based on companies that generated profit. i.e., on telecommunication companies, manufacturing firms, banks others on public sector organizations like hospitals.

In their study, Nwonu et al. (2017), examined how the organizational structure affects the performance of manufacturing companies located in Enugu. Their research used a survey methodology, relied on primary and secondary data, and focused on pharmaceutical manufacturing companies. According to their research, organizational structure of pharmaceutical manufacturing businesses influences performance, and underperforming enterprises should reform their organization structure for maximum performance.

In his research, Shabbir (2017) looked at the connection between organizational structure and its link to employee performance specifically in brewing firms in Nigeria. The study employed a descriptive survey design for the purpose of determining how organizational structure influences performance. His conclusion was however majorly on effects on employee's performance in brewing firms basing extraction of sample size via used the Taro Yamane method.

In their study, Ngeiywa et al. (2018) investigated the impact of organizational structure on electrical installation in Kapenguria Sub-County. Their research, conducted using a descriptive survey design, revealed that the organizational structure significantly influences the implementation of electricity installation activities in Kapenguria.

Study carried out by Marangu et al. (2018) researched how the organizational structure influenced the way public health professionals at government-owned healthcare institutions, particularly District Hospitals in Western Kenya. The findings of their study, which employed a correlational descriptive survey approach, demonstrated that organizational structure has a significant and positive impact on performance. According to the research results, It became clear that through proper organizational structure, employees were appropriately positioned to perform tasks and effectively achieve goals in an efficient manner.

In their research, Mwanja et al. (2020) utilized a descriptive survey methodology to examine how organizational structure affects the implementation of strategies among Savings and Credit Cooperative Organizations (SACCOs) in Kakamega County, Kenya. Their research demonstrates that organizational structure has a substantial influence on the successful execution of strategies.

In their study, Wangui et al. (2021) conducted research to assess the impact of organizational structure on county government performance in the Central Region of Kenya. Employing a descriptive and explanatory research approach, their study effectively demonstrated that organizational structure has considerable impact on performance at the county level.

In a descriptive survey conducted by Nyokabi (2021), The researcher wanted to analyze the influence of culture, structure, leadership, and strategic relationships on performance of Airtel Kenya Limited. The study aimed to determine the influence of these factors on the company's overall performance. The findings effectively indicated a favorable and substantial association between organizational culture, organizational structure, and firm performance of leadership, but no relationship between strategic alliances and business performance. Regression analysis confirmed that organizational culture and organizational structure significantly affect firm performance while organizational leadership and strategic alliances do not significantly affect firm performance.

According to the aforementioned research, there is a contextual gap caused by differences in institutional structure and legal framework that regulate the business sectors, government institutions, and international organizations. These institutions' structural designs differ widely.

In addition, though this study has the same methodological approach as those studies, that is survey, a gap can still be noted in the methodological approach because of the research topic and the variable used. This study focuses on organizational structure as the predictor variable with independent variables being communication practices, knowledge management and resource utilization, while project performance was the outcome variable.

So far, the researcher has not discovered a similar study in the reviewed literature or even in the particular studies presented that took into consideration all three independent variables.

Consequently, the gaps identified in the reviewed literature were addressed in this study, which tried to answer the following research questions:

1. How does communication practices influence the performance of projects implemented by GIZ in Nairobi County, Kenya?
2. How does knowledge management influence the performance of projects implemented by GIZ in Nairobi County, Kenya?
3. How does resource utilization influence the performance of projects implemented by GIZ in Nairobi County, Kenya?
4. How does the establishment of cluster structure influence performance of projects implemented by GIZ in Nairobi County, Kenya.

### **1.3 Research Objectives**

The following objectives guided the study:

1. To establish the influences of communication practices on performance of projects implemented by GIZ in Nairobi County, Kenya.
2. To establish the influences of knowledge management on performance of projects implemented by GIZ in Nairobi County, Kenya.
3. To establish the influences of resource utilization on performance of projects implemented by GIZ in Nairobi County, Kenya.
4. To establish the influences of the cluster structure approach on the performance of projects implemented by GIZ in Nairobi County, Kenya.

### **1.4 Value of the Study**

The research broadens our understanding of organizational structure. To service providers in the field of international cooperation as well as development agencies, this study will contribute to providing a more comprehensive understanding and awareness of the cluster concept for project management. This study provides important empirical evidence on project design factors influencing project performance. By concluding this study,

appropriate consideration of project communication practices, knowledge management and resource utilization strategies will be highlighted.

The study also provides good literature on cluster organizational structure and show their contribution as well as influences on project performance. To the general academic fraternity, the study forms basis for further studies on the cluster approach for design and optimal planning of clusters especially the administrative and technical units to increase efficiency.

The study's focus was on influences of cluster approach on performance of project implemented by GIZ in Nairobi County, Kenya. This concept of thematic structure for GIZ referred to as "cluster management" is relatively new. Its adoption and implementation will vary from cluster to clusters affecting the results. Treating change as a process is fundamentally important.

Some aspects that might hinder the success of the study include, Non-cooperation from participants that have not adjusted to the new concept of cluster organizational structure. The researcher will work at working objectively with the teams involved in this research by guiding them to objectively consider the changes and map out the changes they have noted to this effect.

The outcomes of this research will rely on the specific time period in which it is conducted and are thus subject to potential fluctuations. The study assumes the presence and cooperation of the participants, as well as their honesty in providing responses. The studies assume that the effects mentioned are the key aspects that led the organization to rethink and redesign its new management structure – the cluster approach.



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The theoretical overview of the literature on organizational performance, structure, and design, as well as the connections between the three, is covered in the first section of this chapter. Finally, gaps in knowledge are identified by a review of the literature on cluster structure approach's effects on organizational structure and presents the research topics that will be discussed in further detail in Chapter 3.

### **2.2 Theoretical Review**

The study is premised and underpinned by the two theories: the systems theory and the theory of change.

According to von Bertalanffy's systems theory, which was established in the 1950s, everything is interconnected. i.e., in an organization. The systems are interconnected and interrelated which contrary to other traditional scholars of his time, they are "more than the sum of its parts". As a result, a change in one or more components of a system may impact other components, if not the entire system; thus, 'systems' of multiple orders cannot be understood by investigating their separate elements in isolation. (Von Bertalanffy, 1968).

Systems theory are applicable to different human behaviors i.e., in communication which is one variable investigated under this study. The systems theory, when applied to communication practices, seeks to comprehend the interconnectivity of human communication. There is need to look at effective ways of communication from the systems perspective as communication or lack thereof will affect/ impact the system as a whole. As Senge (2006) points out, because connected activities are unseen, their repercussions on the whole may not be immediately apparent, resulting in significant organizational changes over time. He claims that extreme changes can have cascading and negative impacts on an organization, eventually leading to its demise. It's there for commendable for any organization to always examine its current state and reality, in connection to the organizational vision (Senge 2006). This will guide the study to investigate the other variables namely knowledge management and resource management. The results of organization's communication practices, knowledge management, and

resource usage have an impact on its functioning, which may be observed in its overall performance.

In originations, theory of change comprises planning, adaptive management, and assessment. The theory defines goals and then maps backward to identify necessary preconditions. This is done methodologically and is a process that is used to outline linkages (Goldratt et al, 1984). Michie, et al (2012) articulated that to achieve a goal one must identify its higher-order Goals, and lower-order Objectives. Consequently, it's not only possible to know if a goal has been achieved, but through clear mapped out pathways showing logical relationship to outcome, as well as systematic flow and feedback loops one can be able explain what methods was uses to attain effectiveness.

ToC can be initiated at any stage in an organization (Goldratt et al, 1992), hence management can use data that will be made available in this study to make informed decisions about strategies and tactics to a smooth implementation of the cluster approach during their evaluations. This will aid in explain what has worked or not and give guidance on how to plan. ToC can be simple and linear in their assumption i.e., in form of log models, log frames etc. In connection to the system theory however, it's clear that change is not necessarily linear, nor its interventions.

### **2.3 Determinants of Project Performance**

According to Mintzberg (1972, 2009), organizational structure is the framework of interactions between positions, systems, operational processes, people, and groups working to achieve goals. It's a way the activities in an organization are divided, organized, and coordinated. Schein (1988,1971) study on structure was able to identify the following three dimensions, Hierarchy: This dimension displays the relative rankings of organizational units using a mechanism similar to that of an organizational chart. Functional: Displays the many tasks done in an organization. The inclusion dimension depicts each person's distance from the organization's core. He illustrates these characteristics with an organizational chart.

Since Schein identification of these dimensions, dynamics of organization have evolved and continue to evolve. According to Foruhi (2004), the dynamic nature of organizations

and their environments gives rise to various organizational structures, some of which are challenging to depict accurately on a traditional organizational chart.

Child (1972) cite five factors that affect how the organizational structure is designed as namely, goal and strategy, environment, technology, size and age of an organization. Burns et al (1961) as well as Shields (2016) observed two dimensions of organizational structure namely, the mechanistic structure which is a formalized structure with high specialization and high administration and the organic structure that's less formalized. Organic structures are decentralized, adaptable and are formalized to a low degree.

Arasli et al (2019) and Bierly et al (2000) both arrived at the same decision. that there was no standard organizational structure. This was also the case with Mintzberg (1979) when he identified the merits and demerits of organizational structure. Traditional organizational structures were divided into five categories by Mintzberg (1983), notably, Simple Structure, Machine Bureaucracy, Professional Bureaucracy, Divisional Form, and Adhocracy. These divisions were further divided by Pearce et al. (2009) into four categories: simple structure, functional structure, divisional structure, and matrix structure.

There are several shifts and adaptation of the Mintzberg's classification over the last 40 years. This is namely because of the changing time and environments and major impact on industry due to digitalization and globalization.

Tolbert et al (2009) also noted a significant aspect of the organizational structure that gives indication as to why there is no single definition or structure. They stated that organization will have forms of informal structure and formal structures. The formal structure entails the "official, defined division of responsibilities," directions on how the task is carried out, and illustrates the relationships of the employees of an organization. While the informal structure refers to the "unofficial" divisions, classifications, and relationships that arise in an organization through time.

Steger et al. (2014) used Mintzberg's organizational categories in their study and simplified them to adhocracy, strategic business unit, divisional, functional, and matrix, examining the perceived extent of knowledge management practices within organizations adopting

the organizational models. This study looked at the general observation Steger et al (2014) made as a case for or against the different designs.

Adhocracy an organizational structure, typically eminent in young and small organizations. It stands out because it "adapts easily and quickly to address organizational needs" (Steger et al, 2014). Burns et al. (1994) classified this as an organic structure because it lacks strict formalities and relies on the interactions and versatility of individuals within the organization. Organizations with informal structures are more adaptable, have an acute awareness of mission, and make choices fast (Steger et al, 2014), (Mintzberg, 1983).

Steger et al (2014) stated that formalization in a strategic business unit -SBU structure is important. Strategic business units have clearly defined work processes, produced through formalized procedures. This set procedure, according to Mintzberg (1983) are a top-down function. Whereby decisions, planning, and workflow procedures and processes are finalized by the top management, giving little room for individual will in the workplace. Hence it correspondingly minimizes the need for administrative function and is the only structure that supports repetitiveness of work and routine activities, (Mintzberg, 1983). SBU structures are common in large-scale manufacturing companies that rely very little on technology or technical systems.

Divisional Structure is characterized by having control within an organization, which is managed within separate divisions. This is done mainly to minimize interdependence between divisions. Divisional organizational according to Ansoff (1984) brings about risk diversification as the divisions act independent from each other. According to Mintzberg (1983), divisional structures allow for the optimal deployment of capital as well as greater work satisfaction for employees by providing multiple options for advancement. This structure is appropriate for market variety and organizations with different locations. However, one of the disadvantages of this type of structure is in inadequate knowledge management systems, whereby information is shared from one division to another on a need basis.

Employees' and professional talents are valued under the functional organizational framework. This type of organization allows employees to express themselves freely and take risks, but it also allows for inappropriate use of discretion or even internal disputes

among employees (Steger et al, 2014; Mintzberg, 1983). Because there is a propensity to compartmentalize people according to their skills and areas of specialty, the democratic aspect of the functional organization is complex, making it appealing to experts and professionals where authority is valued over legitimate managerial authority - in contrast to the value of the SBU structure (Steger et al, 2014).

A matrix structure, according to Steger et al (2014), is a hybrid of functional and divisional organization. This way, it is structurally adhocracy enabling it to be responsive as well as innovative in dynamic and complex environments. Though their lies through the matrix structure potential to create and manage knowledge effectively, Mintzberg (1983) identified a challenge in the element of freedom of potential ambiguity, inefficiencies, and misinterpretation. According to Steger et al. (2014), there is a lack of standardization when the functional organization stresses skill standardization, but the matrix structure does not. This is what led Ashkenas (2002) to state that “The matrix is ingenious in theory but confusing in practice” along with the coining of the phrase "organizational schizophrenia." Nevertheless, they identified that the structure an organization selects, should be a method of delivering knowledge and skills within an organization and which would later see to knowledge transforming resulting in organizational performance.

David (2011) states that in designing an organizational structure, one should avoid wide span of control, wide management layers, misplacement of employees which brings about poor service delivery, or even structure that demand holding of numerous meetings which could bring about time wastage due to element such as solving departmental conflicts.

Work Specializations which is also termed as division of labor, indicates the rate at which organization's duties and tasks are broken-down into discrete positions, so that rather than an entire job being done by one individual, people specialize on only a portion of an activity/work. Work specializations leads to increased efficiency and productivity as well (Griffin, 2017), (Daft, 1995).

Departmentalization is referred to as a process where work/teams are combined into functional units. Departmentalization by area of specialization (i.e., by function, process, product customer, division/territory, or project), is done to achieve the goals of the organization as activities are specialized, process and operations of the organization are

made simple, which makes it easy to maintain control. The departments are hence group of employees, who carry out activities of similar nature (Griffin, 2017), (Daft, 1995).

The span of control means how many subordinates should be placed under a supervisor, considering how many a supervisor can effectively manage. Smaller spans of control are supported by studies on span of control to manage relationships, create more possibilities for effective leadership, and boost employee performance and satisfaction. However, organizations that have less complex work are likely to have a larger span of control (Griffin, 2017), (Daft, 1995).

In a formal organizational structure, centralization indicates that decision-making power remains with top management, whereas decentralization means that decision-making authority is given to all levels of management (Griffin, 2017). MartinezLeón et al. (2011) define centralization as the degree to which decision making and activity evaluation are centralized. The size, environment, management philosophy, and most definitely managerial competency of the company all affect the degree of centralization or decentralization.

Formalization is the term used to describe the extent of written documentation within an organization. This is whereby formal regulations and procedures are established, work is standardized and there is specific definition of task, and operation in an organization. Formalization also relates to the style of communication in organization (Daft et al., 2010, 1995).

### **2.3.1 Communication Practices and Project Performance**

Effective communication is critical for achieving company goals. The process through which groups/people/organizations transfer information to other groups/people/organizations is known as communication (Greenberg et al, 2008). Salako (2016) characterizes communication as the “life blood” of an organization.

Communication influences how well a management achieves company goals without power struggles, misunderstandings, or miscommunications (Herich, 2008). It affects the level of trust between managers and employees (Charles, 1998), the attitude to

management practices toward methods of leadership and the motivation of employees (FitzPatrick, 2008).

Saxena et al (2015) stated that highly devoted employees are individuals who strongly connect with a company's goals and objectives and who will put out a lot of effort to join and stay in that organization. Furthermore, organizations must be able to recruit the proper employees, encourage them to perform their given tasks, and retain them.

Studies have identified three forms of communication namely, written, oral and non-verbal type of communication. Written communication is in form of emails, memos, reports, procedures policies etc. Oral can be made verbally and through visual aid like presentations, while non-verbal is expressed without words but through facial expressions and body language (Robbin, 1998).

The organizational structure establishes formal communication patterns that adhere to the lines of authority and the chain of command (Shonubi et al., 2016). Correspondingly a change in the organizational structure influences the communication and the success of projects. Clear lines and channels of communication bring about clear instruction and reduced conflicts between staff or between departments (Shonubi et al, 2016). They also note that formal patterns of communication are structured, and goal oriented subsequently they give room for evaluation, feedback, and control for efficient coordination of activities.

When there are gaps or shortfalls in the formal means of communication, employees do not get the information they require. With gaps, unofficial channel of communication will be noted. Shonubi et al (2016) noted that unofficial communication has a risk of transmitting unreliable information, rumors, and grapevine talks. Though Shonubi et al (2016) recognize the importance of informal communication in an organization, however they limit informal communication for employee's private purposes, i.e., as a platform for them to be able to talk about their problems, attitudes etc. which leads to satisfaction. In contrast, several studies have found that the majority of employees learn company norms and cultures through unofficial "informal" channels. (Johnson et al, 1994).

Formal communication serves as the purpose of the organization, this is the link between decision-makers and all employees. Informal communication cannot be prohibited, on the

contrary it should be encouraged to obtain appropriate feedback especially during difficult periods of changes or reorganization (Shonubi et al, 2016). Organizations that don't have communication methods or strategies well-structured will have a lot of time wastage.

From the dimensions of organizational structure stated by (Mintzberg, 2009), interactions within an organization are either horizontal or vertical. Horizontal communications are communications at same hierarchical level, on comparable level of the organizational hierarchy as well as inter-departmentally. This is characterized as generally friendly and less formal. On the other hand, vertical communication can be top-down (downwards) which is a more formal type of communication or down-top (upward) communication that is less frequent, less spontaneous.

Canary, H. (2011) distinguishes five types of downward communication. These are namely processes and practices, job instructions, job rationales, feedback, and orientation. Subsequently information passed should measure up on accuracy and adequacy. They stated that upward communication suffers from information filtering at the various stages, up the hierarchical levels. Other than the relevant data about employee, their performance, problems being faced, opinions about organizational practices and policies, upward communication is essential for operational performance and balance. It is essential in resolving daily difficulties through group meetings, casual interactions with supervisors, and suggestion boxes (Canary, H. 2011).

Wangui et al. (2021) investigated communication patterns, span of control, task distribution, and work processes, as well as their impact on performance. In their research to investigate the effects of organizational structure in improving county performance, they looked at County Governments in Kenya's Central Region. Their study, which used a descriptive and explanatory research approach, confirmed that organizational structure had an impact on an organization's performance.

### **2.3.2 Knowledge Management and Project Performance**

Knowledge is a critical asset in an organization, regardless of its size, nature, or structure. It is an intangible asset that is classified either as tacit which is knowledge in an individual's head or classified as codified which simply means that its knowledge transferred in formal,



systematic language in i.e., documents, reports, database policies, procedures (North et al, 2014)

In other literature, knowledge is stated as technical knowledge. Technical knowledge being the knowledge an individual need to do their job i.e., qualifications, trainings, on-job trainings etc. Hence, it's important for an organization to know how an individual learns and uses their knowledge to the benefit of the organization. Organizations aim to collect or produce potentially valuable information and make it available to employees so that they may maximize optimal use in order to positively impact organizational performance (King, 2009).

Doty et al. (1993) found that organizations function most successfully when their organizational structure most closely matches their goals. Additionally, knowledge management procedures that result from organizational structure might be credited with efficacy. As defined by King (2009), knowledge management involves the strategic planning, organization, and effective management of individuals, systems, and processes within an organization. Its purpose is to enhance and utilize the organization's knowledge-related assets in an efficient manner. He asserted that knowledge generation, sharing, acquisition, transfer, and application are all part of knowledge management processes. These methods, in accordance with King (2009), enable organizational activities including creativity, individual learning, group learning, and collaborative decisions to be made. They also seek to enhance organizational practices, decisions, products, relationships, and procedures, all of that will boost performance.

Employees in a company can exchange knowledge either formally or informally. According to King (2009), employees are more eager to share their expertise in an organizational environment that encourages innovation. However, he also sees a pitfall whereby employees get promoted for the knowledge they pose and hence not willing to share their knowledge, or they feel that other employees have nothing to offer or no support from top management for their knowledge. Knowledge management and organizational learning have also been associated to each other in various literature. According to King (2009), one way of understanding this relationship is to approach organizational learning as the goal of knowledge management. That knowledge management assists in the

integration of knowledge into the organizational process, resulting in continuous improvement, by fostering the production and application of knowledge.

Steiger et al. (2014) verified, using analysis of variance, that organizational structure influences knowledge management methods in a company in research conducted in San Diego County. In a study of 155 people, they looked at knowledge transmission, information filtering, and knowledge culture behaviors.

In Nigerian brewing companies, Shabbir (2017) looked on organizational structure and employee's performance. To assess the impact of organizational structure on performance, the study adopted a descriptive survey methodology. His conclusion was however majorly on effects on employee's performance in brewing firms basing extraction of sample size via used the Taro Yamane method.

In his study, Onono (2018) demonstrated a substantial connection between organizational structure and performance. Application of an organizational structure impacts various aspects, among them are decision-making speed and accuracy, as well as the promotion of a culture of learning and development inside the organization, and the efficiency and effectiveness of information flow within the organization.

### **2.3.3 Resource Utilization and Project Performance**

Organizational resources are inputs organization requires in order to produce its goods or services (Rose et al, 2010). The resource-based approach states that an organization has a competitive advantage if it possesses viable, distinctive resources. Those advocating this theory alluded that an organizational resource should have attributes, that provide the ultimate competitive advantage: namely that the resources should be valued, so that they may be leveraged to capitalize on opportunities and possibly eliminate risks in an organization's environment. Similarly rare, inimitable hence cannot be replicated and non-substitutable and distinct. As a result, in order for a company or organization to achieve high levels of performance, it must obtain diverse resources that are nearly impossible to develop, substitute, or copy (Pesic, 2007).

Rose et al. (2010) defines resources as "tangible and intangible assets used by an organization to develop and implement its strategy." A strong strategy, a good pool of

skilled employees, and human capital are all valuable resources in any organization. However, ineffective management of resources can impend organizational performance. Organizational capabilities, organizational procedures, information, and knowledge are all examples of organizational resources (Hofer et al, 2006). Organizations are constantly acquiring, growing, and upgrading resources because they give them the ability to gain a competitive edge. An organization with low cost, high quality and adequate resources has an enduring strength that can be used as a strategic weapon.

Adopted for (Madhani, 2010), resources in this study are physical, human, technological, office equipment, furniture fittings and innovation. Organizations or managers should hence make resources available where they are needed, they should be made available for the most important activities first only then will the resources be used efficiently in order to achieve the organizational objectives. An organization might acquire its resources or extended its capabilities by either buying or building. Building of resources is an internal investment. Advocates of the resource-based theory contend that for businesses to sustain competitive advantages and expand in a changing organizational context, they must continually seek to build up their resources and capabilities (Ombaka, 2015).

The degree of a company's success is greatly affected negatively by its reputation, particularly when there has been acts of misconduct. Organization seeks more insights on how they can mitigate the enormity of these negative effects through various corrective actions. This is mostly visible with application of reinforcement for employees. The other employee aspect for satisfaction retention as well as improving performance within an organization focuses on compensation. This is the human resource management function that deals with rewarding of individuals in exchange for a set performance of organizational tasks (Ivancevich, 2014). It's crucial to remember that issues may develop within the organization if workers realize they are fighting for the same, few resources.

Gaya (2017) in his study, on why organization differ within the same market and operating under the same competitive environment, determined that the process of creating value, or as he defines it, "creating sustainable competitive advantage," centers on physical resources and is what causes performance disparities. His conclusion was based on research in motor service industries in Kenya.

Innovation is considered one of the key factors that influence an organization's success. Various researches have used Cameron et al.'s (2011, 2006) Competing Values Framework of a balancing scorecard to demonstrate that organizational culture may drive innovation or be an impediment to organizational performance. Steger et al (2014) established that an adhocratic structures are best performance and innovation predictor, as such organizations have informal structures are more flexible, exhibit strong sense of adaptability and of mission and enable quick decision making.

#### **2.4 Empirical Studies**

Nwosu (2015) investigated how organizational planning affected the performance of a few Nigerian manufacturing firms in Enugu State. They included significance of mechanistic and organic organizational structure among pharmaceutical manufacturing firms, effectiveness, and growth as well as significance of organizational structure on organizational innovativeness. The population of their study consisted of 6561 employees from five brewing companies listed on the Nigeria Stock Exchange, and the sample size was calculated using the Taro Yameni technique. Their research indicated that organizational planning has an impact on organizational performance and that obstacles in implementing strategic planning include a lack of accountability, dedication, and awareness of one's position in the execution process.

Study carried out by Marangu et al. (2018) researched how the organizational structure influenced the way public health professionals at government-owned healthcare institutions, particularly District Hospitals in Western Kenya. The population of the study was respondents from the Government owned healthcare facilities. The findings of their study, which employed a correlational descriptive survey approach, demonstrated that organizational structure positively and significantly influenced performance. The study revealed that through proper organizational structure, employees were appropriately positioned to perform tasks and effectively achieve goals in an efficient manner.

Ngeiywa (2018) investigated the impacts of staffing, structure, culture, and change management approaches on the execution of electrical installation works in Kapenguria Sub-County. During her research, in West Pokot County she conducted a population census on all 137 officials in the Ministry of Public Works, Transport, and Infrastructure

(MOPWTI). In addition, Nine contractors were selected from a pool of 46 contractors using simple random sampling technique. These contractors were electrical installation specialists approved by the MOPWTI. Her research, which included indicators such as chain of command, centralization, decentralization, and specialization, concluded that organizational structure had a significant influence on the execution of electrical installation works in Kapenguria. The researcher recommended formalization of job positions to clear and defined roles so as to improve performance in that sector.

Mwanja et al. (2020) utilized a descriptive survey methodology to examine how organizational structure affects the implementation of strategies among Savings and Credit Cooperative Organizations (SACCOs) in Kakamega County, Kenya. The study employed a descriptive survey research approach, with 123 SACCOs as the overall target population. Their study ultimately concludes that organizational structure plays a significant role in influencing the successful implementation of strategies.

Nyokabi (2021) performed a descriptive study to determine the effect of organizational culture, organizational structure, organizational leadership, and strategic partnerships on the performance of Airtel Kenya Limited. The data revealed a positive and significant relationship between organizational culture, structure, and leadership and company performance, but no relationship between strategic partnerships and business performance. Regression analysis confirmed that organizational culture and organizational structure significantly affect firm performance while organizational leadership and strategic alliances don't significantly affect firm performance.

The studies highlighted above were based on the organizational structure and their influence on performance, however this research was based on companies that generated profit. i.e., the Airtel telecommunication companies, manufacturing firms in Nigeria, credit cooperate organizations like the Sacco's, and hospitals which are in the public sector.

## **2.5 Conceptual Framework**

The conceptual framework below shows the hypothesized relationship between cluster organizational structure on project performance. It depicts the direct relationship between the individual independent variable as well as a combined relationship of the variables of cluster organizational structure with the performance of the project. The IV has been

broken down to three sub variables: Communication Practices, Knowledge Management and Resource Utilization.

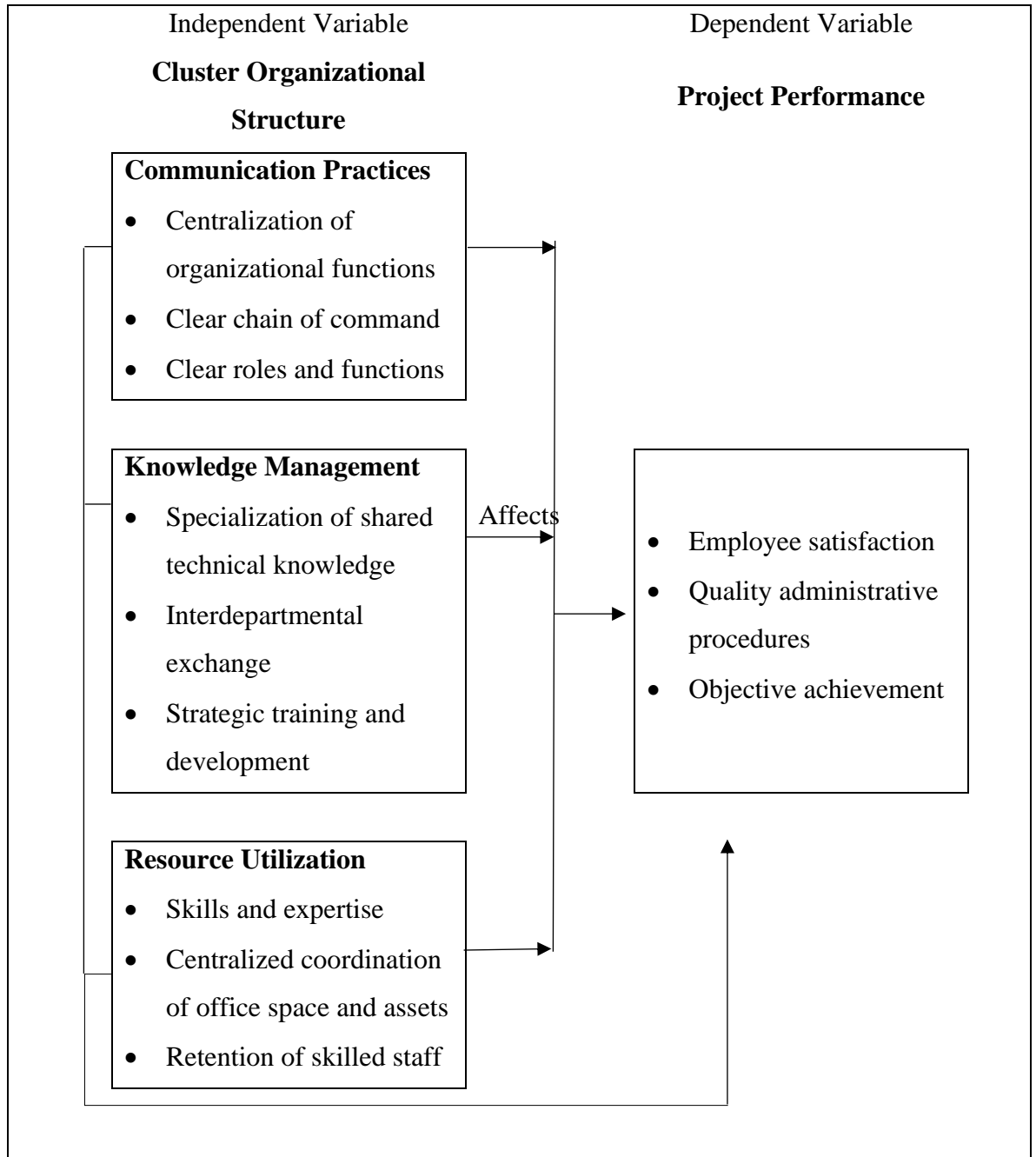


Figure 1: Conceptual Model

## 2.6 Summary of Literature Review

Several research, the most of which are conducted in developed nations, support the premise that organizational structure influences organizational competency as well as

performance. Based on the literature review from empirical studies, the table below offers an overview of the research gaps for this study.

*Table 2.1: Summary of Research Gaps*

Author	Focus of the Study	Methodology used	Findings	Gap in Knowledge	Focus of current study
Onono (2018)	Impact of organizational structure on performance	Descriptive Survey Design	Organizational structure affects the speed and accuracy of decision making and directly influences the learning and growth culture within the organization as well as the efficiency of information exchange within the organization	This study based its performance measure focused more on market-oriented, profitability	This study will focus on employee performance, quality of administrative procedures as well as objective achievement.
Mwanja et al (2020)	Influence of organizational structure on strategy implementation	Descriptive Survey Design	Organizational structure influence strategy implementation.	The study failed to address the issue of organizational performance	The current study fills this gap by investigating the influence of organizational structure on project performance
Wangui et al (2021)	Effects of organizational structure in	Descriptive and Explanatory design	Organizational structure has influence on the performance	The study focused more on pattern of communication,	The current study fills this gap by investigating the influence of

	tackling county performance			span of control, allocation of tasks and work procedures and their effect on performance	communication knowledge management and resource utilization on project performance
Odhiambo, et al (2020)	Communication as a driver of performance of projects in Kenyan commercial banks	Descriptive Survey Design	Communication is an essential aspect of all projects, including those in the banking industry	The study focused more on downward vertical communication	The current study fills this gap by investigating the influence of communication practices both vertically and horizontally
Jackson (2018)	Communication patterns on performance of county Government funded projects in Kenya	Descriptive Survey Design	Flow of information affects project performance	The study focused more on communication pattern playing a role in project staffs' satisfaction	The current study will in addition to the influence on staff satisfaction, focus on quality administrative procedures and objective achievement
Mburia et al (2020)	Knowledge Management Practices and Project Performance in Tharaka Nithi County, Kenya	Descriptive Survey Design	The study concludes that knowledge creation has a positive and significant influence on project performance	The study focused more on knowledge management as viewed by the management.	The current study fills this gap by investigating the perspective of both Management, and employees.



Nyaboke 2019	Effect of Knowledge Management on performance of research institution.	Case Study Design	The study concluded that increase in knowledge acquisition, knowledge conversion, knowledge protection and knowledge application lead to improved performance at KEMRI.	The study focused more on knowledge management as viewed by the management.	The current study fills this gap by investigating the perspective of both Management, and employees.
Makori 2021	Resource management practices and performance of Commercial housing projects	Descriptive Survey Design	The study concluded that resource management has an impact on commercial housing projects performance in Nairobi City County, Kenya.	The study focused on profit making companies.	The current study fills this gap by investigating the perspective from a Non-profit making organization.
Ronoh 2020	Influence of resource scheduling on the performance of residential construction projects in Nairobi City County	Descriptive Survey Design	The study found a significant relationship between resource scheduling and project performance	The study focused on equipment as a project resource	The current study fills this gap by investigating the influence of both equipment and skilled labor on project performance

According to the research shown above, there is also a contextual gap owing to differences in the institutional structure and legislative framework controlling the commercial sectors, government institutions, and international organizations. The structural designs of these institutions vary greatly.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter discussed the research methodology employed during this study. Additionally, it will look in detail the target population and the size as well as the methods and procedure used to collect and analyze the data.

### **3.2 Research Design**

According to Bell et al. (2019), every research is based on assumptions that influence research practice and theoretical conclusions drawn from collected and analyzed data. That is, based on the facts that have been acquired and analyzed. That philosophical assumptions are divided into three categories: ontology, epistemology, and methodology, and that they assist researchers in ensuring that their study assumptions conform to the research approach and design selected.

The study's goal was to investigate the influence of the cluster structure approach on the effectiveness of GIZ implementation of the projects in Nairobi County, Kenya. Cooper et al. (2008) describe research design as a plan for collecting, measuring, and analyzing data. The role of research design, as described by Mugenda et al. (2003), is to investigate and report on the state of affairs.

The descriptive research approach was the most appropriate for this study's objectives. Descriptive research design tries to identify and then evaluate the cause and effect of relationships between variables in order to provide a picture of the current state of affairs. The study undertook a cross-sectional survey, whereby the collection of data was carried out at specific time (Bell et al. 2019). The choice of this design was most appropriate as the researcher sought to give a “comprehensive outlook of the present situation and then gives way for the progression into questions” (Kothari 2004). The results there-of give an assessment of the research question in a snapshot. As a result, the observations and results of this study might alter if conducted at a different time with the same set of respondents.

### **3.3 Population**

A population is defined as an extensive group of people or objects that are the primary focus of a research. According to Mugenda et al (2003), the study's target population can be identified by visual characteristics. The GIZ management team, technical team, and

financial and administrative professionals are the research's target group. The study's target population was 71, with a sample size of 41 staff personnel in charge of fulfilling project objectives. In Kenya, a case study of the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ).

*Table 3.2: Division of Staff (Source HR as of October 2022)*

Division	Number
Management Staff	5
Technical Professional Staff	30
Finance and Administrative Professional Staff	6
<b>TOTAL</b>	<b>41</b>
<i>Support Staff Members</i>	29

### **3.4 Sample Design**

As stated by Bell et al. (2018) there is no single optimal sample size. Sample size is then dependent on the context and scope of a study. A sampling strategy is the method through which a researcher collects people, locations, or objects to study. This research will concentrate on data collection from one cluster. According to Mugenda et al. (2003), "the simple random sampling technique is a reasonable method of selecting a sample from a given population." All five clusters in Kenya had an equally good chance of being chosen for the study.

In addition, since each cluster works in a different environment i.e., thematic area etc., moderating variables like management style, organizational culture or even choice of a cluster to implement a centralized or partially centralized organizational structure were reduced. Random selection hence minimizes bias and simplifies analysis of the results. For this study the Energy Cluster was randomly selected.

In this study, we have identified the division of staff as per Table 3.1 below. To respond to the hypothesis under this study the sampling frame was the complete list of all the staff under the cluster. Data was obtained from Management staff, Technical Professionals and Finance and Administrative Professionals. However, data will not be obtained from the

other non-professionals/support staff. The researcher felt that these employees might lack strategic awareness of the organizational objectives as well as insight of activities. A population census will be adopted in the respective staff division, since the population size is small and will not affect the study due to time or resource constraints. (Mugenda et al. 2003)

### **3.5 Data Collection**

Data collection, according to Rouse (2017), is the methodical process of gathering and evaluating data from several sources in order to acquire a thorough and accurate understanding of a certain topic or issue. Through data collection, the researcher can respond the research questions, assesses outcomes, predict tendency and test hypothesis. Primary methods for collecting information can be done through administrative of a questionnaire, observation, interview including focus group discussion and document Analysis (Mugenda et al. 2003).

Primary sources involve obtaining information directly from individuals who provide firsthand accounts or personal representations of the subject matter. In this study data will be obtained from the employed staff of GIZ Energy cluster through Administration of questionnaire hence questionnaire and to be more precise, a closed-ended electronic questionnaire will be sent out to the staff via the approved platform called Askallo. Online surveys are becoming more and more common, according to Bell et al. (2019), who also note that this is owing to its affordability, flexibility in terms of look and style, and ease of data transfer onto databases. The utilization of the Askallo instrument offers the advantage of saving time and minimizing the likelihood of errors during data processing.

According to Mugenda et al. (2003) questionnaires are relatively economical, and respondents are not influenced by the interviewer. Furthermore, this tool possesses the capability to handle a significant number of respondents and collect fact-based information, thereby facilitating easier coding and analysis of the collected data. Unlike the other tools, i.e. observation, focus group discussion the tool enables one to save a lot of time that would have been spent in the field study.

Four sections make up the questionnaire's framework, which focuses on the study's goals. Section A contains general information about the respondents, such as duration of their

employment in the organization, roles in projects, and the type of cluster organizational structure used in the project, whereas sections B, C, D, and E contain information relating to the specific objectives of this study, which are knowledge management, communication practices, and resource utilization.

For the questions of research in the questionnaire under section A, the questions are set to find out the knowledge to the respondent has on cluster organization. Section B- E is to solstice information about the respondent linking or not liking with regards to the topic identified.

The respondent will reply with the use of the Likert rating scale; 1/strongly disagree, 2/disagree, 3/neutral, 4/agree, 5/strongly agree (Tan, 2008). Denotating that a higher rating on section B, C, D and E, correspondingly high influence of the variables in question. A pilot test will be conducted to a pilot group for suggestions, improvements, and review prior to distribution of the questionnaire. This will guarantee the questions' validity and clarity with regard to their subject matter.

The research will gather primary data through the utilization of structured questionnaires. The researcher will send out an email to the director of the organization as well as the cluster coordinator notifying them of the study. Upon their approval, the questionnaires will be sent to the staff through their respective email addresses. The questionnaire will be sent out via Askallo, which is the authorized in platform within the organization to collect data from staff anonymously.

In the process of undertaking the main research, a pilot was carried with the data management team of GIZ who did not form part of the main study sample. Piloting is crucial in data collection as it provides a preview of study questions which may be unclear so that they can be readjusted. Likewise, a pilot study sample should range between 1 and 10 percent (Mugenda et al. 2003). In addition, Mugenda (2003) observed a test as “a procedure taken to review an instrument of data collection prior to holding the main research activity”. These measures enable the researcher to recognize areas within the instruments that need modification to better collect data.

According to Kothari (2004), the instrument validity focuses on accuracy in measuring what they purport to measure either via validity in content, construct or criterion. Under content validity the instruments ensures that adequate coverage of each indicator provided. Academic supervisor for this project was engaged to validate the study objectives, variables, and tools for data collection to enhance validity.

### **3.6 Data Analysis**

The quantitative data in this study, which was acquired via closed-ended questionnaires, was evaluated using Statistical Packages for Social Sciences (SPSS). Prior to being presented in SPSS for analysis, the data was first categorized and coded. This study relied on primary data.

#### **3.6.1 Diagnostic Tests**

Statistical Packages for Social Sciences (SPSS) was used to evaluate the quantitative data in this study, which was gathered by closed-ended questionnaires and analysed using descriptive statistics. On the question of research in questionnaire under section B - E, each statement was weighted with value of 1, 2, 3, 4 or 5. Hence this section collected quantitative data from the respondent. Numerical data is analyzed using statistics, which is a mathematical technique for gathering, organizing analyzing and interpreting numerical data. The data collected that is descriptive in nature shall be presented using tables and figures with reference to frequencies and percentages.

#### **3.6.2 Analytical Model**

The hypothesis was put to the test using regression analysis. The next sections present the correlation and regression models for the three study objectives. When an independent variable is changed, it may be used to forecast how the dependent variable will change.

Performance of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) development projects = f (Communication Practices, Knowledge Management , Resource Utilization)

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where:

Y = DV-Performance of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) development projects

a = y-intercept (constant)

X1 = Communication Practices

X2 = Knowledge Management

X3 = Resource Utilization

$\epsilon$  = Error term

### **3.6.3 Significance Tests**

To find out how the variables in this study were connected, correlation analysis was carried out and a correlation matrix was then developed. ANOVA testing, Analysis of Variance, was done at a 95% confidence level to examine and assess the validity of the model and the overall impact of variables on project performance. In a significance test, P-value will be compared to a significance threshold to get a conclusion. The null hypothesis will be rejected if the p-value is less than the significance level. Otherwise, the null hypothesis will be accepted.

This study hence tested the following hypotheses:

H01: There is no significant influence between communication practices and performance of projects implemented by GIZ in Nairobi County Kenya.

H02: There is no significant influence between knowledge management and performance of projects implemented by GIZ in Nairobi County Kenya.

H03: There is no significant influence between resource utilization and performance of projects implemented by GIZ in Nairobi County Kenya



## CHAPTER FOUR: DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

### 4.1 Introduction

This chapter summarizes the findings and results and gives a full explanation of them. The findings are evaluated in connection to the study's aims, with each part addressing the findings in respect to a separate objective. The discussion begins with an examination of the questionnaire return rate, followed by a description of the respondent profiles under consideration and their involvement in the study. The dataset's statistical assumptions are also evaluated and addressed. Finally, the data analysis concludes with a thorough review of each research objective.

### 4.2 Questionnaire Return Rate

The rate of questionnaire returns reflects the extent to which subjects responded to the questionnaires compared to the intended target population for the study. This information not only provides guidance on whether to proceed with the analysis but also indicates the accuracy rate of the responses received. (Kikwatha, 2018). In this study, out of 41 targeted respondents, 28 returned the questionnaires. This translates to a return rate of 68%. For data analysis and reporting, Mugenda (2012) states that a response rate of 50% or more is regarded appropriate, while a response rate of 60% is considered satisfactory. However, above 70% is considered to be an outstanding return rate for analyzing results and drawing conclusions. This study had a response rate higher than 60 %, therefore adequate to draw conclusions.

*Table 4.3: Rate of Return*

Response	Frequency	Percentage
Returned	28	68.29
Unreturned	13	31.71
Total	41	100.0

### 4.3 Respondent Profiles

The respondent profile considered for this study included their role in the cluster project and if they were in the cluster before establishment of the cluster structure and information on knowledge of the degree of centralization of the cluster structure.

#### 4.3.1 Distribution of the respondents by their role within the cluster

As shown in the table below, the technical staff registered most of the respondents at 18 (64.29%), management team (CC/AV/DV) and the administration and finance professional staff registered each at 5 (17.86%). Information on role of the respondent was done to identify any disparities that may arise between the groups. The study was able to elicit a range of responses from cluster workers across all levels, providing a broad and diverse perspective and verifying that the data collected represent the perspectives of the whole cluster and can be relied upon to assess and test the study's aims.

*Table 4.4: Distribution of respondents by role*

Role of Staff	Frequency	Percentage
CC/AV/DV	5	17.86
Technical Professional Staff (Technical)	18	64.29
Administration and Finance Professional Staff (A&F)	5	17.86
Total	28	100.0

#### 4.3.2 Distribution of the respondents according to those who worked before and after establishment of the clusters structure

As shown in the table below there is good representation of staff who were working in the projects before establishment of clusters and those who already found the cluster set up in place. Respondents who were there before the cluster set up registered at 13 (46.43%) and those who began working in the projects after the cluster set up registered at 15 (53.57). The purpose of collecting this information was to identify any discrepancies that may arise among the groups and gain a comprehensive understanding of how the cluster structure has evolved over time.

*Table 4.5: Distribution of the respondents according to those who worked before and after establishment of the clusters structure*

Employment	Frequency	Percentage
Before the establishment of cluster	13	46.43
After the establishment of cluster	15	53.57
Total	28	100.0

### **4.3.3 Distribution of the respondents according to knowledge of type of structure implemented**

The respondents were questioned to specify the sort of structure used in their cluster. The purpose of this research was to discover if the employee could identify the type of cluster set up implemented. From the table below, 24 (96%) of the respondents identified it as a partly centralized structure, 1(4%) identified it as a centralized structure, in addition out of the 28 respondent, 3 respondents choose not to answer this question.

*Table 4.6: Distribution of the respondents according to knowledge of type of cluster structure implemented*

Structure	Frequency	Percentage
Partly Centralized	24	96.00
Centralized	1	4.00
Total	25	100.0

### **4.4 Performance of Project Implementation**

Table 4.8 below presents a summary of descriptive statistics for organizational performance in this study. The dependent variable considered in this study was the performance of project implementation. Respondents were presented with a set of questions and asked to indicate their level of agreement with the statements on a scale ranging from 1 to 5. The scale included the following options: Strongly Disagree (S.D), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (S.A), which are the five possible responses. The table gives details on the replies' frequencies (F), percentages (%), means (M), and standard deviations (SD).

Table 4.7: Performance of Project Implementation

Parameter	S.D	D	N	A	S.A	M	S.D
	F	F	F	F	F		
	%	%	%	%	%		
<b>Performance</b>							
1	The organization process and processes within my department are efficient.	1	0	2	19	6	4.04 0.78
		3.57	0	7.14	67.86	21.43	
2	There is improved service delivery resulting from the implementation of cluster coordination.	0	0	8	11	8	4 0.77
		0	0	29.63	40.74	29.63	
3	Job enrichment is realized, through additional dimensions of task presented under the cluster set-up.	0	2	9	11	5	3.70 0.85
		0	7.41	33.33	40.74	18.52	
N=28							
Composite Mean =3.92							
Standard Deviation =0.67							

From table 4.8 above, on organizational processes and processes within the department, 19 respondents, 67.86% agreed that the processes were efficient, and 6 respondents strongly agreed at 21.43%. Based on the cumulative responses 60 (73%) of the respondent strongly agree/agree that the organization process and processes within the departments are efficient, that there is improved service delivery resulting from the implementation of cluster coordination and that job enrichment is realized, through additional dimensions of task presented under the cluster set-up. The results imply that 73% of the respondent, strongly agree/agree that the project/cluster had a good performance, 23% were indifferent/neutral while only 4% of the respondent strongly disagree/disagree.

## 4.5 Cluster structure approach on the performance of projects implementation

### 4.5.1 Communication practices and Project Performance

Communication practices is the first independent variable of organizational structure in this study. Aspect of communication were examined to check whether the change in the organizational structure influenced them. This are changes due to changes in degree of centralization, the chain of command and changes in the roles and functions in the organization.

*Table 4.8: Communication practices and Project Performance*

Parameter	S.D	D	N	A	S.A	M	S.D
	F	F	F	F	F		
	%	%	%	%	%		
<b>Communication Practices</b>							
1	The Organizational Structure (Cluster Organization) is clear, and objective well understood.	0	2	1	16	9	4.14 0.79
		0	7.14	3.57	57.14	32.14	
2	The benefit of being part of the cluster are clear and understood.	0	2	5	12	9	4 0.89
		0	7.14	17.86	42.86	32.14	
3	There is a clear line of authority, and the structure allows for seamless implementation of project objectives.	0	0	3	15	10	4.25 0.63
		0	0	10.71	53.57	35.71	
4	The role of the cluster coordinator is clear.	0	1	1	10	16	4.46 0.73
		0	3.57	3.57	35.71	57.14	
5	The communication of important news from the head office and country office and partner is seamless.	0	1	3	13	10	4.19 0.77
		0	3.70	11.11	48.15	37.04	

N= 28

Composite Mean =4.21

Standard Deviation =0.56

According to Table 4.6, the overall composite mean score for communication practices is 4.21, with a standard deviation of 0.56. According to the Likert scale statistics, a sizable percentage of the respondents agreed with the remarks. The data points were quite near to the mean, as seen by the comparatively low standard deviation of 0.56. In this situation, the data did not show significant deviations from the mean, as seen by the standard deviation, which quantifies the amount by which the data deviates from the mean.

#### 4.5.2 Knowledge Management and Project Performance

To measure the influence of cluster structure on knowledge management, the indicators measured were, specialization of shared technical knowledge, degree of interdepartmental exchange and strategic training and development.

*Table 4.9: Knowledge Management and Project Performance*

Parameter	S.D	D	N	A	S.A	M	S.D	
	F	F	F	F	F			
	%	%	%	%	%			
<b>Knowledge Management</b>								
1	There is an open-door policy within the technical and A&F teams/departments.	0	0	4	8	16	4.43	0.73
2	Typically, only focused and topic-specific meetings are held, rather than general team meetings	0	0	14.29	28.57	57.14		
3	Cross-project exchange and cooperation is enabled.	0	2	5	12	9	4	0.89
4	There is seamless onboarding of new projects.	0	0	8	12	6	3.92	0.73
5	There are identified linkages of Result based models (RbM) within	0	1	12	12	2	3.56	0.68
		0	3.70	44.44	44.44	7.41		

	the cluster for synergies to strengthen impact.								
6	Ideals for follow-on projects or project implementation are openly discussed.	0	2	6	17	2		3.7	0.71
		0	7.41	22.22	62.96	7.41			
7	Previously implemented projects documentation, organizational procedures, instructions and other documented reports are accessible.	0	1	10	12	5		3.75	0.78
		0	3.57	35.71	42.86	17.86			
<hr/>									
N=28									
Composite Mean =3.77									
Standard Deviation =0.47									
<hr/>									

The composite mean score for knowledge management was determined to be 3.77, rounded to a whole number of 4, with a standard deviation of 0.47 based on the data reported in Table 4.7. According to the Likert scale, a large majority of respondents agreed with the claims. The amount of data variation from the mean is indicated by the standard deviation, and a standard deviation of 0.47 indicates that the data points were reasonably near to the mean in this situation.

Regarding the statement concerning the nature of meetings, specifically emphasizing focused and topic-specific meetings over general team meetings, the results indicated a mean score of 3 indicating that most respondents neither agreed nor disagreed with the statement. The relatively high standard deviation of 1.13 indicates that the data points were widely spread out from the mean. Further analysis of the data showed, 2 (40%) of the management team agree that the cluster only has focused, and topic specific meetings are held rather than general meetings, while 8 (44%) of the technical team strongly agree/agree and 1 (20%) administration and finance professional agree.

Under the statement, there are identified linkages of Result Based Models (RbM) within the cluster for synergies to strengthen impact, the mean of 3.56, which means that the respondents were almost being neutral to the statement. Further analysis of the data showed

that, 3(60%) of the management team agree that they could identified linkages of Result Based Models (RbM) within the cluster for synergies to strengthen impact, while 7(41%) of the technical team strongly agree/agree and 4 (41%) administration and finance professional agreed.

#### 4.5.3 Resource Utilization and Project Performance

To assess the impact of cluster structure on resource utilization, the study measured indicators such as accessibility of skills and expertise, centralized coordination of office space and assets, and retention of skilled staff. These factors were used to gauge the influence of the cluster structure on how resources are effectively utilized.

*Table 4.10: Resource Utilization and Project Performance*

Parameter	S.D	D	N	A	S.A	M	S.D
	F	F	F	F	F		
	%	%	%	%	%		
<b>Resource Utilization</b>							
1	There is improved management of the administrative interface with the country office and head office.	1	0	4	17	6	3.96 0.82
2	There is flexible use of personnel (Technical / A&F Staff) and other resources (cars, office space, assets etc.) within the cluster.	0	2	3	13	10	4.11 0.86
3	The task assigned correspond with individual training and expertise.	0	1	2	16	8	4.15 0.7
4	The exchanges between projects within the cluster are sufficient.	0	3	7	10	8	3.82 0.97
5	There is fair allocation of resources and tasks within the cluster.	0	2	8	12	5	3.74 0.84
6	There is no conflict over roles and duties within the cluster.	0	2	7	12	6	3.81 0.86
N=28							



Composite Mean =3.92

Standard Deviation =0.67

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According to the Likert scale, the majority of respondents agreed with the statements. As illustrated under table 4.8, the composite mean score for knowledge management was 3.92, which, when rounded to the nearest whole number, is 4, with a corresponding standard deviation of 0.67. The standard deviation provides an indication of the spread of the data points from the mean, and in this case, a standard deviation of 0.67 suggests that the data points were not widely dispersed.

Under the statement, the exchanges between projects within the cluster are sufficient, the mean was at 3.82, with a standard deviation of 0.97. This mean was higher than the mean of the other statements in this category. Further analysis of the data showed that, 4 (80%) of the management team agree that the exchanges between projects within the cluster are sufficient, while 12 (67%) of the technical team strongly agree/agree and 2 (40%) Administration and finance professional agreed.

The objective tested the null hypothesis whereby the results concluded that there is positive significant influence between resource utilization and performance of projects implemented by GIZ in Nairobi County Kenya, at 95% level of significance.

#### **4.6 Regression Analysis**

To investigate the relationship between the independent and dependent variables, regression analysis was used. It aimed to determine and assess the significance level of each cluster approach factor on the performance of projects implemented by GIZ. The analysis employed a multiple regression model as well as one-way ANOVA. The results, presented in tables 4.12 to 4.23 below, provide a comprehensive overview of the single linear regression analysis conducted for each independent variable in relation to the dependent variable. Each subsequent subheading in the tables represents a specific independent variable. The tables further provide the results of the multiple regression analysis, demonstrating the association between all of the independent variables and the dependent variable.

#### 4.6.1 Simple linear regression between independent variable – communication practices and dependent variable project performance

*Table 4.11: Model Summary of influences of communication practices on performance of projects implemented by GIZ*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.542	.294	.267	.61728

The table above demonstrates how the model matches the data that was gathered, examined, and fitted into the model's equation. Table 4.12 shows R Square of .294. This indicates that 29.4 per cent in performance of project is explained by communication practices. The other 70.6% variation in performance of the project could be explained by other aspects that have not been captured in the model above.

*Table 4.12: Analysis of Variance (ANOVA) of influences of communication practices on performance of projects implemented by GIZ*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.120	1	4.120	10.813	.003
Residual	9.907	26	.381		
Total	14.027	27			

The computed p-value of 0.03 in table 4.13 is less than the significance criterion of 0.05. This suggests that the model was highly predictive of the influence of communication practices on project performance. As a result, we can reject the null hypothesis, which argues that there is no significant relationship between communication practices and the performance of GIZ projects in Nairobi County, Kenya. Instead, we can conclude that there is a significant influence between communication practices and project performance, with a 95% level of significance.

*Table 4.13: Model Coefficients on influences of communication practices on performance of projects implemented by GIZ*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.864	.934		.926	.363
Communication Practices	.699	.213	.542	3.288	.003

The findings presented in table 4:14 indicate that communication practices have a notable impact on project performance. Specifically, a positive unit change in communication practices is associated with a 0.699-unit (69.9%) increase in the performance of projects implemented by GIZ in Nairobi County, Kenya. This suggests a strong positive relationship between communication practices and project performance, highlighting the significance of effective communication in enhancing project outcomes. Therefore, the cluster structure approach explains variations in project performance.

The results align with the findings of Wangui et al. (2021), whose study examined aspects such as communication patterns, span of control, allocation of tasks, and work procedures. Their research concluded that organizational structure indeed has an impact on performance. Hence, employees that identify themselves with the goals and objectives of an organization tend to remain part of an organization, well established communication practices that identifies with clear chain of command, job descriptions and clear roles and functions are keys to a successful project outcome.

#### **4.6.2 Simple linear regression between independent variable – knowledge management and dependent variable project performance**

*Table 4.14: Model Summary on influences of knowledge management on performance of projects implemented by GIZ*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.369	.136	.103	.68279

The R Square of 0.136 in Table 4:15 above denotes that 13.6% variation or change in project performance could be explained by knowledge management. The 86.4% variation in performance of the project could be explained by other aspects that have not been captured in the model above.

*Table 4.15: Analysis of Variance (ANOVA) on influences of knowledge management on performance of projects implemented by GIZ*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.905	1	1.905	4.087	.054
Residual	12.121	26	.466		
Total	14.027	27			

The regression analysis on Table 4:16 above on the contribution of knowledge management on Project Performance of projects implemented by GIZ in Nairobi showed that there was no significance at  $p=0.054$ .

These results imply that although knowledge management influences project performance, the influence is not significant in statistical terms. We may thus accept the null hypothesis, which states that knowledge management has no appreciable influence on the success of projects carried out by GIZ in Nairobi County, Kenya.

*Table 4.16: Model Coefficients on influences of knowledge management on performance of projects implemented by GIZ*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.303	.805		2.860	.008
Knowledge Management	.423	.209	.369	2.022	.054

Based on the evidence collected, analyzed, and presented on Table 4:17, knowledge management has not significance on performance of project implemented by GIZ in Nairobi. The variable was deemed insignificant as the p-value of 0.054 is higher than the significance level of 0.05.

The conclusions of this study do not agree with the findings of Onono (2018), whose study demonstrated a strong correlation between organizational structure and performance. That a company's organizational structure has an impact on decision-making speed and accuracy, as well as directly influencing the culture of learning and growth inside the organization and the effectiveness of information flow within the organization.

However, the researcher also observes that with more observation, the results could become significant as the significance level is as per the linear regression is at 0.054.

#### **4.6.3 Simple linear regression between independent variable – resource utilization and dependent variable project performance**

*Table 4.17: Model Summary on influences of resource utilization on performance of projects implemented by GIZ*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.592	.351	.326	.59173

Table 4.18 shows R Square of .351. This indicates that 35.1 per cent in performance of project is explained by resource utilization. The 64.9% variation in performance of the project could be explained by other aspects that have not been captured in the model above.

*Table 4.18: Analysis of Variance (ANOVA) on influences of resource utilization on performance of projects implemented by GIZ*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.923	1	4.923	14.060	.001
Residual	9.104	26	.350		
Total	14.027	27			

In Table 4.19, the obtained p-value of 0.01 is lower than the significance level of 0.05. This indicates that the model had a significant predictive ability regarding the impact of resource utilization on project performance. Therefore, we can reject the null hypothesis, which suggests no significant influence between resource utilization and the performance of projects implemented by GIZ in Nairobi County, Kenya. Instead, we can conclude that there is a significant influence between resource utilization and project performance, with a 95% level of significance.

These findings agree with that of Gaya (2017) who stated that tangible resources are at the core of the value creation process that leads to the differences in performance in organizations.

*Table 4.19: Model Coefficients on influences of resource utilization on performance of projects implemented by GIZ*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.449	.666		2.176	.039
Resource Utilization	.615	.164	.592	3.750	.001

The findings presented in Table 4.20 indicate that resource utilization has a significant impact on project performance. Specifically, a positive unit change in resource utilization is associated with a 0.615-unit (61.5%) increase in the performance of projects implemented by GIZ in Nairobi County, Kenya. This suggests a strong positive relationship between resource utilization and project performance, highlighting the importance of effectively utilizing resources to enhance project outcomes. Therefore, the cluster structure approach explains variations in project performance.

#### 4.6.4 Multiple linear regression between the independent variables and dependent variable

Table 4.20: Model Summary on variables of cluster approach on performance of projects implemented by GIZ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.684	.468	.402	.55736

The R Square of 0.468 in Table 4.21 above denotes that 46.8% variation or change in project performance could be explained by communication practices, knowledge management and resource utilization. Combined, the independent variables give a higher R square factor than individually.

Table 4.21: Analysis of Variance (ANOVA) on variables of cluster approach on performance of projects implemented by GIZ

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.571	3	2.190	7.051	.001
Residual	7.456	24	.311		
Total	14.027	27			

A p-value of 0.01 on Table 4.22 depicts that the model was significant at predicting the way communication practices, knowledge management and resource utilization affects project performance. Based on the analysis, we can reject the null hypothesis, which suggests that the cluster structure approach has no significant influence on the performance of projects implemented by GIZ in Nairobi County, Kenya. Instead, we can conclude that the cluster structure approach has a significant influence on project performance, with a 95% level of significance.

Table 4.22: Model Coefficients on variables of cluster approach on performance of projects implemented by GIZ

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.114	.975		-.117	.908
Communication Practices	.478	.208	.370	2.299	.031
Knowledge Management	.042	.212	.037	.199	.844
Resource Utilization	.446	.204	.429	2.189	.039

Results from table 4.23 above depicts that if there is an increase in better communication practices, project performance will increase by 47.8%, if knowledge management practices are well established, performance of project will increase by 4.2%, if the management puts more effort in resource utilization, performance of project implemented by GIZ will increase at 44.6% Overall. communication practices scored the highest at 47.8% while knowledge management has the least score of 4.2%, based on our study these variables are significant. However, based on this study knowledge management is not significant since  $p=0.844$  is more than 0.05. A P value larger than 0.05 indicates that no impact was seen or observed with the study. The regression equation derived from the information above would be: -

$$Y = -0.114 + 0.478X_1 + 0.042X_2 + 0.446X_3$$



## **CHAPTER FIVE: SUMMARY OF THE FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter provides a summary of the findings, conclusions, and recommendations derived from the study. It encompasses a concise overview of the results obtained through data analysis. Additionally, this section offers suggestions for future research endeavors. Conclusions drawn from the results and the contribution to the body of knowledge of this research are deduced. Recommendations are highlighted in the last section. Moreover, suggestions for further research are recommended.

### **5.2 Summary of Findings**

#### **5.2.1 Communication Practices and Project Performance of projects implemented by GIZ in Nairobi County, Kenya**

In accordance with the research objective, which aimed to examine the impact of communication practices on the performance of projects implemented by GIZ in Nairobi County, Kenya, the findings indicate a notable influence of communication practices on project performance. This implies that communication practices are very crucial to the performance of the projects and that for every additional unit in communication practices, project performance will increase by 37%. The objective of the study involved testing the null hypothesis, and The findings supported the assertion that there is a significant influence between communication practices and the performance of projects implemented by GIZ in Nairobi County, Kenya.

#### **5.2.2 Knowledge Management and Project Performance of projects implemented by GIZ in Nairobi County, Kenya**

The second research objective aimed to determine the influences of knowledge management on the performance of projects implemented by GIZ in Nairobi County, Kenya. The objective involved testing the null hypothesis, and the findings of this study support the null hypothesis, indicating that there is no significant influence between knowledge management and the performance of projects implemented by GIZ in Nairobi County, Kenya.

### **5.2.3 Resource Utilization and Project Performance of projects implemented by GIZ in Nairobi County, Kenya**

The third research objective aimed to determine the influences of resource utilization on the performance of projects implemented by GIZ in Nairobi County, Kenya. The findings of this study indicate a significant influence of resource utilization on project performance. This suggests that resource utilization plays a vital role in project performance, and for each additional unit of resource utilization, there is a 42.9% increase in project performance.

### **5.3 Conclusions**

In summary, the last objective of this study was to determine the impact of the cluster structure approach on the performance of projects implemented by GIZ in Nairobi County, Kenya. The objective tested the null hypothesis and concluded that there is positive significant of the cluster structure approach on the performance of projects implemented by GIZ in Nairobi County Kenya, at 95% level of significance. The p-value of 0.01 on Table 4:22 depicts that the model was significant at predicting the cluster structure affects project performance.

Based on the findings of this study, we can reject the null hypothesis and establish that the cluster structure approach significantly influences the performance of projects implemented by GIZ in Nairobi County, Kenya.

### **5.4 Recommendations**

Drawing from the discoveries made in this study, the subsequent suggestions can be put forward.

To improve performance, the management in GIZ energy cluster need to assess the effectiveness of its communication practices and resource utilization strategy since the two variables had a significant positive relationship. An improvement in those two areas will lead to record optimal performance. On the other hand, they risk failing to achieve higher performance if they pay less attention to the significance of communication practices and resource utilization in the cluster structures.

This study was concluded via descriptive survey design to support a quantitative approach. The selection of this methodology was deemed suitable for this research due to its ability to facilitate descriptive analysis, correlation examination, and regression analysis. Therefore, based on this, the researcher recommends that future studies can adopt the same methodology.

### **5.5 Suggestions for further studies**

The aim of this study was to determine how the cluster structure approach influences project performance of GIZ implementations in Nairobi County, Kenya. In future research, it would be beneficial to replicate similar studies in different clusters within the organization to evaluate the impact of the cluster structure approach on performance, particularly in clusters with larger teams than the one examined in this study. Additionally, the studies need to add some other constructs such as organizational strategy and leadership style to measures project performance in the organization.

## REFERENCES

- Akinyele, S. T. (2011). Significance of strategic marketing to enterprise performance: An empirical analysis of Nigerian oil and gas industry. *Global Journal of Management and Business Research*.
- Arasli, H., Alphon, C., & Arici, H. E. (2019). Can balanced scorecard adoption mediate the impacts of environmental uncertainty on hotel performance? The moderating role of organisational decision-making structure. *Journal of Hospitality Marketing and Management*. <https://doi.org/10.1080/19368623.2019.1578716>
- Ashkenas, R., Ulrich, D., Jick, T., & Kerr, S. (2002). *The Boundaryless Organization*. Jossey-Bass Publishers.
- Bell, E., Bryman, A., & Harley, B. (2019). *Business research methods (5th edition)*. Oxford University Press.
- Bell, E., Bryman, A., & Harley, B. (2019). *Business research methods (5th ed.)*. Oxford University Press.
- Bhatti, M. I., Awan, H. M., & Razaq, Z. (2014). *The key performance indicators (KPIs) and their impact on overall organizational performance*. Quality & Quantity.
- Bierly, P. E., Kessler, E. H. & Christensen, E. W. (2000) Organisational learning, knowledge and wisdom *Journal of Organisational Change Management*.
- Burns, T., & Stalker, G. M. (1994). *The Management of Innovation (3<sup>rd</sup> Edition)*. Oxford University Press.
- Burns, T., & Stalker, M. G. (1961). *The Management of Innovation*. Tavistock.
- Cameron, K. & Quinn, R. (2006). *Diagnosing and Changing Organizational Culture: Based on The Competing Values Framework. (2nd Ed)*. The Jossey-Bass business & management series.
- Canary, H. (2011). *Communication and organizational knowledge: Contemporary issues for theory and practice*. KY: Taylor & Francis.
- Chandes, J. & Pache, G. (2010). Investigating Humanitarian Logistics Issues; from operations management to Strategic action *Journal of Manufacturing technology management*, Vol. 21 3, PP 320-40.
- Child, J. (1972). *Organisational Structure, Environment and Performance: The Role of Strategic Choice*. Sociology.

- Collings, D. G., McMackin, J., Nyberg, A. J., & Wright, P. M. (2021). Strategic Human Resource Management and COVID-19: Emerging Challenges and Research Opportunities. *Journal of Management Studies*. <https://doi.org/10.1111/joms.12695>
- Cooper, D.R. & Schinlder, P.S. (2008). *Business Research Methods*. McGraw Hill.
- Daft, R. L. (1995). *Organizational theory and design*. (5th Ed.). West Publishing Company.
- Daft, R. L. (2000). *Organizational theory and design*. (7th Ed.). South-Western college Publishing.
- David, F. R. (2011). *Strategic management. Concepts and cases* (13th Ed.). Pearson. [https://pracownik.kul.pl/files/12439/public/3\\_David.pdf](https://pracownik.kul.pl/files/12439/public/3_David.pdf)
- Doty, D. H., Glick, W. H., & Huber, G. P. (1993). Fit, equifinality, and organizational effectiveness: A test of two configurational theories. *Academy of Management Journal*. <https://doi.org/10.2307/256810>
- FitzPatrick, L. (2008). 'Internal communication' in *The Public Relations Handbook*. A. Theaker (ed). Routledge.
- Foruhi, M. (2004). *The structural dimensions in knowledge-based organizations*. Farda management.
- Geocomini V. (2017). *A Historical Approach to Clustering in Emerging Economies*. Havard Business school.
- Goldratt, E.M. & Cox, J. (1992). *The Goal - A Process of Ongoing Improvement*. Second Rev. Ed., North
- Goldratt, E.M., Cox, J. (1984). *The Goal*. The North River Press.
- Greenberg. J. & Baron R. A. (2008): *Behavior in Organizations*. (9th Ed.). Pearson Education.
- Griffin, R. W. (2017). *Management* (12th Ed.). Cengage Learning.
- Hofer, C.W. & Schendel, D.E. (2006) *Strategy Formulation: Analytical Concepts*. (2nd Ed.), West Publishing.
- Ivancevich, J. M., Lorenzi, P. & Skinner, S. J. (2007). *Management Quality and Competitiveness*. (2nd Ed.). McGraw-Hill Irwin.

- Jackson, K.L. (2018) Communication patterns on performance of county Government funded projects in Kenya. *A case of Uasin Gishu County funded projects*
- Javier, J. (2002). A Review Paper on Organizational Culture and Organizational Performance. *International Journal of Business and Social Science*.
- Jeon, K. & Kim, K. (2012). *How do organizational and task factors influence informal learning in the workplace?* Human Resource Development International.
- Karaev, A., Lenny Koh, S.C. & Szamosi, L.T. (2007). The cluster approach and SME competitiveness: a review. *Journal of Manufacturing Technology Management*.
- King W. R. (2009). *Knowledge management and Organizational Learning: Annals of Information Systems*. Springer.
- Madhan. P. M. (2010). Resource Based View (RBV) of Competitive Advantage: An Overview.  
[https://www.researchgate.net/publication/45072518\\_Resource\\_Based\\_View\\_RB\\_V\\_of\\_Competitive\\_Advantage\\_An\\_Overview](https://www.researchgate.net/publication/45072518_Resource_Based_View_RB_V_of_Competitive_Advantage_An_Overview)
- Marangu, W., Kanchori., D., Nyandika, L. & Yegon, R. (2018). An Assessment of Organizational Structure on Performance of Public Health Service Providers in Western Kenya. *European Journal of Business and Management*.
- Martínez-León, I. M., & Martínez-García, J. A. (2011). The influence of organizational structure on organizational learning. *International Journal of Manpower*.
- Mburia, G., & Bett, S. (2020). Knowledge Management Practices and Project Performance in Tharaka Nithi County, Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*. <https://doi.org/10.35942>
- Micheli, P. & Mura, M. (2017). Executing strategy through comprehensive performance measurement systems. *International Journal of Operations and Production Management*. <https://doi.org/10.1108/IJOPM-08-2015-0472>
- Michie, S., & Johnston, M. (2012). *Theories and techniques of behaviour change: Developing a cumulative science of behaviour change*: Taylor & Francis

- Mintzberg, H. (1992). *Structure in fives: Designing effective organisations*. Prentice-Hall.
- Mintzberg, H. (2009). *Tracking strategies: Toward a general theory of strategy formation*. Oxford University Press.
- Moloi, M. J. & Mutambara, E. (2019). The relationship between the industrial clustering and organizational competitiveness. *The Business and Management Review*.
- Mugenda O. M., & Mugenda, A. G. (2003). Research Methods. Quantitative and Qualitative Approaches. *Press African Centre for Technology Studies*
- Mwanja, B. K., Oyugi, L. A. & Iravo, M. A. (2020). Influence of Organizational Structure on Strategy Implementation among SACCOs in Kakamega County, Kenya. *The International Journal of Business & Management*
- Ngeiywa, F. C. & Migosi, J. (2018). Influence of Organizational Structure on the Performance of Electrical Installation Works in Kapenguria Sub-County. *The International Journal of Business & Management*  
<http://internationaljournalcorner.com/index.php/theijbm/article/view/131347>
- North, K. & Kumta, G. (2014). *Knowledge management: Value creation through organizational learning*. Springer international.
- Nwosu, H. E. (2015). Effect of strategic planning on organizational performance: A study of selected brewing firms in Nigeria. *The International Journal of Business & Management*.
- Nyaboke C E (2019). Effect of knowledge management on performance of research institutions: case study of KEMRI Kisumu county, Kenya
- Nyokabi, M. W. (2021). Strategic Change Drivers and Firm Performance in Mobile Telecommunication Industry: A Case of Airtel Kenya Limited. *The International Journal of Business & Management*.
- Odhiambo, A. A., Ouko, R. A. & Muhoho, J. (2020). Communication as a driver of performance of projects in Kenyan commercial banks. *International Academic Journal of Information Sciences and Project Management*, 3(6), 100-112

- Ombaka, B., Machuki, V.N. and Mahasi, J. (2015) Organizational Resources, External Environment, Innovation and Firm Performance: *A Critical Review of Literature*. *DBA Africa Management Review*, 5, 60-74.
- Onono, E. O. (2018). The Impact of Organizational Structure on Performance at General Electric Africa. <http://erepo.usiu.ac.ke/11732/4015>
- Osarenkhoe, A. & Fjellström D. (2017), Investigaciones Regionales. *Journal of Regional Research*
- Oyewobi, L. O., Windapo, A. O., Olabode, J., Rotimi, B., and Jimoh, R. A. (2016). *Relationship between competitive strategy and construction organization performance: The moderating role of organisational characteristics*. *Management Decision*. <https://doi.org/10.1108/MD-01-2016-0040>
- Pesic, M.A. (2007) Six Sigma Philosophy and Resource-Based Theory of Competitiveness: An Integrative Approach. *Economics and Organization*, 4, 199-208. <http://facta.junis.ni.ac.rs/eao/eao200702/eao200702-12.pdf>
- Porter, M. (1998). *On competition*. Harvard Business Review Book.
- Porter, M. (2003). *Global Competitiveness Report 2002-2003*. Oxford University Press.
- Quinn, R. E., Kahn, J., & Mandl, M. J. (1994). *Perspectives on Organizational Change: Exploring Movement at the Interface*. In J. Greenberg (Ed.) *Organizational Behavior: the State of the Science*. Hillsdale, NJ: Lawrence Erlbaum.
- Richard, P.J., Devinney, T. M., Yip, G. S. & Johnson, G. (2009): Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*. <https://doi.org/10.1177/0149206308330560>
- Robbins, S. P. & De Cenzo, D. A. (2005). *Fundamentals of Management: Essential Concepts and Applications*. Prentice Hall.
- Ronoh, D. K. (2020). Project Management Practices and Performance Of Residential Construction Projects In Nairobi City County, Kenya. (Doctoral dissertation, Kenyatta University)



- Rose, R.C., Abdullah, H. & Ismad, A.I. (2010) A Review on the Relationship between organizational Resources, Competitive Advantage and Performance, *The Journal of International Social Research*.
- Rouse, M. (2017). techtarget.com. Retrieved July 22, 2022, from <http://searchcio.techtargget.com/definition/data-collection>
- Saxena, S. and Saxena R. (2015). *Impact of Job Involvement and Organizational Commitment on Organizational Citizenship Behavior. International Journal of Management and Business Research*
- Schein, E. H. (1971) The individual, the organization, and the career: a conceptual scheme. *Journal of Applied Behavioral Science*.  
<https://doi.org/10.1177/002188637100700401>
- Schein, E. H. (1988). *Organisational psychology* (3rd Edition). Prentice Hall.
- Senge, P. (2006). *The fifth discipline: The art & practice of the learning organization*. Double Day.
- Shabbir, M. (2017). Organizational Structure and Employee's Performance: A study of Brewing Firms in Nigeria. *American Research Journal of Business and Management*.
- Shafiq, M., Lasrado, F., & Hafeez, K. (2019). *The effect of TQM on organizational performance: empirical evidence from the textile sector of a developing country using SEM*. *Total Quality Management and Business Excellence*.  
<https://doi.org/10.1080/14783363.2017.1283211>
- Shonubi, A. O., & Akintaro, A. A. (2016). The impact of effective communication on organizational performance. *The International Journal of Social Sciences and Humanities Invention*.
- Singh, S., Darwish, T. K., & Potočnik, K. (2016). *Measuring Organisational Performance: A Case for Subjective Measures*. *British Journal of Management*.  
<https://doi.org/10.1111/1467-8551.12126>

- Stefanović, M., Tadic, D., Arsovski, S., Pravdic, P., Abadić, N., & Stefanović, N. (2015). Determination of the effectiveness of the realization of enterprise business objectives and improvement strategies in an uncertain environment. *Expert Systems*.
- Steiger, J., Hammou, K.A., & Galib, H. (2014). An Examination of the Influence of Organizational Structure Types and Management Levels on Knowledge Management Practices in Organizations. *International Journal of Biometrics*, 9, 43.
- Tan, W. (2008). *Practical research methods* (3rd Ed.). Prentice Hall.
- Tolbert, P.S. & Hall, R.H. (2009). *Organizations: Structures, Processes, and Outcomes*. (10th Ed.). Pearson
- Vallien, C. (2021). *Process of Organizational Change: What Is Change Management and How Does It Work? List of Behaviors to Change*. Independently Published
- Von Bertalanffy, L. (1968). *General System Theory*. George Braziller.
- Wangui, C., Muhoho J., & Kahuthia, J., (2021). Effect of Organisational Structure on Performance of County Governments in the Central Region, Kenya. *Journal of Business Studies*.

## **APPENDICES**

### **Appendix 1: Research Questionnaire**

#### **INTRODUCTION**

This is purely a research-based questionnaire and provides unbiased opportunity for you to air your opinion on the influence of cluster coordination in your cluster. This survey is voluntary and anonymous. It is not possible for the requesting party within GIZ to establish any link between the participant and a completed questionnaire form. The data will not be passed on to any third parties. The analysis of resultant responses shall enable researcher to come up with insightful factual findings for the organizations and an opportunity for improvement. Your openness and honest feedback is critical to the studies success and shall be treated as strictly confidential and will be reported in aggregate form. Data will be tabulated by researcher and only presented as statistical summary for the entire research. Please also observe the data protection provisions of Askallo.

Thanks in advance for your feedback on this questionnaire.

#### **SECTION A: GENERAL INFORMATION**

Kindly select the most appropriate answer to the following multiple-choice questions.

1. What is your role in the projects/cluster?
  - a. CC/AV/DV
  - b. Technical Professional Staff (Technical)
  - c. Administration and Finance Professional Staff (A&F)
2. Were you working in GIZ before the establishment of clusters?
  - a. Yes
  - b. No
3. What type of organizational structure was implemented in the cluster?
  - a. Partly centralized - There are some dedicated employees (Technical and A&F) for specific projects within the cluster
  - b. Centralized - Employees (Technical and A&F) work for all projects within the cluster

### SECTION B: Communication Practices

Kindly use the following Likert Scale to answer: 1. Strongly Disagree 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree

	QUESTION	1	2	3	4	5
1	The Organizational Structure (Cluster Organization) is clear, and objective well understood.					
2	The benefit of being part of the cluster are clear and understood.					
3	There is a clear line of authority and the structure allows for seamless implementation of project objectives.					
4	The role of the cluster coordinator is clear.					
5	The communication of important news from the head office and country office and partner is seamless.					

### SECTION C: Knowledge Management

Kindly use the following Likert scale to answer: 1. Strongly Disagree 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree

	QUESTION	1	2	3	4	5
1	There is an open-door policy within the technical and A&F teams/departments.					
2	Typically, only focused and topic-specific meetings are held, rather than general team meetings.					
3	Cross-project exchange and cooperation is enabled.					
4	There is seamless onboarding of new projects.					
5	There are identified linkages of Result based models (RbM) within the cluster for synergies to strengthen impact.					
6	Ideals for follow-on projects or project implementation are openly discussed.					
7	Previously implemented projects documentation, organisational procedures, instructions and other documented reports are accessible.					

**SECTION D: Resource Utilization**

Kindly use the following Likert scale to answer: 1. Strongly Disagree 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree

	QUESTION	1	2	3	4	5
1	There is improved management of the administrative interface with the country office and head office.					
2	There is flexible use of personnel (Technical / A&F Staff) and other resources (cars, office space, assets etc.) within the cluster.					
3	The task assigned correspond with individual training and expertise.					
4	The exchanges between projects within the cluster are sufficient.					
5	There is fair allocation of resources and tasks within the cluster.					
6	There is no conflict over roles and duties within the cluster.					

**SECTION E: Performance**

Kindly use the following Likert scale to answer: 1. Strongly Disagree 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree

	QUESTION	1	2	3	4	5
1	The organization process and processes within my department are efficient					
2	There is improved service delivery resulting from the implementation of cluster coordination.					
3	Job enrichment is realized, through additional dimensions of task presented under the cluster set-up.					

**THANK YOU**