

**INSTITUTIONAL-BASED FACTORS FOR IMPROVING INFORMATION
SERVICE DELIVERY AT LAND REGISTRY IN NYANDARUA COUNTY,
KENYA**

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**A Thesis Submitted to the School of Science and Technology in Partial
Fulfillment of the Requirements for the Conferment of Master of Information
Science Degree of Kenya Methodist University**

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DECLARATION AND RECOMMENDATION

Declaration

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

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ISK-3-0273-1/2020

Recommendation


We confirm that the work reported in this research was carried out by the candidate under our supervision.

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DEDICATION

To my parents John Muruguru and Margaret Muthoni Muruguru, my dear husband, Peter Mbugua and our three children Kelvin Mbugua, Faith Muthoni and Margret Muthoni.

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ABSTRACT

The Ministry of Land and Natural Resources has established operational policies to guide land administration and improve the delivery of information services to clients. Despite this initiative, several past studies show that most land registries are not able to provide efficient information service to their customers. This study was set out to examine the institutional-based factors for improving information service delivery at the land registry in Nyandarua County. The specific objectives were to determine how financial resources, record management technology, land legislative framework and registry staff competencies were affecting the improvement of information service delivery in the land registry in Nyandarua County. The study was guided by the human capital theory, resource dependency theory and new public management theory. It was based in Nyandarua County. It was guided by the descriptive survey research design. The target population comprised of staff working in the land registry, that is, 19 land administration, four housing, 17 survey and mapping and 12 physical planning staff and the county land registrar, who totalled 53. All participants took part in the study. Data was collected using questionnaires and an interview guide. The reliability and validity of the instruments were verified. The quantitative data were analyzed using SPSS, where, descriptive and inferential statistics were used to summarize information and test hypothesis, respectively. The qualitative data were analyzed using the thematic technique. Results were presented using tables, figures, and using identified themes and categories. In other cases, direct quotes were used. The information service delivery at the Nyandarua land registry had serious gaps. It was characterized by complaints of inconsistencies, sluggishness, inconveniences, misplacement or misfiling of records. This was partly attributed to staff proficiencies, skills and competencies; weak operational frameworks, limited finances, weak financial policy, manual systems, lack of comprehensive land legislative framework, lack of service charter, and weak records management policy. Fifty per cent of the staff in the land registry did not have the required skills and knowledge. The existing policies, rules and guidelines had not been institutionalized due to poor sensitization programs. It was also clear that the established rules and regulations, code of ethics and integrity measures had not translated into actual improvement of service delivered to clients. The study recommended the need for the Department of Lands, Housing and Physical Planning to increase funds allocated to the land registry annually. It should further plan to acquire a suitable lands records management system, develop a finance resources policy, a comprehensive land legislative framework, operational frameworks, and strengthen the land legislative framework. It should also liaise with the land registrar to establish continuous proficiency development programs for land registry staff and capacity-building programs. It should further set aside funds to support staff to attend professional conferences, seminars and workshops. The findings were consistent with the philosophical arguments of the three theories mentioned above. The findings have weighty implications for policy development, land legislative framework, staff training, and professional programs. The results impact service delivery practices at the land registry in Nyandarua County.

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ABBREVIATION AND ACRONYMS

NLC	National Land Commission
ICT	Information Communication Technology
DIACC	Digital ID and Authentication Council of Canada
SPSS	Statistical Package for Social Sciences
ANOVA	Analysis of Variance
NACOSTI	National Commission for Science Technology and Innovation

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Most households, especially in developing countries, rely on the land and other natural resources to meet their current needs and fulfill their long-term aspirations (Kopnina, 2017). To most rural families, land is the only resource available that they can rely on to build their lives. Consequently, it is highly valued. The affairs of the land, for example, land adjudication, administration and surveying require careful handling of records. Such records are usually safe kept in a land registry and are usually consulted regularly when making decisions.

It is expedient to note that the devolution of the activities from the national government to county governments gives the county land registries in Kenya a major motivation to bring land information services near the common citizens (Mung'ale et al., 2021; Wamae et al., 2018). This is harnessed by the quest for quick, quality, satisfactory and cost-effective service delivery by the national government making county registry exercise the mandate to register land owners, transfer land, documenting evidences, promoting good land governance and has been the custodians of key land information for a county (Mambaria, 2018; Mung'ale et al., 2021). The information service delivery in the land registry is therefore, a key subject of discussion to citizens. In the current study, information service delivery in the land registries were explored in relation to the institutional-based factors, a unique view point for cross-examining the organizational internal processes.

Service delivery in the lands registries refers to the process of rendering intangible and tangible information services related to land matters to citizenry in a timely manner,

most convenient and in a cost-effective way with a view to satisfy customers' land needs (Bel et al., 2014). It consummates to the rendering of guidance, help, response, action or activity to a needy person and leaving them contented (Maina, 2016). Moreover, Maina (2016) stressed that service delivery involves the utilization of a specialist utilizing their know-how, input and intuition to address clients' needs satisfactorily.

Quality service delivery by a public institution such as land registries bears them unfathomable benefits. Among them being the ability for the common citizenry getting satisfaction from the land information needs they have (Hossain, 2015). Satisfactory service delivery has also been regarded by the public as a clear suggestion of the current government efficiency and effectiveness (Hilhorst & Meunier, 2015). For a government to improve its delivery of services to the public, the quality of similar services must be maintained. Essentially, the land registry is an information center and the level of information service delivery has become a parameter of defining the level of satisfaction amongst clients in the counties (Gurung et al., 2015).

Improved land information service is evidenced by the ease in accessibility of services, efficiency of information services, and the quality of services; hence, leading to customer satisfaction (Gurung et al., 2015). These are achieved through hiring qualified staff, allocating enough budgetary resources, availing the digital technologies and ensuring there is a land policy (Princeton University, 2018). Moreover, in the recent past, digitalization of the lands' registry has become a service delivery imperative undertaking to ensure quality service.

Service delivery within state agencies is a critical component of government-wide service delivery and the exercise of its administrative mandate (Nzioki et al., 2018). James (2015) argued that service delivery is part of a business that describes the interaction between providers and customers. Good service delivery gives clients an increase in the value. The ideal government sector is one that provides citizens with quality, timely, appropriate, accessible, useful, dignified service delivery that is responsive to the needs of citizens (Nzioki et al., 2018). The quality of service delivery represents the level at which the service provided meets or exceeds customer expectations. Therefore, poor service delivery of state agencies derails the activities which the state agencies aim to undertake.

Globally, service delivery however, remains a challenge for State institutions around the world. In this context, Lopes et al. (2017) notes that poor service delivery is often characterized by neglect of citizens' needs, delays in service delivery and inability to access the various services provided by government institutions. Other factors identified as challenges to service delivery by government agencies include lack of transparency and accountability in service delivery, poor quality of service delivery, and delays in service delivery (Bel et al., 2014; Blair, 2018; Mansoor & Williams, 2018). The challenge of service delivery by state organs is associated with a variety of factors including the culture of the public service, the negative attitude of service providers in the public sector, and the organizational culture among other factors (Ajibade et al., 2017). To eradicate this, governments around the world are using a digital strategy to reduce the poor service delivery in the public sectors (Blair, 2018; Mansoor & Williams, 2018).

Digitization is technology-based and is a process that has affected and transformed every industry including retail sites. It is however interesting to note that, although land

is a valuable asset in terms of real estate and a significant portion of the cost, until recently, only a few countries have a global land register. In the past, most of the world records in the country were geographical maps or paper records containing the names of all the inhabitants. Due to the lack of real estate care, there have been numerous lawsuits and extortions. One of the biggest challenges faced was the issue of land ownership which led to housing disputes. Therefore, making international records available to all has been one of the Government's objectives in the past (Mansoor & Williams, 2018).

Digitization of land records provides diverse advantages, among them; easy and faster access to records for researchers, allowing multiple users to access records simultaneously, save storage space in offices, saving time in searching for paper records, backup disaster recovery and record safety and saving maintenance costs on hardware reader/printers (Aditya et al., 2021). It is also a powerful disincentive against corruption and other land related fraud as it provides a faster and verifiable means of establishing land ownership and transactions (Aditya et al., 2021).

Following technology advancement in Australia the government through a statutory authority called land gate, developed an automated land registration (William et al., 2017). However, the system faced some challenges like skeptical staff, budget constraints, lack of attention to business processes which has caused system crashes. The Land Gate management team had to gain the trust of skeptical staff, reduce delays and address financial constraints. To overcome the challenges, the international gateway agency created innovation program, explored ways to trade its local data, redesigned the system to speed up registration and reduce costs. This ultimately produced a highly efficient automation system (William et al., 2017).

In 2001, registering or transferring Land in Jamaica became an escalating war zone. Four different departments handled different aspects of land management, which led to communication and delays. Direct transactions took several weeks, obtaining information was just a struggle. Jamaica has since established a National Land Agency, which is responsible for consolidation of the four divisions into a single semi-autonomous agency which allowed the government to streamline service delivery, standardize procedures, and reduce processing times. This led to improved performance, implementing new procedures and technologies to increase speed in information service delivery and transparency (Maya, 2017). Other developed countries like Canada, Sweden and Russia despite their early financial challenges and a slower transformation process, their government became a pioneer of technology; hence, becoming a model of the world that facilitated transactions and the delivery of information services to landowners (Aditya et al., 2021).

African countries such as Ethiopia, Rwanda, Zimbabwe, Mozambique, Benin, Ghana, Namibia, South Africa and Tanzania are facing a growing trend of information service rendering that are leading to inefficiency (Ekemode et al., 2017; Nneoma et al., 2021; Adekola et al., 2020; Ojo, 2016). The magnitude of the information problem is known to be between 97-99% of market activity and relevant information falls off the radar of official land registration systems. Legal, social and technical issues are among the challenges facing land registry in the production and the use of information (Ekemode et al., 2017). However, legal origins and defective land registration laws are identified as the main causes of inequitable information in land registers.

The problem of the provision of information services can be largely solved through legislative changes that reflect the cultural practices and aspirations of the relevant

countries, and establish the appropriate form of land registration (Nneoma et al., 2021). Under the current state of scarcity of information, African countries are reported to be plagued by mixed problems of uncertainty, excessive sales, and disputes over widespread property, complex land acquisition procedures; high transaction costs and opportunistic behavior of information owners (Nneoma et al., 2021) and policies aimed at promoting economic growth, sustainable development and poverty reduction (Stanislaus et al., 2017).

In Kenya, the Constitution of 2010 vests the management and administration of land to both the national and county governments. Through the Ministry of lands, the government embraced Land Information Management (LIMS) in the management and administration of land. An effective and efficient LIMS is critical towards the fulfillment of the Big 4 Agenda and attainment of Kenya's Vision 2030 (Mwanza, 2018). Though land is regarded as a major factor of economic activity in Kenya as manifested in the exponential increase in the value of land, this sector has not been spared by challenges associated with ownership (Eric, 2019; Bashir, 2018). Cases of inconsistencies to do with land records and ownership documents, has increased land disputes due to the poor nature of keeping land records, increased fraud and forgery cases touching on land and other connected vices (Eric, 2019).

According to the report by Land Development and Governance Institute (2021), land registries users are dissatisfied with the information services offered by majority of county land registries despite the continued investment by the government on the same. Citizens are increasingly becoming empowered and are therefore demanding for better information services. The continued inconsistencies of the information services in the land registries led to inaccessibility of services, inefficiency, poor quality services, and

delay in the service (lack of timeliness) heighten dissatisfaction and fathom corruption (Njuguna & Baya, 2016; Kariuki et al., 2018; Land Development and Governance Institute, 2021). This derails the achievement of national development goals noted in the vision 2030.

Kenya land registries have been keeping records manually since 1895. This has been the basis for document disappearances, failed file tracking system, corrupt records at land registry institutions, negative image of ministers, long delays in service delivery and service delivery issues (Njuguna & Baya, 2016; Kariuki et al., 2018; Bashir, 2018). To remedy this, in 2013 the Kenyan government invested heavily in digital recording and deployment to address long-term challenges in land management, and to ensure efficient and effective service delivery; improve access to information, increase customer confidence, and reduce turnaround (Kariuki et al., 2018).

However, several past studies show that majority of land registries are not able to satisfy their customers (Wamae et al., 2018; Kariuki et al., 2018; Mwanza, 2018). This may be attributed to the lack of staff expertise, budgetary constraints, lack of digital technologies and land policy, currently the government has introduced an online platform called Ardhisasa (Molpp, 2021). The Ardhisasa allows citizens, other stakeholders and interested organizations to interact with state-of-the-art information and government processes (Molpp, 2021). It was developed jointly by the Department of Land Affairs and Environmental Planning (MoLPP) and the National Land Commission (NLC) and its key Government partners. Ardhisasa allows for applications for various services provided by the Ministry and the Commission. Applications are processed on a platform (Molpp, 2021).

The process of digitization commenced by reorganizing and scanning of land records at the Nairobi County Registries. Other County registries including Nyandarua County are still using manual systems (Kariuki et al., 2018; Eric, 2019). Since the Ministry has accumulated massive land information records, dating back to over 100 years, these records have since increased to unmanageable proportions largely due to continued use of cumbersome manual systems, which is both inefficient and time consuming (Kariuki et al., 2018). The system is beset with inadequate storage which hampers cross-referencing of records and constrains the orderly and timely updating of the databases in use. In this state, data and information are not easily accessible, thus, likely to lead to wrong decisions and unreliable outcomes and delay in information service delivery (Kariuki et al., 2018; Eric, 2019). This points out gaps in the internal mechanisms; hence, the need to investigate the institutional-based factors (financial resources, record management technologies, land legislative framework and registry staff competencies) with view to improving information service delivery at land registry in Nyandarua County and recommend amicable solutions.

1.2 Statement of the Problem

Effective information service delivery in land registries usually contributes to better land administration, rightful possession, management, utilization, good governance, and economic development in the long run. This calls for deliberate investment, establishment of information service procedures and systems to serve the needs of all land stakeholders. In Kenya, through the Ministry of Land and Natural Resources, the government has leveraged technology by automating and digitizing processes to quicken service delivery while maintaining dependable custody of key land information (Mwanza, 2018; Wamae et al., 2018). The Ministry has also put in place operational policies to guide land administration and delivery of information services

(Land Development and Governance Institute, 2021). In addition, the government endeavors to bring services nearer to the citizens through devolution as enshrined in the 2010 constitution (Society for International Development, 2012).

However, despite the government of Kenya having invested heavily in records and process digitization to address the inconsistencies regarding land, several past studies show that the most land registries are not able to satisfy their customers who complain of poor service delivery (Kimenyi, 2004; Makanyeza et al., 2013; Wangondu & Winfred, 2018; Masrek, 2014; Wamae et al., 2018). The complaints cut across all land registries including the Nyandarua land registry. Other complaints noted include corruption, complicated procedures of getting information services, and skeptical staff (Kimenyi, 2004; Makanyeza et al., 2013; Wangondu & Winfred, 2018). This raises questions on institutional-based factors (Mwanza, 2018); for example, if the government channels enough financial resources, monitor the implementation of record management technologies, adequacy and comprehensiveness of land legislative framework, and competency of registry staff in ensuring delivery of quality and effective information services. The extent to which these aspects account for effectiveness in service delivery at land registries is not clear.

The current study acknowledged that quality information service delivery in land registries can be improved by configuring the institutional-based factors; hence, ascertaining the extent to which the institutional-based factors affect service delivery at land registries in Nyandarua County is critical. Notably, the continued inconsistencies of the information services in the land registries will continue eroding trust, fathoms inefficiency, and blossoms poor quality services. The poor service delivery also indicates the lack of transparency and accountability which eventually heightens

dissatisfaction and nurture corrupt practices. This derails the achievement of national development goals noted in the Kenya's vision 2030.

A number of scholars such as Wangondu and Winfred (2018), Wamae et al. (2018), Jiwan (2016), Megan et al. (2018), Ali (2014) and Ikobe (2013) have examined different strategies to improve public service delivery, although, they did not specifically explore the institutional-based factors for improving information service delivery at land registry. This provides a gap which this study addressed.

1.3 Purpose of the Study

The study was set out to examine the institutional-based factors for improving information service delivery at land registry in Nyandarua County with a view to proposing mechanisms for enhancing internal capacity.

1.4 Research Objectives

The following objectives directed the current study to:

- i. Determine how financial resources affect the improvement of information service delivery at the land registry in Nyandarua County.
- ii. Assess how record management technology affects the improvement of information service delivery at the land registry in Nyandarua County.
- iii. Determine how land legislative framework affects the improvement of information service delivery at the land registry in Nyandarua County.
- iv. Examine the influence of registry staff competencies on improvement of information service delivery at the land registry in Nyandarua County.

1.5 Research Hypotheses

- i. Financial resources do not significantly affect information service delivery at the land registries in Nyandarua County.

- ii. Record management technologies do not significantly affect information service delivery at the land registry in Nyandarua County.
- iii. Land legislative framework does not significantly affect the information service delivery at the land registry in Nyandarua County.
- iv. The registry staff competencies do not significantly affect information service delivery at the land registry in Nyandarua County.

1.6 Justification of the Study

A deeper understanding of the institutional-based factors that require to be in place for effective information service delivery in land registries is very critical. This is because, it will inform the Ministry in charge of land, the government, registry staff and even Kenyan citizens on the best strategies for satisfying the clients. Analysis of literature previously carried out from different nations and continents across the globe will inform Kenya's land management system on how to achieve the best land information services.

The current state of affairs in the land registries is characterized by inefficiency, time-wasting, unreliability, lack of evidence, lack of transparency and accountability, accumulation of paper-based records despite the advocacy for automation, repetition of processes, unresponsiveness and cost implications which largely undermine efficiency and effectiveness in service delivery (Okoth, 2005; Mapulanga et al., 2020). To address these daunting challenges, the current study was key towards recommending the best practices for promoting efficacy and effectiveness in the land registry.

1.7 Scope of the Study

The study was undertaken in Nyandarua County alone although the findings may be generalized to other land registries in the country since the institutional based factors commonly cut across all of them. It was specifically set out to investigate the institutional-based factors that include financial resources, record management

technologies, land legislative framework and registry staff competencies towards improving information service delivery at the land registry in Nyandarua County. Other non-institutional factors were therefore, not examined in the study. The study therefore failed to address other confounding and potential non-institutional factors for improving information service delivery at land registry in Nyandarua County. Moreover, the study focused and relied on the land registry staff and the county officer in charge of land management in Nyandarua County.

1.8 Limitation of the Study

This current study was descriptive in nature and; hence, it limits the possible opportunity to evaluate and monitor the efficacy of the institutional-based factors over time to ascertain any hint of improved information service delivery. This notion also implies that the study entirely relied on views from the targeted respondents, which may be subject to their personal opinions, views, notions and experience; a factor that may fathom some biasness. The researcher overcame this challenge by asking the respondents to be honest and open when answering the questions. Other limitations included the tools of data collection. The tools for data collection had inherent biases as their main limitation, but this was overcome by pre-testing the instruments before the actual data collection and also achieving data triangulation by incorporating various tools for data collection.

1.9 Significance of the Study

The outcomes of the study was beneficial to a number of stakeholders principally in the Ministry of Lands. Giving an expansion of knowledge on information service delivery in the land registry in Nyandarua County. The study findings were central in influencing the institutional-based national strategy for boosting service delivery among land registries in the country. This was so, bearing in mind the weight of investing in

institutional-based factors: financial resources, record management technologies, land legislative framework and registry staff competencies country wide.

The Ministry in charge of land and even the county directors in charge of the county land registries inherently reaped from the findings of this study. The knowledge influenced the development, implementation, adoption and revision of both National Governments and local county land registry policies. Such policies ensured adequate incorporation of institutional-based factors strategies, hence, realizing better information service delivery in the land registries. The Ministry of Lands in Nyandarua which play a fiduciary role in the management of land drew insight from the findings and recommendations on how to improve their service delivery capabilities.

The general citizenry, which have many expectations in the digitalization of land and being the chief beneficiaries, also found the research outcome useful in informing their expectations on information service delivery.

For the academic community, this study intended to provide valuable empirical data to address the theoretical gaps and further form basis for future studies in the area.

1.10 Assumption of the Study

The study assumed that;

1. All the respondents involved in the study have been in the ministry for a significant duration of time, hence, gave reliable information for addressing the internal efficiency.
2. The land registry has a policy elaborating what information service delivery encompasses and how services should be availed to the general citizenry.

1.11 Operational Definition of Terms

Lands Registry: Is an information center that provide information services to the clients.

Records: Records is data either analog or digital created, received and maintained by an organization which documents the transactions institution strategic activities and direction, the organization human resources and ownership purposes (ISO, 2018).

Records Management: This encompasses a range of activities and procedures carried out to document evidence to ensure their availability over a long period of time by providing them secure storage, security, back up, appropriate retrieval achieved by employing outlaid principles, standards on compliance to record keeping policies among lands registries (Colesca & Dobrica, 2018).

Service Delivery : It entails rendering information services related to land matters to citizenry in a timely manner, most convenient and cost effective manner to satisfy customers' land needs (Bel et al., 2014).

Digital Technology : Stands for computer-based technologies meant to offer reliable, suitable, sustainable, reliable and cost effective information services in land registries through enhanced information capture, processing, storage and offering real time retrieval (Din et al., 2017).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with the general overview of literature on service delivery and its factors particularly in land registries. The chapter starts by presenting a review of theoretical literature followed by a critical review of empirical literature and ends with a conceptual framework. The review of empirical literature is guided by the main variables of the study.

2.2 Theoretical Framework

This section discusses the theories underpinning the service delivery factors in a land registry in public sector organizations. The theories discussed here are the human capital theory, resource dependency theory and new public management theory.

2.2.1 Human Capital Theory

The human capital theory is by Becker in 1993 (Kessler & Lülfsmann, 2006). Human capital theory holds that employee knowledge, competencies and skills is a key function of organizational performance if effectively managed. The theorist also holds that employees with a mix of knowledge and skills can effectively perform unlike unskilled employees in the organization. Due to this observed principle, Becker thereafter contemplated that investment in human capital among an organization will directly be associated with the improved output of the organizational employees (Kessler & Lülfsmann, 2006).

Becker elaborated further that those employees who are effectively equipped with appropriate knowledge, skills and relevant competencies can influence organizational performance positively and vice versa. Therefore, career progression, talent management and employee trainings were among the key aspects that the modest

viewed important in enhancing organization productivity in terms of new product development, change management, quality customer service and performance. Becker viewed the ability of the organization to integrate technology in order to achieve efficiency and effectiveness is purely dependent on the employee' core competencies.

The open-minded ideas of Becker are very relevant in this study. The theory propositions underpin the constructs of registry staff competencies and information service delivery in land registries. Moreover, it reiterates the relationship existing between well-equipped staff in terms of competencies which enable them maximally utilize the land registry technologies deployed in the docket for quality service delivery. Registry staff competencies can be enhanced by putting into practice the outlined principles of embracing in-service staff trainings, attending workshops and seminars. Other mechanisms are providing avenues for employee's career advancement and managing the organizational staff knowledge. Furthermore, embracing change management and customer quality service practices in the land registries is also associated with improved service delivery.

However, the theory may be critiqued for assuming the role of a manager in the organization who is better placed at steering the roles of attaining change management and employee relevancy. Despite this, the theory holds water for its strengths of clearly elaborating how service delivery may be improved through appropriate development of the staff.

2.2.2 Resource Dependency Theory

The resource dependency theory was propagated by Pfeffer and Salancik in 1978. The theoretical idea of Pfeffer and Salancik argues that, in an organization, a variety of resources exist in form of information, human, knowledge, financial, physical,

reputational and material resources which when all of them are utilized, they help an organization attain both competitive advantage and organizational performance. The theorist eluded that because resources exist in a variety of formats, proper management of the available resources in an organizations' disposition ensures continued performance, improved service delivery and attendance of competitiveness. The theorists elaborated that those organizational resources that possess distinct characteristics of uniqueness and being special are important in enabling influence the organizational performance.

In line with information service delivery at land registries, the resource dependency theory is significant in informing the needful place for financial, record management technologies and registry staff/human resources constructs in improving service delivery. Adequate allocation of financial resources will pave way for motivated employees since will be fairly remunerated. Financial resources will also ensure deployment of required materials, machinery and technological infrastructure for enabling the offer of land registry services.

However, the theory may be critiqued for assuming a lot on how organizational resources may be properly managed to offer desirable performance. However, the lack of expediting the management facet of the resources at organizational disposal does not overthrow the potential the theory has in expounding the place of utilizing organizational resources to better its performance, earn competitive advantage and improving service delivery at land registry in Nyandarua County.

2.2.3 New Public Management Theory

The New Public Management theory, which is shortened as NPM theory was developed in 1991 by Hood and Jackson 1991; public administrative officers who were residents

of United Kingdom and Australia respectively (Lapuente & Van de Walle, 2020). The theory premise that service delivery in the public sector may be attained through embracing various practices which include focusing on the customers, embracing ICT technologies in conducting organizational operations, adopting customer related comprehensive operational frameworks, decentralization of business activities and effecting increased customer proximity.

The theorists appreciated, acknowledged and devised how public administration service delivery would be improved through revamping the organizational administrative structures and systems (Lapuente & Van de Walle, 2020). Because of this, they were urged to reinstate that decentralization, digitization, responsiveness, good governance, improving quality service delivery, managing organizational performance, citizen involvement and ensuring efficiency and accountability were among the principles that they were necessary to adopt in public administration if good profitable results were to be realized in the economic organizations.

The theorists hold that, in order to realize increased citizen satisfaction, responsiveness and accountability, their participation in decision-making processes could not be gainsaid. The school of thought furthermore, embedded that continued improvement in service delivery among the public sector was out of continued enactment of comprehensive policy reforms addressing service decentralization, digitalization and citizen participation in decision-making endeavors.

This ideological framework is insightful and useful in assessing records management technologies, land legislative frameworks and information service delivery, the dependent variable in land registries in Nyandarua County. It clearly elaborated that the practices that ought to be in-place including deploying land records information

systems, enacting clear land registry policy frameworks and citizen participation in decision-making. The theory also outlined specific sentiments that the policy reforms in the land registry sector need to incorporate for effective service delivery to be realized. The sections that follow, provide analysis of empirical literature

2.3 Information Service Delivery at Land Registries

Appropriate information service delivery is a key aspect among land registries as it contributes to better land administration and appropriate documentation of evidences (Kariuki et al., 2018). Effective rendering of service delivery entails daily progressive improvement and betterment of service by the registry personnel which end up saving the time of the citizenry while leaving them satisfied. Land registry personnel ought to save the time of the user, quench their information needs, meet their expectations and respond effectively to their needs for their service delivery to be suburb (Charles & Beatrice, 2013). The success of such initiative requires the presence of qualified professionals equipped with the right resources and facilities to offer their service. In order for land registers to be credible, reliable and dependable, they require a back-up of financial resources, technology, operational framework and in-service training to be in place if recommendable information service delivery is to be availed to the citizenry (Padovani & Pavan, 2016).

Information service delivery entails to the processes of rendering intangible and tangible information services related to land matters to citizenry in a timely manner, most convenient and cost, effective way to satisfy customers' land needs (Bel et al., 2014). It consummates the rendering of guidance, help, response, action or activity to a needy person and leaving them contented (Maina, 2016). Moreover, Zhou et al. (2018) and Maina (2016) stressed that service delivery involves the utilization of a specialist

utilizing their know-how, input and intuition to address clients' needs satisfactory, which for the study case are the Kenyan citizens land information needs.

Professional service delivery among land registries calls for the staff to be customer oriented through being equipped with relevant customer needs, knowledgeable about changing their requirements, for them to be relevant to their land needs (Zhou et al., 2018; Bel et al., 2014). Improved land information service is evidenced by the ease accessibility of services, efficiency of services, and quality of services hence leading to customer satisfaction (Wang'onduru et al., 2018; Gurung et al., 2015). These are achieved through hiring qualified staff, allocating enough budgetary resources, availing the digital technologies and ensuring there is a land policy (Zhou et al., 2018). Moreover, in the recent past, digitalization of the land's registry has become a service delivery imperative undertaking to ensure quality service.

Halid et al. (2019) noted that Service delivery has been at the forefront of government agenda for numerous times. This stand out is due to the fact that land administration covers frontline services which are in high demand and also it has always been alleged by the public as a clear suggestion of the current government efficiency and effectiveness. In order for the government to transfigure its delivery of public services to support the socio-profitable reforms they aim to achieve, the quality of similar services must be analyzed (Hossain, 2015). Other benefits brought by investing in land registry' service delivery appears in the ability to satisfy citizen's needs (Gisemba & Iravo, 2019). Bradley (2016) stressed on the centrality of customer needs, transparency, efficiency, accountability, informative, responsiveness to be key factors of quality information service delivery among land registries.

Globally, nations have invested heavily on land registries. This is reflected in the various aspects of practices adopted to ensure smooth government service delivery for instance; investment in block chain technologies, advancing registry legislatives, employing competent staff, devolving national government roles and responsibilities, adopting customer oriented mechanisms such as bringing services closer to the citizens and channeling finances to the ministries to ensure smooth running of their daily operations (Shuaib et al., 2022; Hossein, 2015; World Bank, 2015; Gurung et al., 2015; Kennedy et al., 2020).

Information service delivery is better achieved when land registries focus on their customers. Bradley (2017) and Fan and Wang (2015) stressed this by carrying out a study to validate the place of customers in getting public service delivery. Both Bradley and Fan and Wang were very much concerned about the perceptions of registry users towards the quality of services, the technology in use and satisfaction of their needs. The mixed approach research study which relied on secondary data gathered from the previously done literature in Ireland and the United Kingdom. Findings showed the presence of a large gap between customer perception, their expectations and the quality-of-service delivery they received. Recommendations posited the need to embrace alternative service delivery models that are more customer oriented for quality and satisfactory service delivery amongst citizens. The current study utilized primary and secondary data gathered through interviews, questionnaires and document analysis to expose the current underlying situation of information service delivery in land registries unlike Bradley and Fan and Wang who relied on existing qualitative literature to validate their findings.

Better service delivery among the registries requires them to carry out land transactions such as land ownerships procedures and title deeds processing as guided by the policies, set legislation and frameworks of the land. This place was appreciated by Abdulai and Ochieng (2017) and Abdulai and Owusu-Ansah (2016) who intervened to say, the presence of comprehensive land policies and operational framework offered better land transactions' security, autonomy and legalized the quality of title deeds they processed leave alone the specific documentations they preserved. The findings underpinned that the place of embracing legislation was a key asset for guaranteeing security of the sensitive docket in Ireland and the United Kingdom registries. The studies which relied on quasi outgone literature came to a conclusion that this area could not be overemphasized since guaranteed security in the docket was a mega tool for achieving peace and stability, resolving land disputes and even causing about economic development. Recommendations highlighted that land policies were very purposeful and hence the trend needed to be embraced. Implications on policy suggested a call to jurisdictions which had relied on incomprehensive policies to run the registry dockets.

In China as well, land registries' roles have shifted to include land-role transfer information services with the aim of attaining modernization in agriculture; factors that borrowed heavily on the policies of the land and records jurisdictions just as illuminated in Abdulai and Ochieng (2017) and Abdulai and Owusu-Ansah (2016) reiterations. Ye (2015) informed that, registries as mandated by the national policies and legislatives of China government, shifted land registration and documentation roles to managing the utilization of registered agricultural land. Specific applications dominant was the monitoring of less arable, less quality and less productive land by embracing modern agriculture. Such initiatives were out of the embrace of the formerly existing possible

policies, land legislatives and frameworks arrived at through the document analysis tools. The current study drew inferences from primary data.

Other dominant mechanisms in utilization to boost information service delivery in the sector are the adoption of automation and service digitization through embracing block chain technologies. The Digital ID and Authentication Council of Canada (DIACC, 2017), Wolfond (2017) and Martin (2016) reckoned that technology utilization in the public sector enabled attain operational efficiency, effectiveness, eliminate queues, win citizens trust and tightened the security of information among Canadian public and private sectors. Focusing on protecting the sensitive information handled by land registries, they arrived at a consensus that authentication and verification technologies eliminated confidentiality issues and unauthorized access to information. Other benefits were the citizen's satisfaction from quick service delivery, transparency and elimination of queues (Martin, 2016).

The situation in Australia is no different from that of Canada and Ireland. Following technology advancement in both countries, Adrian (2017) and William et al. (2017) investigated the impact digitization posed on citizens needs in land registries. Utilizing the SERVQUAL Model, they came to configure that automation of land registries enabled the achievement of reliability, timeliness, responsiveness, courtesy and accessibility of services; factors that made land services efficient and effective. However, some poignant issues pointed out that the initiatives were being hindered by system fiscal human resource competencies and professionalism constraints, this hence caused system crashes. The findings obtained from the data collected primarily through questionnaires in the descriptive survey study pointed the need to iron out the discovered piteousness; which the major imitative was to settle on digitization of lands

registry business processes. The current study interrogated other internal factors such as financial resources, record management technologies and legislative framework for improving information service delivery. Moreover, data triangulation through inculcating a variety of data collection tools (questionnaires, interview schedules, document analysis and focus group discussions) were utilized.

In Asian countries like Malaysia, Singapore and Pakistan, deploying a land registry management system framework was deemed as a productive course of action for sealing corruption and manipulation of land records by unauthorized personnel (Shuaib et al., 2020; Siddiqui et al., 2020; Shuaib et al., 2021). The researchers identified that ensuring security, authenticity and reliability of records was a prudent exercise that sustained the relevancy of land registries in the nations. They further opined that since the docket was very essential and no citizen could do without their services, deployment of funds as included in the frameworks by the Malaysian Singapore and Pakistan government towards enriching the docket was in progress. The adoption of block chain systems frameworks was also purported solve storage and retrieval challenges hence quickening quality service delivery (Shuaib et al., 2020; Siddiqui et al., 2020; Shuaib et al., 2021). The studies were qualitative in nature and were aimed at developing a block chain framework to seal loopholes experienced by analogue methodologies of managing land registry records. Moreover, the studies were also more oriented on the management and security aspect of land registry records. The current study examined the institutional-based factors for improving service delivery in a land registry.

Regionally, land registries play key roles of ensuring land documentation, information management and citizens' land certification (World Bank, 2015; Ekemode et al., 2017; Bennett & Alemie, 2016). African nations have also borrowed germane initiatives

developed nations for instance digitization of their land activities and transactions and borrowing of international policy interventions utilize to achieve quality service delivery in their respective land registries (Thontteh & Omirin, 2015; Aderibigbe et al., 2015; World Bank, 2015). These applications have made numerous regional countries to experience a variety of benefits stemming from documentation of evidence, economic growth, poverty alleviation, good governance, accountability, transparency, information security, citizens satisfaction, operational efficiency and effectiveness (Nneoma et al., 2021; Ekemode et al., 2017). The place of land registry service delivery is hence, a, very veritable aspect of discussion and cannot be overlooked.

One of the initiative African nations like Botswana is embracing to ensure quality service delivery among their land registries is by embracing records management initiatives. Shonhe and Grand (2018) and Ndambuki (2015) investigated on this aspect focusing on both the paper and electronic records. The researchers found out that good record keeping and management practices adopted in a registry enabled attain administrative efficiency, firm accountability, consistent service delivery, informative decision making and influences policy revision. This was also evident in Guinea where similar strengths of investing in records management practices were evident (Duncan & Banga, 2018). However, these good practices were also reported not to be in use among the industries that were involved in the studies; circumstances that led to slower service delivery by the administering staff. This made customers queue for so long, experience delayed justice due to poor records retrieval systems and hence they were dissatisfied. The current study interrogated the institutional factors on policies, technology application and competencies of the staff at hand in improving service delivery.

Investing in technology is also a key strategy embraced in Nigeria, Rwanda and Uganda to qualify their services to their citizenry community. Abolade et al. (2018), Lyombya and Oddo (2013), Ameyaw and de Vries (2021), Business (2016) and Adeniyi et al. (2018) assessed the benefits of land registry departments digitizing their records management activities and services. It was exposed that digital technologies adopted by land registries experienced efficient service delivery, transparency, accountability, guaranteed security of pertinent information, records management and accurate documentation of records. However, the strive to adoption of digital records management systems was turned down by discouragements shortfalls on poor e-readiness due to incomplete records for digitization, inadequate policies addressing maintenance and bring up actions, staff in competencies and paucity of training plans for in-service staff. The engaged population was however limited compared to the representation of the general picture of the whole Nigerian, Rwandans and Ugandan countries. The current study ensured representation of the target populations for better generalizations.

Locally, Kenya recognizes the efforts and potentials of investing in land registry service delivery. This is evident in the strands the government has chipped in to ensure betterment of the services offered by land registries which among them are channeling finances to the dockets, initiating and supporting e-readiness and digitization, developing records management support policies and embracing devolution to bring services near the citizenry, (Kariuki et al., 2018; Mwanza, 2018; Wamae et al., 2018).

Mwanza (2018), Maina and Erima (2018), Gisemba and Iravo (2019) and Kariuki et al. (2018) focused on the utilization of ICT in government service delivery. Specific sentiments that were featured in their discussions were how technology had contributed

to efficiency and effectiveness in service delivery. The descriptive survey research studies informed through their findings that digitization helped land registries, bridge, very many gaps such as those on timely communication, offered secure records storage, eliminated fraud, corruption and misplacement of land records hence contributed much to quality service delivery. Despite this, digitization processes were found to be hampered by a number of challenges relating to finances, governance and infrastructural incapacities. Mwanza (2018), Maina and Erima (2018), Gisemba and Iravo (2019) and Kariuki et al. (2018) recommended some implications on policies and land registry operational framework to include leadership training for better management and allocating more financial resources to the sector. The current study addressed the gaps left unfilled by the outgoing researchers by interrogating the financial resources, record management technologies, and land legislative framework and registry staff competencies internal factors for effective service delivery.

Other dominant mechanisms in place geared towards ensuring efficient service delivery among government run organizations is by investing in proper records management activities as presented by Benta et al. (2019) and Maina and Erima (2018). They argued that, good records available ensured timely, informed and ground decision-making among government manned offices. Taking an example of Nairobi County lands and agricultural sector registries they underpinned that well stored land records carefully preserved enabled improve accessibility, efficiency and effectiveness whenever citizens were in need of the registry services. However, staff were incompetent and they were not engaged in trainings, seminars and monthly workshops in bettering their service provision towards humanity. Recommendations posited to the government action planners in charge of public sectors in the docket to organize trainings for their staff for improved service delivery. In this study, other institutional-based factors

including financial resources, record management technologies and land legislative framework were interrogated.

In view of the above discrepancy, it is clear that land registries have not yet been able to meet customers' needs satisfactory or improve their service delivery (Wamae et al., 2018; Kariuki et al., 2018). It is also evident that not all institutional-based mechanisms have been explored to eradicate the foul situation hampering quality and efficient services amongst government funded departments. In Nyandarua County, the situation of institutional-based strategies for improving service deliverables in land registries remain unknown. This study filled the existing gaps by addressing the institutional-based factors for improving service delivery at Nyandarua County land registries

2.4 Financial Resources and Improvement of Information Service Delivery in Land Registries

Financial resources refer to monetary capacity to fulfil the desired needs. Financial resources have greater influence on service delivery. Some aspects of financial resources that influence service delivery include transparency and adequate funds (Miller et al., 2021). Budgeting can be used to explain financial resources further.

Budgeting refers to the conversion of plans into monetary value in order to achieve pre-determined objectives of the organization (Lawal & Samy, 2016). Budgeting entails some forms which include performance, allocation and public participation which influence service delivery (Stephen & Jagongo, 2016; Hare, 2018; Beuermann & Amelina, 2014). Some aspects such as timely release and transfer of funds and information on grants and loans available were crucial in influencing service delivery (Lukwago, 2021). A lot of studies have been conducted globally on the influence of budgeting and service delivery as discussed below (Hare, 2018; Naher et al., 2020; Scott & Kwesi, 2018; Mwangi & Jagongo, 2019).

A case study was conducted in Bangladesh investigating on citizen's charter for improved service delivery and accountability (Hare, 2018). The case study was carried out in the land ministry at local government (Upazila land office). Citizen charter was initiated in 2008 and the main aim of its formation was to ensure service providers are responsible enough in their service delivery to customers hence ensuring transparency. According to Hare (2018), the land administration in Bangladesh has continued to face some challenges despite the implementation of citizen's charter. The challenges were explained from both the supply and receiver side. Some the challenges experienced from the supply side included inadequate budget allocation and lack of incentives among others. This will in turn reduce service delivery. The study by Hare (2018) was general in addressing service delivery. This gave this study a chance to look into effects of financial resources on information service delivery in land registry in Nyandarua County.

Service delivery is essential in every government department. A case study was conducted investigating on the effect of corruption and governance in delivery of health care services in south and south East Asia (Naher et al., 2020). The study was based on past literature review and a total of 15 articles on corruption and 18 articles and documents on governance were sampled for the study. The two aspects under study were found to be related where corruption was an outcome of poor governance. The study addressed the different forms of corruption, their causes and consequences. The forms of corruption included bribery and absenteeism among others which were majorly caused by financial constraints. Corruption had an impact on service delivery where it reduced the effectiveness of service delivery in health care. The findings of this study were found to be in conjunction with those of Goryakin et al. (2017) who carried a study on the influence of public financial management in health service

delivery in London. Goryakin et al. (2017) argued that good governance had no significant effect while corruption played a significant role in influencing health service delivery. The two studies were conducted in health care services (Naher et al., 2020; Goryakin et al., 2017) which is in contrary to the current study that was conducted in land registry.

A study was conducted in Russia investigating on effect of participatory budgeting on decentralized public service delivery (Beuermann & Amelina (2014). Three regions were selected which included Adygea, Penza, and Perm and they were sampled for the study. The participatory budgeting allowed the citizens to negotiate with the government over resource allocation. The findings of the study revealed that the involvement of the public in decision making played a very significant role in decentralization of public services. It was noted that participatory budgeting proved to be very successful when it was implemented in mature administrative and political decentralization which had been established for over 10 years. This will increase public participation in decision making which will in turn improve public service delivery. The study by Beuermann & Amelina (2014) negated theoretical framework. This gave this study a chance to come up with theories that explained further on the influence of participatory budgeting on information service delivery in land registry.

Land registry in Nigeria is faced with a lot of challenges such as high cost of acquiring services such as information, titles among others. This is in line with a study conducted by Benjamin et al. (2017) in Osun state, Nigeria. Adeniyi et al. (2018) conducted a closely related study in 3 states in Nigeria assessing on land administration service delivery. The states under study included Ekiti, Kebbi and Niger states. The main aim of the study was to investigate on the mechanisms adopted and their effectiveness in service deliver to the less advantaged in the society. Data was collected from the

randomly selected sampling group which comprised of 3 types of individuals who entailed the beneficiaries, facilitators and service providers in the 3 states. The findings of the study indicated that information on land is rarely available online and this forces the beneficiary to rely on some other sources of information such as radio, personal contact and agents. This showed that information service delivery in land administration in all the states was very poor. The study recommended that for improvement of service delivery in land administration, there was need for providing adequate funds and improve capital among others.

In Ghana, a closely related study was conducted to investigate on the role of budgeting practices in service delivery in the public sector (Scott & Kwesi, 2018). The study was conducted in the district assemblies where 34 out of 170 district assemblies were sampled for the study. The study sought to investigate some variables of budget practices such as policies, procedures and information among others and their effect on service delivery. The sampling group comprised of officials and citizens. The efficiency of service delivery varied from the officials to the citizens where the officials rated it as being effective while the citizens rated it as being poor. However, the findings of the study indicated that there existed a positive significant effect between budgeting practices and service delivery in district assemblies. The study by Scott & Kwesi (2018) failed to conduct a pilot study. This gave this study a chance to conduct pilot study on 3% of the participants of land registry in Nyandarua County to test on the effectiveness of the research and the reaction of the participants.

The formulation and implementation of a budget is guided by rules which influence the financial outcomes. A case study was conducted in Uganda was conducted in this light investigating on influence of budget implementation on service delivery (Wamakale, 2018). The service under study was health in local government in Mbale municipality.

The study adopted 50 staff as respondents for the study who were sampled through questionnaires. The findings of the study revealed that budget implementation led to improvement of fund management which in turn improved health care service delivery. This was majorly contributed by the transparency that financial management created in the health care facility. The study also revealed that financial capacity affects financial performance which in turn influence service delivery. The study by Wamakale concluded that the local government should increase financial capacity for better health service delivery to the public.

In Kenya, a case study was conducted to investigate on the influence of financial resources on delivery of devolved services in selected counties (Karama & Muia, 2019). The study was based on resource-based view theory which explains the importance resource management in successful delivery of services in county levels. The study adopted all the 47 county governments and 384 employees were randomly selected as the respondents for the study. Devolution was explained as an aspect of decentralization where the public are involved in decision making in finances. The main aim of the study was to investigate on the effect of devolution and its influence on delivery of devolved services. According to Karama & Muia (2019), financial resources were found to have significant positive effect on devolved service delivery. However, this was not always the case since in many instances financial resources were readily available but mechanisms to use the resources were scarce and this will decrease the effectiveness of devolved service delivery in county governments.

A closely related study was conducted by Chemutai and Chebet (2019) investigating on the effect of information technology and financial capacity on service delivery. The study was conducted on government institutions and in particular to this study was Nairobi Huduma center. Descriptive research design was adopted for the study and a

total of 59 respondents were sampled out of 198 employees. The findings of the study revealed a positive significant relationship between information technology, financial capacity and service delivery. According to Chemutai and Chebet (2019), 88% of the respondents agreed that financial availability greatly influenced service delivery at Nairobi Huduma center. The findings of the study were found to collaborate with those of M'nyiri & Ngahu (2018) who conducted a study on influence of financial management practices on health care service delivery in Nakuru. Financial availability was however influenced by the commitment of leaders in ensuring adequate flow of finances. A budget was suggested as an important factor in determining the allocation of finances in government institutions.

Mwangi & Jagongo (2019) conducted a study in Embu County investigating on the effect of budgetary allocation on the performance of judiciary department. The sampled group comprised of all personnel working in the finance as well as human resource departments in Runyejes, Embu and Siakago law courts. The main aim of the study was to investigate on the influence of recurrent budget, development budget and loans and grants on the performance of judiciary department. All these factors were found to have significant positive effect on the performance of judiciary. The findings of this study were in line with those of Stephen & Jagongo (2016) who carried out a study on the influence of performance budgeting on service delivery in regional development authorities of Kenya. Among the aspects of performance that were indicated by this study included gender balance and service delivery. However according to Mwangi and Jagongo (2019), some aspects of service delivery were rated dismally which included response of complaints. This is in contrary to the current study where financial resources improve all aspects of service delivery in land registry in Nyandarua County.

2.5 Record Management Technology for Improving Information Service Delivery at Land Registries

The International Standard for Records Management (ISO 15489) defines a record as ‘information created, received and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business. Therefore, record management according to International Standard for Records is efficient and systematic control of the creation, receipt, maintenance, use and disposition of records. Record management technologies entails applying technologies such as computers, internet in Record management process which involves record creation, storage, retention, disposal and access (Masenya, 2020). Many organizations, are struggling to manage their records and as a result they have increasingly adopted modern technologies such as block chain, cloud computing and Internet of Things (IoT) to manage records (Masenya, 2020).in public sector good record management plays a critical role of enhancing efficient and effective public service delivery citation.

Globally limited research has been carried out regarding record management technologies and their influence on information service delivery. Ack et al. (2020) conducted research in Belize to examine the effectiveness of the Ministry of Natural Resources Land Registry Department's land folio information system. The land folio information system was the system utilized in all land register offices in Belize. The research sought to ascertain the extent to which Land folio Management information systems were effectively implemented and exercised at all levels of service delivery in order to improve the quality and timeliness of services provided to the Belizean public. The study collected data by administering questionnaires to 60 public officers from the designated seven land ministries. According to Ack et al. (2020) The efficiency of the land folio system was measured by the quality of information systems, system use, user

happiness, quality services, and quality complementing technology. The selected responder rated the system's success as above average. As a result, Ack, Ramirez, and Marin (2020) advocated for staff training, system enhancements, and the development of ethical standards for performing everyday work obligations. The study by Ack, Ramirez, and Marin (2020) was relevant to the current study, but it can be criticized for collecting data from a small sample, therefore the conclusions cannot be applied to other public offices with a population of more than 250 people. Furthermore, because the study was time constrained, convenience sampling was employed, offering the current study the opportunity to apply a better technique such as cluster sampling.

Mishra and Suhag (2017) did different research in India to investigate how land records were kept. The analysis discovered that land records were held in numerous departments, were poorly managed, and were not up to date. As a result, Mishra and Suhag (2017) observed that accessing land records was complicated and time-consuming. To address this difficulty, a strategy was created that advocated for the modernization and digitalization of land records. As a result, the government of India implemented the Distal India Land Records Modernization programme. This initiative was designed to guarantee that all land registration processes were automated and all land records were digitized, therefore improving the quality and accessibility of land records. Mishra and Suhag (2017), on the other hand, observed a sluggish rate of adoption of this system and modernization of record management operations. However, Mishra and Suhag (2017) suggested that it was the best strategy to provide great public services. Mishra and Suhag (2017) based their study on a review of previous studies, which allowed for a comparable study to be undertaken with participant.

Many fields of the service sector, according to Kulcu (2009), have been transferred into the electronic environment in order to boost the speed and efficiency of public services.

Kulcu (2009) noted in his study to evaluate the new aspect of record management practices introduced by the provision of public services in the electronic environment in Turkey that the e- record management applications developed within the e- government in Turkey were significant in overcoming the handicaps between the government and the citizens as well as cutting red tape. According to Kulcu (2009), implementing e-records management not only saved costs but also boosted the speed and efficiency of services provided. The study by Kulcu (2008) focused more all government services in general, the current study focused on the ministry of land in Nyandarua County.

Africa records limited literature on the influence of record management technologies on information service delivery. Tagbotor et al. (2015) conducted a general study investigating the role of record management on organizational performance in Ghana. The study aimed to explore how proper record management contributed to the performance of the organization. The study used simple random sampling to select 30 respondents who participated in the study. Tagbotor et al. (2015) discovered that institution record management is shifting from manual to electronic records systems of managing records by using computers and internet. Tagbotor et al. (2015) indicated that record management using computers and internet allowed quick access and retrieval of record, in addition it helped to reduce errors and mistake that could affect the image of the institution. Additionally, electronic record management system addressed the problem of long processes and incomplete record documentation Adzido, and Agbanu (2015) concluded that appropriate record management systems improved the performance of organization .The study by Adzido, and Agbanu (2015) was relevant to the current study .However the study was limited To Ho polytechnic and lacked complete linkage between record management technologies and service delivery thus

giving the current study a chance .the Study also used a small sample to collect data ,the current study will collect data from a larger sample.

Globally, public sector enterprises are increasingly deploying information and communication technologies (ICTs)-based systems to improve information management and service delivery (Mosweu et al. 2017). In this regard, They conducted a study at Botswana's Ministry of Trade and Industry to assess the factors impacting the adoption and usage of an electronic Document Workflow Management System (DWMS) (MTI). Mosweu et al. (2017) collected data in their study using a survey research design that included both open and closed questionnaires. The study found that the most significant impediments to adopting new technology and document management systems were technophobia, a negative attitude toward system usage, perceived system complexity, and incompatibility with existing systems. However, mosweu, Bwalya, and Mutshewa (2017) concluded that having recognized the issues, it was critical to overcome them because moving to technology was unavoidable and the only way forward. Mosweu, Bwalya, and Mutshewa (2017) focused on the challenges of implementing new technologies in record management; however, the study focused less on the impact of adopting those technologies in public sectors, it gave the current study the opportunity to investigate the impact of adopting record management technologies on information service delivery in public sectors.

Shonhe and Grand (2018) conducted a similarly comparable study in Botswana to determine what steps were done by land boards in Botswana to improve their record management systems in order to increase effective service delivery. The research collected data from 53 workers on the lard board through observation, interviews, document analysis, and open-ended questions. The land board, according to the study, has taken a number of initiatives to improve record keeping, including improved filling

procedures, digitalization of its records and land administration processes, and the implementation of an electronic index. According to Shonhe and Grand (2018), as a result of these initiatives, the land board improved its service delivery by adhering to policies, there were online services, which resulted in less error, and adopting new technologies in record keeping ensured the security of the records and improved access. Shonhe and Grand (2018) indicated that proper records management increases the efficiency and effectiveness of public service delivery by lowering litigation risks, fostering accountability and transparency, assuring regulatory compliance, and supporting informed decision-making.

In most firms today, modern technology has formed the cornerstone for process improvement and enhanced accuracy, effectiveness, and efficiency. With the fast advancement of technology, the use of technology in record management has become unavoidable. Mulauzi (2019) conducted research in Zambia to explore the use of information and communication technology in record management. From the study, Mulauzi (2019) revealed that adoption of technological devices such as computers would play a great role in Record management as it could be used to carry a number of activities such as record creation, distribution and storage. Mulauzi (2019) also noted that ICTs enhanced easy and faster retrieval of record as it provided an option to search for the needed record and enhanced online access. This reduced waiting time by the users which resulted to improved customer services Mulauzi (2019) further stated that ICTs facilitated easier and faster retrieval of records by providing the opportunity to search for the required record and improved online access. This lowered user waiting time, resulting in better customer service. Mulauzi (2019) added that the use of ICTs in record management has other benefits such as increased efficiency, lower record storage costs, greater record security, better backup and recovery, and more

organizational transparency. Mulauzi (2019) found that a technology-based Record Management system was the solution to many issues in organizational record management. The study by Mulauzi (2019) was formed by compilation of previous studies and this gave this study a chance to involve participants that will form the sample group for the study.

Mampe and Kalusopa (2012) explored the role of record management in the delivery of public services in the ministry of health in Botswana. The study collected data using questionnaires, interviews observation and also did documentary review. Mampe and Kalusopa (2012) found out that records management practices in the ministry of health were not well entrenched thus undermining service delivery. This was evidenced by lack of awareness and existence of the records management policy, lack of security and preservation measures with rampant cases of missing files, folios and torn folders; delays in access and use of records; lack of an elaborate electronic records management programme and low levels of skill and training opportunities in records management. Mampe and Kalusopa (2012) therefore recommended that to improve service delivery, it was important to develop and implement regulatory framework for record management, the study further recommended the training of record management personnel. Mampe and Kalusopa (2012) study was carried out in the health ministry which chance for a similar study to conducted in other ministries. The current study was carried out in the land ministry.

Locally studies have been carried out investigating the relationship between record management technology and its effect on information delivery services. For example, Muemi (2015) carried out a study to investigate the influence of record management on service delivery in the land ministry, housing and urban development in the department of lands. The study focused on the influence of record management process and record

management control on service delivery in public sector in Kenya. Muemi (2015) collected data from 371 respondent using questionnaires, observations and interview guide. The study revealed that there were huge record activities in the land registry and that manual systems were becoming less sustainable to the daily operations and therefore the study recommended adoption of electronic systems which would speed up the service delivery process. The study further noted that bureaucratic and long processes, procedures and practices also affected services delivery negatively. Muemi (2015) therefore recommended that the land record management should be audited to see that they comply to the standard procedures which include updating ,regulating access, and repairing torn records.in conclusion Muemi (2015) stated that the government should address challenges of record management in the department of Lands in Kenya which include: inadequate storage space for the records, poor communication with service users, missing files, unmaintained records, tattered records, inadequate and untrained staff. Above all the study noted that adopting record management technologies could solve many of the highlighted problems/challenges. The study by Muemi (2015) was relevant to the current study but focused only the effect of record management on service delivery. Another study could be carried out to explore factors that hindered computerization of land records in Kenya and also explore its influence on service delivery. This gave the current study a chance.

Another closely related study was carried out in Nairobi County by Ogwenyi, Yegon and Mathangani (2018) investigating the influence of sound record management on service delivery at Nairobi city council. The study objective was to examine the use of ICTs in facilitating storage and retrieval of record at Nairobi City council in addition the study explored the services that were offered to clients through the use of ICTs. In their response, all the respondents indicated that there were records being captured,

stored and retrieved through the use of ICTs, however, the study revealed that majority of the record were in paper form which meant that ICTs technologies had not being implemented fully in managing the record. According to Ogwenyi, Yegon and Mathangani (2018) using ICTs was an effective way of managing information and would result to improved service delivery among the technologies that were used to capture, store and retrieve records and information According to Ogwenyi, Yegon and Mathangani (2018) were emails, Microsoft word and databases. The study concluded that although few services were offered through technology, a huge chunk of the work was through paper work that was technically inefficient. Therefore, the study recommended that the government and top management of Nairobi city Council should have good will, commitment and support to ensure digitization and automation of record management activity so as to improve service delivery. The study by Ogwenyi, Yegon and Mathangani (2018) can be critiqued for collecting data from a very small sample and this gave a chance for a similar study to be conducted using a larger sample.

The result by Ogwenyi, Yegon and Mathangani (2018) were in line with those of Akahunzire (2015) who did a study at kabala district investigating the effect of electronic record management systems on service delivery in record centers. Akahunzire (2015) not only focused on the effects of electronic record management on service delivery but also assed the attitude of staff toward electronic record management. In addition Akahunzire (2015) explored the strategies that were in place so as to improve electronic record management system which would improve service delivery. Data was collected from 60 respondents using structured questionnaires and interviews. the study adopted qualitative and quantitative data analysis tools for data analysis. The study revealed that electronic record management played a critical role towards service delivery at kabala district. However, it was found out that there was

negative attitude towards electronic records. In response Akahunzire (2015) identified strategies to overcome negative attitude by educating the staff on the relevance of adopting electronic record management system. Akahunzire (2015) also added that training record officer would improve record management and therefore recommended that the local Kabale district local government should recruit record officers who are well trained.

In order to have efficient and effective public service delivery (Abuki, 2014) argues that good record management has to be practiced. In this light, Abuki (2014) conducted a study in Kisii county government headquarter to investigate the role of record management on public service delivery by assessing record management practices that were in the county government. The study used questionnaires and interviews and collected data from selected record managers, management officials, action officers, clerical officers and registry staffs. Among the key finding by (Abuki, 2014) was that the county had not implemented a record management program; the county lacked adequately trained record management staff. The study further revealed that the county lacked a record Centre and an archive for semi-current and non-current records. The county had also not implemented a disaster management program especially for its vital records, the equipment and storage facilities were not adequate, there was also lack of awareness on the importance of records and records management among non-records management staff, and the county had not adopted information, communication technology in enhancing and improving records management. Abuki, (2014) noted that having good record management would improve service delivery by providing timely and sufficient information. (Abuki, 2014) therefore recommend the county government to strive at improving record management by implementing record management procedures, guidelines, and policies; and automating and training the record

management staffs. The study by Abuki, (2014) identified issues that needed to be addressed to improve record management which as a result would improve service deliver. Among the issues identified was adoption of information communication technology, therefore the current study investigated the influence of adopting ICTs technologies on service delivery at Nyandarua county with specific reference to the land registry office.

2.6 Legislative Framework for Improving Information Service Delivery at Land Registries

Land legislative framework refers to the land laws that govern land administration. They define how the restrictions and responsibilities in land are established and managed (Lemmen, 2016). The land legislative framework comprises of land policy reforms done in the management of lands. According to Charo and Wainaina (2019), the land policy reforms include digitalization of land registry among others. This is line with Abab et al. (2021) who found that digitalization of land services affected service delivery.

Upscaling land governance requires strong land legislative framework that supports land reforms that are put in place. This will in turn lead to effective service delivery in the ministry of land (Edwards, 2016). A lot of case studies have been conducted globally on various land reforms that have been done influencing land governance. This will be evident in the studies reviewed below (Siddiquee, 2016; Gurung et al., 2015; Kuma, 2018; Mwanza, 2021).

E-government is a medium used to offer services to citizens through web portal and it is adopted as one of the legislative frameworks in improving service delivery. A case study was conducted in Bangladesh investigating on the influence of e-government on transformation of services (Siddiquee, 2016). The findings of the study revealed that e-

government played a significant role in service delivery. A closely related study was conducted in the land ministry in India by Veeramani and Jaganathan (2020). The study sought to investigate on the effect of e-governance and block chain technology on land registration. According to Veeramani and Jaganathan (2020), e-governance was not effective in land registration as it lacked transparency hence corruption increased greatly. However, the adoption of block chain technology used together with e-governance improved the transparency of information and improved land registration. This in turn increased service delivery in the ministry of land. The study by Veeramani and Jaganathan (2020) failed to mention the source of its data. This gave this study a chance to collect data from respondents in the land ministry on land legislative framework and information service delivery.

A closely related study was conducted in south East Asian countries with great emphasis on Nepal investigating on effective and efficient service delivery based on e-governance (Gurung et al., 2015). The main aim of the study was to investigate on the effectiveness of e-land administration on service delivery. The findings of the study revealed that the implementation of e-land administration was very poor but in cases where it was well implemented, it had many advantages. Among the benefits of a well implemented e-land administration included efficient service delivery which in turn led to easy access to land information. However, the study by Gurung et al. (2015) argued that for the objectives of e-governance to be met through e-land administration there was need to incorporate Information and Communication Technology (ICT). Further, the study argued that e-land administration played a significant role in securing land tenure security after a disaster such as floods. The study by Gurung et al. (2015) failed to mention the sampling group for the study. This gave this study a chance to investigate effect of e-governance on information service delivery on actual respondents.

The policies that govern land administration play a significant role in service delivery. A case study was conducted in Albania investigating on development and challenges that face land administration (Lipej, 2015). According to Lipej (2015), for effective land administration there was need to develop a fit-for-purpose system for efficient service delivery. Another related case study was conducted investigating on the effectiveness of fit-for-purpose approach on delivery of tenure security to citizens (Lemmen, 2016). The main aim of the study was to provide guiding principles in building fit-for-purpose land administration in less developed countries. The study adopted the social tenure domain model to explain the acquisition of land tenure security. According to Lemmen et al. (2016), the only hindrance to this approach in many countries was the legal and regulatory framework put in place in the country. However, with good legal and regulatory framework fit-for-purpose land system was able to achieve its objectives which included service delivery among others. A similar case study can be conducted in Nyandarua County, Kenya on influence of fit-for-purpose approach on information service delivery.

In Malaysia, a case study was conducted to investigate on the standardization in quality-of-service delivery in land administration system (Halid & Kamal, 2019). The measure of quality-of-service delivery was done through star rating system. The study relied on the data that was collected between 2012-2019 from Federal territories of Kuala Lumpur which was analyzed for the study. Halid and Kamal (2019) argued that land administration in Malaysia was ranked good regionally but there was need to improve for better service delivery. Some aspects that were highlighted for improvement included transparency of land information to the public making it easily accessible to the citizens. This will in turn lead to high information service delivery in Malaysia.

Land governance is a system that comprise components such as land policy and legal framework among other. In Zambia, a case study was conducted on assessment of land governance system in preventing state land conflicts (Mushinge & Mwango, 2017). The study was conducted in Lusaka district in Lusaka province where 38 employees were selected from public institutions as sampling group for primary data. Secondary data for the study was collected from past literature review. The findings of the study revealed that land governance was very poor in Zambia. This was attributed majorly due to defective legal and institutional frameworks and lack of land policies among others. This meant that state land conflicts were not managed hence leading to poor service delivery. The study by Mushinge and Mwango (2017) was limited to state type of tenure system. This gave this study a chance to investigate on effect of land governance on various types of tenure land system and their influence on information service delivery in Nyandarua County, Kenya.

Kuma (2018) conducted a closely related study in Nigeria on land policy and delivery systems. The study was mainly focused on investigating on the effectiveness of Land Use Act on service delivery in the ministry of land. The Land Use Act was established in 1978 in Nigeria to ease the administration process. It came as a land reform to easy access of land to all. The findings of Kuma (2018) revealed that Land Use Act of 1978 was ineffective in-service delivery. The reasons for the ineffectiveness included institutional framework among others. Under the institutional framework lied legal framework which describes land administration as a whole. Land administration policies, land use and planning and also methods and techniques used in land administration are explained better in legal framework. The study concluded that land service delivery is dependent upon legal framework.

Land tenure system is the legal or customary relationship between people and land or any related services. A case study was conducted in Uganda investigating on land rights (Mabikke, 2016). The main aim of the study was to review land tenure systems and approaches to improve tenure security given that despite the country restructuring its legal framework tenure security was not guaranteed. The types of tenure system adopted in Uganda were the customary tenure system, leasehold tenure system, freehold land tenure system and mailo land tenure system. The study sought to investigate the strategies for improving land tenure system in Uganda. Among the strategies included modernization of land registry nationally, development and implementation of land information system nationally and development and implementation of national land policy. With the evolution of land tenure reforms from the colonial periods, the current tenure system in Uganda is effective as it allows land access to all hence effective service delivery. The study by Mabikke (2016) was conducted in Uganda and this gave this study a chance to investigate on the effect of land tenure systems on information service delivery in Nyandarua County, Kenya.

An assessment study was conducted in Kenya investigating on land governance (Mbote, 2016). The assessment was done between 2014-2015 and it sought to look at the land reforms and new laws and institutions governing the land. The study addressed nine areas and among them was land tenure recognition, public provision of land information and policies among others. The study was based on land assessment governance framework process where 6 experts carried out the assessment throughout the country. Land governance assessment was done. It was found out that the legislative framework was radically changed in 2010 in order to align with the constitution. According to Mbote (2016), successful land governance calls for availability of information. However, Kenya land governance exists and the only challenge

experienced in land governance is the implementation of land reforms. The study concluded that land governance had a positive significant effect on service delivery. The study by Mbote (2016) was conducted in the entire country of Kenya. This gave this study a chance to carry out the study specifically in Nyandarua County.

A study was conducted in Mombasa investigating on the effects of policy reforms on service delivery (Charo & Wainaina, 2019). The study was conducted in the ministry of lands and among the reforms investigated included legal and regulatory frameworks that govern land administration. The study was guided by two theories namely principal agent theory and new public management theory. The study highlights some of the reforms to be done to include digitalization of land records, citizen charter, decentralization of land registries and citizen participation. The digitalization of land records involved the e-government where information was stored in web portal hence easily accessible to the public. All the other reforms had same objective which was to create a ministry that is not rigid but open to the citizen. The importance of citizen participation was to ensure transparency and accountability within the land ministry and hence service delivery was enhanced. The study by Charo and Wainaina (2019) was conducted on service delivery in general. This gave this study a chance to investigate on the effects of these reforms on information service delivery in Nyandarua County.

Digitalization is one of the reforms done in land governance. Mwanza (2021) conducted a study on digitalization strategy and service delivery in Kenya. The study adopted qualitative approach as the research design. Primary data was collected by means of interviews where respondents from departments in the land ministry that use digitization were sampled. On the other hand, secondary data was collected from past literature reviews. Most of the secondary data was collected from Georgia as the

country had fully applied technology in its land administration. The findings of the study revealed that digitalization had a significant positive effect on service delivery. However, according to Mwanza (2021) the success of digitalization on service delivery in land governance was dependent upon implementation strategy of technology in land reforms. The study by Mwanza adopted qualitative research design. This gave this study a chance to adopt mixed research design for better results.

2.7 Registry Staff Competencies for Improving Information Service Delivery at Land Registries

Training of the staff in an organization improves their competency by a great percentage which in turn improves information service delivery in the organization (Trutkowski, 2016). The process of training can take two forms that is on the job training and off the job training. On job training is done during a normal work routine and within the restrictions of the organization whereas off job training is conducted at a place away from the normal work place (Masenge, 2017).

Staff competency has a lot of advantages to an institution including improvement of performance and service delivery (Gisemba & Iravo, 2019; Adekola et al., 2020). A lot of studies have been conducted globally that relate staff competency and service delivery (Ramli, 2017; Mamburu, 2020; Opondo et al., 2021) this will be seen as discussed below. However, little studies have been conducted on the relationship between staff competency and service delivery in land registries.

The reforms done in the land registry face the challenges of staff incompetency. In this light, a case study was conducted in Malaysia and South Korea investigating on the challenges of implementation of e-government (Ramli, 2017). This was done as a comparative study between the two countries. E-government was initiated in 1966. In this study, South Korea was used as a benchmark and the research design adopted for

the study was a qualitative approach. Among the factors listed to affect the implementation of e-government included staffing and skills. In South Korea there was sufficient staff who were competent whereas in Malaysia, there was insufficient staff who were said to be incompetent. The study by (Ramli, 2017) did not relate e-government to information service delivery. This gave this study a chance to investigate e-government and information service delivery in land registries.

A closely related study was conducted in Arab investigating on land administration system (Showaiter, 2018). The case study was done on survey and land administration bureau and it was conducted mainly in Bahrain. The main aim of the study was to investigate on the capacity of human resources, logistics and land survey and administration bureau to support the reforms done in land administration sector. The study was based on past literature reviews where a total of 8 literatures were selected for this study. The analysis was divided into segments which included policy, management and legislative segments. The findings of the study revealed that survey and land administration bureau is supported by good strategic plans and adequate ICT base. However, Showaiter (2018) argued that land administration required some improvement in stakeholders' policy and institutional stability. This involved enhancing capacity building and staff competency in land administration. The study by Showaiter (2018) was based on past literature review. This gave this study a chance to carry out a similar case study on actual respondents in land registries in Kenya.

In Indonesia, a case study was conducted investigating on a program of completing systematic land registry at the village level (June et al., 2021). The study was triggered due to many unregistered land owners. Data was collected from both primary and secondary sources which entailed actual respondents and past literature reviews. The study was conducted in Beriwit village located in Murung Raya Regency where

approximately 600 fields were unregistered. The complete systematic land registration was a government initiative to provide legality of land to those who deserved for free. The process was initiated by dissemination of information to the public concerning the program. However, the process was not effective due to various reasons including adequacy of staff involved in the registration process. The study suggested that there was need to provide training to the available staff in order to improve their skills and competency in the registration process. The study by June et al., (2021) did not conduct a pilot study. This gave this study a chance to conduct a pilot study to test on the effectiveness of the study on actual respondents.

In Africa, a case study was conducted in Nigeria investigating on the factors that influence land title registration (Ekemode et al., 2017). The study was conducted in Osun state where 520 respondents formed the sampling group. The sampled group consisted of applicants for land title in the state. The findings of the study revealed that land title registration in Osun state experienced some challenges which included financial constraints and personnel competencies in land registry among other. The findings of the study were found to be consistent with those of Adekola et al. (2020) who conducted a study on improvement of land registration practices in Lagos state, Nigeria. According to Adekola et al. (2020), the registration of land in Nigeria was faced with a lot of challenges which included corrupt and incompetent registry staff in the ministry of land. The study concluded that for effective service delivery in the land ministry staff needed training to make them competent. The study by Adekola et al. (2020) did not conduct a pilot study. This gave this study a chance to conduct a pilot study in order to test on the effectiveness of questionnaires.

A closely related study was conducted in South Africa investigating on factors contributing to poor delivery in public services (Antwerpen & Ferreira, 2016). The

study was conducted in Gauteng province where a total of 190 respondents were randomly selected as the sampling group for the study. Mixed research design approach was used for the study. Among the factors investigated included training. According to Antwerpen and Ferreira (2016), training had great positive significant effect on service delivery. The findings of the study were in conjunction with those of Mamburu (2020) who carried out a study on the effectiveness of skills development program on improvement of service delivery. The study was conducted within the district municipality in South Africa. The skill development program was a type of training where employees were equipped with necessary skills. The findings of the study revealed a positive significant relationship between skill development program and service delivery. A similar case study can be conducted in Kenya investigating on the effect of training on information service delivery in land registries.

In Tanzania, a closely related study was conducted investigating on the deficiencies in land administration on land title delivery (Makupa & Sanga, 2019). The study was conducted in 8 local government authorities of Dodoma region where a total of 68 respondents were selected for the study and sampled through discussions and interviews. According to Makupa and Sanga (2019), human resource and technology were listed to be among the crucial deficiencies affecting land administration. However, deficiency in human resource was found not having direct relationship with land title delivery in five out of the eight local government authorities. Hence, this study argues that there was need to improve the competency of the staff by equipping them with necessary skills that improve service delivery in local government authorities. This can be done mainly through training.

A case study was conducted in Uganda investigating on the implementation of national land information system (NLIS) with an aim of strengthening land governance (Oput

et al., 2018). This study was conducted during the second phase of the implementation process of NLIS which was to be conducted between February 2015 to February 2020. According to Oput et al. (2018), the implementation process was faced with a lot of challenges and among them was training and capacity building. The staff were to undergo training on how to operate and maintain the NLIS in order to achieve its objectives which included better service delivery to stakeholders and improving land service delivery which included information on land governance. A similar case study can be conducted in Kenya in Nyandarua County.

In Kenya a case study was conducted to investigate the factors of strategy implementation in land ministry (Kamande & Orwa, 2015). The study was based in Thika and Kiambu counties. Proper strategy implementation in the land ministry will increase service delivery and this is affected by some factors such as innovation among others. According to Kamande and Orwa (2015), the level of innovation is determined by staff competency which in turn influences service delivery. The findings of the study were consistent with Kegoro and Nyabaro (2020) who carried out a study on the relationship between employee competency and customer service delivery. The study was carried out on selected non-commercial state-owned entities in Kenya. The findings of the study revealed an existence of positive significant relationship between staff competence and service delivery.

A closely related study was conducted to investigate on e-government effect on service delivery in Nairobi district land registry (Gisemba & Iravo, 2019). The research design adopted in this study was the cross-sectional survey and a total of 90 respondents from a total population of 300 persons in the land registry were selected for the study. The sampling group comprised of staff members from land registry. The findings of the study revealed that staff training was among the significant variables affecting service

delivery in land registry. The aspect of staff training involves improving their skills and expertise and motivation towards the accomplishment of the organization goals. Staff training can be done mainly through seminars and workshops. The study by Gisemba and Iravo (2019) did not conduct a pilot study. This gave this study a chance to conduct a pilot study before the actual study to test on the effectiveness of the study.

A closely related study was conducted in Kisii county investigating on the effect of in-service training on employee service delivery (Masenge, 2017). The main objectives of the study were to assess the effect of on-the-job training and off the job training as the methods of in-service training on service delivery. The study population was derived from the county government of Kisii and among the county departments under study was the land ministry. Questionnaires and interviews were used to collect data from all departmental directors. From the findings of the study, it was clear that the level of employees' service delivery at the county level was unsatisfactory. This was attributed by some factors which included unequal opportunities for employees to undertake the training, lack of internal training as the departments relies on national government training policies which fail to meet their specific needs and lack of stakeholders' involvement in training. The findings of the study revealed that there was a clear relationship between in-service training and service delivery. Masenge (2017) further concluded that departments required a formulated in-service training and financial resources be sufficient to support the training when required.

Another case study was conducted in Kenya to investigate on land administration a case of leading and managing change (Opondo et al., 2021). The research design approach adopted for the study was both qualitative and quantitative design and a total of 351 respondents were randomly selected for the study. The sampling group comprised of employees in the sector of land administration and customers seeking services from the

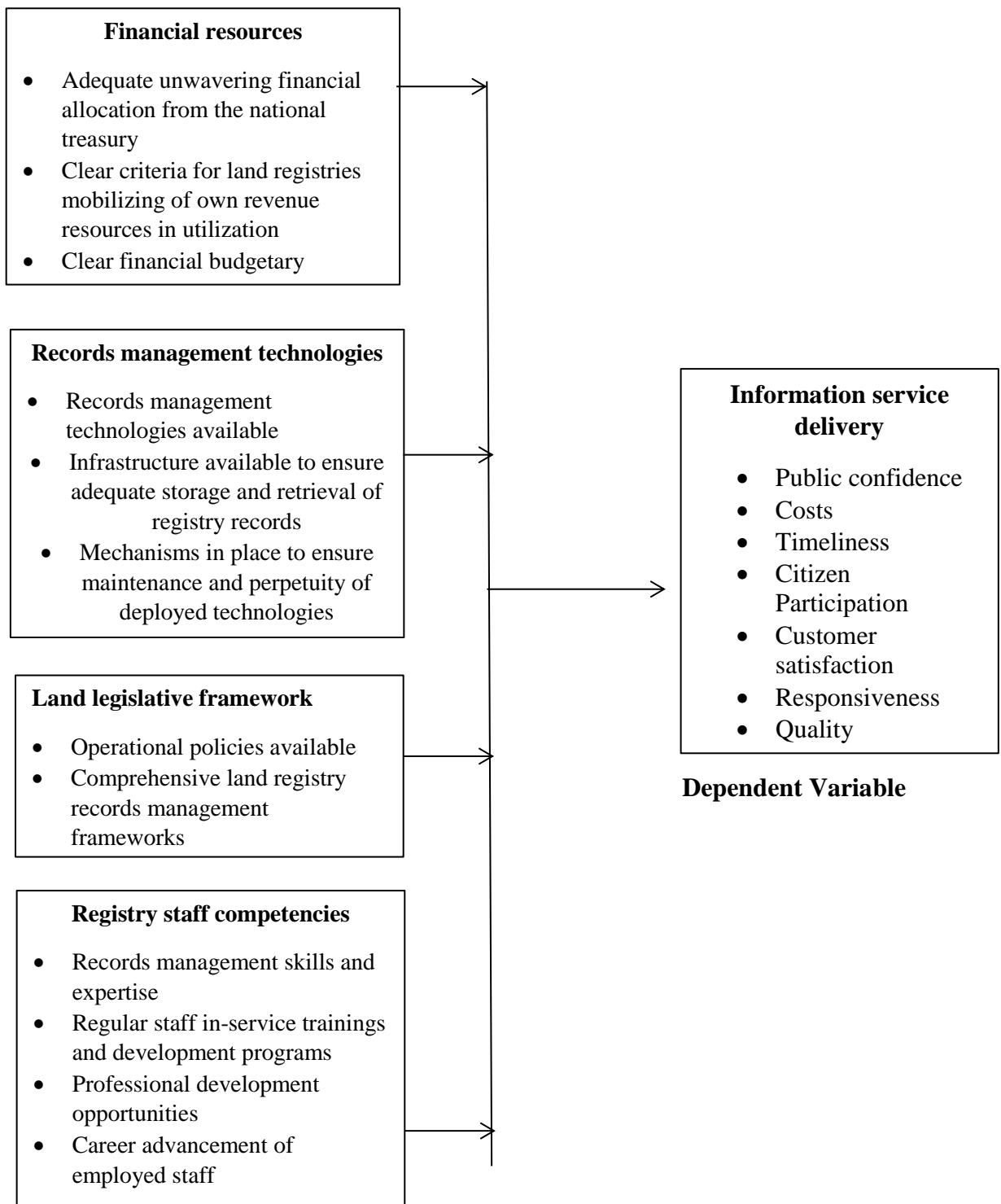
land offices. The study was mainly conducted in National Land Commission (NLC). The findings of the study revealed that there existed a positive significant relationship between leading and managing change which is attributed by training and the performance of National Land Commission. On the other hand, the study revealed that the ministry of land and the National Land Commission did not encourage creativity and training. The study by Opondo et al. (2021) recommended that there was need for the land ministry and the National Land Commission to provide sufficient funds to facilitate training which will in turn improve service delivery in the ministry of land.

2.8 Conceptual Framework

In this part, the relationship between variables is demonstrated. Also shown are the indicators which help to operationalize each variable.

Figure 2. 1

Conceptual framework



Independent variables

Dependent Variable

2.8.1 Description of Variables in the Conceptual Framework

Figure 2.1 opines that financial resources, records management technologies, land legislative framework and registry staff competencies are the independent variables purported to positively or negatively impact land registry information service delivery in Nyandarua County in Kenya.

Financial resources institutional-based determinant for improving information service delivery at land registry in Nyandarua County will be evidenced by corresponding existence of unwavering financial allocation from the national treasury to the county land registries, ability of the sector to utilize mobilization of own-source revenues strategies to obtaining finances and adequate budgetary allocations.

Records management technologies is the second variable among the institutional-based factors for improving information service delivery and it will be characterized by the presence of deployment land registry management systems, automation of the registry activities, deployment of hardware and software for ensuring storage, management and retrieval of the registry's' data and e-governance technological applications for quick service delivery.

The land registry legislative framework also forms part and parcel of key institutional-based factors for improving land registry information service delivery. This one will be determined by the presence of land registry operational frameworks, code of conduct policies for staff, comprehensive land registry records management frameworks.

The last independent variable constitutes the land registry staff competencies. It will be determined by the presence of employees with the required minimum academic qualifications, who are versed with requisite knowledge, skills and expertise in land

registry records management. Other factors will be constituted of the regular in-service trainings, professional development and career advancement opportunities for land registry staff.

Information service delivery in land registries forms the dependent variable of the study and this is purported to be improved or deterred by the presence or the absence of financial resources, records management technologies, land legislative framework and registry staff competencies in Nyandarua County Land Registry in Kenya. Information service delivery outcomes will be evidenced by timeliness in offering land information services to citizens, perceived customer satisfaction, improved perceived public perception of the services and perceived service quality. Responsiveness, cost efficiency of the services, attained transparency, accountability, efficiency and effectiveness will also form among the facets encompassing improved information service delivery in Nyandarua County land registry.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology that was used to address the study on the institutional-based factors for improving information service delivery at land registry in Nyandarua County. The locale of the study, the research design that was utilized, the target population engaged and the sampling design have been described. A description of the instruments, piloting and how validity and reliability was ascertained were also provided. The chapter concluded by describing the data collection and analysis procedures and lastly the ethical considerations that guided this study.

3.2 Location of the Study

This study was carried out in Nyandarua County in Kenya. This particular county is located in central Kenya covering 3285.7 km². The county borders Laikipia County to the north, Nyeri County to the north east, Muranga County to the east, Kiambu County to the south and Nakuru County to the south west. There is one land registry for the county situated in Ol Kalou Ardhi House (Kenya News Agency, 2019). The department of lands comprises of four directories namely; land administration, housing, survey and mapping and the physical planning department.

The researcher's interest in this study was necessitated by the huge investments currently ongoing to expand and achieve proximity of citizen access to public service delivery by undertaking processes of digitization and bringing closer land registry including Nyandarua County registry which was recently constructed to address the inconsistencies and backdrops relating to land information management and promote effective service delivery (Kenya News Agency, 2019). Moreover, several past studies show that the majority of land registries are not able to satisfy their customers making Nyandarua County an exception (Wangondu & Winfred, 2018; Maina, 2018).

3.3 Research Design

This entails a constructive procedure of how the study was carried out. This study undertook a descriptive survey research design. A descriptive survey research design was preferred to other designs because the target population are at the center of evidencing the current real underlying situation of institutional-based factors for improving information service delivery at land registry in Nyandarua County. This is based on the fact that the design possesses strengths of enabling the sampled target population to air their insights, views, knowledge and key highlights of the situation under probe through primary instrumentation means.

The researcher was hence at a liberty of interrogating the proposed institutional-based factors through reliance on the targeted respondent's inferences answering why, what, how and when questions from the independent constructs sentiments for improving information service delivery at land registry. Such insights were better addressed when put in a descriptive narration manner in which each description were accorded explanation and narration of the specific causes, reasons and effects upon establishment of the actual scenario. Consideration for a descriptive survey research design also lies on the researchers' assumed expectations that this study ended up yielding descriptive revelation insights which were better understood if descriptive tables, graphs, charts and thematic narrations are utilized to summarize the respondent's answers. The necessity of the study interrogated in depth about the registry financial resources, record management technologies, land legislative framework and registry staff competencies in place will solicit amicable elaborative explanations if a descriptive survey research design was considered.

3.4 Target Population

The target population was about the audience in a study where opinions matching the study constructs were derived from (Johnson & Christensen, 2012). This study utilized

the members of staff working in the department of lands in Nyandarua County. This target population comprised of the land administration (19), housing (4), survey and mapping (17) and the physical planning (12) staffs and one county land registrar. Nyandarua county land registry comprises of a total of 52 staff and the one registrar. Land registries staff are considered the primary respondents because they are in a position to provide informed ideas on how to improve information service delivery at land registry in Nyandarua County. This is strengthened by the virtue that they are the stakeholders in the stated workstation; hence, better positioned to give their reasonable ideas on registry financial resources, record management technologies, land legislative framework and registry staff competencies current underlying situation.

The land registry management and administration target population comprised of the registry managers who are the: land administration (19), housing (4), survey and mapping (17) and the physical planning (12) staff and the county land registrar who make a total population of 53 will also comprise of the target population. These groups of individuals are worth involving since having interacted with management roles, are versed with in-depth knowledge on land registry policies, standards and operational frameworks. They are deemed to provide reliable responses on how, where, why and when scenarios of the registry financial resources, land registry records management technologies and land registry staff competencies since they are involved in carrying out ministry's; budgeting, planning for training and development programs for staff and advising on appropriate technologies that ought to be deployed for effective land registry service delivery obligations. The details of the target population as tabulated in Table 3.1.

Table 3. 1

Target population in Nyandarua County Land Registry

Population category/Department	Number
Land administration staff	19
Housing staff	4
Land survey and mapping staff	17
Physical planning staff	12
Nyandarua County land registrar	1
Total	53

3.5 Sample Size and Sampling Techniques

A sample size is a representative of the target population ordained by the researcher to take part in a study (Bryman, 2012). In this study, all the staff in charge of land administration (19), housing (4), survey and mapping (17) and the physical planning (12) staff and Nyandarua County land registrar (1) making a total of 53 respondents were involved. This total number of respondents constituted the sample size of the study which denotes that the study sample size will incorporate all the targeted population members.

Sampling techniques refers to the specific basics undertaken to arrive at a sampling size out of a study' target population (Kothari, 2004). In the current study, a census sampling technique was adopted. This implies that all the members were targeted to participate in the study as respondents because 53 is not a huge number.

3.6 Research Instruments

Respondents' views and insights were collected using questionnaires and an interview guide. Questionnaires were utilized to solicit responses from the land registry administrative staff in Nyandarua County while the interview guide was administered

to the country lands registrar. A questionnaire was preferred because of its tremendous advantages. Considering that the land registry administration staff is 53, it was uneconomical to interview either on one on one basis or as group hence the basics of choosing the questionnaire over other instruments of collecting data.

Other benefits necessitating the preference for registry staff questionnaire lies in the ability of questionnaires to be simple to quantify responses upon return, carry out scrutiny and comparison out of the numerous views jotted, design and also administering them. The use of questionnaire tool also guarantees respondents anonymity, freedom of expression, discards stigmatization and assure confidentiality.

The organization design of the questionnaire tool mainly comprised of close-ended questions and very few open-ended probing sentiments. The closely ended questions were organized in a Likert scale range of 1-5. This arrangement was systematic and include all constructs of the study. All the sections were numbered alphabetically to mark each study variable. Section A outlined the demographic details of the respondents, B, C, D, and E will cover on financial resources, record management technologies, land legislative framework and registry staff competencies; the objectives of the study which are out rightly the independent constructs of the study whilst section F covered the dependent variable which is information service delivery in land registries as illustrated in appendix II.

For the interview guide, the qualitative responses by the registrar acted as an eye opener for clarifying pertinent issues on policy, registry framework and standard operational procedures. The interview guide was also better positioned to enable the researcher to get additional information relevant enough to better understand the objectives of the study. The organization of the interview guide comprised of open-ended questions

arranged in alphabetical sections covering the demographic section, the independent variables section and the last section of the dependent variable. The interview was oral; hence, the registrar responded verbally by giving brief descriptions of each question that was read to him/her. The interviewer administered the questions while recording the answers to questions using an electronic device or by jotting some notes with consent (Mugenda & Mugenda, 2003). The interview schedule guide was also organized into sections per the variables of the study. The interview schedule for Nyandarua County land registrar is attached in appendix III.

3.7 Piloting of Research Instruments

This is a research tools pre-testing procedure carried out to ensure the designed instruments for collecting data address the needs of the study. The aim of piloting the tools of collecting data in an environment bears similar characteristics to the researcher' location of the study is to ensure errors, inconsistencies, lingual ambiguities and content suitability are addressed. Moreover, piloting of research tools is a powerful endeavor that enables the researcher to attain data reliability and validity. In this study, piloting was done in Nyeri County land registry where 10 land registry administrative staff and the one county land registrar were issued with the proposed instruments.

Nyeri County land registry was considered as a pilot locale because it executes similar characteristics to Nyandarua County. Being a bordering neighboring county, the land registry was assumed to have almost similar information service delivery modes and standards. Plausible insights from pre-testing data were informative enough to divulge the questionnaire inconsistencies hence enable easy revamping of the tool sentiments in line with the study objectives.

3.8 Validity and Reliability of Research Instruments

This is carried out in a study to enable ironing out the possible inconsistencies, ambiguities and incompleteness of data collected. Validity and reliability are achieved by carrying out piloting of research instruments, accommodating critiques of supervisors and subject experts and also doing thorough literature review of the study constructs.

3.8.1 Validity of Research Instruments

Validity of research instruments may be in form of content, face and also the construct aspect. In order to ensure achievement of content validity, outgone research studies relevant underpinning the study institutional based factors of financial resources, record management technologies, land legislative framework, registry staff competencies and the dependent variable; information service delivery in land registries were consulted.

For the face validity, the study carried out a pilot study in Nyeri County land registry where the research instruments were pre-tested for consistency, validity, completeness and relevancy by utilizing a population of alike to the targeted respondents of the current study. More to that the researcher consulted the supervisors allocated to and also research subject specialists in the field from the university to give their judgment, scrutiny, guidance, critiques, additions, omissions and clarification of the research statements covering all the variables of the study as prescribed in the tool sections. When these reiterations were considered, the questionnaire looked more appealing, organized and with good flow.

The last facet of validity was the construct validity. This was achieved by organizing the research tools into sections numbered in alphabetical order with headings where A constitute the biographic details of the respondents, B, C, D and E covering the objectives of the study and finally, section F detailing the dependent variable. That way, the study ensured all aspects of a variable are covered.

3.8.2 Reliability of Research Instruments

Here, the researcher ascertains the instruments' ability to produce similar results when tested several times even when the location of the population is not the same provided, they expose similarities in biographical, educational, economic and social political characteristics (Bryan, 2014). In this study reliability of the primary data collecting tool was ascertained by computing a Cronbach alpha value from the pretesting responses. The computation was done through the use of the statistical package for statistical sciences (SPSS) software. An alpha value of 0.7 onwards will be termed as reliable (Bryan, 2014). Also, the ability of the responses to enlist similar responses from different respondents possessing common characteristics over time also implied the instrument reliability.

3.9 Data Collection Procedures

The researcher obtained a clearance letter from the university through the department of post-graduate studies. With the issuance of the clearance letter, a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) was sought. The researcher henceforth proceeded by endeavoring to seek consent to collect data in Nyandarua County land registry from the county registrar of lands. When these activities were successful, the researcher visited the data collection target departments to make arrangements on a convenient date for the collection exercise.

The researcher undertook personal initiatives of hiring two data collection assistants, who were trained on the importance of collecting data, the purpose of the study, its aims, how they administer the questionnaires to the respondents, how they will conduct themselves, about decency, how to handle respondent's. This was essential so that the researcher minimizes individual biasness. In the agreed date for collecting data, the respondents were briefly elaborated on the aims of participation and the ultimate

purpose of the study. They were afterwards requested to participate in the study on a voluntary basis. The researcher was the one interviewing the land registrar. After the research assistants finished the exercise, they picked the filled questionnaires. The researcher granted individuals who were committed with administrative duties more time to fill the tools administered to them conveniently and get them on agreed dates. The researcher numbered the collected questionnaires chronologically.

3.10 Data Analysis Procedures

The researcher checked completeness of the chronologically serialized questionnaires. The next step was keying in data from the questionnaires deemed complete into the Statistical Package for Social Sciences (SPSS), version 26. This enabled the computation of descriptive statistics in form of mean, mode, median, percentages, standard deviation, and factor analysis. Interpretation of these descriptive statistics informed different comparison and the efficacy of registry financial resources, record management technologies, land legislative frameworks and registry staff competencies constructs.

The researcher also conducted inferential statistics by employing a regression analysis model to ascertain the hypothesized relationship. The suitability of regression analysis was checked by carrying out normality, linearity, autocorrelation, heteroscedasticity, and multi-collinearity tests.

The regression model adopted in this study was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y = Information service delivery in land registries

β_i = Coefficients to be estimated

X1 = Registry financial resources

X2 = Record management technologies

X3 = Land legislative frameworks

X4 = Registry staff competencies

$\hat{\epsilon}$ = Error term

The qualitative data obtained from the few open-ended questions in the questionnaire and also from the interview were analyzed thematically. The findings were presented using descriptive tables, figures and narratives for ease of understanding the results.

3.11 Ethical Considerations

The current study adhered to ethical guidelines expected to be considered when carrying out social science research. In the first place, the researcher obtained both a clearance and an introduction letter from Kenya Methodist University department of postgraduate students which is a requirement to get issued with research permit from National Commission for Science Technology and Innovation (NACOSTI).

For the researcher to collect data from the prospected respondents, she sought permission from the Nyandarua County government department in charge of land registration in order to be allowed to engage the targeted respondents. It is also worth noting that a brief and concise cover letter has been developed and presented when seeking consent. It outlines the study intent, the motive of engaging the targeted respondents and the title of the research. The cover letter helps to allay any fears of other ulterior motives other than academic research.

The data collection exercise was an open and fair exercise in which the participation of the engaged audience was on voluntary basis. Moreover, confidentiality and privacy was enhanced by not permitting the respondents to disclose their identity by incorporating their names or any pertinent biographical information that could expose

them. Moreover, the chronologically serialized questionnaires were not exposed to any unauthorized personnel apart from the research assistants and the researcher.

For the respondents who were not able to complete the issued questionnaires, the researcher arranged with them and agreed on a convenient date to collect the filled questionnaires. The researcher also embraced honesty and high level of integrity by reporting the presented respondents' data as reported in the questionnaires and the interview schedule oral responses. Academic integrity was upheld by the researcher by ensuring proper citation and referencing using the university approved referencing style.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides the findings of the study. The findings are first presented, interpreted and then discussed accordingly. The presentation of the work in this chapter is guided by the main variables of the study. The study had two main variables; that is, independent and dependent variables. The three independent variables were financial resources, record management technology, land legislative framework and registry staff competencies, while, the dependent variable was the information service delivery.

In the first instance, the quantitative results are presented first. In the second instance, the qualitative data gathered during interview are integrated in the discussion to explain observable phenomena. In the third and last instance, inferential results are presented and discussed accordingly. Before the inferential statistical analysis are used, the study had to justify the adopted analysis by presenting results on the diagnostic tests. The chapter starts off by presenting the results on reliability of the data, the response rate and background information of the respondents.

4.2 Findings on Reliability Test

The reliability of the data collected was checked before they were used in the analysis. To assess reliability, the study computed the Cronbach Bach alpha value of indicators measured in each key variable in the study. The results were summarized and presented in Table 4.1.

Table 4. 1

Reliability result regarding the main variables

Main constructs of the study (N = 52)	Cronbach's Alpha
Financial resources (X1)	0.975
Record management technology (X2)	0.991
Land legislative framework (X3)	0.987
Registry staff competencies (X4)	0.979
Information service delivery (Y)	0.899

Table 4.1 shows the Cronbach's Alpha value that is higher than 0.7, ($\alpha > 0.700$) for every key variable (financial resources, record management technology, land legislative framework, registry staff competencies, and information service delivery). The Cronbach's Alpha value reported in this study satisfied the guidelines given by Bryman and Bell (2011). The findings meant that the data were reliable to be used in the analysis.

4.3 Response Rate

In this study, the researcher had administered 53 questionnaires to the land registry staff. Only one questionnaire that was not returned, hence a response rate of 98%. Nyandarua land registry had one land registrar. The same was available for the interview. The good response rate as noted by Kumar (2010), was attributed to cooperation of land registry staff. Related studies such as Kamande and Orwa (2015) and Chepkosgei (2020) also reported high response rate from registry staff which were linked to adequate preparation of the researcher. The high response rate boosted the confidence that the respondents were willing to provide information that was needed in the study.

4.4 Background Information of Respondents

In this section, the profile of respondents is provided. The respondents of this study were staff working at the Nyandarua land registry. The background information sought from staff were on gender, professional qualifications and experience. The background information helped the researcher to make objective interpretation and inferences on the findings reported in this study. The study first inquired about the gender of a staff and the information was presented in Figure 4.1.

Figure 4. 1

Gender of Staff at Nyandarua Land Registry

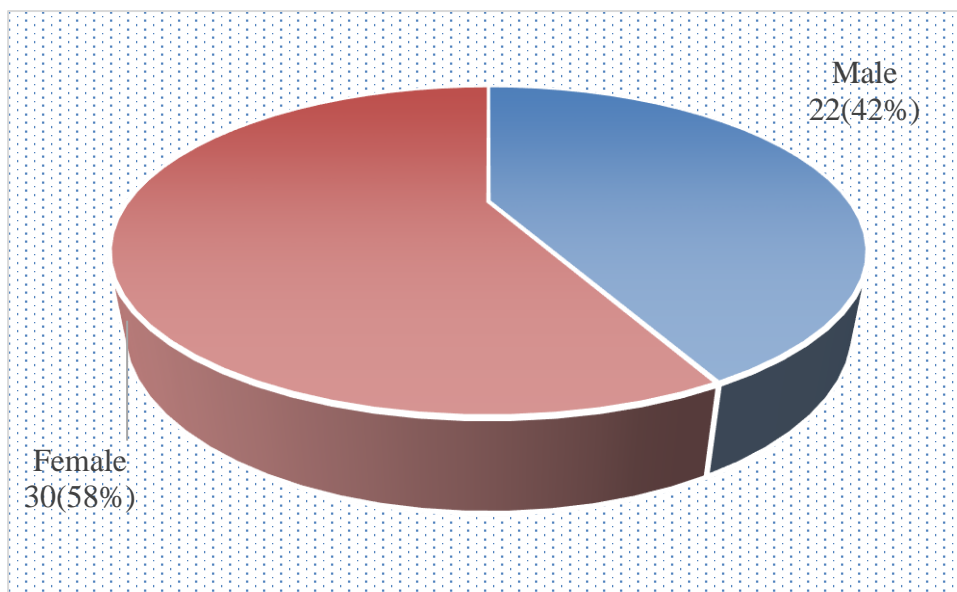


Figure 4.1 shows that there were more female (30, 58%) than male staff (22, 42%) at Nyandarua Land Registry. In contrast, Waweru et al. (2019) reported that Nakuru land registry was dominated by the male gender than the female counterpart. Abad et al. (2021) also noted gender disparity, imbalance and male dominance in land registries. The findings show some imbalance on gender of staff. The information about gender helped to understand the extent to which it was affecting service delivery in the land

registry. Depending on one’s background and past experiences, some customers are sensitive to the gender of the person serving them, hence the essence of balancing.

A question on professional qualifications of a land registry staff was posed to the respondents to help in understanding whether they had the requisite knowledge of working in a registry. The findings are shown in Table 4.2.

Table 4. 2

Highest qualification of Staff at Nyandarua Land Registry

Highest qualification of a teacher	Frequency	Percent
- College diploma	49	94.2
- Undergraduate Bachelor Degree	3	5.8
Total	52	100.0

The results show that 49 (94.2%) of Staff at Nyandarua Land Registry had a College diploma. three (5.8%) had Undergraduate Bachelor Degree. This indicates that the staff who works in Nyandarua Land Registry had minimum of Diploma. The fact that 5.8% of the staff had a bachelor’s degree, indicates professional development initiative, which was expected to enhance their performance in the registry. Kamau (2020) comparatively reported a dominance of the diploma, postgraduate diploma and undergraduate degree educational qualification of registry staff working in the Office of Directorate of Prosecution. It was pointed clearly that these departments were embracing professional development, in-service trainings and career advancement. Maina (2021) findings also support the current study’s opinions on the academic qualifications of registry staff in Lakipia County Government. The staff were expected to fully understand how their behavior and conduct was affecting service delivery. The study did not interrogate whether the Diploma and or degree was based on information science.

The study further sought to establish how long one had served as a registry staff in a land registry. This was significant in determining the relevance and objectivity of responses regarding working experience. Relevant experience is considered very critical in service industry, and hence, the experience that staff had in a land registry was significant in improving information service delivery. The information gathered helped to understand whether staff had accumulated relevant skills to credibly respond to questions posed to them about financial resources, record management technology, land legislative framework, registry staff competencies and information service delivery. The findings regarding working experience of staff at Nyandarua land registry is presented in Table 4.3.

Table 4. 3

The working experience of staff at Nyandarua land registry

Years of experience	Frequency	Percent
- Less than one year	17	32.7
- Between 1- 5 years	17	32.7
- Between 6-10 years	15	28.8
- Between 11-15 years	3	5.8
- Between 16- 20 years	0	0
- Over 20 years	0	0
Total	52	100.0

According to the results in Table 4.3, approximately a third, 17 (32.7%) had less than one year work experience in a land registry. Seventeen staff (32.7%) had worked between 1 and 5 years in a registry. Only about a third, 18 (34.6%) had worked between 6 and 15 years in a land registry. This meant that most of staff were fairly new in the job and hence, they required coaching and mentoring since their work entailed interacting with clients for most of the times. The study noted that 34.6% of the staff were adequately experienced, hence, they could be instrumental in mentoring the less experienced ones and further inculcate the appropriate values for improving

information service delivery in the land registry. Different findings were reported by Nyaga et al. (2020) and Juma (2013) which stipulated that registry staff had adequate working experience for offering land services. The findings of Benta et al. (2019) appreciated the importance of securing experienced staff in records management firms for achieving effective service delivery.

4.5 Results on Information Service Delivery at Nyandarua Lands Registry

The information service delivery at the Nyandarua Lands Registry was the dependent variable in this study. The information regarding this construct was gathered from the Nyandarua land registry staff. Clarity and explanatory information was gathered from the Land Registrar during interview. In this study, the construct on information service delivery was measured as a latent variable, where, several sentiments were posed to respondents requiring them to indicate their responses against each. Therefore, the summation of the responses helped the researcher to understand aspects of information service delivery at the Nyandarua land registry.

The sentiments posed to respondents were about responsiveness, service point's outlay, financial resources allocated to the function of service delivery, financial policies on service provisioning, corrupt practices, staff motivation, technologies, operational frameworks, policy framework, rules and regulations in the registry, code of ethics, and integrity measures put in place. The sentiments were in a 5-level Likert scale requiring the respondent to indicate the extent of agreement with each sentiment; where, 1 represented strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 represented strongly agree. In interpreting and reporting the quantitative results herein, the total number of responses on 'agree' and the 'strongly agree' were computed to represent the agreement status, while the total number of responses on 'disagree' and the ones on

‘strongly disagree’ were summed up to represent the disagreement status. Summary of the responses is presented in Table 4.4.

Table 4. 4

Information service delivery

Statements on information service delivery (N = 52)	SD(1)	D(2)	N(3)	A(4)	SA(5)
• There is no sluggishness in the way services are offered at Nyandarua land registry	2 (3.8%)	23 (44.2%)	19 (36.5%)	8 (15.4%)	0 (0%)
• Customers have not been complaining of inconsistencies at the Nyandarua land registry	2 (3.8%)	20 (38.5%)	19 (11.6%)	11 (21.2%)	0 (0%)
• There are no gaps in information service delivery at Nyandarua land registry	2 (3.8%)	23 (37.2%)	19 (11.6%)	8 (17.4%)	0 (0%)
• There are no cases of misplacement or misfiling of records at Nyandarua land registry	3 (5.8%)	33 (63.5%)	10 (19.2%)	6 (11.5%)	0 (0%)
• Customers have not been complaining of dissatisfaction in the manner in which they receive services at the Nyandarua land registry	2(3.8%)	28 (53.8%)	15 (28.8%)	7 (13.5%)	0 (0%)
• Mechanisms have been put in place to enhance responsiveness to clients requests at the Nyandarua land registry	0 (0%)	11 (22.1%)	14 (26.9%)	22 (42.3%)	5(9.6%)
• Customers have not been complaining of service delivery being below their expectations at Nyandarua land registry	5 (9.6%)	30 (57.7%)	10 (19.2%)	7 (13.5%)	0 (0%)
• The service points are arranged / organized in a way that enhances quick information service delivery at the Nyandarua land registry	0 (0%)	3 (5.8%)	16 (30.8%)	27 (51.9%)	6 (11.5%)
• The allocated financial resources helps to improve information services at Nyandarua land registry	7 (13.5%)	32 (61.5%)	9 (17.3%)	4 (7.7%)	0 (0%)
• Implementation of financial policies has enabled staff to improve information service delivery	10 (19.2%)	31 (59.6%)	8 (15.4%)	3 (5.8%)	0 (0%)
• There no corrupt practices reported amongst staff at the Nyandarua land registry	3 (5.8%)	14 (26.9%)	22 (42.3%)	13 (25.0%)	0 (0%)

Statements on information service delivery (N = 52)	SD(1)	D(2)	N(3)	A(4)	SA(5)
• Staff are regularly motivated to improve information service delivery at the Nyandarua land registry	15 (28.8%)	28 (53.8%)	6 (11.5%)	3 (5.8%)	0 (0%)
• Implementation of records management technologies has enabled staff to improve information service delivery at the Nyandarua land registry	13 (25.0%)	33 (63.5%)	4 (7.7%)	2 (3.8%)	0 (0%)
• Staff who have excelled in providing excellent information services are usually rewarded	15 (28.8%)	30 (57.7%)	5 (9.6%)	2 (3.8%)	0 (0%)
• Operational frameworks put in place has enabled staff to improve information service delivery	6 (11.5%)	25 (48.1%)	12 (23.1%)	9 (17.3%)	0 (0%)
• The policy framework put in place has enabled staff to improve information service delivery	9 (17.3%)	31 (59.6%)	9 (17.3%)	3 (5.8%)	0 (0%)
• The rules and regulations put in place has enabled staff to improve information service delivery at the Nyandarua land registry	4 (7.7%)	13 (25.0%)	26 (50.0%)	9 (17.3%)	0 (0%)
• The code of ethics put in place has enabled staff to improve information service delivery	0 (0%)	9 (22.1%)	13 (37.2%)	23 (44.2%)	7 (17.4%)
• The integrity measures put in place has enabled staff to improve information service delivery	0 (0%)	6 (22.1%)	13 (25.0%)	23 (44.2%)	10 (19.2%)

From the results in Table 4.8, it can be observed that 25 (48%) of staff admitted that there was some sluggishness in the way services were offered at the Nyandarua land registry. It was also clear that there were gaps in the manner in which information services were delivered as indicated by 25 (41.0%). A sizeable number of the land registry staff, 22 (42.3%) further indicated that customers had been complaining of inconsistencies at the Nyandarua land registry, and were dissatisfied in the manner in which they were receiving information services, (30, 57.6%). Thirty five (67.3%) of staff also indicated that customers had been complaining of service delivery being below their expectations. Moreover, there were incidences when misplacement or misfiling of records at the land registry were reported and was inconveniencing

customers as indicated by $\frac{2}{3}$ of staff, (36 (69.3%). The findings are indicating instances of customer complaints at the Nyandarua land registry. This fell short of the government expectations for enhancing services to the public. The findings agree with Bradley (2017) who reported customers' perceptions and the level satisfaction of their needs were negative, hence the value and quality of service delivery was found wanting. Other studies that reported complains were those of Shuaib et al. (2020) and Shuaib et al. (2021) where customers complained of insecurity for their records, delayed service delivery and questionable authenticity of the preserved registry records. Maina and Erima (2018) also reported an existence of a service gap which government officials in government positions failed to address and this was likened to poor records management practices. According to the land registrar, the delays in service delivery was being caused by the use of manual system which was creating further loopholes for corrupt activities and deals.

More than 60 percent of the staff said that there were issues with the operational and policy frameworks that anchor service delivery at the Nyandarua land registry. Additional areas of weaknesses noted in Table 4.4 and which were reported by $\frac{2}{3}$ of staff were about financial resources, financial policies, and records management technologies for supporting the improvement of information services at the Nyandarua land registry. The majority of staff were skeptical, and when a question about corrupt practices at the Nyandarua land registry was posed to them, 22 (42.3%) were neutral, while, 17 (32.7%) indicated that that the vice was there. Only 13 (25.0%) of staff said that there were no corrupt practices reported amongst staff at the Nyandarua land registry. The high number of staff who indicated neutral (42.3%) shows a state of non-committal in the responses. If the 32.7% of those who admitted of prevalence of corrupt

practices is added, it makes the researcher to conclude that indeed there were corrupt incidences at the Nyandarua land registry. The land registrar also admitted that the manual system was making it easy for staff to engage in corruption. Siddiqui et al. (2020) also noted that corruption practices in government and public office, especially at service delivery points was a major shortfall that lagged service delivery behind. Adeniyi et al. (2018) also reported a shortfall of service delivery associated with little transparency, accountability and reliability of government service points.

The Land Registrar further acknowledged the existence of gaps in service delivery practices which were attributed to staff skills, land legislative framework policy, budgetary allocation, and information technologies systems. In conjunction, the studies by Mwanza (2018), and Maina and Erima (2018) described how different sectors of government service delivery points were experiencing common challenges of inadequate financial allocation, staff incompetence and lack of framework for implementation.

Despite the aforementioned weaknesses, the study noted that most staff, more than 40% indicated that the service points at the Nyandarua land registry were arranged / organized in a way that enhanced quick information service delivery. There were mechanisms also put in place to enhance responsiveness to clients' requests at the Nyandarua land registry. It was also clear that the conduct and behavior of staff was guided by established rules and regulations, code of ethics as well as the integrity measures put in place. The presence of all the above measures show a good attempt and intention by the government of Kenya to improve the manner in which services were being offered at the Nyandarua land registry. Whether such measures translated to actual improvement service delivery, was the big question in this study. This is because,

the findings reported above, indicate that there were some sluggishness in the service delivery, inconsistencies, complaints, and misplacement or misfiling of records in the land registry. Some of these observations and gaps can be attributed to weak operational and policy frameworks which was reported by staff. The study also noted that the effort to improve service delivery was curtailed by inadequate financial resources, weak financial policies, and inability of records management technologies to support the improvement of information services at the Nyandarua land registry. Mwanza (2018) and Gisemba and Iravo (2019) attributed weak system of delivering services to limited financial resources, limited technology, unimplemented service offering frameworks and rare professional trainings of staff. These aspects were noted by Gisemba and Iravo (2019) as inhibiting factors for public citizenry service delivery. Padovani and Pavan (2016) also argued that credible, reliable and dependable, service delivery entirely depended on a combination of financial resources, technology, operational framework and in-service training.

Even though the aforementioned measures were noted to be in place, it was surprising that 43 (82.6%) of staff said they were not motivated to improve information service delivery at the Nyandarua land registry. Only 3 (5.8%) were motivated, while, 6 (11.5%) were neutral. Notably, providing staff with rules and regulations, establishing code of conduct and integrity measures, may not alone help to improve service delivery in the land registry. The critical aspect of staff cannot be ignored. Actually, the staff need to be motivated in order to play an active role in adhering to the rules and regulations, code of conduct and integrity measures put in place. The need for motivating staff was also observed by Sibonde and Dassah (2021) as very critical in ensuring employee loyalty, commitment, motivation and effectiveness at work. Chaula

(2018) and Sibonde and Dassah (2021) findings enlisted that motivational strategies ranging from fair remuneration, acknowledgement, training and development, provision of good working environmental conditions and availability of adequate working resources, which, they said unlocked staff commitment in offering quality services. However, the push factors for staff motivation were not investigated since they were outside the prescribed scope of this study. Instead, the current study focused on the institutional-based factors for improving information service delivery at the land registry in Nyandarua County, Kenya. The results appearing in the subsequent sections are about the four institutional-based factors which were postulated to having significant influence on information service delivery at the Nyandarua land registry.

4.6 Results on Financial Resources and Information Service Delivery

The first objective aimed to determine how financial resources were affecting the improvement of information service delivery at land registry in the Nyandarua County. The effective delivery of services requires deliberate commitment of funds towards supporting the identified activities. In determining the magnitude of financial resources dedicated to service delivery several questions were formulated in form of sentiments in a table. The sentiments posed to respondents were about availability of budgetary control tool, own-source revenue streams for supporting service delivery, adequacy of funds, and deliberate allocation of funds towards enhancing the manner in which services are delivered. The study also wanted to know the extent to which some services were delayed for lack of money, whether facilities and equipment used in service delivery were purchased on time, vote head for supporting training of registry staff on service delivery and availability of financial policy on customer service. The sentiments were in a 5-level Likert scale requiring the respondent to indicate the extent of

agreement for each sentiment; where, 1 represented strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 represented strongly agree. In interpreting and reporting the quantitative results, the total number of responses on ‘agree’ and the ‘strongly agree’ were computed to represent the agreement status, while the total number of responses on ‘disagree’ and the ones on ‘strongly disagree’ were summed up to represent the disagreement status. Summary of the responses is presented in Table 4.5.

Table 4. 5

Financial resources

Statements on financial resources (N = 52)	SD(1)	D(2)	N(3)	A(4)	SA(5)
• Land registry has a budgetary control tool that is utilized each year to ensure good financial practices	8 (15.4%)	28 (53.8%)	13 (25.0%)	3 (5.8%)	0 (0%)
• We have reliable own-source revenue streams that we utilize to cater for land registry activities	20 (38.5%)	23 (44.2%)	7 (13.5%)	2 (3.8%)	0 (0%)
• The funds allocated annually are adequate to help in improving services offered at land registry	11 (21.2%)	20 (38.5%)	14 (26.9%)	7 (13.5%)	0 (0%)
• There is money allocated towards enhancing the manner in which services are offered to clients	3 (5.8%)	6 (11.5%)	12 (23.1%)	27 (51.9%)	4 (7.7%)
• Clients are not delayed for lack of money to buy the required materials	10 (19.2%)	24 (46.2%)	14 (26.9%)	4 (7.7%)	0 (0%)
• Whenever we need any equipment and facility purchased to streamline our services, we easily get our request granted and approved	13 (25.0%)	31 (59.6%)	8 (15.4%)	0 (0%)	0 (0%)
• There is a budgetary vote head for supporting training of land registry staff	4 (7.7%)	2 (3.8%)	15 (28.8%)	27 (51.9%)	4 (7.7%)
• There is a financial policy guiding how to finance service delivery activities at Nyandarua land registry	11 (21.2%)	26 (50.0%)	11 (21.2%)	4 (7.7%)	0 (0%)

According to the data presented in Table 4.5, forty three (82.7%) of the staff said that Nyandarua land registry does not have own-source revenue streams that can be utilized to cater for service delivery activities. The registry was therefore relying on funds that

are allocated annually as pointed out by 31 (59.7%) to enhance the manner in which services were offered to clients. However, a similar number of staff, 31 (59.7%) said that the allocated funds were not adequate to improve services offered at the land registry. When funds committed towards improving service delivery are insufficient, the quality of service is likely to be below the expected level. In line with this sentiment, the study found that there were actual delays, for example, in buying the required materials as indicated by 34(65.4%) of staff. Moreover, 44 (84.6%) said that the requests to purchase equipment and facility needed to streamline information services at the land registry, are often not granted. During the face to face interview, the Land Registrar acknowledged that shortage of finance was affecting service delivery at the Nyandarua county land Registry. The Land Registrar further noted, *“lack of enough budgetary has resulted to lack of the required infrastructures like computers.”*

These above findings are showing limitations caused by failure to allocate sufficient funds for enhancing services to clients at the land registry. The decision to enhance services delivery ought to be deliberate and the same need to be actualized by committing funds in the budget to purchase materials, equipment and facilities. The study by Mwangi and Jagongo (2019) also concurred and noted that county government service delivery points were straining due to limited funds and prudence in the utilization of fiscal resources. Similarly, Karama and Muia (2019) argued that the availability financial resources was critical in ensuring continuity of devolved activities. They also urged on the need for prudence financial management mechanisms to in ensuring gainful utilization of the availed resources.

The findings in Table 4.5 further shows that the land registry is determined to address the services. This is because, 31 (51.9%) agreed that there is a budgetary vote head for

supporting training of land registry staff. Staff training program is a capacity building initiative that help the employee to stay focused and abreast with new skills required in a given profession. Investment in staff training was also noted by Adekola et al. (2020) who advocated for regular in-service staff training as act of addressing incompetence. The findings of the study were also in conjunction with Mamburu (2020) who reported that effectiveness of skills development programs for employed staff led to improved service delivery.

The information presented in Table 4.5 also shows that there is no financial policy guiding on how to finance service delivery activities at the Nyandarua land registry as indicated by 37 (71.2%). These findings disputably pinned down the observations of World Health Organization (2015) and Wamae et al. (2018) who explained the veritable essence of having comprehensive policies in place for organizations guiding records management, financial management and other registry practices. Along the same vein, approximately two third of staff, 36 (69.2) said that the Nyandarua land registry did not have a budgetary control tool that is utilized each year to ensure good financial management practices. This points out weaknesses in policy guidelines. The weak or absence of policy on finance resources can restrain the aggressiveness that is expected from staff in revamping information services at the land registry. M'nyiri and Ngahu (2018) concurred with the above findings by acknowledging that financial management practices and tools were helpful in ensuring adequate and fair allocation of finances. Similarly, a budgeting tool was suggested as an important factor in determining the allocation of finances in government institutions. In an open-ended question, staff suggested a need for government through the Department of Lands Housing and Physical planning to be allocating adequate funds to the land registry. They also pointed out a need to involve all staff in suggesting the items and areas that inform funds

allocation and the budgeting. The other theme that stood out in the responses was the need for a policy on budgetary allocation.

4.7 Results on Records Management Technology and Information Service Delivery

The second objective aimed to determine how record management technology was affecting the improvement of information service delivery at the Nyandarua land registry. It is indisputable that technology is an enabler and when embraced and applied appropriately, it can play a great role in enhancing the manner in which services are offered in a land registry. In measuring this construct, several questions were formulated in form of sentiments in a table. The sentiments were about the enabled capability resulting from embracing technology in the management of records and service dispensation, for example, faster services, and accuracy in storing of data, reduced cases of land ownership issues, enhanced efficiency and effectiveness in service delivery; clients' satisfaction, and remote accessibility of services by clients. Other issues sought were about system security, maintenance, and upgrading; management support and adequacy of IT personnel. The sentiments were in a 5-level Likert scale requiring the respondent to indicate the extent of agreement for each sentiment; where, 1 represented strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 represented strongly agree. In interpreting and reporting the quantitative results, the total number of responses on 'agree' and the 'strongly agree' were computed to represent the agreement status, while the total number of responses on 'disagree' and the ones on 'strongly disagree' were summed up to represent the disagreement status. Summary of the responses is presented in Table 4.6.

Table 4. 6***Records Management Technology***

Statements on records management technology (N = 52)	SD(1)	D(2)	N(3)	A(4)	SA(5)
• Nyandarua land registry has adopted appropriate records management technology	23 (44.2%)	16 (30.8%)	5 (9.6%)	8 (15.4%)	0 (0%)
• The use of a records management technology has enabled our services to be timely and faster	11 (21.2%)	23 (44.2%)	11 (21.2%)	7 (13.5%)	0 (0%)
• Technologies has reduced queues and delays in the land registry	9 (17.3%)	20 (38.5%)	9 (17.3%)	14 (26.9%)	0 (0%)
• Adopting technology has enabled us to accurately store citizens data and important documentation	15 (28.8%)	24 (46.2%)	10 (19.2%)	3(5.8%)	0 (0%)
• By adopting technology, cases of land ownership issues have reduced	9(17.3%)	22 (42.3%)	13 (25.0%)	8 (15.4%)	0 (0%)
• I have high regard for records management technology used at the land registry	6 (11.5%)	25 (48.1%)	11 (21.2%)	10 (19.2%)	0 (0%)
• The technologies adopted has enhanced efficiency and effectiveness in service delivery at land registry	11 (21.2%)	24 (46.2%)	12 (23.1%)	5 (9.6%)	0 (0%)
• The technologies adopted has made clients to be happy	6 (11.5%)	22 (42.3%)	14 (26.9%)	10 (19.2%)	0 (0%)
• There is a good security system unauthorized personnel	15 (28.8%)	16 (30.8%)	14 (26.9%)	7 (13.5%)	0 (0%)
• The technologies has enabled us to improve the delivery services at the land registry	13 (25.0%)	25 (48.1%)	9 (17.3%)	5 (9.6%)	0 (0%)
• The technologies has enabled our citizens to access our department of lands registry services remotely	18 (34.6%)	25 (48.1%)	6 (11.5%)	3 (5.8%)	0 (0%)
• We have a clear strategy in place for ensuring maintenance, and upgrading of the land administration records management technology	19 (36.5%)	18 (34.6%)	10 (19.2%)	9.6 (7.7%)	0 (0%)
• There are adequate IT personnel	11 (21.2%)	27 (51.9%)	10 (19.2%)	4 (7.7%)	0 (0%)
• We receive management support for technology deployment at Nyandarua County land registry	7 (13.5%)	27 (51.9%)	12 (23.1%)	6 (11.5%)	0 (0%)

Table 4.6 shows that three quarters of staff, 39 (75%) disagreed that the Nyandarua land registry had adopted appropriate records management technology to facilitate efficient services to its clients. This finding revealed critical information regarding the status of adoption of technology at the land registry in Nyandarua County. The finding meant that automation had not taken place and hence, systems for records management had not been deployed in addressing the processes involved in delivering information services to clients, for example, faster services, and accuracy in the storing of data, reduced cases of land ownership issues, enhanced efficiency and effectiveness in service delivery; clients' satisfaction, and remote accessibility by clients. This fact can be used to explain why the majority of staff disagreed with the sentiments posed to them regarding the aforementioned outcomes of adopting technology in improving information service delivery at the Nyandarua land registry. This information was confirmed by the Land Registrar who said *"We have not adopted appropriate records management technology. We are still using manual systems which usually delay the information service delivery to our clients."*

Studies such as William et al. (2017) and Adeniyi et al. (2018) have advocated for adoption of information technology in land registries. The failure to adopt technology in enhancing service delivery actually was making the land registry to miss opportunities to hasten the speed of dispensing a service to clients. Other benefits that are foregone include the ability to maintain accuracy in the stored data, which, ultimately would lead to reduction of cases of land ownership, enhance efficiency and effectiveness in service delivery, and enhance clients' satisfaction. Adrian (2017), Ameyaw and de Vries (2021) and William et al. (2017) concur with the current study findings on the potentials that could be reaped upon automating land registry activities. These studies argued that digitization of the processes improved service delivery by

ensuring reliability of services, timeliness, responsiveness, transparency, accountability as well as guaranteeing security of land registry records.

The data in Table 4.6 further shows that 38 (73.1%) of staff disagreed that there were adequate IT personnel to troubleshoot technology related issues at Nyandarua County land registry. The lack of adequate ICT personnel in the land registry may be explained by the fact that the Nyandarua land registry had not adopted records management technology in enhancing service delivery. This observation may further explain why most staff, 34 (65.4%) felt that the Nyandarua County land registry was not receiving management support for technology deployment in the land registry. The findings are indicating a need for adopting technology in enhancing service delivery at the Nyandarua County land registry; hence, the management's support for same was indispensable. Muemi (2015) also admitted that the adoption of ICT technologies in land registries was majorly incapacitated by incompetent, and negative attitudes demonstrated by the staff towards digitization processes. Mishra and Suhag (2017) as well underscored technology deployment and adequate human resources as an important readiness strategies for determining successful digitization programs.

According to the Land Registrar, the allocation of enough budget would ensure that the land registry acquire updated information technology infrastructures and that staff are trained on the same. The land registry staff also pointed out the need for staff training program which will help them to appreciate the value of embracing technology in enhancing service delivery.

4.8 Results on land legislative framework and Information Service Delivery

The third objective aimed to assess how legislative framework was affecting the improvement of information service delivery at Nyandarua land registry. The legislative framework in this context provides operational guidelines in information service delivery and anchors decision making processes. In measuring this construct, several questions were formulated in form of sentiments which were put in a table. The sentiments were about existence of professional code of conduct for registry staff, operational manuals, rules and regulations, clarity regarding outcomes for failing to adhere to policy and related guidelines; sensitization on policy, and access policy to records in the land registry. The sentiments were in a 5-level Likert scale requiring the respondent to indicate the extent of agreement for each sentiment; where, 1 represented strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 represented strongly agree. In interpreting and reporting the quantitative results, the total number of responses on 'agree' and the 'strongly agree' were computed to represent the agreement status, while the total number of responses on 'disagree' and the ones on 'strongly disagree' were summed up to represent the disagreement status. Summary of the responses is presented in Table 4.7.

Table 4. 7***Land legislative framework***

Statements on legislative framework (N = 52)	SD(1)	D(2)	N(3)	A(4)	SA(5)
• We have a comprehensive land legislative framework to guide our service delivery	7 (13.5%)	26 (50.0%)	14 (26.9%)	5 (9.6%)	0 (0%)
• We have a clear service charter at land registry	13 (25.0%)	19 (36.5%)	14 (26.9%)	6 (11.5%)	0 (0%)
• Staff strictly observe /adhere to the approved service charter when serving clients at the land registry	6 (11.5%)	35 (67.7%)	4 (4%)	7 (13.5%)	0 (0%)
• We have a professional code of conduct framework to guide our behaviour, dressing and conduct at work for effective service delivery at the land registry	0 (0%)	7 (13.5%)	12 (23.1%)	27(51.9%)	6 (11.5%)
• There is a clear policy on service delivery at Nyandarua land registry	4(7.7%)	31 (59.6%)	10 (19.2%)	7 (13.5%)	0 (0%)
• The policy on service delivery are regularly revised	6 (11.5%)	29 (55.8%)	14 (26.9%)	3 (5.8%)	0 (0%)
• There are clear operational manuals that guide the execution of duties at Nyandarua land registry	0 (0%)	3 (5.8%)	12 (23.1%)	28 (53.8%)	9 (17.3%)
• There are clear rules and regulations that guide the execution of duties at Nyandarua land registry	0 (0%)	6 (11.5%)	13 (25.0%)	26 (50.0%)	7 (13.5%)
• The outcomes for failing to adhere to set rules and regulations are very clear	0 (0%)	3 (5.8%)	8 (15.4%)	29 (55.8%)	12 (23.1%)
• Nyandarua land registry are regularly sensitized its staff on policy, code of ethics and rules on service delivery	19 (36.5%)	21 (40.4%)	8 (15.4%)	4 (7.7%)	0 (0%)
• The policy, code of ethics and rules on service delivery are freely accessible by all staff at Nyandarua land registry	5 (9.6%)	25 (48.1%)	6 (11.5%)	10 (19.2%)	6 (11.5%)
• We have a records management policy that guide authorization of access to records, creation, storage, retrieval and disposal	8 (15.4%)	22 (42.3%)	11 (21.2%)	11 (21.2%)	0 (0%)

Table 4.7 shows that most staff agreed by responding in affirmative to the following sentiments; that, there was a professional code of conduct framework to guide staff

behaviour, dressing and conduct at the workplace, 33(63.4%); operational manuals that guide the execution of duties at the land registry, 37(71.1%); clear rules and regulations that guide staff on execution of duties 33(63.4%) and corresponding actions taken in case of failure to adhere to the rules and regulations 41(78.9%). The staff however, disagreed on existence of a comprehensive land legislative framework to guide on service delivery 33 (63.4%), a clear service charter, 32 (61.5%); clear policy on service delivery at the land registry, 35(67.3%); and a records management policy that guide authorization of access to records, creation, storage, retrieval and disposal of documents 30(57.7%). When contacted for comment on availability of a comprehensive land legislative framework to guide service delivery at the Nyandarua Land registry, the Land Registrar answered, “*We don't have any land legislative policy in place*”.

Absence of these vital elements of a legislative framework may derail effective service delivery in a land registry. Any effort made towards improving service delivery ought to enhance state of responsiveness which is usually enhanced through mechanisms that are anchored on a strong a legislative framework. Among other key documents needed are policy on service delivery and records management policy. In conjunction, studies such as Lemmen et al. (2016) and Charo and Wainaina (2019) commended the adoption of fit-for purpose regulatory framework as a major remedial measure for overcoming poor service delivery. It is also helpful in steering specific projects such as automation, land registration and inability of organizations to achieve their intended purposes within the set timelines.

The findings show that the Nyandarua land registry had some sort of a legislative framework which the study described as weak and non-comprehensive. Nevertheless, the study noted that staff were well guided by a professional code of conduct that spells

out the expected behaviour, dressing and conduct at the workplace. The results further shows that staffs had operational manuals and clear rules and regulations. Despite the aforementioned achievements, the majority of staff, 41 (79.2%) pointed out that there was no strict adherence to the approved service charter when serving clients at the land registry. This points out weak commitment of staff when serving clients. Thirty four (65.4%) staff further disagreed that the policy on service delivery was regularly revised. This meant that some guidelines in policy could be outdated considering the proliferation and adoption of technology management of records. In support, Lipej (2015) explained why fit-for purpose policies by land department were springboard upon which various processes such as training, service delivery, and automation and records management practices were anchored. It was also critical in guiding the management of human, fiscal, infrastructural, technological and physical resources. Regulatory frameworks were also described by Kameri-Mbote (2016) as major bedrock for staff professional development, adopting organizational change management, daily operational procedures, and was significant in spelling out marketing, competitiveness and organizational development procedures.

The results also show that staff at the Nyandarua land registry were not regularly sensitized on policy, code of ethics and rules on service delivery as indicated by 40 (76.9%) of employees. Thirty (57.7%) staff further said that the policy, code of ethics and rules on service delivery were not accessible by all staff at the land registry. This shows low level of awareness and restrained openness. The policy, code of ethics and rules on service delivery should be institutionalized, but, when there is restrained access to the same by employees, it would be very difficult for staff to internalize processes, behavior and practices. In agreement, Charo and Wainaina (2019) noted that county government staff were less committed and were characterized by ignorance.

4.9 Results on Registry Staff Competency and Information Service Delivery

The fourth objective aimed to assess how staff competency was affecting the improvement of information service delivery at the Nyandarua land registry. The registry staffs were at the center of this study. They are the ones who drive the processes in the registry and therefore, their proficiencies and competencies were very critical in delivering information services to clients. In this study, the proficiencies and competencies of registry staff were measured using several questions which were formulated in form of sentiments and then put in a table. The sentiments were about the availability of clear qualification requirements in the HR policy for all positions in the land registry, how skills gaps are addressed, whether staff are supported for professional development and to join professional associations and community of practice; availability of refresher courses, systems for recognizing and developing talents, and whether there were benchmarking activities in the land registry. The sentiments were in a 5-level Likert scale requiring the respondent to indicate the extent of agreement for each sentiment; where, 1 represented strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 represented strongly agree. In interpreting and reporting the quantitative results, the total number of responses on ‘agree’ and the ‘strongly agree’ were computed to represent the agreement status, while the total number of responses on ‘disagree’ and the ones on ‘strongly disagree’ were summed up to represent the disagreement status. Summary of the responses is presented in Table 4.8.

Table 4. 8***Nyandarua land registry staff competency***

Statements on registry staff competency (N = 52)	SD(1)	D(2)	N(3)	A(4)	SA(5)
• The human resource policy is clear on the qualifications required for each position in the land registry	0 (0%)	3 (5.8%)	15 (28.8%)	24 (46.2%)	10 (19.2%)
• I possess the required skills and knowledge to offer information services in a land registry	0 (0%)	0 (0%)	8 (15.4%)	27 (51.9%)	17 (32.7%)
• The skills gaps noted amongst Nyandarua land registry staff are addressed through appropriate training	7 (13.5%)	23 (44.2%)	16 (30.8%)	6 (11.5%)	0 (0%)
• We normally have workshop and seminar programs that equip us with skills to abreast with new trends in records management	16 (30.8%)	30 (57.7%)	6 (11.5%)	0 (0%)	0 (0%)
• Nyandarua land registry staff are supported financially to attend professional conferences, seminars and workshops	8 (15.4%)	35 (67.3%)	5 (9.6%)	4 (7.7%)	0 (0%)
• Nyandarua land registry staff are supported financially to join professional associations	21 (40.4%)	27 (51.9%)	4 (7.7%)	0 (0%)	0 (0%)
• We have community of practice platforms where we learn from each other	10 (19.2%)	20 (38.5%)	7 (13.5%)	15 (28.8%)	0 (0%)
• My proficiency and competencies influence how I offer services at Nyandarua land registry	0 (0%)	0 (0%)	10 (19.2%)	29 (55.8%)	13 (25.0%)
• Nyandarua land registry staff have undergone refresher courses to improve the manner in which they provide services to the clients	11 (21.2%)	29 (55.8%)	8 (15.4%)	4 (7.7%)	0 (0%)
• There are systems in place for recognizing and developing talents and competencies of staff at Nyandarua land registry	11 (21.2%)	26 (50.0%)	10 (19.2%)	5 (9.6%)	0 (0%)

According to Table 4.8, thirty four (65.4%) of staff agreed that there is a human resource policy in place. The policy is clear on the qualification requirements for each position in the land registry. This means that the registry was keen on recruiting qualified personnel. This study did not interrogate whether the policy was strictly

adhered to. However, the background information gathered from staff (see section 4.4) indicated that half of staff were rightfully qualified. When staff were interrogated regarding their proficiency and competencies, most staff, 44 (84.6%) said that they possessed the required skills and knowledge to offer information services in a land registry. Forty two (80.8%) further said that their proficiency and competencies influenced how they provided services at Nyandarua land registry. The desired level of service delivery requires staff to have knowledge, skills and competencies. The results indicate that the staff had the ability to drive service delivery processes at the Nyandarua land registry, although, according to registrar, 50 percent of the staff in the land registry possess the required skills and knowledge but the rest 50% needed to undergo training in records management and information sciences courses. Many organizations have been very keen on staff competencies having identified it as an area of consideration when hiring human resources (Gisemba and Iravo, 2019; Adekola et al., 2020). Studies by Mamburu (2020) and Opondo et al. (2021) indicated that staff competencies should be nurtured through in-service training and staff benchmarking development activities.

Nevertheless, a reflection of the above findings were made and compared with the findings appearing in Table 4.5, where, gaps were reported in the manner in which services were offered. It was noted that the service delivery was characterized by sluggishness, inconsistencies, misplacement and misfiling of records. It was therefore clear that the sluggishness, inconsistencies, misplacement and misfiling of records were partly due to staff proficiencies, skills and competencies, but, could also be attributed to something else as well. Zhou et al. (2018) too noted that unsatisfactory state of service delivery was informed by an interplay of many factors such as staff

qualifications, financial allocation and budgetary, adoption of digital technologies, automation of processes and implementation of a comprehensive land policy.

The study was also interested to know about the training and development programs that were in place for registry staff. The responses from the majority staff, 46 (88.5%) showed that there was no workshop and seminar programs at the Nyandarua land registry. This confirmed why most staff, 30 (57.7%) disagreed that the skills gaps noted amongst the Nyandarua land registry staff were addressed through appropriate training. Notably, the same skills gaps were not being addressed through refresher courses as was pointed out by 40 (77%) of the staff. The land Registrar acknowledged the importance of staff training. According to the Registrar,

“There is always a training vote meant for the staff to undergo trainings and conferences but these events rarely happens because of shortage of money in the vote. This is because the money is utilized on other urgent matters”.

Similar observations were by Makupa and Sanga (2019) who emphasized staff training in progressing relevancy, service quality, timeliness and efficiency of land administration activities. Gisemba and Iravo (2019) had also reported rare trainings for staff members working in the registry field. These studies noted that if staff training was progressed, it would lead to improvement of service skills, development of expertise and increase motivation towards accomplishing the organization goals.

The majority of staff, 43 (82.7%) further said that they were not supported financially to attend professional conferences, seminars and workshops. An overwhelming majority, 48 (92.3%) further said that they were not supported financially to join

professional associations, while, 30 (57.7%) said that they don't have community of practice platforms where they could learn from each other. Moreover, 37 (71.2%) said that there were no systems in place for recognizing and developing talents and competencies of staff at Nyandarua land registry.

The above findings show weak systems for staff training and development at the Nyandarua land registry. Staff ought to be retooled as part of proficiency development in order to keep abreast with new trends and emerging issues in records management sector. The continuous staff development programs are therefore indispensable for staff to remain relevant. On a similar concern, Masenge (2017) reported rare cases of employees professionalism nurture in the county government. Successful staff professional development was found to be a critical process which required proper planning, adequate financial allocation, and a vibrant human resource policy (Masenge, 2017).

The Land Registrar pointed out a need for government to allocate funds for supporting training of registry staff and for sponsoring them to attend professional conferences, seminars and workshops. The Registrar further challenged the 50 percent of staff who had no background training in information science to pursue it in order to be effective in offering services to the clients at the land registry. Other areas noted in this study requiring management support were regarding facilitating staff to take part in benchmarking activities, organizing for refresher courses and facilitating staff to join professional associations as well as establishing systems for recognizing and rewarding employees who perform well in service delivery. The study by Gisemba and Iravo (2019) also pointed on the need to plan adequately for staff in-service professional development by allocating sufficient funds on the same. Opondo et al. (2021) stressed on the need for the Land Ministry and the National Land Commission to provide

sufficient funds to facilitate training which would in turn improve service delivery in the Ministry of Land. Moreover, June et al. (2021) considered career advancement through training among staff as a critical step towards enhancing service delivery and therefore, a conducive working environment in the work stations was needed to enable staff advance their careers.

4.10 Relationship between institutional-based factors and information service delivery

The findings presented in the previous sections have provided descriptive results regarding the institutional-based factors, and information service delivery. The causal relationship between the independent variables and dependent variable needed to be validated. In that connection, the study undertook a step to assess the hypothesized relationship with a view to establish the extent to which the presumed predictor variables (financial resources, record management technology, land legislative framework, and registry staff competencies) accounted for the information service delivery at the Nyandarua lands registry.

In order to test the level of prediction, the study first carried out diagnostic tests to help in deciding the appropriate statistical test to be adopted. The study intended to use regression analysis and therefore, the assumptions of this statistical test had to be checked first. The assumptions tested were the normality, autocorrelation, multicellularity, heteroscedasticity and linearity of the data. The findings on these tests are found in sections 4.10.1.

4.10.1 The Diagnostic test: The normality of the data

Most survey research usually assume that data is drawn from a normally distributed population. In this study, the normality of the data was assessed first. In the first

instance, the P-value was used to determine the normality of the data, where, the Kolmogorov-Smirnov test and Shapiro-Wilk were computed accordingly. The population of the study was small and hence, the Kolmogorov-Smirnov test were adopted and interpreted accordingly (Cooper & Schindler, 2011). The study used 0.05 as the level of significance for P-values. This meant that, any P-value below 0.05 signified that data was not normally distributed and the vice versa was true. The normality condition was further counter-checked by examining the histograms, Q-Q plots and box plots to confirm the extent of the skewness. The results of the P-values based on the Kolmogorov-Smirnov test and Shapiro-Wilk tests are presented in Table 4.9.

Table 4. 9

Tests of normality on main variables of the study

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
X1	.123	52	.069	.966	52	.141
X2	.138	52	.045	.936	52	.008
X3	.151	52	.105	.955	52	.058
X4	.060	52	.200*	.974	52	.300
Y	.082	52	.200*	.965	52	.132

*. This is a lower bound of the true significance.

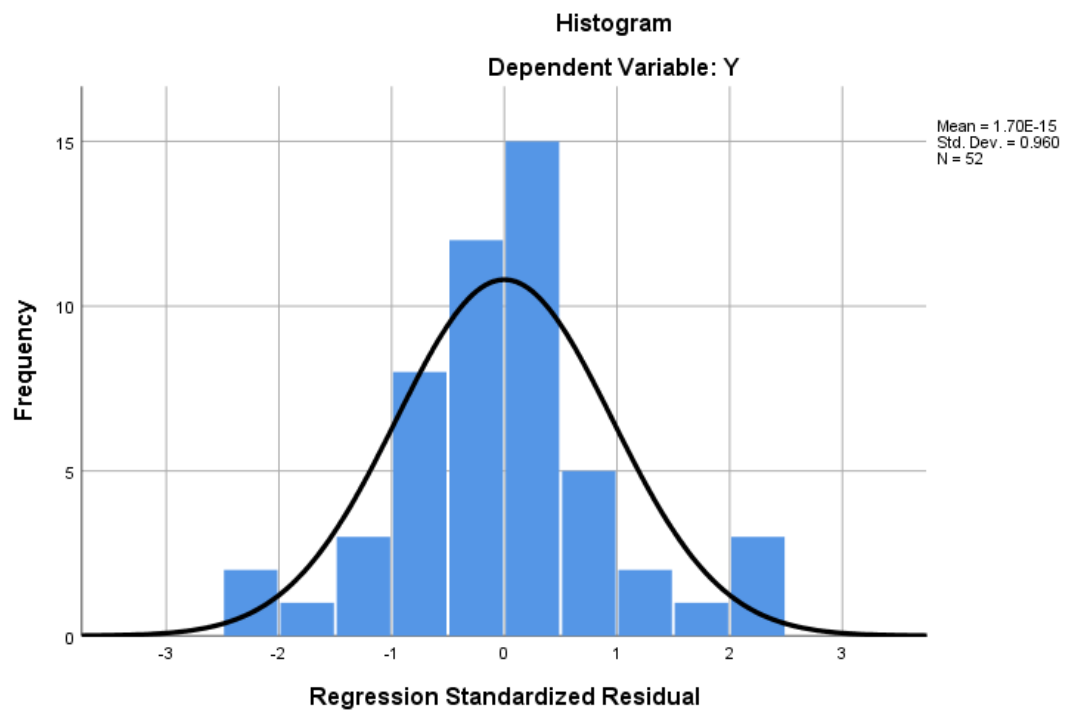
a. Lilliefors Significance Correction

The results in Table 4.9 are showing that the P-values of Kolmogorov-Smirnov test are insignificant for most variables, P-value is more than 0.05 level of significance (Y= .200; X₁ = .069; X₃ = .105; X₄ = .200, P < 0.05); except for X₂ = 045 which is less than 0.05. In this case normality was observed in Y, X₁ and X₃, X₄. Preference was given to the dependent variable, hence, the researcher observed that data was largely normally distributed.

In order to counter-confirm the extent of normality of the data, the graphical methods was adopted. This was checked especially for the dependent variable. The outcome on the dependent variable is shown in Figures 4.2, 4.3 and 4.4 respectively.

Figure 4. 2

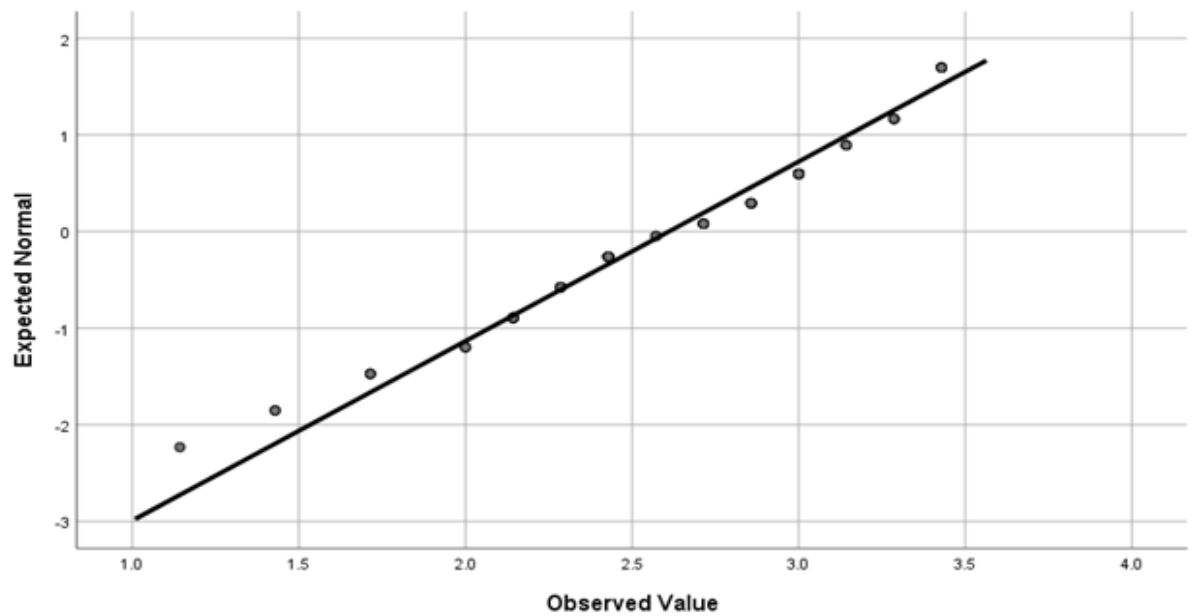
Histograms: Information service delivery at Nyandarua land registry



According to the findings in Figure 4.2, there is a negligible skewness in the manner in which the data is distributed, hence, the study concluded the data does not show significant deviation from normality. The standard Q-Q plots were further generated to provide a clear visualization of the status of the normality condition. The Q-Q plots are presented in Figure 4.3.

Figure 4. 3

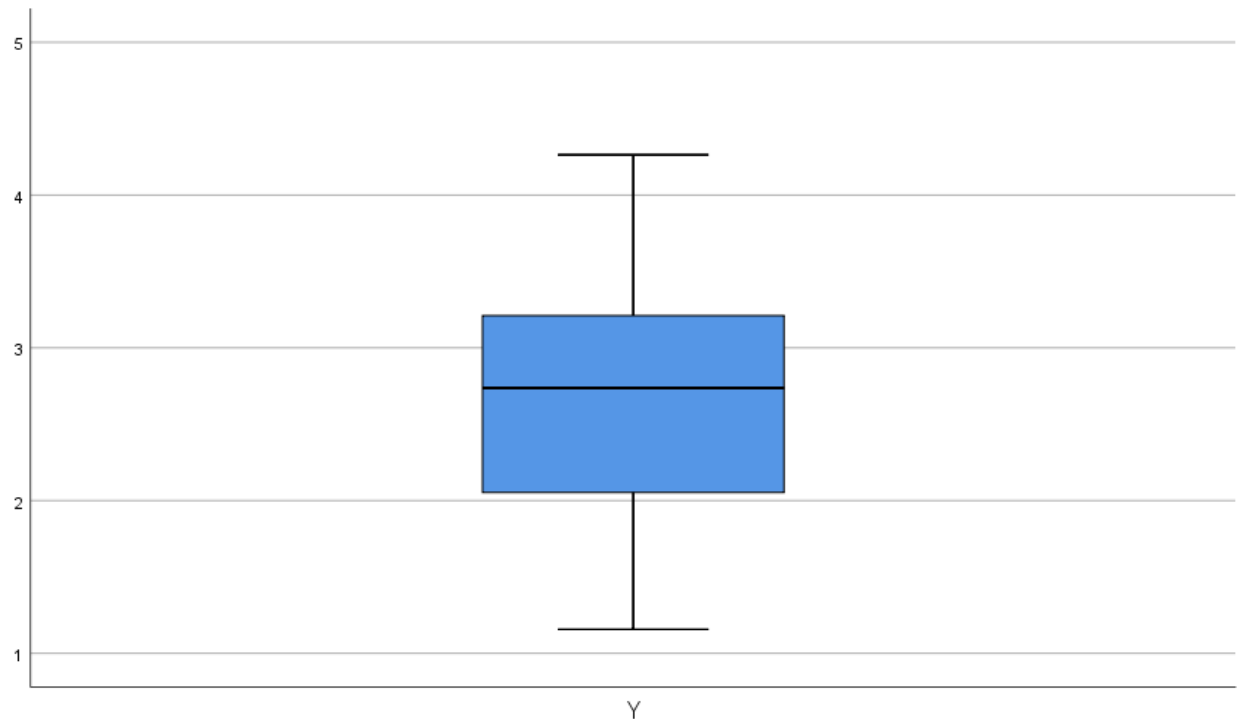
Q-Q on Information service delivery at Nyandarua land registry



The results of Q-Q plot shown in Figure 4.3 indicate that there are very few points of the Q-Q plot that are not fitted along the line of the best fit, hence, a good linearity of the data was noticed. This led to a conclusion that there was a normal distribution in the data. A box plot was also generated with a view to check full compliance to the normality assumption condition. The results are shown in Figure 4.4.

Figure 4. 4

Box plot on Information service delivery at Nyandarua land registry



The whickers in the box plot presented in Figure 4.4 are showing a slight skewedness in the data. However, the skewedness does not show significant deviation of whiskers; hence, data was normally distributed.

The above results have demonstrated the normality and linearity of the data which suggested the adoption of parametric tests in the analysis of the hypothesized relationship between the dependent and independent variables. Considering that the study wanted to use correlation and multiple linear regression analysis, it was important to first check whether data exhibited a problem of heteroscedasticity, autocorrelation, and multicollinearity. The results of autocorrelation and multicollinearity tests are presented in Table 4.10.

Table 4. 10***Autocorrelation and multicollinearity on institutional-based factors***

Variables	R square change	Durbin-Watson	VIF
X1	.969	1.961	1.000
X2	1162.1	1.836	2.811
X3	1295.6	1.828	3.062
X4	4245.926	1.913	1.057

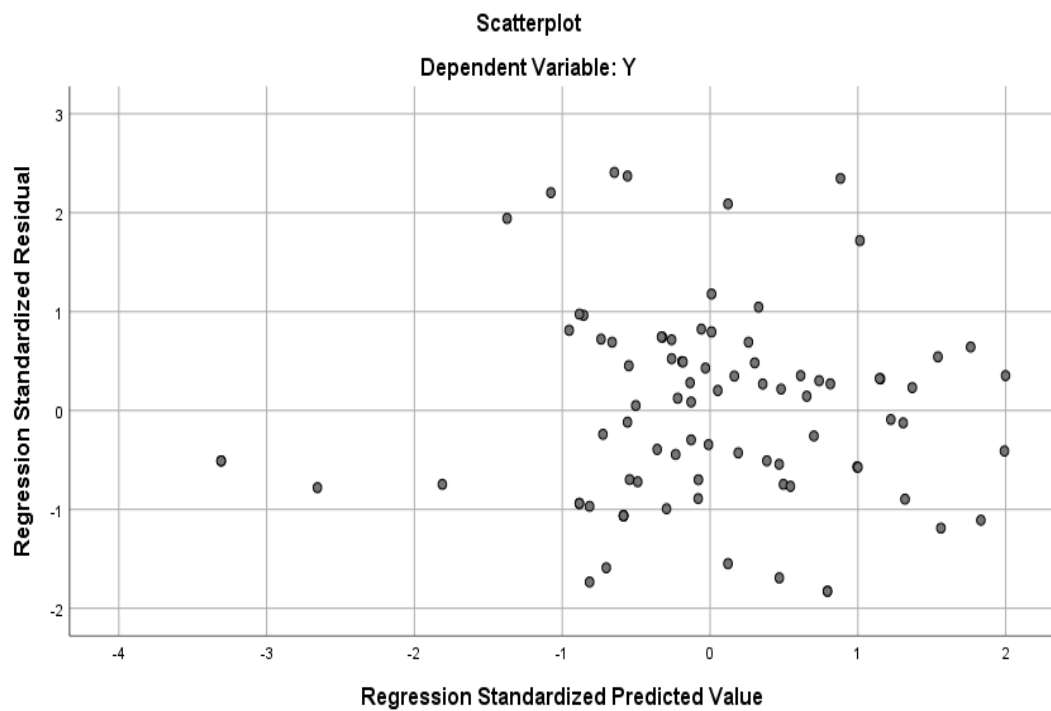
The Durbin-Watson values were used to check the autocorrelation that is, establishing whether items of predictor variables had a correlation across several observations. The results in Table 4.10 are showing Durbin-Watson values, where, $X_1 = 1.961$; $X_2 = 1.836$; $X_3 = 1.828$; $X_4 = 1.913$. The Durbin-Watson value is around 2 for each study variable. This meant that the data had no autocorrelation problem.

The next assumption of regression analysis to be checked was multicollinearity problem. In this study, the multicollinearity condition was tested by computing the Variance Inflation Factor (VIF). The VIF values between 1 and 5 show absence of multicollinearity problem, while, the VIF values above 5 indicate a multicollinearity problem (Cooper & Schindler, 2011). According to the findings in Table 4.10, the VIF values for predictor variables are, $X_1 = 1.000$; $X_2 = 2.811$; $X_3 = 3.062$; $X_4 = 1.057$. The VIF values are showing that there was no multicollinearity problem in the data.

Another condition tested was the heteroscedasticity problem. In checking for heteroscedasticity condition in the data, a scatter graph was generated using standardized predicted residuals and mean standardized residuals. In the scatter graph, the points were checked whether they formed an established pattern. The output was presented in Figure 4.5.

Figure 4. 5

Heteroscedasticity test on information service delivery at Nyandarua land registry



The findings are showing scatter points that are dispersed without any form of established pattern as one moves from left to right. This implies the absence of heteroscedasticity problem in the data. In order to counter-check this condition, the predictor variables were regressed on the squared residuals values with underlying null hypothesis stating that, data is heteroscedastic. Results are presented in Table 4.11.

Table 4. 11

Heteroscedasticity Test: ANOVA results on the squared residuals values

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.185	3	.728	.310	.718 ^b
	Residual	439.693	48	2.351		
	Total	441.878	190			

a. Dependent Variable: Square residuals

b. Predictors: (Constant), X3, X1, X2

The findings in Table 4.11 is showing a P value that is greater than 0.05; $P = 0.718$; hence, the study failed to reject the null hypothesis that the data is heteroscedastic. This led to a conclusion that there was no heteroscedasticity problem in the data.

Considering that the data did not show violations of the aforementioned conditions, (normality, linearity, autocorrelation, multicellularity and heteroscedasticity), the parametric statistical tests were therefore adopted in testing the proposition of this study and in assessing the overall purpose of the study. In this case, the Pearson correlation analysis was adopted to test the hypothesis while multiple linear regression was applied to test the overall purpose of the study.

4.9.2 Testing hypotheses of the study

Following the findings of diagnostic tests presented in the above section, a Pearson correlation analysis was adopted in assessing the influence of institutional-based factors on information service delivery. The Pearson correlation analysis was specifically used to test all the four research hypotheses, while, multiple regression analysis helped to assess the overall purpose of the study. The strength of correlation analysis was performed where the level of significance for correlation coefficients was measured at, $P < 0.05$. The results of a Pearson correlation analysis for the four research hypotheses of the study are presented in Table 4.12, while, the interpretation and discussion on the same follows subsequently.

4.9.2.1 Testing of hypothesis One

The first null hypothesis stated: *Financial resources do not significantly affect information service delivery at land registry in Nyandarua County*. To test the null hypotheses of this study, a Pearson correlation analysis was conducted whose results are presented in Table 4.12.

Table 4. 12***Correlations analysis on institutional-based factors and information service delivery***

		X1	X2	X3	X4	Y
X1	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	52				
X2	Pearson Correlation	.971**	1			
	Sig. (2-tailed)	.000				
	N	52	52	52		
X3	Pearson Correlation	.979**	.989**	1		
	Sig. (2-tailed)	.000	.000			
	N	52	52	52	52	
X4	Pearson Correlation	.992**	.981**	.985**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	52	52	52	52	52
Y	Pearson Correlation	.946**	.938**	.961**	.948**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	52	52	52	52	52

** . Correlation is significant at the 0.01 level (2-tailed).

The findings regarding correlation analysis shown in Table 4.12 indicate the Pearson correlation value for the first predictor variable (X₁) which shows, $r = .946^*$ and a P value that is less than 0.05. The P-value shows a statistically significant ($r = .946$, $P = .000$) influence of financial resources on information service delivery. This led to the conclusion that financial resources were statistically significant in influencing the information service delivery at land registry in Nyandarua County.

The above findings mean that the financial resources ought to be committed to help to improve the manner in which services were offered at the land registry in Nyandarua County. Funds are required to establish responsive service points, buying equipment and facilities and other necessities which play a role in enhancing faster and effective information service delivery. In agreement, Miller et al. (2021) identified adequate

allocation of funds, fiscal transparency, and timely dispensing of funds were crucial in influencing service delivery. In similar accord, Lukwago (2021) found that financial resources were significantly correlated to influence service delivery. These results are also agreeing with the propagations of the resource dependency theory by Pfeffer and Salancik in 1978 which presented the exposure and the need for allocation of adequate financial resources to cater for the adoption of record management technologies, employing competent registry human resources, motivating staff through remuneration, take care of professional development in order to improve land registry information service delivery. Financial resources would also ensure deployment of required materials, machinery and technological infrastructure for enabling the land registry to improve its services.

4.9.2.2 Testing of hypothesis two

The second null hypothesis stated: *Record management technologies do not significantly affect information service delivery at land registry in Nyandarua County.*

The findings regarding correlation analysis shown in Table 4.12 indicate the Pearson correlation value for the second predictor variable (X_2) which shows, $r = .938^*$ and a P value, which is less than 0.05. The P-value shows a statistically significant influence of record management technologies on information service delivery. This led to the conclusion that record management technologies was statistically significant in influencing information service delivery at land registry in Nyandarua County.

The above findings underscore the value of record management technologies in enhancing information service at the land registry in Nyandarua County. Record management technology is itself an enabler in service delivery. It goes a long way in addressing inconsistencies, inaccuracies and in facilitating faster service dispensation.

This was also noted by Masenya (2020) whose findings underscored the essence of management technologies such as computers, internet and automated records management processes entailing: record creation, storage, retention, disposal and access; in improving service delivery in registries.

The above findings are also in support of the resource dependency and the new public management theories adopted in the study. The ideological propositions of the resource dependency theory support the relationship between the use of records management technologies and satisfactory information services delivery. As such, records management technologies need to be deployed, installed, refreshed, replaced overtime and the available human resources remain abreast on important changes in order to reap the benefits of automating land registry systems in Nyandarua County.

4.9.2.3 Testing of hypothesis three

The third null hypothesis stated: *Land legislative framework does not significantly affect information service delivery at the land registry in Nyandarua County.* The findings regarding correlation analysis shown in Table 4.12 indicate the Pearson correlation value for the third predictor variable (X_3) which shows, $r = .961^*$ and a P value which is less than 0.05. The P-value shows a statistically significant of influence land legislative framework on information service delivery. This led to the conclusion that land legislative framework was statistically significant in influencing information service delivery at the land registry in Nyandarua County.

The above findings indicate that strengthening the land legislative framework would help to guide the operations in the registry to a great extent. A land legislative framework provides a springboard upon which decisions and activities are anchored. It also helps to substantiate criteria for actions taken in the registry to avoid confusion. In

addition, it help to provide clear guideline and direction, hence, it promotes uniformed approached to service delivery. The adoption of a legislative framework helps to suppress dissatisfaction since the services offered to clients are similar. The study by Mbote (2016) also noted that land reforms, policies and frameworks in place were helpful in addressing staff conduct, training and development, automation decisions among other practices for bettering service delivery. Mbote (2016) concluded that land governance reform policies had a positive significant effect on service delivery. The findings support the new public management theory adopted in the study.

4.9.2. Testing of hypothesis four

The fourth null hypothesis stated: *Registry staff competencies do not significantly affect information service delivery at land registry in Nyandarua County.* The findings regarding correlation analysis shown in Table 4.12 indicate the Pearson correlation value for the third predictor variable (X_4) which shows, $r = .948^*$ and a P value which is less than 0.05. The P-value shows a statistically significant influence of registry staff competencies on information service delivery. This led to the conclusion that registry staff competencies were statistically significant in influencing the information service delivery at the land registry in Nyandarua County.

The above findings have confirmed that staff are the main drivers for effective information service delivery. The results means that the registry staff competencies play a key role, hence, their proficiency, skills and talents ought to be developed continuously. Effort and support systems for developing staff competencies are therefore paramount towards improving information service delivery at the land registry in Nyandarua County. This is in line with the findings of Mamburu (2020) and Opondo et al. (2021) which also reported the value staff competencies in improving

information service delivery. Mamburu advocated for staff competencies, skills, knowledge and qualifications nurture, growth, development and management through in-service training, staff benchmarking and development of technological skills among other competencies.

The findings confirm the arguments of human capital and new public management theories. This is because the existence of well-equipped staff would enable them to make use of the anticipated land registry technologies, adopt customer oriented service delivery techniques, serve customers in a timely manner and get motivated to work for the best interest of the registry docket for quality service delivery through embracing the in-service staff trainings, attending workshops, seminars, career advancement and managing the organizational staff knowledge.

4.11 Results on the Overall Purpose of the Study

The overall purpose of this study was to examine the institutional-based factors for improving information service delivery at land registry in Nyandarua County with a view to proposing mechanisms for enhancing internal capacity. In the previous section, the findings on the prediction of the independent variables based on the four research hypotheses have been provided. To test this hypothesized relationship, a multiple linear regression analysis was conducted, where, the dependent variable (the information service delivery at the land registry in Nyandarua County) was therefore regressed on the four independent variables (financial resources, record management technology, land legislative framework, and registry staff competencies) to determine the prediction capacity of the four independent variables when combined in one model.

In this study, the coefficient of determination (R-Square value) was used to determine the nature of the variance that was accounted by the four predictor variables (financial resources, record management technology, land legislative framework, and registry

staff competencies) (Saunders et al., 2009). The R-value reflected the strength of the relationship between the institutional-based factors and the improvement of information service delivery at the land registry in Nyandarua County. The statistical values in the ANOVA table were helpful in determining whether the model was statistically significant and valid to be used in the analysis. In this study, the alpha level of significance was, $P = \leq 0.05$. The regression coefficients were used to show the lowest beta value of each predictor variable when all of them, (financial resources, record management technology, land legislative framework, and registry staff competencies) are combined in one model. Therefore, the regression weights help to show the effect of change in the improvement of information service delivery as compared to one unit change in the corresponding independent variables (financial resources, record management technology, land legislative framework, and registry staff competencies), while, all other factors in the combined model were held constant. Tables 4.13, 4.14, and 4.15 show the results of a multiple linear regression.

Table 4. 13

Model summary results on institutional-based factors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.965 ^a	.931	.925	.13411	1.868

a. Predictors: (Constant), X4, X2, X3, X1

b. Dependent Variable: Y

Table 4.13 shows that when the four variables (financial resources (X1), record management technology (X2), land legislative framework (X3) and registry staff competencies (X4) are assessed in a single model, they produce a positive correlation with the dependent variable (the improvement of information service delivery); this is because, the R-value is 965. The findings further show that the four predictors variables have a R-square value ($R^2 = .931$) which indicates that the four predictor variables

account for variation in the outcome variable to the tune of 93.1%. The ANOVA findings in Table 4.14 helped to assess the validity of the model.

Table 4. 14

ANOVA results on the institutional-based factors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.379	4	2.845	158.171	.000 ^b
	Residual	.845	47	.018		
	Total	12.224	51			

a. Dependent Variable: Y

b. Predictors: (Constant), X4, X2, X3, X1

The results on model validity which is demonstrated using the ANOVA Table 4.14, shows that the model is a good fit of the data; where, ($F_{(4,47)} = 158.171, P < .005$). This meant that the four predictor variables (financial resources, record management technology, land legislative framework, and registry staff competencies) generate a statistically significant model for explaining variances in the improvement of information service delivery at the land registry in Nyandarua County. To demonstrate how change in the independent variable was causing a change in the dependent variable, the regression coefficients were computed accordingly. Table 4.15 shows the values of the regression weights for each predictor variable in the combined model.

Table 4. 15***Regression weights results on the institutional-based factors***

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance
1 (Constant)	.797	.241		3.310	.002	
X1	.020	.194	.033	.105	.917	.015
X2	-.347	.155	-.631	-2.234	.030	.018
X3	.800	.185	1.353	4.316	.000	.015
X4	1.307	.200	.994	6.535	.000	.010

a. Dependent Variable: Y

The results of the regression coefficients (see Table 4.15) for each predictor variable in the model, shows the unstandardized B-coefficient values of .797, .020, -.347, .800 and 1.307 for X₁, X₂, X₃ and X₄ respectively. The results indicate that the P-values for X₂, X₃ and X₄ were significant, but the one for X₁ had an insignificant P-value. The study considered and interpreted the unstandardized B-coefficient values since the constant value was statistically significant, that is, P<0.05, and also considering the fact that the measuring scale was similar for all variables. The results are showing that although the four predictor variables are jointly statistically significant in the combined regression model, it is the record management technology, land legislative framework, and registry staff competencies that exert more influence on the changes in the information service delivery at the land registry in Nyandarua County. The first predictor (financial resources) cease to be significant in the combined model (P>0.05).

Consequently, the initial regression model was confirmed, that is,

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + e, \text{ where:}$$

Y= the information service delivery

$\beta_0 = \text{Constant}$

$\beta_1, \beta_2, \beta_3 = \text{regression coefficient weights for } x_1, x_2, x_3 \text{ as shown below:}$

$X_1 = \text{financial resources}$

$X_2 = \text{record management technology}$

$X_3 = \text{land legislative framework}$

$X_4 = \text{registry staff competencies}$

$\varepsilon = \text{is the estimated error of the model.}$

The resulting multiple linear regression model is:

The information service delivery = $.797 + .020X_1 - .347X_2 + .800X_3 + 1.307X_4 + e$

The resulting multiple linear regression model shows that the improvement of information service delivery at land registry in Nyandarua County = $(.020X_1 \text{ financial resources}) + (-.347X_2 \text{ record management technology}) + (.800X_3 \text{ land legislative framework}) + (1.307X_4 \text{ registry staff competencies}) + .797$). In this model, .797 is the threshold value which is linked to the independent variable, the institutional-based factors. This implies that, .797 is the same for each institutional-based factor. The findings show that all the four institutional-based factors, that is, financial resources (X_1), record management technology (X_2) land legislative framework (X_3) registry staff competencies (X_4) when combined together, forms a model that is statistically significant in determining the improvement of information service delivery at the land registry in Nyandarua County. However, in the combined model, it is the record management technology, land legislative framework, and registry staff competencies that exert more influence on the changes in the information service delivery at land

registry in Nyandarua County, where, (X_2), ($\beta_2 = -.347$, $p = .030$), X_3 ($\beta_3 = .800$, $p = .000$), X_4 ($\beta_4 = 1.307$, $p = .000$). The financial resources, (X_1), ($\beta_1 = .020$, $p = .917$), become statistically insignificant in the combined model though still needed.

The findings presented in above section have provided an empirical evidence that the delivery of information services at the Nyandarua land registry would actually improve by addressing the four institutional-based factors (financial resources, record management technology, land legislative framework, and registry staff competencies). Indeed the four institutional-based factors account for 93.1% of the variation in the information service delivery. This prediction level is very high. This meant that the effort and solutions required to improve the information service delivery at the Nyandarua land registry was largely institutional-based. The Nyandarua land registry should therefore address the situation by facilitating the financial resources required across all constructs, embrace record management technology to drive processes, establish appropriate land legislative framework, and build registry staff competencies in a continuous manner. In line with this observation, Princeton University (2018) also noted that improved information services in land registries was dependent on the hired staff qualifications, disbursed budgetary allocations, adopted digital technologies and land policies.

The adoption of institutional-factors supports the propositions by human capital, resource dependency and new public management theories as discussed in chapter two. In this study, it was clear that, better information service delivery will be realized in Nyandarua County land registry if workable guiding procedures, resources and legislative frameworks are put in place. This reinstates the value of human capital, resource dependency and new public management theories in influencing information

service delivery. This is because, the findings of this study have clearly underpinned that institutional-based factors (financial resources, record management technology, land legislative framework and registry staff competencies) were workable and practical drivers for improving service delivery at the Nyandarua County land registry. These aspects are also highlighted in the human capital, resource dependency and new public management theories. Therefore, the desirable information service delivery in Nyandarua County land registry would be achieved by revamping practices and processes. This would require adequate financial resources, adoption of appropriate record management technology, development of comprehensive land legislative framework, and embarking registry staff competencies development programs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarises conceptualization and highlights the findings, conclusion and recommendations. It concludes by suggesting issues and aspects that can be considered for further studies.

5.2 Summary of Conceptualization of the Study

The Ministry of Land and Natural Resources has established operational policies to guide land administration. It has also embarked on a digitization process to address the inconsistencies and improve the delivery of information services to clients. Despite these measures, several past studies show that most land registries are not able to satisfy their customers who complain of poor service delivery. This study was set out to examine the institutional-based factors for improving information service delivery at the land registry in Nyandarua County. The specific objectives were to determine how financial resources, record management technology, land legislative framework and registry staff competencies were affecting the improvement of information service delivery in the land registry in Nyandarua County.

The study was guided by the human capital theory, resource dependency theory and new public management theory. The descriptive survey research design was adopted in this study. Data were collected from staff working in the land registry. The staff hailed land administration (19), housing (4), survey and mapping (17), and physical planning (12), totalling 53. All 53 staff participated in the study. Data was collected using questionnaires and an interview guide. Piloting enabled checking the reliability and validity of instruments. The quantitative data were analyzed using SPSS, where

descriptive and inferential statistics were used to summarize information and test hypothesis, respectively. The qualitative data were analyzed using the thematic technique.

5.3 Summary of the Major Findings

In this study, the overall response rate was 98%. The summary of the major findings has been presented systematically according to the main variables of the study. The study variables were financial resources, record management technology, land legislative framework, registry staff competencies, and information service delivery.

5.3.1 Summary of results on background characteristics of respondents

There were more females than male staff at Nyandarua Land Registry. Forty-nine (94.2%) had a college diploma, while three (5.8%) had an undergraduate bachelor's degree. A third of the staff, 17 (32.7%), had less than one year of work experience in a land registry. Seventeen staff (32.7%) had worked between 1 and 5 years in a registry. Only about a third, 18 (34.6%), had worked between 6 and 15 years in a land registry.

5.3.2 Summary of findings on financial resources

The study established that the Nyandarua land registry does not have own-source revenue streams that can be utilized to cater for service delivery activities. It relies on funds that are allocated annually by the government. Approximately 2/3 of staff said they experienced delays, for example, in acquiring the required materials, as indicated by 65.4% of staff. 44 (84.6%) said that the requests to purchase equipment and facility needed to streamline information services at the land registry are often not granted. The study further established that there is no financial policy guiding how to finance service delivery activities at the Nyandarua land registry, as indicated by 71.2% of staff. It was

also clear that the registry did not have a budgetary control tool that was utilized to ensure sound financial practices. The findings underscored the value of financial resources in information service delivery. This is because the P-value was statistically significant ($P < .05$) in influencing information service delivery at the Nyandarua land registry.

5.3.3 Summary of findings on Records Management Technology

Three-quarters of staff (39 (75%) and the Land Registrar confirmed that automation had not taken place at Nyandarua County land registry. Therefore, the record management system had not been deployed to address the processes involved in delivering information services to clients. The study established that the registry was still using manual methods, which were occasioning unnecessary delays in providing information services to clients. The absence of information technology in the land registry may explain why there were few IT personnel in the land registry. According to thirty-four (65.4%) staff, the Nyandarua County land registry was not receiving adequate management support regarding deploying technology in the land registry. The findings also underscored the value of record management technology in information service delivery. This is because the P-value was statistically significant ($P < .05$) in influencing information service delivery at the Nyandarua land registry.

5.3.4 Summary of findings on Land Legislative Framework

The inferential analysis proved the significance of the land legislative framework in influencing information service delivery at the Nyandarua land registry. The study noted that more than 60 per cent of the staff in the Nyandarua land registry agreed on the existence of a professional code of conduct framework to guide staff behaviour, dressing and conduct at the workplace; operational manuals that guide the execution of

duties; clear rules and regulations that guide staff on the execution of duties and clear actions that are taken in case a staff fail to adhere to rules and regulations. That notwithstanding, these policies and guidance were rarely revised/updated. However, they indicated no comprehensive land legislative framework or approach to guide service delivery. The registry also had neither a clear service charter nor a policy on service delivery at the land registry. It also had a weak records management policy that guides the authorization of access to records, their creation, storage, retrieval and disposal. For the existing policies and guidelines, 40 (76.9%) of staff said that the registry had no access policy, code of ethics or rules on service delivery.

5.3.5 Summary of findings on Registry Staff Competency

The study found that the Nyandarua land registry had a clear human resource policy on the qualification requirements for each position. The information gathered indicated that 50 per cent of the staff in the land registry possessed the required skills and knowledge. Their proficiency and competencies influenced how they provided services at the Nyandarua land registry. However, 50% of staff needs training and education in information science courses. Further information indicated that staff rarely had workshop and seminar programs to equip them with skills and keep abreast with new trends in records management. More than half of the staff said that the skills gap noted amongst Nyandarua land registry staff were neither addressed through appropriate training nor through refresher courses. Moreover, 43 (82.7%) of staff said that they were not supported financially to attend professional conferences, seminars and workshops, while 48 (92.3%) were also not supported financially to join professional associations. Staff also admitted not having a community of practice platform where they could learn from each other. They further revealed that there was no system in place for recognizing and developing the talents and competencies of staff at the

Nyandarua land registry. The findings underscored the value of registry staff competency in information service delivery. This is because the P-value was statistically significant ($P < .05$) in influencing information service delivery at the Nyandarua land registry.

5.3.6 Summary of findings on information service delivery

The majority of registry staff admitted that there were gaps in the manner in which information services were delivered. The gaps were reported on sluggishness in how services were offered at the Nyandarua land registry. There were customer complaints about inconsistencies, inconveniences, misplacement or misfiling of records at the Nyandarua land registry. More than 40% of staff reported that clients had expressed dissatisfaction with how they were receiving services and service delivery being below their expectations.

5.3.7 Summary of Results on the Relationship between institutional-based factors and information service delivery at Nyandarua lands registry

All four predictor variables (financial resources, record management technology, land legislative framework, and registry staff competencies) were found to be statistically significant in explaining the 93.1% of variances in the improvement of information service delivery at the land registry in Nyandarua County. However, in a combined model, the record management technology, land legislative framework, and registry staff competencies exert more influence on the changes in the information service delivery at the land registry in Nyandarua County.

5.4 Conclusions of the Study

The findings reported in chapter four were cross-examined to inform the conclusion of this study. The conclusions derived from the findings were organized according to the main variables of the study to facilitate a better understanding of the phenomena under investigation.

5.4.1 Conclusion on financial resources

To finance its operational activities, the Nyandarua land registry was solely relying on funds allocated annually by the government. It does not have own-source revenue streams that can be utilized to improve service delivery activities. The study noted that the allocated funds were inadequate; hence, there were delays in purchasing materials, equipment and facilities needed to streamline information services at the registry. These predicaments were largely attributed to weak financial policy and a lack of budgetary control tools. Despite the significance of financial resources in improving information services, the Nyandarua land registry lacked clear policy guidelines.

5.4.2 Conclusion on record management technology

The study noted that the operations at the Nyandarua land registry were still manual. The delays in implementing appropriate technology to enhance service delivery made the Nyandarua land registry miss opportunities to hasten the speed of dispensing service to clients. Other opportunities the registry missed were accuracy enhanced by IT, for example, in storing data, reduced land ownership issues, and improved efficiency and effectiveness in service delivery, clients' satisfaction, and remote access services. The findings indicated that the registry had inadequate IT staff and that the support from management regarding the deployment of information technology at the land registry had not been sufficient.

5.4.3 Conclusion on the land legislative framework

The findings show that the Nyandarua land registry had some legislative framework which can be described as weak and non-comprehensive. Although it covered aspects such as a professional code of conduct that spells out the expected behaviour, dressing and behaviour at the workplace and had operational manuals and clear rules and regulations, it lacked vital policy guidelines. The legislative framework was found deficient in policies. Some of the needed policies in the comprehensive land legislative framework are an approach that guides service delivery, service charter and a policy on the same. The records management policy was weak in guiding access to records. The absence of these vital elements of a legislative framework was derailing effective service delivery in the land registry. Moreover, the policy, code of ethics and rules on service delivery were not accessible to all staff, while the sensitization programs among staff were not evident; hence, there was poor policy institutionalization in the land registry. Consequently, staff had difficulties internalizing the processes, behaviour and practices in the land registry.

5.4.4 Conclusion on Registry Staff Competency

The Nyandarua land registry had made considerable effort to guide its staff. It had a human resource policy which was apparent in qualification requirements. Nevertheless, 50 per cent of the staff working at the Nyandarua land registry had requisite training in information science; hence the inconsistencies, misplacement and misfiling of records reported in the land registry could partly be attributed to staff proficiencies, skills and competencies, among other factors. Although continuous staff development programs are indispensable for effective service delivery, the staff working at the Nyandarua land registry had no staff training and professional development programs. The study also

noted that there was no programs for recognizing staff talents and competencies. These indicated inadequate staff training and development systems at the Nyandarua land registry.

5.4.5 Conclusion on information service delivery

The study established that although the service points at the Nyandarua land registry were arranged/organized in a way that enhanced quick information service delivery and that established rules and regulations guided the conduct and behaviour of staff, the code of ethics and the integrity measures put in place, these measures had not translated into actual improvement of service delivery. This is because the results show that there were gaps in information services delivery at the Nyandarua land registry. Notably, the information services were characterized by sluggishness, inconsistencies, complaints, misplacement or misfiling and customer dissatisfaction. These gaps were attributed to inadequate financial resources, weak financial policies, the inability of records management technologies to support the improvement of information services, weak operational frameworks and the use of a manual system that created loopholes for corrupt activities and deals.

5.5 Recommendations of the Study

The study came up with several recommendations based on the study findings. It also provided implications of the results on theories, policy and practices. The recommendations of the study were made based on the main variables of the study.

5.5.1 Recommendations on financial resources

The decision to enhance service delivery ought to be deliberate, and the same need to be actualized by committing funds in the budget to purchase materials, equipment and facilities. Consequently, the study recommended the need for the government through

the Department of Lands, Housing, and Physical Planning to increase funds allocated to the land registry every year. The Ministry of Lands should also develop a finance resources policy and establish implementation measures to ensure that information services are revamped at the Nyandarua land registry. The Land Registrar should ensure that all staff participate in the budgeting process by suggesting items and areas that inform funds allocation and budget formulation.

5.5.2 Recommendations on record management technology

In this study, record management technology is an enabler when embraced. It plays a significant role in enhancing how information services are offered in a land registry. The study, therefore, recommended the adoption of appropriate technology by the Department of Lands, Housing and Physical Planning at Nyandarua County. This will enhance the accuracy of the stored data, which would ultimately lead to a reduction of land ownership cases, improve efficiency and effectiveness in service delivery, and enhance clients' satisfaction. The management's support in this endeavour is indispensable; hence, the Land Registrar, in collaboration with the County government, should deliberately acquire and install appropriate technologies at the Nyandarua land registry to enhance service delivery. With management support in place, the Land Registrar will ensure a sufficient budget is allocated to buy the required IT infrastructures, train staff and maintain the systems.

5.5.3 Recommendations on the land legislative framework

The land legislative framework usually provides operational guidelines in information service delivery and supports effective decision-making processes. To strengthen the land legislative framework at Nyandurua land registry, the study recommended the Department of Lands, Housing and Physical Planning need to develop a comprehensive

land legislative framework. The framework should guide information service delivery. The land registrar should ensure a records management policy is revised regularly to take care of the proliferation of technology and other changes in the management of land records. In addition, the registrar should develop and institutionalize a service charter and a policy on the same,

5.5.4 Recommendations on Registry Staff Competency

The registry staff are critical in driving the processes; therefore, their proficiencies and competencies are equally significant in information service delivery. They also need to be retooled; hence the Department of Lands, Housing, and Physical Planning should establish and support continuous proficiency development programs for land registry staff to help them keep abreast with new trends and emerging issues in the records management sector. The department should further allocate adequate funds and establish mechanisms for supporting training and development programs of registry staff. The budget should include sponsoring registry staff to attend professional conferences, seminars and workshops. The study further recommended the need for the Land Registrar to organize benchmarking activities and refresher courses for registry staff. The Land Registrar should also enforce the human resource in ensuring that only staff with the required qualifications are hired to work in the land registry.

5.5.5 Recommendations on information services delivery

The results indicate the need for the government of Kenya, through the Ministry of Lands and settlement and through the Lands Commission to establish measures for addressing gaps noted in information services delivery at the Nyandarua land registry. This can be achieved by allocating sufficient funds, revising financial policies, adopting

appropriate land management systems and developing operational frameworks to guide staff when executing their duties.

5.5.6 Implications of the Findings on Theories, Practices and Policies

The findings of this study are consistent with the tenets and philosophical arguments of the three theories discussed in chapter two. For example, the human capital theory holds that employee knowledge, competencies and skills significantly influence organizational performance. In this study, the knowledge in information science, skills, proficiency and competencies of staff have been underscored in the provisioning of information services at the land registry.

In this study, the argument of the resource dependency theory was confirmed. The theory argues that a variety of resources exist in the form of information, human, knowledge, financial, physical, reputational and material resources, which, if well utilized, help an organization to attain competitive advantages and enhance organizational performance. In this study, the financial resources, record management technologies and human resources working in the registry were all statistically significant in improving information service delivery at the Nyandarua land registry. They noted the essence of allocating adequate financial resources to enable the Nyandarua land registry to acquire the required materials, machinery and technological infrastructure and train staff to improve information service delivery in the land registry.

The new public management theory premise that service delivery in the public sector is enhanced by embracing ICT technologies in an organization's operations. Adopting proper ICT technologies was envisaged to help address inconsistencies, slowness, and

misfiling and reduce opportunities for corrupt practices. The current study linked service improvement in the land registry to adopting appropriate land and record management systems.

The findings of this study have weighty implications for policy development. Specifically, the study noted the need for the Department of Lands, Housing, and Physical Planning to develop a finance resources policy, records management policy, land legislative framework, and staff training and professional programs. The findings indicate the need to increase funds allocation to the land registry by the Department of Lands, Housing, and Physical Planning which will support the acquisition of the required facilities and infrastructure and support the continuous proficiency development programs for employees working at the registry. The findings have pointed out the need for change in the budgeting processes and the holistic delivery of information services at the registry.

5.6 Recommendation for Further Studies

Few further gaps were noted in this study which can be investigated further. The areas for further research are noted below.

- a) The current study focused on institutional-based factors that influence the information service delivery at the Nyandarua land registry. A further study can be carried out on customer characteristics that affect service delivery at the land registry.
- b) A further study can also be carried out to establish the nature of record management practices at the land registry.

- c) Place and employee branding are also critical in information service delivery; hence a further study can be carried out to determine how place and employee branding impact how services are delivered at the Nyandarua land registry.
- d) The current study was based on the Nyandarua land registry; hence, a further investigation can be carried out in other land registries using a comparative approach to benchmark and learn best practices from other counties' land registries.

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APPENDICIES

Appendix I: Letter to respondents

Dear respondent

I am a postgraduate student at the department of Information Science in the School of Science and Technology, at Kenya Methodist University. I am conducting a research to examine the institutional-based factors for improving information service delivery at land registry in Nyandarua County. This is in fulfilment of the degree of Masters of Information Science of Kenya Methodist University. You have been selected to take part in this study. I would be grateful to you if you assist me by responding to all items in the attached questionnaire. Don't write your name in the attached questionnaire. The information is confidential and will be used for academic research purpose only. Your co-operation will be highly appreciated.

Yours sincerely

Ruth Njeri Muruguru

ISK-3-0273-1/2020

Appendix II: QUESTIONNAIRE FOR THE LAND REISTRY STAFF

INSTRUCTIONS

You are kindly requested to complete this questionnaire honestly by inserting a tick (√) against your response in the appropriate box and offer explanations for the questions that require your answer. For confidentiality purposes, you should not to write your name on the questionnaire. Thank you for your anticipated cooperation

Section A. Demographic Data

1. Please indicate your gender:

- i) Female []
- ii) Male []

2. Please indicate your highest level of academic and professional qualifications.

- i) KCPE Certificate []
- ii) KSCE Certificate []
- iii) College Certificate []
- iv) College Diploma []
- v) Undergraduate degree []
- vi) Undergraduate degree and a postgraduate diploma []
- vii) Masters' degree []
- viii) PhD []

3. For how long have you served as a registry staff in a land registry?

- i) Less than a year []
- ii) Between 1- 5 years []
- iii) Between 6-10 years []
- iv) Between 11-15 years []
- v) Between 16- 20 years []
- vi) Over 20 years []

Section B: Financial Resources

4. Kindly, indicate by ticking (√) the extent to which you agree or disagree with each statement provided below on financial resources in Nyandarua County land registry such that; SA = Strongly agree (5), A = Agree (4), N = Neutral (3), D = Disagree (2), SD = Strongly disagree (1).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
1.	Land registry has a budgetary control tool that is utilized each year to ensure good financial practices					
2.	We have reliable own-source revenue streams that we utilize to cater for land registry activities					
3.	The funds allocated annually are adequate to help in improving services offered at land registry					
4.	There is money allocated towards enhancing the manner in which services are offered to clients					
5.	Clients are not delayed for lack of money to buy the required materials					
6.	Whenever we need any equipment and facility purchased to streamline our services, we easily get our request granted and approved					
7.	There is a budgetary vote head for supporting training of land registry staff					
8.	There is a financial policy guiding how to finance service delivery activities at Nyandarua land registry					

5. What do you think should be done to ensure adequacy of financial resources to ensure improved service delivery at the land registry?

Section C: Record Management Technologies

6. Please, indicate by ticking (✓) where, SA = Strongly agree (5), A = Agree (4), N = Neutral (3), D = Disagree (2), SD = Strongly disagree (1), regarding each of the following statements in relation to record management technologies and how it impacts information service delivery in land registry in Nyandarua County.

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
1.	Nyandarua land registry has adopted appropriate records management technology to facilitate efficient services to our clients					
2.	The use of a records management technology has enabled our services to be timely and faster					
3.	Utilization of land administration technologies has reduced queues and delays in the land registry					
4.	Adopting technology has enabled us to accurately store citizens data and important documentation					
5.	By adopting technology, cases of land ownership issues have reduced					
6.	I have high regard for records management technology used at the land registry					
7.	The technologies adopted has enhanced efficiency and effectiveness in service delivery at land registry					
8.	The technologies adopted has made clients to be happy					

9.	There is a good security system which ensure financial and land records are not accessed and manipulated by unauthorized personnel					
10.	The use of registry record management technologies has enabled us to improve the delivery services at the land registry					
11.	The technologies in place have enabled our citizens to access our department of lands registry services remotely					
12.	We have a clear strategy in place for ensuring maintenance, and upgrading of the land administration records management technology					
13.	There are adequate IT personnel to troubleshoot technology related issues at Nyandarua County land registry					
14.	We receive management support for technology deployment at Nyandarua County land registry					

7. Provide your views concerning what should be done to the records management technologies to realize improved service delivery at Nyandarua County land registry.

Section D: Land Legislative Framework

8. In this section, tick where your best opinion lies ((√)) while making use of this scale;

scale 1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Neutral (N)

4 = Agree (S) 5 = Strongly Agree (SA) to show the extent of agreement or disagreement with the given statements on land legislative framework for improving information service delivery in Nyandarua County land registry?

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
1.	We have a comprehensive land legislative framework to guide our service delivery					
2.	We have a clear service charter at land registry					
3.	Staff strictly observe /adhere to the approved service charter when serving clients at the land registry					
4.	We have a professional code of conduct framework to guide our behaviour, dressing and conduct at work for effective service delivery at the land registry					
5.	There is a clear policy on service delivery at Nyandarua land registry					
6.	The policy on service delivery are regularly revised					
7.	There are clear operational manuals that guide the execution of duties at Nyandarua land registry					
8.	There are clear rules and regulations that guide the execution of duties at Nyandarua land registry					
9.	The outcomes for failing to adhere to set rules and regulations are very clear					
10.	Nyandarua land registry are regularly sensitized its staff on policy, code of ethics and rules on service delivery					
11.	The policy, code of ethics and rules on service delivery are freely accessible by all staff at Nyandarua land registry					
12.	We have a records management policy that guide authorization of access to records, creation, storage, retrieval and disposal					

Section E: Registry Staff Competencies

9. In this section, use the scale 1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Neutral (N) 4 = Agree (S) 5 = Strongly Agree (SA) to show the extent of your agreement or disagreement with respect to registry staff competencies in ensuring improving information service delivery in Nyandarua County land registry?

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
1)	The human resource policy is clear on the qualifications required for each position in the land registry					
2)	I possess the required skills and knowledge to offer information services in a land registry					
3)	The skills gaps noted amongst Nyandarua land registry staff are addressed through appropriate training					
4)	We normally have workshop and seminar programs that equip us with skills to abreast with new trends in records management					
5)	Nyandarua land registry staff are supported financially to attend professional conferences, seminars and workshops					
6)	Nyandarua land registry staff are supported financially to join professional associations					
7)	We have community of practice platforms where we learn from each other					
8)	My proficiency and competencies influence how I offer services at Nyandarua land registry					
9)	Nyandarua land registry staff have undergone refresher courses to improve the manner in which they provide services to the clients					
10)	There are systems in place for recognizing and developing talents and competencies of staff at Nyandarua land registry					

10. What do you think should be done on skills and competencies of staff working at the land registry to improve service delivery at Nyandarua land registry?

11. Section F: Improving Information Service Delivery in Land Registries

12. Indicate by ticking (√) the extent to which you agree or disagree with each sentiment

relating to information services in land registry such that, SA = Strongly agree (5),

A = Agree (4), N = Neutral (3), D = Disagree (2), SD = Strongly disagree (1).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
1.	There is no sluggishness in the way services are offered at Nyandarua land registry					
2.	Customers have not been complaining of inconsistencies at the Nyandarua land registry					
3.	There are no gaps in information service delivery at Nyandarua land registry					
4.	There are no cases of misplacement or misfiling of records at Nyandarua land registry					
5.	Customers have not been complaining of dissatisfaction in the manner in which they receive services at the Nyandarua land registry					
6.	Mechanisms have been put in place to enhance responsiveness to clients requests at the Nyandarua land registry					
7.	Customers have not been complaining of service delivery being below their expectations at Nyandarua land registry					
8.	The service points are arranged / organized in a way that enhances quick information service delivery at the Nyandarua land registry					
9.	The allocated financial resources helps to improve information services at Nyandarua land registry					
10.	Implementation of financial policies has enabled staff to improve information service delivery					
11.	There no corrupt practices reported amongst staff at the Nyandarua land registry					
12.	Staff are regularly motivated to improve information service delivery at the Nyandarua land registry					
13.	Implementation of records management technologies has enabled staff to improve information service delivery at the Nyandarua land registry					
14.	Staff who have excelled in providing excellent information services are usually rewarded					
15.	Operational frameworks put in place has enabled staff to improve information service delivery					

16.	The policy framework put in place has enabled staff to improve information service delivery					
17.	The rules and regulations put in place has enabled staff to improve information service delivery at the Nyandarua land registry					
18.	The code of ethics put in place has enabled staff to improve information service delivery					
19.	The integrity measures put in place has enabled staff to improve information service delivery					

13. What institutional-based aspects have you identified that requires to be addressed in order to improve information service delivery at Nyandarua County land registry?

14. Provide your suggestions on what should be done to improve information service provision at Nyandarua County land registry.

Thank you for your cooperation

Appendix III: INTERVIEW SCHEDULE FOR NYANDARUA COUNTY LAND REGISTRAR

SECTION A: Demographic Information

- 1) For how long have you served as the county land registrar in Nyandarua County?

SECTION B: Financial Resources

- 2) Please, explain how secure financial resources to improve information service delivery in Nyandarua County.
- 3) Describe the impact financial resources have on information service delivery in Nyandarua County land registry.
- 4) What do you think should be done to ensure adequacy of financial resources to ensure improved service delivery at the land registry?

Section C: Record Management Technologies

- 5) Describe how records management technologies in place influences information service delivery in Nyandarua County land registry.
- 6) Provide your views concerning what should be done to the records management technologies to realize improved service delivery at Nyandarua County land registry.

Section D: Land Legislative Framework

- 7) Please, describe the land legislative policy frameworks that are in place to improve information service delivery at Nyandarua County land registry
- 8) Please, explain hoe the land legislative policy frameworks in place has helped to improve information service delivery in Nyandarua County land registry

Section E: Registry Staff Competencies


- 9) How would you describe the skills and knowledge of staff working at Nyandarua County land registry?
- 10) What do you do to ensure registry staff competencies are developed to continue improving service delivery at Nyandarua County land registry?
- 11) How (in what ways) staff at Nyandarua County land registry supported for professional development and growth?

Section F: Improving Information Service Delivery in Land Registries


- 12) Provide your comments regarding the complains raised by clients regarding information service delivery at Nyandarua County land registry
- 13) What institutional-based aspects have you identified that requires to be addressed in order to improve information service delivery at Nyandarua County land registry?
- 14) In your own opinion, what do you think is hindering land registries from improving its information services to the citizens
- 15) What solutions would you suggest to the above challenges that you have identified above

Thank you for your cooperation and time

Appendix III: NACOSTI Research Permit




REPUBLIC OF KENYA



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 998761

RESEARCH LICENSE




This is to Certify that Ms. RUTH Njeri MURUGURU of Kenya Methodist University, has been licensed to conduct research in Nyandarua on the topic: INSTITUTIONAL-BASED DETERMINANTS FOR IMPROVING INFORMATION SERVICE DELIVERY AT LAND REGISTRY IN NYANDARUA COUNTY, KENYA for the period ending : 17/August/2023.

License No: NACOSTI/P/22/19660

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Applicant Identification Number



Director General

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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