

Socio-demographic characteristics on land records management practices in Tanzania

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Paper Type:

Research Paper

Abstract

Background of the study: Land registry offices are faced with misplacement and misfiling of records caused by improper practices by registry staff.

Purpose: This study examined the influence of socio-demographic characteristics on the extent of land records management practices in land registry offices in district councils in Tanzania.

Method: Qualitative and quantitative approaches were used to complete data collection and data analysis. A purposive sampling was used to select 160 land registry staff and 19 key informants. Quantitative data were analyzed by using SPSS version 26, while the qualitative data was analyzed by using content analysis with the aid of ATLAS.ti software.

Findings: The findings show that there is a low practice among land registry staff of district councils. Age has a positive influence on LRMP, while career and working experience have a negative influence on LRMP.

Conclusion: Adequate consideration should be given to individuals' age, experience, and career to a higher level of practices of land records in land registry offices. Training programs for non-professionals such as surveys, cartographers, and evaluators should be conducted to enhance their skills and competence in LRMP.

Keywords: Land records management practices, Registry Staff, Socio-Demographic Characteristics

Submitted: 2 July 2024

Revised: 30 August 2024

Accepted: 26 October 2024

Online: 4 December 2024

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Introduction

Land records management practices are considered an important activity in registry offices as they form the basis for decision-making. It involves the use of procedures for the creation, maintenance, and use of records about land ownership, deeds, titles, surveys, and related documents (Shabbir *et al.*, 2020). Proper practice of records helps to protect records from litigation risks (Kyando *et al.*, 2022). Registry staff has the responsibility of managing and practicing records in the office for better delivery of services to their customers (Okwudiri, 2021). Social-demographic characteristics have an impact on the practices of records in land registry offices. Demographic characteristics of employees are described by age, sex, marital status, education, career, and experience in the workplace (Omori & Bassey, 2019; Chaudhary *et al.*, 2022). Age is a demographic factor used for the analysis of behavior, skills, and experience of employees (Amegayibor, 2021). Some literature perceives that as people get older they lose their experience, intellect, and ability to work (Kollmann *et al.*, 2020). Practically the aspect of age in performing in working offices depends on various characteristics, some as grow older, his or her moods become mature as well. The study by Hendrawijaya (2019) articulated that the issue of age can affect the workers in an organization from the time of the first appointment as the age increases the impact on performance increases. Omori and Bassey (2019) assert that age is important in defining how an individual changes over time and subsequently may affect performance. Sex biologically is features that distinguish males and females (Amegayibor, 2021). The topic of sex of records officers in practices of records in registry offices has become a sensitive issue to most literature. Omari and Bassey (2019) supported that; sex in work performance cannot be overlooked. In addition, registry offices need a balanced number of sexes for efficiency and effectiveness in the practices of land records. The theme of education, career, and experience prioritizes the performance of an individual in land registry offices. It makes changes in offices as staff working according to his or her career and gets experiences through training and short courses. Okwudiri (2021) and Clemence *et al.* (2023) commented that there is a significant relationship between education, career, teaching, records management, and job performance. Likewise, Ahad and Khan (2020) discovered that those who are early in their careers can perform better in their responsibilities than those who are late in their career. The extent of practices by Staff must be assessed based on demographic characteristics since they are considered to have an impact on the success of an organization. The planning and practices of records need optimum and adequate knowledge for the efficiency and effective delivery of services. Land record staffs are integrated with their responsibilities through the expertise they have from daily activities, experiences gained from others, and their ability to do as professionals. Barigye *et al.* (2022) supported that the application of proper management of records in the registry office with qualified professionals translates into increased land records practices.

Globally, records staff in registry offices become an agenda for their management and practices of records in their offices. The studies conducted in Nigeria, India, and Kenya (Angela, 2020; Shuaib *et al.*, 2020; Muruguru, 2022) reported a lack of competence, skills, and integrity when managing records in registry offices. ISO 15489 requires registry offices to create, maintain, and use records as evidence in decision-making and achieving the organization's goals (ISO, 2001). Mushinge *et al.* (2020) discovered that most of the land registries in Tanzania, the Democratic Republic of Congo, and Zambia face poor practices resulting in corruption during the delivery of services to their customers. The government, organizations, institutions, and private offices should be concerned with the management of socio-demographic factors at work since dynamism towards work depends much on the general well-being of an employee (Odigwe and Owan, 2020; Amegayibor, 2021). In developing countries, the socio-demographics of employees and land records management practices need



to be understood by employers, principals, and other management. The studies conducted in India, Bangladesh, and Nigeria (Hendrawijaya, 2019; Omori & Bassey, 2019; Ahad & Khan, 2020) observed that individual performance in the workplace is associated with the socio-demographic factors of employees.

Several studies conducted on Land records management practices in registry offices found some difficulties when managing these vital records. The study by Khoza & Maluleka (2024) investigated on how land registration in registry offices was practiced by staffs to foster easy access of information. The study reviewed that the manual system were used and impact the whole process of practices and causes the misplacement of land records. Anjanah & Subhashini (2024) studied on the digitization of land records to overcome the mismanagement of land records by registry staffs. The study insisted the transformation of land records into digital format and to impart the staffs with knowledge. Moreover, Keneth (2024) investigated the application of blockchain in land records by registry staffs. Adekola *et al.* (2020) dealt with the improvement of land registration by registry staffs. The study recommended that to improve land registration process is to employ competent professional's staffs. Furthermore, Njeri *et al.* (2020) focused on improving information on service delivery through records management process. The study review that manual system used by land records staffs sluggishness in the delivering of services. Tarus & Wamae (2022) recommended that although most of land records are now digitized still practices of such records are poor in registry offices. Yakub & Asah (2023) assessed the use of Geographic Information system-based land records management for records such as ledgers, registers, town sheets and maps to improve the practices process by registry staffs. However, the land records management practices conducted by registry staff in different perspectives, there is need of understanding the socio-demographic characteristics of staff and how influences land records management practices.

In Tanzania's context, record staff started immediately after the establishment of the National Archives of Tanzania in 1964. According to the Records and Archives Management, Act No. 3 of 2002 the head of public officer shall appoint the qualified record officer for managing and coordinating records of public offices. The purpose of the government was to ensure that all public registry staff was adequate and records were well managed (URT, 2007). The Archives started with four professional staff and increased to 15 in 1975. Since that time the shortage of professional staff has become a challenge as a result of the management of records in registries by unskilled staff (URT, 2011). In the growth of registry staff professionals, the government of Tanzania has introduced various records management practices procedures manuals such as The National Records and Archives Management Policy and Registry Procedural Manual (URT 2007; URT, 2011) as a directive towards best practices of records in registry offices. Despite the aforementioned initiatives, the majority of land registry staff is not well managing and practicing land records in registry offices. The current state of land records management practices is improper practices including, misfiling, and mismanagement such as tempering with records (Shabbir *et al.*, 2020; Tarus & Wamae, 2022). Several studies has been conducted in Tanzania regarding land records management practices, including those by Danda & Wema (2024), Makupa and alananga (2020), Racetin *et al.* (2022) and Mushinge *et al.* (2020). The existing studies dealt with the use of Information and communication Technology in land registry offices, land administration and practices in digital form, the use of blockchain technology in practices of land records and how to overcome corruption in land registry offices. However little is said on socio-demographic characteristics such as age, sex, experience, education status and careers on influence of land records management practices in land registry offices. The purpose of the inclusion of socio-demographic characteristics is to maintain the record's life cycle through the creation, classification, maintenance, and use of records (Malekani & Mubofu, 2023). Odigwe & Owan



(2020) explained that competent personnel are more effective in keeping records for good and safe for organizational development. Based on Kyando *et al.* (2022) how competent records staff can increase the quality of practices of records in registry offices. Therefore this study aimed to address this knowledge gap by finding out how the socio-demographic characteristics of registry staff influenced LRMP in Tanzania particularly on land registries in district councils in Tanzania. Specifically the study intended to examine the extent of land records management practices in registry offices, to identify the socio-demographic characteristics of registry staffs in district councils and to assess the influence of socio-demographic characteristics on land records management practices. This paper contributes to the literature on best practices of land records by considering the socio-demographic characteristics in land registry offices. The paper sheds light on the positive impact of the inclusion of land registry staffs in the process of creation, classification, storage and use of land records.

Method

Study Location

The study was carried out in three regions, namely, Morogoro (six councils), Dodoma (eight councils), and Songwe (five councils) in Tanzania. The councils were purposively selected. Although all district councils in Tanzania practice land records management, their intensities differ depending on the geographical location and economic activities. The chosen districts were suitably selected to represent those with high strength in economic activities and the presence of some forms of land-related conflicts in the country that would give appropriate data for the study.

Research Approach

A cross-sectional design with a mixed approach of quantitative and qualitative was used to gather data from individual Land Records staff in registry offices who were the sampling units of the study. Cross-sectional design enables the researcher to correct and analyze data from a varied range of individuals within a population (Thomas, 2023).

Targeted Population, Sample Size, and Sampling Procedures

The study targeted land registry staff based on their roles, responsibilities, and job titles. The purposive sampling technique was used to select land record officers, land officers, cartographers, surveyors, Land Property evaluators, and planners who were involved in land records management practices. Purposive sampling was used to select the key participants owing the information in terms of procedures, guidelines, regulations, and staff capacity building based on four criteria, knowledge of land record management, experience, willingness, and availability to participate in the study. The precision table formula calculated by Israel *et al.* (2013) was used to obtain the sample size. The recommended practice with a precision rate of $\pm 10\%$, which states that if the population ranges from 1000 to 2000 the sample size should be 95, was adopted by the researcher. The study extended the sample size up to 160 to gather comprehensive data from the population.

Data Collection

The study used structured questionnaires, interview questions guide, and observation in data collection. Pre-testing of questionnaires with open and closed-ended questions found in paper format, administered in English language was done according to study objectives. The pre-test involved a total of 33 respondents in nine (9) districts: six from the Shinyanga region and three from the Morogoro region in Tanzania. The results of the Cronbach alpha coefficient found a scale dimension of 0.8, which was above 0.7 for strong internal consistency (Zeller,



2005) therefore the instrument was reliable. To ensure the validity of the instrument, each question was tested. Kaiser-Meyer-Olkin and Bartlett's test (Barigye *et al.*, 2022) was used for Factor analysis to assess the sampling of adequate data, the value tested was above 0.7 indicates adequate for factor analysis. The results show that each question addressed specific and relevant aspects of the study objective. Therefore, the instruments measured accurately what was intended to measure. After the pre-test, the questionnaires and interview questions were modified, and sample sizes were administered to 160 respondents. A total of 160 questionnaires were distributed to land record officers, land officers, cartographers, surveyors, Land Property evaluators, and planners who were purposively selected and had the role and responsibility of creating, classifying, storing, and tracking land records. Only 140 were filled and collected for processing. Twenty questionnaires were not answered since the participants were absent at the time of the data collection phase. Interview data was collected from 19 heads of land registries in the study area who were the key participants. Observation was used as data collection to complement information from the study areas. Observations were made on how they create land records, how they store, storage facilities, and how service is delivered to customers.

Data Analysis

Quantitative data were analyzed using SPSS version 26. The study used descriptive and inferential statistics. The independent variables of this study are socio-demographic characteristics including age, sex, education level, experience, and career. The dependent variable is the extent of land record management practices scores. The study used a 4-point Likert scale of measurement such as 1 Always, 2- Sometimes, 3- Rarely, and 4- Never to assess practices of land record management in stages. In analysis, the extent of land record management practices scores was computed by summing up individual responses in each measurement and dividing by a total of measurements. The extent of land record management practices scores was categorized into three categories based on a 4-point Likert scale. Thus, the minimum score was $40 \times 1 = 40$, the medium score was between $40 \times 2 = 80$ and $40 \times 3 = 120$, and the maximum score was $40 \times 4 = 160$. The 1st category was the low extent of LRMP equal to values 40-80, the 2nd category was the medium extent of LRMP equal to values 81-120 and the 3rd category was the high extent of LRMP 121-160. The descriptive statistics were used to present frequencies, and percentages for the extent of LRMP and social demographic characteristics. The multiple linear regression modeled the relationship between socio-demographic characteristics and LRMP score. The regression equation is specified as;

Extent of LRMP_i

$$= \beta_0 + \beta_1 \text{Age}_i + \beta_2 \text{Sex}_i + \beta_3 \text{Education level}_i + \beta_4 \text{Career}_i + \beta_5 \text{Experience}_i + \varepsilon_i$$

In regression, normality of residual, heteroscedasticity, multicollinearity, specification bias, and independence were tested to ensure stability estimates, reliability, and validity of the model. Qualitative data was analyzed through content analysis based on four criteria, experience in land record management, knowledge, availability to participate in the study, and willingness. The analysis of qualitative data involved several steps; selecting the questions based on the objectives of the study. During the analysis, the data was chosen based on what the participant stated, exploring the relationship between the concepts participants, coding the relationship, displaying data, and drawing a conclusion. Finally, the data were documented in the form of qualitative narrative and clarifications (Gibe *et al.*, 2023). ATLAS.ti software aided in managing, coding, and analyzing sets of textual.



Table 1. Operationalization of independent and dependent variables

Variable Initial	Variable	Variable description and measurement	Expected sign
X_1	Age of respondent	Continuous (Age in years)	+
X_2	Sex of respondent	Dummy (1 if Female: 0 if Male)	+
X_3	Education level	Continuous (Years of schooling)	+
X_4	Region	Categorical (0 if Dodoma, 1 if Morogoro, 1 if Songwe)	+
X_5	Career	Categorical (0 if Land record officer, 1= Cartographers, 1=Planners, 1=Surveyors, 1=land officer, 1=Valuer, 1=Attendant, 1= Personal secretary)	-
X_6	Experience	Continuous (number of Years of working)	-
Y_i	Extent of LRMP	Continuous (Scores of LRMP)	+

Result and Discussion

The extent of LRMP in a registry office in district councils

The descriptive statistics for the extent of land record management practice estimated by using frequency and percentage in practice procedures shown in the table below.

Table 2: Descriptive statistics for the Extent of Land record management practice

Extent of LRMP	Frequency	Percentage (%)
Low	140	100
Medium	0	0
High	0	0

Practices procedures

The data reveals that all respondents have low practices of land records. This means that the extent of LRMP to the visited district councils is low. Land registry staff lacks some information on practice procedures such as identification of information to be captured, giving the unique identifier number, indicating the date of creation, indicating the contents of the information to be captured, indicating the source of information, opening file and record the file in register book during the creation of the file. This underscores the registry staff to perform their work. The study revealed that the majority of staff was not provided with training on how to practice following those procedures. The study is in line with Shabbir *et al.* (2020) who observed the incompetent registry staff in land records management. The interview with the head of record departments revealed a significant lack of information on practices and procedures related to land records practices which hinders the efficiency of practices. This is contrary to the study by Babalola *et al.* (2021) in Nigeria who reported that the record creation in public schools was well practiced.

Furthermore, district Councils like Kondoa town, Kondoa DC, Mlimba, and Songwe, in Tanzania found no information on practices and procedures of land records in the registry office especially classification by keyword system. This suggests that the need for the introduction and implementation of guidance of best practices is very crucial. The rationale of the government of Tanzania is to ensure that records are created, acquired, and maintained to meet the existing policy (URT, 2011).



Likewise, a shortage of equipment such as cabinets, shelves, and drawers is one of the challenges found in the study areas. During an interview with the heads of departments, it was mentioned the lack of equipment is one of the reasons they are unable to organize their records. The researcher observed the lack of facilities such as land registry offices, equipment, and office file folders. This means that perhaps the small extent of practices was caused by the absence of this equipment. This implies that the absence of facilities enables the records to be in danger such as misplacement of records, tampering with records, and access to unauthorized personnel. Land records are specialized records that need special attention to protect the rights of citizens (URT, 2011). This study is contrary to Benta *et al.* (2019) who reported on adequate facilities and equipment in registry offices in Kenya.

Socio-demographic characteristics of respondents

The description of socio-demographic characteristics variables of age, sex, experience, education level, and careers are presented in table 3.

Age

The age distribution among respondents reveals a notable concentration ranging between 36 and 55 years constituting over half of the surveyed population at 52.1%. The presence of staff aged 20-35 indicates the involvement of younger employees, while those aged 55 and above represent a few number of staff. This suggests that the group of 36-55 of age is predominant in land registry offices. The reason for these findings may be attributed to the big interval in recruiting of new career. The diverse age range allows for insights into how different age groups contribute to and perceive Land Record Management Practice (LRMP). The study is contrary to the study by Odigwe and Owan (2020) who reported more staff aged 50 and above in record management in higher education in Nigeria.

Sex

The study revealed that the majority of respondents were male. This implies that land registry offices in the visited areas had more male than female staff. The gender disparity recorded may be due to a larger number of men volunteering to work in the office compared to women. Those who volunteer for some time become competent and employed. This suggests that gender imbalance may reflect the broader demographics of professionals involved in land records management practices. This study is concurred by Newa & Mwantimwa (2019) who reported a greater number of males in record offices than females. The smaller female representation highlights the need for a more inclusive approach to involve a diverse range of perspectives in shaping and implementing LRMP.



Table 3. Socio-demographic characteristics of respondents

Socio-demographic variables	Frequency	Percentages (%)
Age		
20-35	62	44.3
36-55	73	52.1
55+	5	3.6
Sex		
Male	107	76.4
Female	33	23.6
Experience		
1-5	43	30.7
6-10	38	27.1
10+	59	42.1
Education level		
PhD	2	1
Masters	9	6
Bachelor degree	60	43
Diploma	49	35
Certificates	10	7
Others	10	7
Career		
Land records Officers	16	11
Cartographers	13	9
Planners	21	15
Surveyors	36	26
Land officer	41	29
Valuer	9	6
Attendant	3	2
Personal secretary	1	1

Experience levels

The findings of experience levels reveal 10 or more years of experience, indicating a group with substantial professional maturity, while others are those with 1-5 years and 6-10 years. This means that staffs with experience of 10 or more years are dominant in land registry offices visited. This may be attributed to the time interval for employment of land registry staff and qualification policies that require a certain level of experience for specific positions within the land registry offices and, the practical skills of individuals with considerable experience. This suggests that more engagement in best practices is expected than the early experiences. The study is contrary to the studies conducted in Ghana by Ameyaw & Frempong-Kore (2020) on the lack of adequate of experienced staff and staff training in registry offices.

Education background

The educational background of respondents is diverse, with a significant portion holding a Bachelor's degree, Diploma, and Certificate. Additionally, there are individuals with higher education, including Master's degrees and even PhDs. Based on the results; it appears that the land registries involved in this study have staff members with a small number of higher educations based on the practice of land records as indicated in table 3. Maybe a few are



interested in going for further education in records management professionals. The study agrees with Hendrawijaya (2019) who informed the small numbers of staff with senior high schools.

Careers status

The range of careers represented among respondents reflects the interdisciplinary nature of LRMP. Land records officers, Land Officers, Surveyors, and Planners, are the most common professions. Cartographers, Valuers, and Attendants are also present in smaller percentages. In addition, the presence of staff members with qualifications is a sign of the level of land records management practices in registry offices. Understanding the distribution of careers sheds light on the diverse expertise necessary for comprehensive land record management practices. The study found the registries involved in this study have staff members with careers who have little training in land records management practices. The study is contrary to Newa and Mwantimwa (2019) who reported the right qualifications of staff members in records management.

The influence of socio-demographic characteristics on LRMP score in a registry office in district councils, Tanzania

Table 4 shows multiple linear regression results of the influence of the socio-demographic characteristics on land records management practices score. Age, career, and working experience are statistically significant to land records management practices score, while Sex and education level showed no statistically significant association with land records management practices.

The influence of Age

Age found statistically positive significant influence on the LRMP score. This indicates that, as individuals' age increases, the extent of LRMP in registry offices tends to increase as well. This implies that as age increases the possibility of learning different practices and procedures of land records associated with increases the extent of managing land records. This study concurs with the study conducted by Kollmann *et al.* (2020) who reported that older employees with positive performance. Probably, the older age has more knowledge, exposure, and wisdom to perform the job that brings positive outcomes than young age.

The influence of Career status

Career such as cartographers planners surveyors land officers, valuers, attendants, and personal secretaries found negative statistically significant in the influences on LRMP score compared to land records officers. These suggest that individuals in this career contribute less to LRMP scores compared to land records officers since unqualified individuals work as record management officers in the visited offices and lack training on land records management professionals. Qualitative data from the heads of departments revealed that other careers had less practice since they are not qualified in this field although they are working as land records officers. This study is supported by Malekani & Mubofu (2023) who reported that training is a good determinant of employee performance.

Table 4. Multiple linear regression results to determine the influence of Socio-demographic characteristics on the extent of LRMP in registry offices in district councils

Extent of LRMP	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	VIF	Sig
Sex							
Base: Male	0	.	.	.	.	.	.



Female	4.546	2.747	1.66	.1	-.89	9.983	1.02	
Age	.442	.184	2.40	.018	.077	.806	1.29	**
Experience	-.431	.187	-2.31	.023	-.801	-.061	1.10	**
Education level								
Base: PhD	0	.	.	.	.	.	.
Masters	0.001	8.99	0.001	1	-17.793	17.793	1.09	
Bachelor	-.27	8.406	-0.03	.974	-16.907	16.367	1.22	
Diploma	-1.586	8.593	-0.18	.854	-18.594	15.423	1.18	
Certificate	4.446	9.095	0.49	.626	-13.556	22.447	1.72	
Other	-2.283	9.376	-0.24	.808	-20.84	16.274	1.20	
Career records Officers								
Base: Land records Officers	0	.	.	.	.	.	.
Cartographers	-14.666	4.641	-3.16	.002	-23.851	-5.48	1.14	***
Planners	-17.275	4.763	-3.63	0	-26.702	-7.847	1.01	***
Surveyors	-14.15	4.171	-3.39	.001	-22.406	-5.894	1.29	***
Land officer	-15.736	3.993	-3.94	0	-23.638	-7.833	1.92	***
Valuer	-11.526	5.585	-2.06	.041	-22.58	-.472	1.30	**
Attendant	-22.297	8.476	-2.63	.01	-39.074	-5.521	1.21	***
Personal secretary	-24.704	11.827	-2.09	.039	-48.112	-1.295	1.03	**
Constant	62.052	10.956	5.66	0	40.367	83.738		***
Mean dependent var	61.114		SD dependent var	12.568				
R-squared	0.288		Number of obs	140				
F-test	3.338		Prob> F	0.000				
Akaike crit. (AIC)	1089.533		Bayesian crit. (BIC)	1136.599				
Normality(Shapiro wilk(V)= 0.685,P-value=803)			Specification test(F(3, 131), P-value=0.478)					
Heteroskedastic(Chi2=0.280, P-value=0.598)								

*** $p < .01$, ** $p < .05$, * $p < .1$

The influence of Working experience

Working experience is negatively associated with LRMP score and statistically significant indicating that individuals with a greater number of years in their careers may contribute to a low score of LRMP within district councils. The findings indicate that, as professionals accumulate more years of experience, there is a corresponding decrease in the extent of their involvement in LRMP. This implies that those who are early in their career have the possibility of engaging with training, workshops, short courses, and moving with technologies than those with greater years of working experience. This means that there is the possibility of monotony of work as the individual employee gets more years of experience on a single task. The study is in line with Ahad & Khan (2020) who supported that there is a significant impact of work experience on employee performance. Sometimes, the higher the experience the lower the sharing and the level of activity also become low. The notable qualitative finding from the head of the departments was the reluctance of experienced staff in the practice of land records to share their knowledge with others. This unwillingness could pose



challenges in knowledge transfer and reach the goals within the field. This finding is contrary to previous studies by Amegayibor (2021) who commented that individual employees with older in the job perform significantly better than their young counterparts on the job.

Conclusion

This study underscores the importance of socio-demographic characteristics in land records management practices. Through comprehensive analysis, it has been established that there is a low practice among land registry staff of district councils caused by the socio-demographic characteristics of the staff. The study revealed a predominant presence of registry staff aged between 36 and 55, particularly notable in the Dodoma region. A higher number of male land registries were identified in the study areas. Furthermore, individuals with 10 or more years of experience in land records management practices were found to be prevalent within the offices. Age, experience, and career are influential factors in shaping land records management practices. Therefore, the present study recommends that the management of district councils should support land registry staff by considering the socio-demographic characteristics such as balancing the number of sexes during the recruitment of employees, experiences to staff members specifically to young careers through training will encourage the land registry staff to increase the efforts in land records management practice. The study recommends to the district council management frequent provision of continuing training programs through workshops, short courses, and seminars to enhance the skills and competencies of land registry non-professionals across different age groups, experience levels, and career backgrounds. These programs should focus on best practices in land records management.

Practical Implications

This study provides the following practical implications. The findings of the study can inform the necessary measures that can be taken to ensure that socio-demographic characteristics of land registry staffs are maintained to influence better practice of land records. District councils should develop targeted training programs to cater different age groups of staff and experience levels to equip them with skills to enhance the overall efficiency in land records management practices. Likewise, the experience staffs can mentor young staffs by sharing insight and best practice that have been honored over years. By recognizing the professionals in the office can contribute to effective and best practices of land records.

Limitations and future areas

The study used cross-sectional research design to collect large population data at a single point in time which may not accurately reflect changes over time. In future studies the study suggest to employ the longitudinal research design to gather in-depth data to assess the socio-demographic characteristics in the application of technologies such as Integrated Land Management System in the practices of land records. Furthermore, the study covered only nineteen district councils in Tanzania. Therefore, future study could expand to capture all remaining district councils for better generalizability.

Acknowledgments

We would like to express our sincere gratitude to the Land registry staff from nineteen District Councils of Tanzania for their willingness to provide the data necessary to complete this study. Their contribution will be valuable in enabling the successful execution of this research endeavor.



Authors' Contributions

All authors have contributed to the final manuscript. The contribution of all authors: conceptualization, methodology, formal analysis, writing original draft preparation, writing review, and editing. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

All authors have no conflict of interest related to this study.

Funding

The author(s) received no financial support for the publication of this article

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