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Socio-economic factors influencing the acquisition of title deeds among residents in regularised areas of Dodoma City, Tanzania

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ABSTRACT

Acquisition of title deeds is the right of residents who own land in regularised areas. Having title deeds ensures the security of property tenure and increases the value of land. The majority of residents at Miyuji ward succeeded in acquiring their title deeds. This study examined social and economic factors influencing acquisition of title deeds among residents in regularised areas at Miyuji ward in Dodoma city. Miyuji ward comprises three mitaas, which are: Kwa Mathias regularised by Wise Plan Company, Miyuji Proper regularised by Independent Planners Company, and the last is Mpamaa regularised by Our Plan Company. Land titling theory guided this study. This study employed the cross-sectional research design. Simple random sampling was used to obtain 153 residents (who acquired and did not acquire title deeds). Also, the purposive sampling technique was used to select the town planner, the chairperson of Mtaa, and a land committee member as key informants. The interview method through questionnaires was used to collect data from residents. Quantitative data were analysed using IBM-SPSS version 27 computer programme in which inferential statistics (binary logistic regression) and descriptive statistics (frequencies, percentages, and mean) were employed. The study found that land conflicts, awareness of the benefits of title deeds, owning more than two land plots, commercial uses of land, access to credit, price value of land, and income of residents were statistically significant with a p-value < 0.05 in influencing acquisition of title deeds among residents in regularised areas. More than half of the residents acquired title deeds in regularised areas of Dodoma city, which is not common in other regularised areas, especially in Mbeya, Dar es Salaam, Songwe, and Kigoma, and thus can be used as a reference for learning. This implies that regularisation interventions have brought positive changes in Dodoma city. The study recommends that local leaders, such as Mtaa Executive Officers and Ward Executive Officers, should not only oversee regularization but also proactively initiate educational programs to inform and encourage residents who have not yet acquired title deeds to acquire them.

Keywords: Acquisition, Regularisation, Residents, Socio-Economic Factors, Title Deed

I. INTRODUCTION

Title deed acquisition in the world is a topical, contentious and debatable issue among planners, policymakers and academicians (Bryan, 2019; Chigbu, 2019; Estifanos *et al*., 2020; Notess *et al*., 2020). The status of land rights documentation, shows that 70% of the World's population acquire title deeds for their land plots. Awareness and financial literacy influence the residents to acquire title deeds for their land plots. The rest 30% do not possess title deeds for their land plots due to bureaucratic procedures and financial issues like high transaction costs (Koeva *et al*., 2020). Those who possess title deeds use them as essential tools for economic growth and income generation because some use it financially as collaterals to access loan from financial institutions. Also, title deeds increase the value of land (Kansanga *et al*., 2019; Jiang *et al*., 2020; Shimwela, 2018; Zhang *et al*., 2019).

In America, 90% of informal settlements regularised in order to improve accessibility of services (water, sanitation facilities and electricity infrastructures), reduce land conflicts among land holders and stimulate investment in land. After regularisation residents 75% of the population acquired title deeds as important tools for investment (Kansanga *et al*., 2019; Zhang *et al*., 2019).

Sub-Saharan Africa faces significant challenges of unplanned settlement. 60% of the population are in informal settlements. These settlements were characterised by inadequate social services and lack of legal documents of ownership of their land plots. 80% of the population used traditional tenure systems like inheritance letters as documents of ownership of their land plots (UN-Habitat, 2013). Regularization and formalization of land rights took place to overcome the situation. Residents were required to register and formalize their land in order to obtain legal documents of ownership like title deeds (Palsson & Porter, 2025). Obtaining legal documents of ownership such as title deeds, was influenced by awareness of landholders and income. However, bureaucratic procedures that consume time affected residents in the acquisition of title deeds (Kironde, 2019; Tembo *et al.*, 2019).

Tanzania accommodates more than 70% of unplanned settlements and is unrecognized by the government (Magina et al., 2020). These settlements are characterized by insecure ownership of land rights (Butera *et al.*, 2016; Dachaga & de varies, 2022; Aikaeli & Markussen, 2022). Communities were required to formalize their land and obtain official land documents of ownership such as title deeds (Notess *et al.*, 2021).

1.1 Statement of the Problem

In 2016, government-initiated neighbourhood regularisation schemes in five regions which were Dodoma, Kigoma, Songwe, Dar es Salaam and Mbeya (United Republic of Tanzania [URT], 2018). Later, many communities took initiative to engage in regularisation schemes (Mbowe *et al*, 2021; Panman & Lozano 2022; Nuhu & Kombe, 2021). In the context of government regularisation programmes, after the phases of planning and surveying, residents are typically invoiced to acquire title deeds for their land plots (Kusiluka & Chiwambo, 2018). In Dar es Salaam 4,307 residents acquired title deeds while 16,231 did not acquire. In Mbeya 5,256 residents acquired while 44,113 did not acquire. In Songwe 693 residents acquired while 1,776 did not acquire. In Kigoma 2,604 residents acquired while 7,500 did not acquire. Those regions had low acquisition rate. Factors such as land conflicts, awareness, bureaucratic procedures, land policies, perception, customs and beliefs, poverty, lending rates, and financial literacy affect acquisition of title deeds to those regions (Usika *et al.*, 2024; Kironde, 2019; Kusiluka & Chiwambo, 2018). Despite those challenges, since the implementation of the regularisation programme from 2019 up to 2024 acquisition rate is higher in Dodoma city compared to other regularised areas. 80.6% of residents acquired their title deeds while 19.4% of residents did not acquire their title deeds (URT, 2024). Therefore, there are unknown factors influencing the acquisition of title deeds among the majority of the residents in Dodoma city, which the study sought to reveal. The study insights will be crucial as a reference to other regularised regions like Mbeya, Dar es Salaam and Kigoma where there is low acquisition rate of title deeds.

1.2 Research Objectives

i. To determine social factors influencing acquisition of title deeds among residents in regularised area of Dodoma city.
ii. To examine economic factors influencing acquisition of title deeds among residents in regularised area of Dodoma city.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Land Titling Theory

This theory was developed by Hernando De Soto in 1990s and became popular in 2000s. The theory explores formal property rights established through land titling. Land titling enhances security of tenure, minimises transaction risks, and fosters economic development. Also, the theory suggests that official ownership documents strengthen landholders' capacity to leverage land as collateral for loans, boost land market activity, encourage investment, alleviate poverty, and promote sustainable resource management. In this study, the theory served as the foundation for examining the socio-economic factors such as (gender, education level, land conflicts, access to credits, investments, and price value of land) influencing acquisition of title deeds in regularized areas.

2.2 Empirical Review

2.2.1 Social Factors Influencing Acquisition of Title Deeds in Regularised Area

Wankogere and Alananga (2020) found that education level affects titling during regularization in Dar es Salaam. They found that the majority were willing to acquire title deeds to change their tenure status from informal to formal tenure, with 42% of respondents in the standard seven category and 44% in secondary education, and only 14% in the university category. This demonstrates that the willingness to process title deeds is observed to be lower among the highly educated group and higher among the less educated. It also implies that low-educated group perceive higher protection from title document because they do not have alternative means to protect their land rights.

Gender issues affect acquisition of title deeds thus women possess fewer land titles than men. Women are not allowed to own land, and this affects them in using land titles which are owned by men. Also, few women possess title deeds because they are aware of gender issues related to women's rights (Njoh *et al.*, 2018). Kamomonga (2021) found that respondents did not acquire title deeds due to limited awareness on land title registration process in Iringa. He found that, 64% of all respondents were not aware of the benefit of registering property. Also, conflicts and land disputes contributed to poor response to land registration in formalized land. Mbawala and Yihuan (2018) found that 5.0% of the respondents acknowledged that possession of title deeds helped to reduce conflicts experienced before their land was demarcated and issued with the certificate. Title deeds also helped 11.7% of the respondents to know clearly the boundaries and size of their land, which was just an estimate before. Therefore, respondents felt that their land plots were protected and experienced no conflicts.

Kusiluka and Chiwambo (2018**)** found that the cost of application of title deed was relatively high, which to a large extent discouraged some people from Njombe, Makete, and Morogoro. Also, they found that customs and traditions played an important role in discouraging the use of property as collateral. Some people strongly believed that borrowing from banks was shameful. There was also a widespread belief that land was one of the most valuable family assets that should not be tampered with in any way. For instance, 33.3% of the respondents who did not have titles indicated that they did not want them, because it was against their norms and tradition to use family landed property as collateral.

2.2.2 Economic Factors Influencing Acquisition of Title Deeds in Regularised Area

Mbilinyi *et al.* (2022) found that the formal acquisition of title deeds increased landowners' confidence and investment in Dar es Salaam and Mwanza Cities. The study showed that the ability to access credit and invest in income-generating activities increased after land regularization, which is tied to having legal title deeds in their property. Payne *et al.* (2009) found that titling programmes increase property values. Respondents revealed that after having land titles, the price value of land increased by 25%. Increases in land values are beneficial to owners planning to sell land. Therefore, the study broadly claims that titling increases property values. Similarly, Magina et al., (2020) found that regularisation process facilitated the issuance of title deeds, increased land value and security of tenure in Dar es Salaam and Mwanza. Therefore, land value has increased in the settlements soon after carrying out regularisation.

Shimwela (2018) researched the effects of indigenous land tenure titling on agricultural investment among smallholder farmers in Mbozi district. The study employed a mixed approach. The study found that 53.6% of farmers acquired title deeds and invested more capital in their large farms, while 46.4% of farmers invested in their small farms because they did not have title deeds. Therefore, agricultural investment is relatively higher on titled farm plots because title deeds give farmers greater tenure security over their assets compared to untitled farms. Manara and Pani (2023) found that household income affects the acquisition of title deeds in regularised areas. Low-income residents were among the settlers squatting on the land without making any payment at Kimara ward in Dar es Salaam. 90% of residents who had sources of income were willing to pay about 200,000 TSHs or 85 US$.

III. METHODOLOGY

3.1 Study Area

Before the ward's selection, a regularised ward and high acquisition rate of title deeds were key criteria set. After consultation with the Department of Land and Town Planning (DLTP) at Dodoma City Council, Miyuji ward with a population of 36,588 and 10,378 households, was selected as the study area (URT, 2022). Also, the ward was selected because regularisation was completely implemented in three Mitaas (streets) namely Kwa Mathias, Miyuji proper and Mpamaa. Kwa Mathias was regularised by Wise Plan Company, Miyuji proper was regularised by Independent Planners Company and Mpamaa was regularised by Our Plan Company. Moreover, the majority of the residents acquired their title deeds.

3.2 Research Design

The study employed the cross-sectional research design in which data were collected at a single point in time. The design allowed the study to collect data from many individuals at a single point in time, making it a quick and cost-effective method.

3.3 Sampling and Sample Size

The study employed probability sampling whereby stratified sampling was used to select residents who acquired and those who did not acquire title deeds. Then, simple random sampling was used to select residents who acquired and those who did not acquire title deeds at Miyuji ward. This technique enables to provide an equal chance of each resident to participate in an interview. Concerning non-probability sampling, the purposive sampling technique was used to sample key informants, including WEO, town planners and land officers. These were important as they provided detailed information that could not be obtained by using other methods. The sample size was 153 respondents obtained by using the formula of the known population as shown below:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample size estimated

N= Population size (248 residents engaged in regularization, whereby 172 residents acquired title deeds, and 76 residents did not acquire title deeds)

e= Marginal error (0.05)

Therefore, n = 248/1+248(0.05) ²

n= 153 respondents

Table 1 indicate distribution of proportional sample size. In order to ensure that the sample is proportional to all residents (either acquired or not acquired title deeds), proportional sampling was employed.

Proportional sampling is given by; $n_h = \frac{Nh}{N} \times n$

Whereby; n_h = sample size for residents (either acquired/not acquired title deeds)

N_h= population of residents (either acquired/not acquired title deeds)

N= total list of residents engaged in regularisation

n = total sample size for both residents (acquired and not acquired)

The proportional sample was calculated by using the list of 248 residents and sample size of 153 residents who acquired/not acquired title deeds.

Residents who acquired title deeds; N_h = 172

n_h = (172/248) x 153= 106

Residents who did not acquire title deeds N_h = 76

n_h= (76/248) x 153 = 47

Therefore, sample size was 153 (Residents who acquired title deeds were 106 and those who did not acquire title deeds were 47).

Table 1
Sample Size Distribution by Title Deed Acquisition Status

Title deed acquisition status	Sampling frame	Proportional sample size
Acquired	172	106
Not acquired	76	47
Total	**248**	**153**

3.4 Data Collection

This study employed household survey method and key informant interview. In household survey a questionnaire tool was used to collect data. The questionnaire was divided into three major parts which were demographic characteristics of the respondents, social and economic factors that influence acquisition of title deeds in regularised area with closed and open- ended questions. The use of questionnaires ensured uniformity in the questions asked, allowing for consistent data collection and easier comparison across different respondents. Also, data were collected from key informants such as the WEO, town planner and land officers by using checklist as a tool, which had questions reflecting study objectives. Each key informant had different questions depending on their daily duties and responsibilities.

3.5 Data Validity and Reliability

To ensure validity, a pilot study was conducted to identify and rectify potential issues like editing some questions and adding and omitting questions, ensuring data accuracy. Also, the study used multiple methods of data collection, including surveys and interviews, for triangulation of data to cross-check data and ensure consistency. To ensure reliability, all research assistants were thoroughly trained in data collection and compliance with research ethics.

3.6 Data Processing, Analysis and Presentation

The collected data were processed prior to analysis. For quantitative data, the process involved data editing to detect errors and permission, coding and entering into the IBM SPSS version 27 computer programme. Then, quantitative data were analysed using descriptive and inferential statistics. Descriptive statistics was employed in analysis of demographic characteristics of the respondents to obtain frequencies and percentages. Inferential statistics binary logistic regression model was used to analyse social and economic factors that influence acquisition of title deeds.

On the other hand, qualitative data were analysed using content analysis, which involved thoroughly reading the collected data to get a sense of the content that reflects the study objectives. Data were presented in tables and texts.

3.6.1 Binary Logistic Regression Model

$$\text{logit(P)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \cdots + \beta_i X_i + e_i$$

Whereby:

logit(P) is natural logarithm of the odds ratio (P/(1-P))
P is Probability of an event to occur
β_0 is intercept
$\beta_1 .. \beta_i$ are regression coefficient
α is regression constant
e_i is random error
$X_1 .. X_i$ Are independent variables.

Table 2
Description and Measurement of Variables in the Logistic Model

Variable	Name	Description	Measurement scale
	Dependent variable (Y)		
Y	**TITLE DEED**	Acquisition of title deeds	1. Acquired 0. Not acquired
	Independent variables (X)		
X_1	Land conflicts	Experience land conflict	Yes, No
X_2	Awareness	Awareness about benefits of title deeds	Aware Not aware
X_3	Number of plots	Number of plots that residents possess	More than two Less than two
X_3	Access land	Modality of access land	1. Purchase 0. Inheritance
X_4	Access to credit	Access to loan with a condition of title deed as collateral	Yes No
X_5	Income	Source of income influence willing to pay (invoice charges and fees)	Yes No
X_6	Price of land	Current price value of land	More than 15 million TSHs Less than 15 million TSHs
X_7	Commercial uses of land	Purposes of the plot (commercial uses of plots like market, petrol stations, urban farming)	Yes No

Table 2 indicate description and measurement of variables of social and economic factors that influence acquisition of title deeds among residents in regularised areas of Dodoma city in the binary logistic model. The model was used to analyse data when dependent variable ‘‘acquisition of title deeds’’ had two dichotomous variables which were, 1= residents who acquired title deeds and 0= residents who did not acquire title deeds. Based on the model, the p-value <0.05 signifies predictors variables are statistically significant and influence acquisition of title deeds.

IV. FINDINGS & DISCUSSION

4.1 Demographic Characteristics of the Respondents

Result in Table 3 show age group in 21-40 years (43.7%), 41-60 years(33.3%) and more than 61(23%), The majority were male (68.63%) compared to female (31.37%), single (27.5%) and married (72.3%), largest proportion holding a degree or higher (26.80%), no formal education (22.22%), primary school education (20.92%), secondary school education (16.99%), and diploma accounted for (13.07%), employed were (64.05%) while not employed (35.95%).

Table 3
Characteristics of Surveyed Respondents (n=153)

Variable	Categories	Frequency	Percent
Age group	21-40	67	43.7
	41-60	51	33.3
	61 and above	34	23
Sex	Female	48	31.4
	Male	105	68.6
Marital status	Single	42	27.5
	Married	111	72.5
Education level	Primary school	32	20.9
	Secondary school	26	17
	Diploma/ Certificate	20	13.1
	Degree and above	41	26.8
	Not educated	34	22.2
Occupation	Formal-employed	98	64.1
	Self-employed/ informal	55	35.9

4.2. Cross-tabulation between Demographic Characteristics of the Respondents and Title Deed Acquisition

Table 4 indicates that 54.9% of male respondents acquired title deeds compared to female (20.3%). Based on marital status, married respondents demonstrate higher acquisition of title deeds (57.5%) compared to single respondents (17.7%). Regarding level of education, acquisition of title deeds was higher among respondents with degree and above (21.6%) followed with those with secondary education (15.7%) compared to those with primary education (13.1%), diploma/certificate (9.8%) and those not formally educated (7.2%). Based on occupation, acquisition of title deeds is higher among formally employed respondents (53.6%) compared to those informally employed/self-employed (21.6%). Therefore, acquisition of title deeds was higher among respondents who were male, married, formally employed and those with higher education (degree and above).

Table 4
Cross-Tabulation between Demographic Characteristics of the Respondents and Status of Title Deed Acquisition

		Status of title deeds acquisition		
Variables	**Categories**	**Not acquired (%)**	**Acquired (%)**	**Total (%)**
Sex	Female	11.1	20.3	31.4
	Male	13.7	54.9	68.6
Total (%)		**24.8**	**75.2**	**100**
Marital status	Single	9.8	17.7	27.5
	Married	15	57.5	72.5
Total (%)		**24.8**	**75.2**	**100**
Education level	Primary	7.8	13.1	20.9
	Secondary	1.3	15.7	17
	Diploma/ Certificate	3.3	9.8	13.1
	Degree and above	5.2	21.6	26.8
	Not formally educated	7.2	15	22.2
Total (%)		**24.8**	**75.2**	**100**
Occupation	Formally employed	10.5	53.6	64.1
	Self-employed/ informal	14.3	21.6	35.9
Total (%)		**24.8**	**75.2**	**100**

4.3 Social Factors Influencing Acquisition of Title Deeds among Residents

4.3.1 Land Conflict

Results in Table 5 show that land conflict is positively and statistically significantly associated with acquisition of title deeds in regularized areas (B = 0.904, odds ratio = 2.470, p = 0.032). Holding other factors constant, residents who experienced land conflict had approximately 2.5 times higher odds of acquiring title deeds compared to those who did not experience land conflict. This suggests that exposure to land conflict may be associated with a greater likelihood of seeking formal land registration as a way to secure legal recognition and reduce the risk of future disputes. Land conflicts often arise from unclear ownership, overlapping claims, or lack of formal documentation, and the acquisition of title deeds may help clarify and secure property rights. These findings highlight the role of formal land registration systems in enhancing tenure security and potentially reducing the recurrence of land-related disputes.

Land officer of Dodoma city commented that:

> *"In Dodoma city 78.4% of respondents experienced land conflicts. After resolution 40% of residents who experienced land conflict succeeded to acquire title deeds for their land plots. Those title deeds helped to know clearly boundaries and size of their land".* (May, 2025)

This finding is consistent with Mbawala and Yihuan (2018), who studied the socio-economic benefits of Certificates of Customary Rights of Occupancy in Ilalasimba Village, Iringa District, Tanzania. Mbawala found that 5% of respondents reported possessing title deeds, which was associated with a reduction in land conflicts they had experienced prior to land demarcation and titling. Additionally, 11.7% of respondents reported that having title deeds allowed them to know the boundaries and size of their land more accurately, compared to previous rough estimates. These results support the notion that formal land titling can enhance tenure security and provide clarity on land boundaries.

4.3.2 Awareness

Results in Table 5 show that awareness of title deeds is positively and statistically significantly associated with acquisition of title deeds in regularized areas (B = 0.891, odds ratio = 2.439, p = 0.021). Holding other factors constant, residents who were aware of land title registration processes, the benefits of property registration, and the disadvantages of not acquiring title deeds had higher odds of acquiring title deeds compared to those who were not aware. This suggests that awareness is an important factor associated with residents' decisions to engage in the formal land registration and titling process. Residents who are informed about the benefits of registration—such as security of tenure, legal protection, and improved access to credit as well as the risks of non-registration, including land disputes and tenure insecurity, appear more likely to take steps toward formalizing their land rights. These findings are consistent with Kamomonga (2021), who found that in Mtwivila and Mkimbizi wards in Iringa, a large proportion of respondents did not acquire title deeds due to limited awareness of the land registration process (67%), benefits of property registration (64%), and disadvantages of non-registration (69%).

4.4.3 Number of Plots that Residents Possess

Findings in Table 5 show that residents who own more than two land plots are significantly more likely to acquire title deeds in regularized areas compared to those who own one land plot (B = 1.098, odds ratio = 2.998, p = 0.011). Holding other factors constant, ownership of more than two land plots is associated with nearly three times higher odds of acquiring title deeds. This suggests that multiple land ownership may be associated with stronger incentives to formalize land rights, possibly to safeguard valuable assets, enhance tenure security, and reduce the risk of disputes. Formalization may also support better land management and investment security. However, these findings differ from those of Kavishe (2022), who found that despite owning multiple land plots, many women in Ifakara, Morogoro, lacked title deeds due to socio-cultural and legal barriers. This contrast highlights the importance of contextual factors particularly gender and customary norms in shaping land formalization outcomes.

Table 5

Binary Logistic Regression on Social Factors that Influence Acquisition of Title Deeds among Residents in Regularised Areas

Independent variables	B	S.E.	Wald	df	p-value	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Land conflicts	0.904	0.421	4.608	1	0.032	2.47	1.082	5.64
Awareness	0.891	0.387	5.308	1	0.021	2.439	1.142	5.206
Number of plots owned (more than 2 plots	1.098	0.431	6.481	1	0.011	2.998	1.287	6.98
Constant	0.343	0.476	0.519	1	0.071	0.710		

4.4 Economic Factors Influencing Acquisition of Title Deeds among Residents

4.4.1 Access to Credit

Results in Table 6 show that access to credit (loans) from financial institutions significantly increases the likelihood of residents acquiring title deeds in regularized areas (B = 0.912, odds ratio = 2.490, p = 0.022). Holding other factors constant, residents with access to credit have approximately 2.5 times higher odds of acquiring title deeds compared to those without access to credit. This suggests that access to financial resources may facilitate the payment of costs associated with land titling and formalization. While secure land tenure may also enhance future credit access, the present results specifically highlight the role of credit availability in supporting title deed acquisition. During interview with one of key informants from Financial Services Limited commented that:

"*One of the conditions to our customers when they want to get loan, is to have a title deed that can be used as collateral especially for those who want to get a loan of more than five million Tanzania shillings".* (KII, May, 2025)

These results concur with Mbawala and Yihuan (2018), who conducted a study in Iringa region on the socio-economic benefits of land titling and found that titled land had higher value and could be used as collateral to access bank loans. While the present study shows that access to credit is associated with a higher likelihood of acquiring title deeds, Mbawala's findings help explain why landowners may seek formalization in the first place. However, these findings differ from those of Kusiluka and Chiwambo (2018), who reported that customs and traditions played an important role in discouraging the use of land as collateral in Njombe, Makete, and Morogoro. In their study, some community members perceived borrowing from banks as socially undesirable and regarded land as a valuable family asset that should not be risked. These cultural factors may limit the extent to which land titling translates into credit use in some contexts.

4.4.2 Income of the Respondents

Regarding income, holding other factors constant, residents with a source of income have 3.4 times higher odds of having a title deed compared to those without a source of income (95% CI: 1.57–7.307, p = 0.002), as shown in Table 6. This suggests that income availability is associated with a higher likelihood of acquiring title deeds in regularized areas, potentially because income earners are better positioned to meet costs related to the titling process. This study is consistent with Manara and Pani (2023), who conducted a study on unbundling tenure security and demand for property rights in Kilungule A and B sub-wards of Kimara ward in Dar es Salaam. He found that household income plays an important role in the demand for title deeds in regularized areas. Specifically, about 90% of residents with sources of income were willing to pay approximately TZS 200,000 (USD 85) to obtain title deeds. In contrast, low-income residents were more likely to occupy land informally without making such payments. These findings support the present study's results, which show that income significantly influences the likelihood of acquiring title deeds, suggesting that financial capacity is a key factor in land formalization processes.

4.4.3 Price Value of Land

Results in Table 6 show that land price value has a positive and statistically significant influence on the acquisition of title deeds (B = 1.129, odds ratio = 3.094, p = 0.004). This indicates that, holding other factors constant, a one-unit increase in land price value increases the odds of residents acquiring title deeds by approximately 3.1 times. The results suggest that higher-valued land is more likely to be formally registered, possibly because landowners with more valuable plots have greater incentives to secure legal ownership. However, this finding does not directly imply changes in land prices before regularisation. During interview one of the key informants commented that;

"*Medium sized plots measuring 35m x 35m had the selling price ranging from 4,000,000 TSHs to7,000,000 TSHs. After regularisation, the value of land in the same plots increased as the selling price become more than TZS 15,000,000."* (KII, July, 2025).

Therefore, residents in regularised area acquired title deeds to increase more value for their land. The Results are similar to Magina et al. (2020) who found that regularisation process has facilitated the issuance of title deeds, increased land value and security of tenure in Dar es Salaam and Mwanza. Therefore, land value has increased in the settlements soon after carrying out regularisation.

4.4.4 Commercial Uses of Land

Holding other factors constant, commercial uses of land significantly increase the odds of acquiring title deeds in regularized areas as indicated in Table 6. The coefficient for commercial land use is positive and statistically significant (B = 0.786, odds ratio = 2.194, p = 0.043), implying that a one-unit increase in commercial land use increases the odds of title deed acquisition among the residents. This suggests that households engaged in commercial land use are more likely to acquire title deeds. The findings further suggest that secure land tenure may be associated with greater confidence in investment decisions. These results are consistent with Shimwela (2018), who found that farmers with title deeds invested more capital in agricultural activities compared to those without formal land titles. Similarly, Mbilinyi et al. (2022) reported that formal acquisition of Certificates of Right of Occupancy (CRO) increased landowners' confidence and ability to access credit and invest in income-generating activities following land regularization.

4.4.5 Access of Land through Purchase

Results in Table 6 show that accessing land through purchase is associated with a higher likelihood of acquiring title deeds compared to inheritance as a mode of land access. However, this effect is not statistically significant at the 5% level (B = 0.575, odds ratio = 1.776, p = 0.134). This indicates that although purchasers have higher odds of acquiring title deeds, the difference is not strong enough to rule out random variation. The lack of statistical significance suggests that factors beyond the modality of land acquisition such as education level, gender, and awareness of land formalization procedures may play a more important role in determining access to title deeds. In Miyuji ward, land is primarily accessed through purchase (65.36%) and inheritance (34.64%), indicating that purchasing is the dominant mode of land acquisition in the study area. While purchasers may appear more likely to obtain title deeds, possibly due to greater engagement with formal transactions and documentation, inheritors may face challenges in completing the formalization process. In addition, during Key Informant interview, one of the Town of Our Plan Company comment that:

> "*Traditional tenure system like inheritance of land among residents can affect tittle deed acquisition among landholders. Landholders with purchasing agreement succeeded easily to access title deeds compared to those possessing inheritance letters. The purchasing agreement was among the attached documents required in processing title deeds.*" (KII July, 2025).

This agree with Aikaeli and Markussen (2022) who conducted study on Titling and the value of land in Tanzania. Their study found that, respondents with purchasing documents succeeded to access title deeds because purchasing agreement was among the attached documents required in processing title deeds. Also, their study found that, respondents with inheritance letters believed there was no need of having title deeds as legal documents of ownership.

Table 6

Binary Logistic Regression on Economic Factors that Influence Acquisition of Title Deeds among Residents in Regularised Areas

Independent variables	B	S.E.	Wald	df	p-value	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Access to credit	0.912	0.397	5.277	1	0.022	2.49	1.143	5.421
Income	1.229	0.388	10.034	1	0.002	3.417	1.597	7.307
Price value of land	1.129	0.389	8.449	1	0.004	3.094	1.445	6.627
Commercial uses of land	0.786	0.388	4.097	1	0.043	2.194	1.025	4.693
Access of land through Purchase	0.575	0.383	2.248	1	0.134	1.776	0.838	3.765
Constant	0.313	0.390	2.084	1	0.072	3.893		

P-value <0.05

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The study concludes that, more than half of the residents in the regularised areas of Dodoma city acquired title deeds. This proportion appears higher than what was reported in some other regions, suggesting that Dodoma City's regularization interventions may provide valuable lessons for other areas. Residents who experienced land conflicts, residents who were aware of land registration, residents who wanted to access credits that need title deeds as collateral, residents who used land for commercial purposes such as investment, residents with sources of income were able to pay title deeds related cost and increasing value of land in regularised area increases likelihood of residents to acquire title deeds. These findings support De Soto's land titling theory, which links formal titles to tenure security, reduced risk, and economic benefits such as access to loans and investment opportunities. Socio-economic factors, including gender and education, also appear to influence title deed acquisition, explaining why certain groups may secure formal land rights more readily than others. Overall, these results suggest that land regularization interventions in Dodoma have had positive socio-economic impacts by increasing formal land tenure.

5.2 Recommendations

The study recommended that local leaders such as Mtaa and Ward Executive Officers should proactively initiate educational and awareness programs to inform residents about the benefits, procedures, and requirements for acquiring title deeds, as the study found that awareness significantly increases the likelihood of title deed acquisition. Also, the Department of Land and Town Planning in Dodoma City, should collaborate with land departments from regions with low title deed acquisition rates to share best practices, innovative strategies, and lessons learned to address barriers in regularised areas. Furthermore, the Ministry of Land, Housing, and Human Settlements should review and amend legal frameworks, such as the Land Policy and related Acts, to reduce bureaucratic delays and simplify title deed acquisition procedures. Additionally, the ministry should adjust fees and charges to make land titling affordable for all residents, ensuring equitable access and enabling citizens to secure legal land ownership.

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