DETERMINANTS OF BUSINESS REGISTRATION STATUS IN TANZANIA

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Bachelor Degree in Official Statistics Research Project

Eastern Africa Statistical Training Centre

June, 2022

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A Research Project submitted in Partial Fulfillment of the Requirements for the Degree of Official Statistics of the Eastern Africa Statistical Training Centre

June, 2022

CERTIFICATION

The undersigned, certify that she has read and here by recommend for acceptance by the Eastern Africa Statistical Training Centre a research project entitled: **Determinants of Business Registration Status in Tanzania**, in partial fulfillment of the requirements for the award of Bachelor's Degree in Official Statistics of the Eastern Africa Statistical Training Centre.

_____

Dr. Joyce J. Minja

(Supervisor)

Date: _____

DECLARATION AND COPYRIGHT

I, Ibrahim Shaaban Seif, declare that this research project report is my own original work and that it has not been presented and will not be presented to any other higher learning institution for a similar or any other degree award.

Signature: _____

Date: _____

ACKNOWLEDGEMENT

Firstly I would like to express my gratitude to Allah who gave me breath, health, and ability to work during all those times of conducting my research project. Also, I would like to extend my heartfelt gratitude to my supervisor, Dr. Joyce J. Minja, for her tireless scholarly guidance, comments and assistance during the entire process of this research project.

My sincere appreciation goes to my lecturers and colleagues at the Eastern Africa Statistical Training Centre for the support they gave me throughout the course of my studies. Furthermore, I am thankful to all individuals that, in one way or another facilitated my study.

Lastly, I would like to declare that any shortcomings that remain in this study are my own responsibility.

DEDICATION

To my beloved family for their financial, social and mental support and all hopeful individuals that will read this research project.

LIST OF ABBREVIATIONS

BRELA	Business Registration and Licensing Agency
ESAURP	Eastern and Southern African Universities Research Programme
ESRF	Economic and Social Research Foundation
FSDT	Financial Sector Depending Trustee
GDP	Gross Domestic Product
HBS	Household Budget Survey
ILO	International Labour Organization
IMED	Institute of Management and Entrepreneurship Development
NBS	National Bureau of Statistics
SDG	Sustainable Development Goals
SMEs	Small and Medium-sized Enterprises

ABSTRACT

The study aimed to determine the effect of demographic and socio-economic factors on business registration status in Tanzania. The sample of 2,001 observations were selected from Household Budget Survey 2017/2018, Chi-square test and Binary logistic regression were carried out. The results indicated that there is a statistically significant relationship between business registration status and both demographic and socio-economic factors. The model was statistically significant at 5% level of significance.

Odd ratios of demographic factors and socio-economic factors; keeping transaction records, tax payment status, and some categories of business premises (which are permanent building other than home, no fixed location and other types of business premises) have significant effects on business registration status at 5% level, however fixed stall or kiosk premise had no significant effects. Findings indicated that low number of registered businesses may be caused by actions of some firms who avoids keeping transaction records, having unreliable types of business premises, or preference of female heads of household to be in informal sector.

The researcher recommends that female heads of household should be provided with more opportunities in education about importance of registering businesses also as a means of women empowerment. The government should be strict in assuring the availability of transactions records and payment of taxes from all firms. Also government should create better infrastructure so as to locate businessmen to reliable and decent markets for access to strategic opportunities and services.

TABLE OF CONTENT

Contents

CERTIFICATION i

DECLARATION AND COPYRIGHT ii

ACKNOWLEDGEMENT iii

DEDICATION iv

LIST OF ABBREVIATIONS v

ABSTRACT vi

TABLE OF CONTENT vii

LIST OF TABLES x

LIST OF FIGURES xi

CHAPTER ONE 1

1.0 Introduction 1

1.1 Background of the study 1

1.2 Statement of the problem 2

1.3 Objectives 3

1.4 Research Hypothesis 3

1.5 Significance of the Study 4

1.6 Scope of the study 4

CHAPTER TWO 6

2.0 Literature Review 6

2.1 Basic concepts and definition 6

2.2 Theoretical literature review 6

2.3 Empirical Literature Review: 8

2.4 Conceptual framework 10

2.5 Research gap 10

CHAPTER THREE 12

RESEARCH METHODOLOGY 12

3.0 Introduction 12

3.1 Study Area 12

3.2 Research Approach 12

3.3 Research Design 12

3.4 Data Sources 12

3.5 Target Population 13

3.6 Measurements 13

3.7 Data Analysis Techniques and Tools 14

3.7.1 Descriptive statistics 14

3.7.2 Inferential statistics 15

3.7.2.1 The Chi-square tests 15

3.7.2.2 Binary logistic regression 15

3.7.2.3 Diagnostics for the Binary logistic regression 17

CHAPTER FOUR 18

FINDINGS AND DISCUSSION OF RESULTS 18

4.0 Introduction 18

4.1 Descriptive Statistics Pertaining to the Study Area 18

4.2 Test of the association between dependent and independent variables 22

4.3 Diagnostics for the Logistic Regression 27

4.4 Binary Logistic Regression Analysis 28

4.4.1 Interpretation of the results 30

4.5 Discussion of the Findings 31

CHAPTER FIVE 37

SUMMARY, CONCLUSION AND RECOMMENDATIONS 37

5.0 Introduction 37

5.1 Summary of the study 37

5.2 Conclusion 38

5.3 Recommendations 39

5.3.1 Recommendations for Action 39

5.3.2 Recommendations for Further Research 40

REFERENCES 41

LIST OF TABLES

Table 3: 1 List of Variables and their measurement. 13

Table 4: 1 Descriptive statistics in general 18

Table 4: 2 Sex of head of household at Tanzania 19

Table 4: 3 Location type at Tanzania..... 20

Table 4: 4 Keeping transaction records at Tanzania 20

Table 4: 5 Tax payment status at Tanzania..... 21

Table 4: 6 Type of business premises at Tanzania..... 22

Table 4: 7 Test of the Association between Business registration status (Dependent variable) and Independent variables 23

Table 4: 8 Binary Logistic Regression Analysis..... 29

Table 4: 9 Link test results..... 27

LIST OF FIGURES

Figure 2: 1 Conceptual Framework 10

CHAPTER ONE

1.0 Introduction

This chapter provides a background to the study, statement of the problem, general and specific objectives, research hypothesis, significance of the study and scope of the study.

1.1 Background of the study

Business registration (Formalization) means registering and taxing informal enterprises (Chen, 2012). According to Nelson and De Bruijn (2005), formalization means graduating from the informal to the formal sector, either directly or via semi-formal status. The formal sector comprises enterprises registered with the state's Business Registration and Licensing Authority as a business name or as a company (Nelson & De Bruijn, 2005).

International Labour Organization estimated that eight out of ten (81 per cent) of the world's economic units are informal. Engaging in informality implies lower regulator, less tax revenues of government with limited access to formal services like the legal system, and are less likely to hire skilled labor (La Porta & Shleifer, 2014). The problems of informality in African countries are more severe than in the developed countries (ESAURP, 2012).

High informality will remain a challenge to Africa in the near future, even in a greater extent that requires more formal firms as the youth population in Africa is projected to increase by 105 million people by 2030, 94 million of whom will live in

the sub-Saharan subcontinent (Kiaga & Leung, 2020). This means that, further studies are needed to inform policy making that will promote business formalization.

Leandro, Andrew and Mehmet (2017) reported that informality in Sub-Saharan countries remains among the largest in the world, even though the proportion has been very gently diminishing in such a way it fluctuating from a low of 20% to 25% in Mauritius, South Africa and Namibia to a high of 50% to 65% in Benin, Nigeria and Tanzania. Registration status of establishments against industrial activities in Tanzania indicated that, the registered establishments were 79,583 (51.5 percent) compared to 75,035 (48.5 percent) un-registered establishments (NBS, 2016).

The focus of the study was to further advance researches on determinants of business registration status, starting from Chumbula (2020) work that was analyzed descriptively and qualitatively. This study extended knowledge by using Chi-squared test and Binary logistic regression with households as the targeted population to assess the effect of keeping transaction records, sex of head of household, tax payment status, type of business premises and location type in addressing the business registration status.

1.2 Statement of the problem

The fact that informality is expanding regardless formalization policies among international and domestic territory (Gurría, 2019), may indicate that the agenda is being processed without considerations of complexity of the issue, especially the determinants. According to Sutter and Chen (2016) informal enterprises in Tanzania faces difficulties towards legal recognition, freedom of operation and ready access to strategic opportunities and services.

People enter informal sector due to low barriers to entry (Chidoko & Makuyana, 2012). The most concerning issue is that, central and local governments view informal operators as a problem since they do not live by law and do not pay taxes, hence they reduces the Gross Domestic Product (GDP) of the country.

Therefore, the goal of the study was to generate empirical information on determinants of business registration status in order to increase awareness of the issue among societies in addressing policies that fosters number of registered business in the country to improve its GDP.

1.3 Objectives

General Objective

To assess the determinants of business registration status in Tanzania.

Specific Objectives

i. To examine associations between socio-economic factors and business registration status.
ii. To examine associations between demographic factors and business registration status.
iii. To assess the effects of socio-economic and demographic factors on business registration status.

1.4 Research Hypothesis

i. H_{01}: There is no association between socio-economic factors and business registration status.

   H_{11}: There is association between socio-economic factors and business registration status.

ii. H_{02}: There is no association between demographic factors and business registration status.

H_{12}: There is association between demographic factors and business registration status.

iii. H_{03}: There is no effect of socio-economic and demographic and factors on business registration status.

H_{13}: There is effect of socio-economic and demographic and factors on business registration status.

1.5 Significance of the Study

The findings of the study will contribute to the existing literature in studying determinants of business registration status in Tanzania, and the study result is expected to be used by different stakeholders such as government, national accounts compilers, business communities and academicians to assess progress made in business registration processes in Tanzania.

Additionally, the results of the study can be used for monitoring the implementation of national, regional, and global commitments such as Global Agenda 2030 on SDG number 8, which states “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all” (Parisotto, 2015), by exploring the better and affordable way of formalizing firms in order to increase decent jobs and GDP of the country.

1.6 Scope of the study

The study considered the business registration status among households in all regions of Tanzania mainland. Cross-sectional data used from Household Budget Survey

2017/2018, demographic and socio-economic factors as the determinants that demonstrated business registration status.

CHAPTER TWO

2.0 Literature Review

This chapter reviews the literature review of the study include; theoretical literature review and empirical literature review especially by revising the relevant document, books, articles, research, and journals that have discussed business registration.

2.1 Basic concepts and definition

Business registration (Formalization) means registering and taxing informal enterprises, which is beyond just registering and paying taxes, including: receiving the legal and social protections enjoyed by formal firms; receiving the tax holidays and incentive packages enjoyed by formal firms; being allowed to organize and to have representative voice in rule-setting and policymaking processes (Chen, 2012)

Informality is an economic phenomenon that has its roots in private commercial activities taking place outside the legal and regulatory realm and thus beyond the reach of the government (Tillman, 2014).

Formal Businesses: are businesses that hold any long-term license. Such licenses include operating and market licenses by municipalities, but exclude daily trading licenses. A tax identification number (even if solely used for business) held by a small business owner is not regarded as a long-term license (FSDT and Ministry of Industry and Trade, 2012).

2.2 Theoretical literature review

Legalist theory (De Soto 1989)

According to De Soto (2000), Legalist school sees the informal sector as comprised of micro-entrepreneurs who choose to operate informally in order to avoid the costs,

time and effort of formal registration and who need property rights to convert their assets into legally recognized assets. According Chen (2012) the Legalists argue that a hostile legal system leads the self-employed to operate informally with their own informal extra-legal norms.

The Legalists focus on informal enterprises and the formal regulatory environment to the relative neglect of informal wage workers and the formal economy per se. But they acknowledge that formal firm's interests collude with government to set the bureaucratic "rules of the game" (De Soto 1989). They argue that governments should introduce simplified bureaucratic procedures to encourage informal enterprises to register and extend legal property rights for the assets held by informal operators in order to unleash their productive potential and convert their assets into real capital (Muhanga, 2020).

The Voluntarist theory (Maloney 2004)

It focuses on informal entrepreneurs who deliberately seek to avoid regulations and taxation but, unlike the legalist school, does not blame the cumbersome registration procedures (Chen, 2012). They argue that informal operators choose to operate informally after weighing the costs-benefits of informality relative to formality.

According to Chen (2012) voluntarists pay relatively little attention to the economic linkages between informal enterprises and formal firms but subscribe to the notion that informal enterprises create unfair competition for formal enterprises because they avoid formal regulations, taxes, and other costs of production. They argue that informal enterprises should be brought under the formal regulatory environment in order to increase the tax base and reduce the unfair competition to formal businesses

(Muhanga, 2020). From the author's perspective, the Legalist theory is the leading theory for the study, although the study assessed determinants of business registration among households in Tanzania starting from both Legalist and Voluntarist theories.

2.3 Empirical Literature Review:

Different literatures have explained the factors of business registration status.

Williams and Kedir (2016) used non-agricultural formal private sector businesses with five or more employees to collect data from business owners and top managers. Heckman two-step estimator was adopted to produce the econometric estimates. In second equation they used standard Probit model to describe registration status and revealed that in India, 12.5 percent of the formal private sector businesses with five employees or more surveyed had started up unregistered and of these, the average length of time they spent unregistered was one year and three months.

For those formal enterprises, starting up unregistered is positively and significantly associated with higher subsequent sales, employment and productivity growth rates, but is negatively and significantly associated with lower productivity growth rates if there is control only for registration status, but significantly associated if years of non-registration are included (Williams & Kedir, 2016). Their work was too broad since it studied simultaneously business performance and registration; where by the study will be specifically studying business registration.

Sutter and Chen (2016) performed a survey of 179 informal operators in Tanzania (in Ilala Municipal Council, Kinondoni Municipal Council, Temeke Municipal Council, Moshi Municipal Council and Mwanza City Council), field visits to Ghana (in Accra

Metropolitan Authority, Ga West Assembly and Ga East Assembly), Rwanda (in Kigali City) and Kenya (in Nairobi Country) to undertake interviews and focus group discussions with informal operators and their associations, local and central governments, etc.

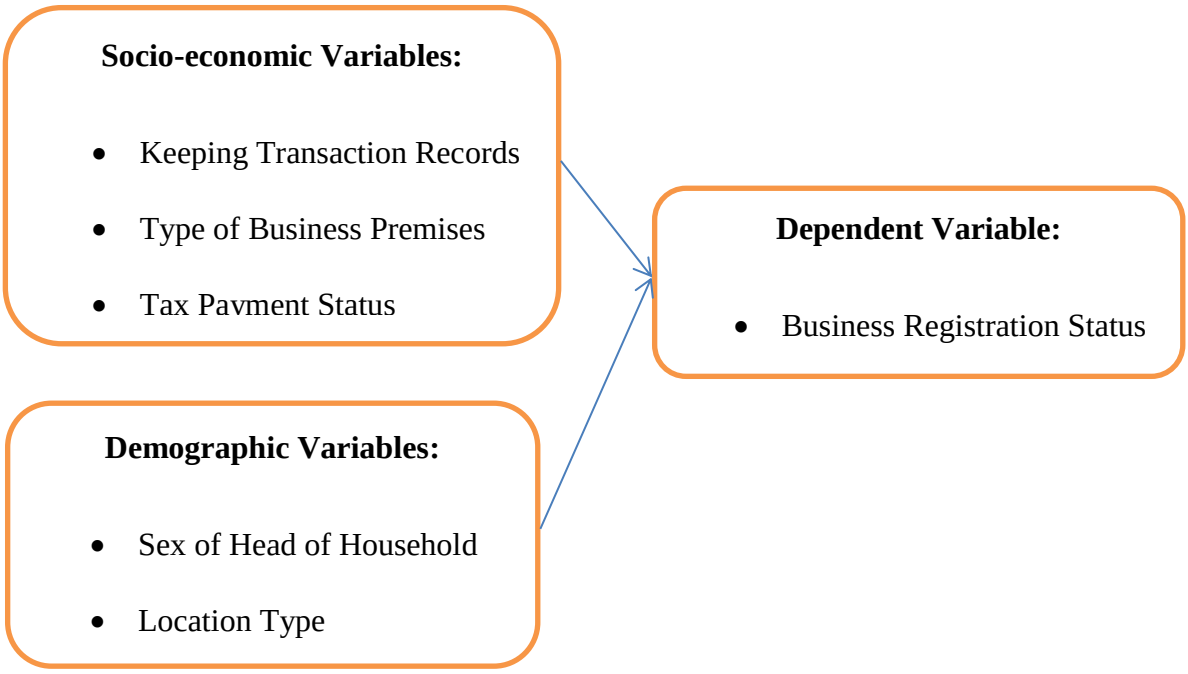
According to Sutter and Chen (2016), the data was analyzed qualitatively through a thematic approach and quantitatively (descriptive). The findings indicate that almost 97% of respondents did not have a business license while the rest had business license from City or Municipal Councils. Around 12% of the respondents knew about business license, but, they did not know how to get it (i.e. low level of information or knowledge concerning registration). Sutter and Chen's work used descriptive approach, where by this paper will use both descriptive and inferential statistics.

Chumbula (2020) used individual survey from 180 respondents and focus groups discussions to measure women attitude on business registration in order to investigate challenges making women to continue doing informal business in Tanzania. Quantitative data were analyzed descriptively while qualitative analyzed by content method. Results indicated that low awareness among business women on registration matters, high registration fee, high tax for the registered enterprises, long time spent in registration process hinders women to go for it. Also study concluded that the number of women who registered their enterprises at Kinondoni district is low. The paper differed from Chumbula work as it studied head of household who are businessmen regardless of their gender.

2.4 Conceptual framework

A conceptual framework is a structure that the researcher believes can best explain the natural progression of the phenomenon to be studied (Dickson, Adu-Agyem, & Emad Kamil, 2018). Business registration status considered as dependent variable in the study while keeping transaction records, type of business premises, tax payment status, sex of head of household and location type are Independent variables. Their relationships are summarized in Figure 2:1.

Figure 2: 1 Conceptual Framework



Source: Adopted from literature

2.5 Research gap

The literature reviews from previous studies have contributed much knowledge in understanding the situation of business registration in Tanzania.

However, scholars like Chumbula (2020) and Sutter and Chen (2016) mainly used qualitative approach and descriptive statistics, while Williams and Kedir (2016) used standard Probit model as the method of their analysis. This means they did not use Chi-squared test in testing associations of variables or Binary logistic regression. Hence in this study, Chi-squared test and Binary logistic regression were used as the inferential methods to assess determinants of business registration status in Tanzania.

Lastly, previous work like Chumbula (2020), Sutter and Chen (2016) and Williams and Kedir (2016) used primary data with operators of firms as their targeted population, which is opposite of the study since has used secondary data with head of household businessmen as the targeted population.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents research strategies and techniques that were used in the study. It describes the study area, research design, source of data and methods of data analysis that were used to obtain the objectives of the study.

3.1 Study Area

The focus of the study was all regions of Tanzania mainland, which were in rural and urban wise. The area has been chosen because many households of country have members that are engaged in businesses that are either registered or non-registered.

3.2 Research Approach

The design for the study was quantitative research approach, to give a clear understanding of the research problem.

3.3 Research Design

The cross-sectional research design was used to direct the study. The study used secondary data from the Household Budget Survey (HBS) of 2017/18 which shows business registration status among households in Tanzania for sampled Households.

3.4 Data Sources

The study used secondary data from the Tanzania National Bureau of Statistics (NBS) through the Household Budget Survey (HBS) for the year 2017/2018.

3.5 Target Population

The targeted population of the study were heads of household businessmen in all regions of Tanzania mainland.

3.6 Measurements

The study used two kinds of factors, which are socio-economic and demographic:

Table 3: 1 List of Variables and their measurement.

Types of variables	Name of variables	Scale
Dependent variable	Business registration status	Nominal 1. Registered 2. Non-registered
Independent variable	Keeping transaction records	Nominal 1. Yes **2.** No
Independent variable	Type of business premises	Nominal 1. In Own or Business Partners Home With Special Business Space 2. In Own or Business Partners Home Without Special Business 3. Permanent Building Other than Home 4. Fixed Stall or Kiosk at a Market 5. Fixed Stall or Kiosk on the Street

Types of variables	Name of variables	Scale
		6. Vehicle, Cart, Temp Stall on the Street 7. No Fixed Location / Mobile 94. Other
Independent variable	Tax payment status	Nominal 1. Yes **2.** No
Independent variable	Sex of head of household	Nominal 1. Male 2. Female
Independent variable	Location type	Nominal 1. Urban 2. Rural

Source: Adopted from HBS Data 2017/2018

3.7 Data Analysis Techniques and Tools

The study employed both descriptive and inferential statistics by using STATA 16. Descriptive analysis were used to examine characteristics of data while inferential statistics were employed in answering the objectives.

3.7.1 Descriptive statistics

Frequency table used to summarize the characteristics of the respondents on business registration status.

3.7.2 Inferential statistics

The study employed inferential statistics which are; the Chi-square test and Binary logistic regression.

3.7.2.1 The Chi-square tests

The Chi-square test was used to examine the associations between independent variables and business registration status that is dependent variables, which answered specific objective number one and two.

The formula for Chi-square is given as:

$$\chi 2 = \sum_{i} \frac{((O_i - E_i)^2}{E_i}$$

Where

- χ 2 = Chi-Square value
- O_i = Observed frequency
- E_i = Expected frequency

3.7.2.2 Binary logistic regression

Binary logistic regression is a regression analysis where the dependent variable is a dichotomy. It contains data with only two outcomes coded as (y=1 or y=0), since the response variable Y (business registration status) was the binary variable with categories registered businesses and non-registered businesses, which was the help in analyzing the

factors of business registration among households in Tanzania. This regression model used to answer objective number three.

The Binary Logistic Model is

Y = $logit(\pi) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + e_i$

Where;

Y= Business registration status

$$logit(\pi) = \log(\frac{\pi}{1 - \pi})$$

π is the probability of an event happening;

x_1= Keeping transaction records

x_2= Type of business premises

x_3= Tax payment status

x_4= Sex of head of household

x_5= Location type

e_i = Independent random error term associated with i^{th} responses, typically assume to be normally distributed N (0, δ2).

β_0, β_1, β_2, β_3, β_4 and β_5 are regression coefficients

The odds of an event are the ratio of the probability of an event occurring to the probability of the event not occurring. The odd ratio gives the relative amount by which

the odds of the outcome increase (odds ratio greater than 1) or decrease (odds ratio less than1) when the value of the predictor is increased by a unit or when comparing a level of categorical predictor variable to its reference level. The Odds Ratio for the events is defined by the formula $\frac{\pi_1/(1-\pi_1)}{\pi_0/(1-\pi_0)}$, where $\pi_0/(1-\pi_0)$ is the odds of the event when predictor is at the reference level and $\pi_1/(1-\pi_1)$ the odds at the level of interest.

3.7.2.3 Diagnostics for the Binary logistic regression

Link test was used to assess the accuracy of the Binary logistic regression model

CHAPTER FOUR

FINDINGS AND DISCUSSION OF RESULTS

4.0 Introduction

This chapter presents and discusses descriptive and inferential findings from the study. After the descriptive statistics, the Chi-square test was carried out to study the associations between independent variables and dependent variable and later Binary logistic regression was used to study the effect of the independent variables on the dependent variable.

4.1 Descriptive Statistics Pertaining to the Study Area

Business registration status

This includes the frequency table showing the summary of business registration status among heads of household businessmen surveyed across the country.

Table 4: 1 Descriptive statistics in general

Registration Status	Number of Households	Percentage	Cumulative
Registered	271	13.54	13.54
Not Registered	1730	86.46	100.00
Total	**2001**	**100.00**	

Table 4.1 shows the total number of observations is 2001; where the registration status is categorized into two categories which are registered and not registered.

Results from Table 4.1 shows that, there are 271 head of households are registered businessmen which is 13.54% of total businessmen households. Also, from the output

results there are 1730 head of households are not registered businessmen which is 86.46% of total businessmen households.

Sex of head of household (sex of a household businessman)

Sex of head of household is one of the factors that determine the business registration status among households at Tanzania.

Table 4: 2 Sex of head of household at Tanzania

Sex of head of Household	Number of Household	Percent
Male	1422	71.06
Female	579	28.94
Total	**2001**	**100.0**

Data on sex of head of household is categorized into two classes as shown in Table 4.2. The variable was chosen to see its effect on dependent variable. The table shows that 1422 (71.06%) of heads of households were male while 579 (28.94%) of heads of households were female.

Location type (location of a household business)

The variable location type is one of the factors that determine the business registration status among households at Tanzania.

Table 4: 3 Location type at Tanzania

Location type	Number of Household	Percent
Rural	1266	63.27
Urban	735	36.73
Total	**2001**	**100.0**

Data on location type is categorized into two classes as shown in Table 4.3. The variable was chosen to see its effect on dependent variable. The table depicts that 1266 (63.27%) of heads of households were living in rural while 735 (36.73%) of heads of household were living in urban.

Keeping transaction records (transaction records of a household's business)

The variable keeping transaction records is one of the factors that determine the business registration status among households at Tanzania.

Table 4: 4 Keeping transaction records at Tanzania

Keeping transaction records	Number of Household	Percent
They keep records	484	24.19
They do not keep records	1517	75.81
Total	**2001**	**100.0**

The transaction records distribution of households is categorized into two classes as shown in Table 4.4. The variable was chosen to see its effect on dependent variable. The table depicts that 484 (24.19%) of heads of households were keeping transaction records while 1517 (75.81%) of heads of households do not keep transaction records.

Tax payment status (tax payment of a household's business)

The variable tax payment status is one of the factors that determine the business registration status among households at Tanzania.

Table 4: 5 Tax payment status at Tanzania

Tax payment status	Number of Household	Percent
They pay taxes	504	25.19
They do not pay taxes	1497	74.81
Total	**2001**	**100.0**

The transaction records distribution of households, as shown in Table 4.5. The variable was chosen to see its effect on dependent variable. The table shows that 504 (25.19%) of heads of households were paying taxes while 1497 (74.81%) of heads of households do not pay taxes.

Type of business premises (premises' type of a household's business)

The variable type of business premises is one of the factors that determine the business registration status among households at Tanzania.

Table 4: 6 Type of business premises at Tanzania

Type of business premises	Number of Household	Percent
In Own or Business Partners Home	636	31.78
Permanent Building Other than Home	255	12.74
Fixed Stall or Kiosk	292	14.59
No Fixed Location	543	27.14
Other (Specify)	275	13.74
Total	**2001**	**100.0**

Table 4.6 shows that the highest proportion of households performing their business in in own or business partners home (31.78%), followed by no fixed location (27.14%), followed by fixed stall or kiosk (14.59%), then 13.74%$ who had other options, and lastly permanent building other than home with 12.74%

4.2 Test of the association between dependent and independent variables

Table 4.7 depicts the results of the test of association between sex of head of household, location type, type of business premises, keeping transaction records, tax payment status and business registration status. The relationship between any independent variable and the dependent variable having a p-value less than 0.05 ($p < 0.05$) is considered statistically significant.

Table 4: 7 Test of the associations between independent variables and business registration status

Variable	Response		Registered	Not registered	χ^2	P – value
Keeping transaction records	Keep records	Count	170	314	253.93	0.00
		% within transaction records	35.12%	64.88%		
	Do not keep records	Count	101	1416		
		% within transaction records	6.66%	93.34%		
Type of business premises	In Own or Business Partners Home	Count	66	570	163.44	0.00
		% within type of premise	10.38%	89.62%		
	Permanent Building Other than Home	Count	87	168		
		% within type of premise	34.12%	65.88%		
	Fixed Stall or Kiosk	Count	69	223		
		% within type of premise	23.63%	76.37%		
	No Fixed Location	Count	29	514		
		% within type of premise	5.34%	94.66%		
	Other	Count	20	255		
		% within type of premise	7.27%	92.73		

Variable	Response		Registered	Not registered	χ^2	P – value
Tax payment status	Paid	Count	245	259	707.54	0.00
		% within tax payment	48.61%	51.39%		
	Not paid	Count	26	1471		
		% within tax payment	1.74%	98.26%		
Sex of head of household	Male	Count	232	1190	32.25	0.00
		% within Sex of Respondent	16.32%	83.68%		
	Female	Count	39	540		
		% within Sex of Respondent	6.74%	93.26%		
Location type	Rural	Count	108	1158	73.96	0.00
		% within location	8.53%	91.47%		
	Urban	Count	163	572		
		% within location	22.18%	77.82%		

Source: Authors compilation from STATA 16

Association between keeping transaction records and business registration status

The relationship between keeping transaction records and business registration status was statistically significant (p = 0.00). The findings in Table 4.7 show that, out of all heads of households who keeps transaction records 35.12% were registered and 64.88%

were not registered. Table 4.7 also shows that, 6.66% of heads of households do not keeps transaction records were registered and 93.34% of them were not registered. This shows that, heads of households who keeps transaction records were more likely to be registered with respect to their business compared to heads of households who does not keeps transaction records.

Association between type of business premises and business registration status

The relationship between type of business premises and business registration status was statistically significant ($p = 0.00$). The findings in Table 4.7 show that, out of all who perform business in own or business partners home 10.38% were registered and 89.62% were not registered. Moreover, Table 4.7 shows that, 34.12% of who perform business in permanent building other than home were registered and 65.88% were not registered. Table 4.7 further shows that, 23.63% of who perform business in fixed stall or kiosk were registered and 76.37% were not registered. The findings in Table 4.7 show that, out of all who perform business in no fixed location 5.34% were registered and 94.66% were not registered. The findings in Table 4.7 show that, out of all who perform business in other places 7.27% were registered and 92.73% were not registered. This means that heads of households who perform business in permanent building other than home were most likely to be registered with respect to their business compared to all other types of premises, with heads of households who perform business in no fixed location were most likely to be unregistered.

Association between tax payment status and business registration status

The relationship between tax payment status and business registration status was statistically significant (p = 0.00). The findings in Table 4.7 show that, out of all heads of households who pays taxes 48.61% were registered and 51.39% were not registered. Table 4.7 also shows that, 1.74% of heads of households who does not pays taxes were registered and 98.26% of them were not registered. This shows that, heads of households who pays taxes were more likely to be registered with respect to their business compared to heads of households who does not pays taxes.

Association between sex of head of household and business registration status

The relationship between sex of head of household and business registration status was statistically significant (p = 0.00). The findings in Table 4.7 show that, out of all male heads of households 16.32% were registered and 83.68% were not registered. Table 4.7 also shows that, 6.74% of female heads of households were registered and 93.26% of them were not registered. This shows that, male heads of households were slightly more likely to be registered with respect to their business compared to female heads of households.

Association between location type and business registration status

The relationship between location type and business registration status was statistically significant (p = 0.00). The findings in Table 4.7 show that, out of all rural heads of households 8.53% were registered and 91.47% were not registered. Table 4.7 also shows that, 22.18% of urban heads of households were registered and 77.82% of them were

not registered. This shows that, urban heads of households were slightly more likely to be registered with respect to their business compared to rural heads of households.

4.3 Diagnostics for the Logistic Regression

Link test was used to assess accuracy of the Binary logistic regression model.

Model Specification Error Test

The Binary logistic regression model fitted was tested for specification error. A link test was used to test the model adequacy. Table 4.8 below presents the results of link test which indicates no misspecification errors existing since linear predicted value squared (_hatsq) is insignificant at 5% level (p-value = 0.418) and the predicted value (_hat) is very significant at 5% level (p-value=0.000); hence, the model specification is correct. This means that, to the best of the researcher's knowledge, the model contains those variables that should be in the model and the variables have been entered in the correct functional form.

Table 4: 8 Link test results

	Z-statistics	**P-value**
_hat	10.22	0.000
_hatsq	-0.81	0.418

Source: Authors compilation from STATA 16

4.4 Binary Logistic Regression Analysis

The Binary logistic regression analysis was used to study the effect of sex of head of household, location type, type of business premises, keeping transaction records and tax payment status on the business registration status.

The Binary logistic regression model from table 4.9 was statistically significant at 5% level of significance since p = 0.000 which is less than level of significance at 5%, with the value of the likelihood ratio (LR) Chi-square test is 770.2, and its degree of freedom is 8. The overall model p-value is 0.000; this is highly significant, and tells that predictor variables has significant effect on business registration status at 5% level of significance. From the Binary logistic regression analysis, significant effects between predictor variables and the outcome variable (Business registration status) were sought.

From table 4.9, odd ratios of demographic factors and socio-economic factors; keeping transaction records, tax payment status, and categories (which are permanent building other than home, no fixed location and other types of business premises) from type of business premises have significant effects on business registration status at 5% level, however odds ratio of fixed stall or kiosk premises (p= 0.428) which was not statistically significant at 5% level.

Table 4: 9 Binary Logistic Regression Analysis

Business Registration Status	Coef.	Odds Ratio	z	P>|z|
Not Registered (base outcome)				
Keeping transaction records				
NO	-.9773	.3763	-5.29	0.000
Yes **(**Reference**)**				
Type of business premises				
Permanent Building Other than Home	.7262	2.0671	2.79	0.005
Fixed Stall or Kiosk	.2006	1.2221	0.79	0.428
No Fixed Location	-1.0218	.3599	-3.58	0.000
Other (Specify)	-.6487	.5227	-2.00	0.046
In Own or Business Partners Home **(**Reference**)**				
Tax payment status				
NO	-3.5608	.0284	-15.58	0.000
Yes **(**Reference**)**				
Sex of head of household				
Female	-1.0210	.3602	-4.34	0.000
Male **(**Reference**)**				
Location type				
Urban	.9485	2.5817	5.09	0.000
Rural **(**Reference**)**				
Constant	.2393	1.2704	1.09	0.274
Number of observation = 2,001 LR Chi2(8) = 770.20				
Prob > Chi2 = 0.0000 Pseudo R2 = 0.4853				

Source: Authors compilation from STATA 16

4.4.1 Interpretation of the results

Table 4.8 findings presents the results of the Binary logistics regression by using odds ratio as follows.

Results shows that the odds ratio for variable keeping transaction records for heads of households was 0.3763, which indicates that heads of household businessmen who did not keep transaction records were about 62.37% [(0.3763 – 1) * 100] less likely to be registered for their business compared to those who kept transaction records, when holding all the other predictors constant.

The odds ratio for type of business premises specifically to the permanent building other than home which was 2.0671 indicates that heads of household businessmen who perform their business in the permanent building other than home were 206.71% more likely to be registered for their business compared to those who perform their business in own or business partners home, when holding all the other predictors constant. Also the odds ratio for type of business premises specifically to those with no fixed location was 0.3599, this indicates that heads of household businessmen with no fixed location were 64.01% [(0.3599 – 1) * 100] less likely to be registered for their business compared to those who perform their business in own or business partners home.

Similarly, the results show that odds ratio for other types of business premises was 0.5227, this indicates that holding other variables constant heads of household businessmen who perform their business in other types of business premises were 47.73% [(0.5227 – 1) * 100] less likely to be registered for their business compared to

those who perform their business in own or business partners home. In addition, the odds ratio for type of business premises specifically to the fixed stall or kiosk which was 1.2221 was statistical insignificant on business registration status. These findings on type of business premises make parallel with the view that heads of household businessmen who perform their business in more reliable premises easily was found their business were registered.

For variable tax payment status, the odds ratio for those who did not paid taxes was 0.0284, this indicates that holding other variables constant heads of household businessmen who did not paid taxes were 97.16% [(0.0284 – 1) * 100] less likely to be registered for their business compared to those who paid taxes.

For variable sex of head of household, the odds ratio for female was 0.3602, this indicates that holding other variables constant female heads of household were 63.98% [(0.3602 – 1) * 100] less likely to be registered for their business compared to those male heads of household businessmen.

For variable location type, the odds ratio for those who lived at urban area was 2.5817, this indicates that holding other variables constant heads of household businessmen lived at urban were 258.17% more likely to be registered for their business compared to those who lived at rural area.

4.5 Discussion of the Findings

Informal enterprises in Tanzania faces difficulties towards legal recognition and freedom of operation therefore, the study examined if the predictor variables have a significant

effect on the business registration status. This section presents the discussion of the present study findings in relation to the study objectives and findings from other studies. This section has four subsections, subsection 4.6.1 about keeping transaction records in determining business registration status, 4.6.2 about type of business premises in determining business registration status, 4.6.3 about tax payment status in determining business registration status and subsection 4.8.2 about the demographic determinants of business registration status.

Keeping transaction records in determining business registration status

The study assessed keeping transaction records in determining business registration status. The Chi-square test of independence verified existence of relationship between keeping transaction records and business registration status at 5% level of significance ($\chi^2 = 253.93$, p-value = 0.00).

Binary logistic regression shown that holding other predictors constant, keeping transaction records had a statistically significant effect on business registration status whereby, heads of household businessmen who did not keep transaction records were about 62.37% less likely to be registered for their business compared to those who kept transaction records. This indicated that low number of registered businesses may be caused by actions of some firms who avoids keeping transaction records so as to hide from paying taxes.

Similarly, a study by Williams and Kedir (2016) who employed Chi- square and analysis of variance and found that 89.7% of the variation in business registration could be

explained by the level of accounting records keeping. Therefore it can be concluded that that there is a strong positive relationship between accounting records keeping and business registration of firms.

Type of business premises in determining business registration status

The study assessed type of business premises if it has effect on business registration status. The Chi-square test of independence verified existence of relationship between type of business premises and business registration status at 5% level of significance (χ^2 = 163.44, p-value = 0.00).

Binary logistic regression shown that holding other predictors constant, type of business premises had a statistically significant effect on business registration status whereby, heads of household businessmen who performed their business in the permanent building other than home were 206.71% more likely to be registered for their business compared to those who perform their business in own or business partners home, heads of household businessmen with no fixed location were 64.01% less likely to be registered for their business compared to those who perform their business in own or business partners home, heads of household businessmen who perform their business in other types of business premises were 47.73% less likely to be registered for their business compared to those who perform their business in own or business partners home. This indicates that low number of registered business may be attributed by having unreliable types of business premises.

However, this is in contrary with the study of Sutter and Chen (2016) which indicated that business premises plays an insignificant role in the determination of firms' business registration status. For elaborations author shown that governments own and manage several markets used by informal operators. They have also been trying to increase the number of markets for informal operators, hence business premises have a neutral influence on firms' business registration status.

Tax payment status in determining business registration status

The study assessed tax payment status in determining business registration status. The Chi-square test of independence verified existence of relationship between tax payment status and business registration status at 5% level of significance ($\chi^2 = 707.54$, p-value = 0.00).

Binary logistic regression shown that holding other predictors constant, tax payment status had a statistically significant effect on business registration status whereby, heads of household businessmen who did not paid taxes were 97.16% less likely to be registered for their business compared to those who paid taxes. This indicates that low number of registered business may be attributed by neglecting of firms in performing tax's payments.

The findings of the study are close to what were found in Chumbula (2020) which indicated that tax payments plays a significant role in the determination of firms' business registration status, hence most informal traders try to remain informal even after their businesses have grown, in order to benefit from lower taxes/fees.

Demographic determinants of business registration status.

The study of demographic determinants of business registration status found the existence of significant relationship between sex of head of household and business registration status at 5% level of significance ($\chi^2 = 32.25$, p-value = 0.00).

Binary logistic regression shown that holding other predictors constant, sex of head of household had a statistically significant effect on business registration status whereby, female heads of household were 63.98% less likely to be registered for their business compared to the male heads of household businessmen. This indicates that female heads of household prefers to perform informal businesses.

This assertion is also supported by Chumbula (2020) although they only used descriptive and group discussion methods. They found that majority of women at Kinondoni district do not agree with business formalization because of some corrupted officials who need corruption for processing registration in time with the most preferred one was sexual affairs.

The findings of location type in determining business registration status, found the existence of significant relationship between location type and business registration status at 5% level of significance ($\chi^2 = 73.96$, p-value = 0.00).

Binary logistic regression shown that holding other predictors constant, location type had a statistically significant effect on business registration status whereby, heads of household businessmen lived at urban were 258.17% more likely to be registered for

their business compared to those who lived at rural area. This indicates that urban heads of household businessmen prefers to perform formal businesses.

The findings of the study are close to what were found in Williams and Kedir (2016) work, which imply that there is a positive and significant effect of the location variable on the business registration variable. Indicators of ease of accessing civilized areas are important in influencing someone to register. The urban area has a positive effect with a regression coefficient of 0.30, due to the closeness of public facilities to the location of the registration. Strategic location is one of the reasons someone registers businesses.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This final chapter of the study highlights the summary, conclusions and recommendations of the research results.

5.1 Summary of the study

The study assessed the determinants of business registration status in Tanzania guided by the following specific objectives, “To examine associations between socio-economic factors and business registration status.”, ”To examine associations between demographic factors and business registration status” and “To assess the effects of socio-economic and demographic factors on business registration status.”

The study used secondary data from the Tanzania National Bureau of Statistics (NBS) through the Household Budget Survey (HBS) for the year 2017/2018. Chi-square test of independence between each predictor variable and business registration status gave solid grounds for fitting a Binary logistic model. The Binary logistic model was used to estimate the effect of each predictor variable on business registration status. The model was tested for accuracy to ensure that valid, reliable and sound results were obtained using Link test; the model was found to be a good fit.

5.2 Conclusion

The first research objective was to examine associations between socio-economic factors and business registration status. The results were significant at 5% level hence giving strong evidence that socio-economic variables (keeping transaction records, tax payment status, and type of business premises) are significant associates with business registration status. Thus, concluding that socio-economic variables have significant association with business registration status.

The second research objective was to examine associations between demographic factors and business registration status. The results were significant at 5% level hence giving strong evidence that demographic factors (sex of head of household and location type) are significant associates with business registration status. Thus, concluding that demographic factors have significant association with business registration status.

The third research objective was to assess the effects of demographic and socio-economic factors on business registration status. In case for the result of demographic factors were significant at 5% level implying that they are significant predictors of business registration status. While for the socio-economic factors; keeping transaction records, tax payment status, and categories (which are permanent building other than home, no fixed location and other types of business premises) from type of business premises were significant at 5% level implying that they are significant predictors of business registration status with exception of fixed stall or kiosk premises ($p= 0.428$) that was not statistically significant at 5% level implying that it insignificant predictor of business registration status.

Therefore variable location type and permanent building other than home (type of business premises) both have high influence on head of household in registering their businesses, while variable tax payment status shows that it is the highest obstacle for the head of household in registering their businesses.

5.3 Recommendations

From the study findings, the researcher recommends the following for action and further research.

5.3.1 Recommendations for Action

Registered businesses needs to keep transaction records for tax purposes. Therefore, the government should be strict in assuring the availability of transactions records and payment of taxes from all firms in order to increase number of registered businesses in the country.

Also the study indicated that, low number of registered businesses may be attributed by having unreliable types of business premises. Therefore the government should create better infrastructure so as to locate businessmen to reliable and decent markets for access to strategic opportunities and services so as to increase number of registered businesses in the country.

Having identified that female heads of household prefers to perform informal businesses, the researcher recommends that they should be provided with even more opportunities in education about importance of registering businesses so as empower women and increases number of registered businesses in the country.

We have identified that urban heads of household businessmen prefers to perform formal businesses; this is due to the fact that informal firms are more practiced in rural areas. Therefore behavioral change should be stirred up for all those who engaged in informal sector deliberately so as to addresses importance of formalization. This can be through creating national-wide slogans, making posters, making use of advancement of technology by using social media, mass messaging, tv stations and radio stations to spread awareness on business registration importance to the national development.

5.3.2 Recommendations for Further Research

The available relevant studies mostly were confined in a specific country or area which has shown to yield inconsistent results (different factors that influence business registration status). The researcher recommends that multinational study is needed that can compare business registration status between countries of different classes. More studies are needed for the future concerning business registration status, since many present researches illustrating only business performances seldom talking about formalization.

Lastly, researchers and scholars are advised to check for other variables that affecting business registration status. These factors may include the demographic and socio-economic factors that were not part of the study like economic status of the households and the awareness of household's heads which may affect business registration status

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