International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 05 Issue: 05 | May-2018 www.irjet.net p-ISSN: 2395-0072

MOTIVATION AGAINST GROWTH OF 'FIRST ORDER' AND 'SECOND ORDER' LOCAL BUILDING CONTRACTORS IN TANZANIA: A CORRELATION ANALYSIS

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Abstract - *The main objective of the study was to find the correlation between the motives in starting a construction business and growth of contractors and how the individual growth of contractors affects the growth of construction industry in Tanzania. It further aimed to explore and establish a relationship between motivation factors of "first order and second order" contractors with growth of these contractors and recommend appropriate measures to be taken by contractors to ensure their sustainable growth and the growth of construction industry.*

A sample of 42 local building contractors was drawn from six classes (I-VI), using proportionate stratified sampling method and simple random method. Interview and public documents was used in data collection. SPSS program was used in analyzing the collected data.

Findings revealed that both pull and push motives had driven contractors into starting their businesses. Also there is a very strong relationship between the motivation factors and growth of individual construction firms. The relationship was determined by obtaining the coefficients of correlation between pull factors and growth versus push factors and growth that indicated a strong relationship for both cases. However, even those contractors who were pulled showed a small to medium growth rate contrary to the known theories. Other findings showed that, interventions from other stakeholders such as the government, regulatory authorities and professional bodies play a great in ensuring the growth of the construction industry.

From the findings it was recommended that building contractors need to outgrow their motives and adapt to the situations or circumstances prevailing in the construction industry. It was further recommended that building contractors need to be open minded and change their needs from lower order needs to higher order needs.

Key Words: Motivation, Growth, 'First Order', 'Second Order', Building Contractors, Correlation, Tanzania.

1. INTRODUCTION

Opportunity based entrepreneurs are highly successful compared to necessity based entrepreneurs. They have great impact on employment, competitiveness and economic growth compared to necessity driven entrepreneurs [19]. In starting a new business, the motivation is divided into two types; that is the push and the pull factors. The concept of pull and push factors has now grown into necessity and opportunity [16]. The necessity is considered as a push motivation while the opportunity is considered as a pull motivation.

In going further with the concept of necessity and opportunity, [8] categorized entrepreneurs into two categories; that is opportunity oriented businessmen who are considered to be 'first order' entrepreneurs and the necessity oriented businessmen who are considered to be 'second order' entrepreneurs.

[10] affirmed that suitable motivation will increase or maximize productivity that is higher motivation equals to higher productivity, the study was about productivity in construction sites done in Turkey. It was found that productivity in construction sites depends directly on motivation factors but the study focused on site laborers, whereby a similar study was also done in Pakistan by [2]. Both studies showed that growth has a direct relationship with motivations.

A study by [1] in Malaysia entails that in a construction firm, good management and personal qualities and motives of the entrepreneur (owner) are among important factors for firm`s success and they contribute to firms' growth.

[14] stated that pull factors or motives are more important in starting a business compared to push factors. Owner`s pull motives are positively related to the growth of the firm while the owner's push motives are negatively related to the growth of the firm.

The growth of different sectors depends mainly on the growth of individual firms and construction sector is not in isolation, and works in a similar way like other industries. Construction industry is a fundamental economic activity which permeates most of the sectors of the economy; in short it is an engine of growth. The growth of construction industry is driven by the developments in the roadworks, commercial and residential buildings and other land

development. As the industry grows, so does its contribution to Gross Domestic Product (GDP) to the country's economy [21].

The industry holds a very special place in Tanzania's economy and it is a very crucial sector as it cuts across all other sectors and stimulates their growth. The sector is pivotal to the achievement of Tanzania's long term development strategy that seeks to attain sustainable human development and to becoming a middle income economy by 2025. For this vision to be achieved the country must have reliable and competitive local construction industry that is capable of delivering quality services and value for money used in the development and maintenance of physical infrastructure [21].

However, the construction industry has shown rather a fluctuating low contribution to the GDP and has shown a weak performance in recent years. For example, in 2010 construction contributed 7.8% only to the national Gross Domestic Product, in 2014 it contributed 12% and in 2015 it contributed 13.6% only [20]. For this sector to grow and contribute more to the economy it needs individual firms to grow well, perform and be competitive. Needless to say, the growth of individual firms depends on primary motives of the owner and the ability to cope with ever changing technological advancement and external environment.

The growth of construction industry depends on individual firms and the growth of individual firms depends on the primary motives or needs of contractors before starting a business. Hence it is very important to know and understand what motivates contractors into starting a business and correlate their primary motivations with their growth after starting the business.

2. Statement of the problem

Contractors differ in their qualitative and quantitative growth and the growth of contractors generally affects the growth of the overall construction industry. For any sector to grow and succeed it needs individual firms in that particular sector to grow, perform well and be competitive [15]. Construction industry is no exception, given its peculiarity associated with specialized skills, its operationalization and its institutionalized governance. In addition, the construction industry policy in Tanzania by Ministry of Works (2003) elaborates this by stating that one out of many construction industry performance constrains in Tanzania is the low capacity and capability of the local contractors due to weak resource base and inadequate experience.

This study was motivated by the dearth of research on correlation of motivation against growth of 'first and second order' building contractors in Tanzania. While motivation has been studied in many countries, the majority of these studies have largely focused on the push and pull motivation factors in relation to gender and small venture businesses [6]; [8], and the study of gender in Tanzania's construction industry as highlighted in [18]. [10] studied about motivation of laborers and productivity in construction sites, and a similar study was done in Pakistan by [2]. On the other hand, [1] researched about factors determining growth of construction companies, while [14] studied about effects of owners' motives in relation to the growth of their firms. Furthermore, the majority of these studies have focused on developed countries with a paucity of studies in developing countries [19]. However, the correlation of motivation against growth of 'first and second order' building contractors has not been studied as fully. Therefore, there is a growing need for specific study on the matter in sub-Saharan Africa (SSA). This study aimed at filling this gap by establishing a relationship between motives of local building contractors and growth of their firms, and how the growth of individual firms affects the performance of construction industry.

3. Motives and growth of contractors into construction business

In entrepreneurship, the primary forces that drive entrepreneurs into starting a business are recognized as motivation factors, and these motivation factors have been grouped into two categories that is; pull factors or opportunity based factors and push factors or necessity based factors [6].

Pull factors are considered as out of passion factors, those which lure or attract or pull a person to start a new venture. Statistical analysis of data obtained revealed that people who are pulled into business are more successful compared to those who are pushed into business [6].

Several factors can pull someone into starting a business some of the factors like desire to be own-boss or being independent which is associated with the sense of having economic freedom. Passion for the sector and technical education and experience gives confidence in the business, while gaining higher social status and gaining more income attract some contractors into the business.

The push factors are considered as out of necessity factors which push someone into starting a business, example dissatisfaction with their job positions pushes them into starting a new business [6], and unemployment problem has forced contractors to choose self-employment as alternative to unemployment. Family hardship or economic necessity can push someone into starting their business.

Growth in construction industry can be measured by upgrading from one class to another. The Contractors Registration Board (CRB) in Tanzania can measure growth of a contractor during the upgrading process by looking at several aspects which are considered to be growth indicators. Those aspects include; capital and financial resources, annual turnover, fixed assets, service facilities, key personnel, plant/equipment and firm organization [4].

3.1 Contractors

In construction industry, a contractor is known as a person or an independent entity that agrees to furnish certain number or quantity of goods, works, materials, equipment, personnel and or services that meet the requirements or needs and specifications stated in the contract with agreed price and timeframe for such activities [3]. According to Contractors Registration Board (CRB) there are five types of contractors namely building contractors, civil, mechanical, electrical and specialist contractors. There are two main categories of contractors that is; local contractors and foreign contractors. Building Contractors in Tanzania are registered in classes with accordance to their financial status and technical specialties and capabilities. The contractors are classified into seven classes (class I to class VII).

Building contractors therefore are usually specialized in building works usually residential and commercial buildings. The number of registered building contractors from class I to class VI in Dar es Salaam region by 2016 was 933 [4].

3.2 Construction as a business

Construction business is different from other businesses because it is far riskier compared to other businesses, risks in this business can be health and safety, fire, structure failure and others. With all the risks aside construction business rewards are far greater than other businesses. The construction business unlike other small scale ventures requires professionals in the day to day activities and in starting this type of business one of the director (technical director) must possess professional knowledge about construction, they must be registered professionals preferably engineers, quantity surveyors or architects.

3.3 Entrepreneurship with construction

In starting a new business, the vision or the motives of the business are divided into two types of dynamics, that is the push and the pull, the concept which has grown into necessity and opportunity [16]. The necessity is considered as a push motivation while the opportunity is considered as pull motivation. The opportunity orientated business persons are considered 'first order' and the necessity oriented business persons are considered 'second order' [8].

3.4 Motivation factors

In entrepreneurship as stated earlier, the primary forces that drive entrepreneurs into starting a business are recognized as motivation factors, and these motivation factors have been grouped into two categories that is pull factors or opportunity based factors and push factors or necessity based factors [6].

- **Pull factors**

As stated earlier, pull factors are considered as out of passion factors those which lure or attract or pull a person to start a new venture. Moreover, statistical analysis of data obtained revealed that people who are pulled into business are more successful compared to those who are pushed into business [6].

- **Push factors**

The push factors on the other hand, are considered as out of necessity factors which push someone into starting a business. Dissatisfaction with their positions or jobs for example pushes them into starting a new business [6].

Push and pull factors can both be categorized as positive and negative motivations in business ventures or they can be categorized as opportunity and necessity factors [6]. Figure 3.1 below outline push and pull motivational factors in question.

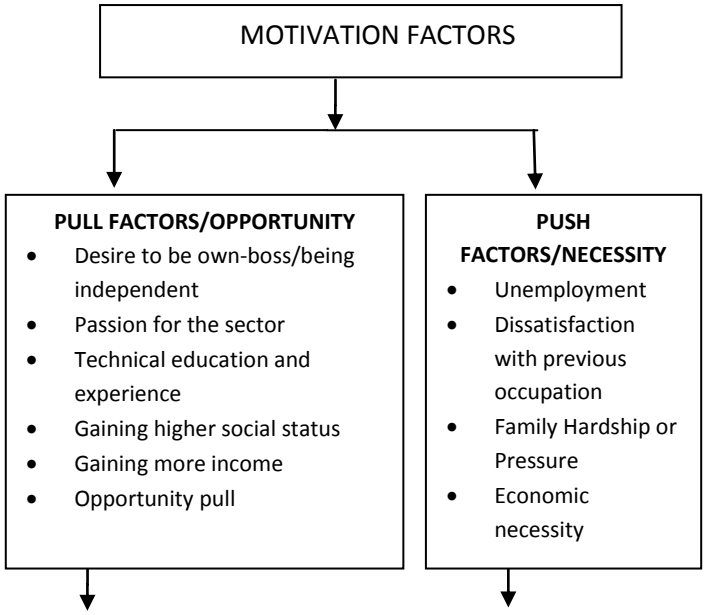

Figure 3.1: Motivation factors (pull and push)

3.5 Push motivational factors

- **Unemployment**

The problem of unemployment is very common to many developing countries including Tanzania, hence some people will choose to be self-employed because they are unable to find well paid jobs or they choose it as the only available alternative to unemployment. This means that a contractor sees self-employment as a solution to the payment problems. The contractor is not in the business because of the opportunities presented by the business but pushed by the society situation of unemployment [9].

- **Dissatisfaction with previous occupation**

Poor working conditions, lack of inspiration from co-workers and career frustration from the previous occupation can push someone into starting a business. A person starts a

business to get out of the pressure from their current job and seeking better working conditions [9].

- **Family hardship or pressure**

The need to support family members, for example; paying school fees, providing food, shelter, medicine and other needs can push someone into starting a business for the solemn goal of providing for the family [9].

- **Economic necessity**

A person may start a business because he or she has economical needs to be fulfilled. A contractor may be pushed into starting a business because the perceived earnings from an organization employment have fallen [6].

3.6 Pull motivational factors

- **Desire to be own-boss/being independent**

The desire to be independent or autonomy pulls individuals into starting their own business, a person desire self-employment because this could be associated with the sense of having economic freedom [6].

- **Passion for the sector**

A person chooses construction business because of the passion he or she has for the sector and the chances of success or rewards in construction sector is higher compared to other sectors [18].

- **Technical education and experience**

A person starts construction business because he or she has the technical knowledge about construction activities for example an engineer (civil, structural, MEP), a quantity surveyor or an architect. Another person may start the business because of the previous experience gained while working in the construction business [18].

- **Gaining higher social status**

Some individuals will start a certain line of business to gain a place in the society or to be known by the society, such needs are considered higher-order needs that is the needs for boosting self-esteem and status and can only be satisfied intrinsically [15].

- **Gaining more income**

Starting a personal business can insure more income is generated for family support compared to being employed hence a person chooses construction business for economic prosperity [6].

- **Opportunity pull factors**

A person starts a business because certain opportunities arose, example available capital, space and equipment. Others include favorable market conditions such as high demand on construction business or favorable government policies concerning construction businesses [18].

3.7 Types of entrepreneurs

As discussed earlier, entrepreneurship divides entrepreneurs into two categories that is; the necessity entrepreneurs and opportunity entrepreneurs depending on their primary motivation factors into starting a business [18]. A building contractor can fit into any of these categories depending on the primary motivation factor that drove the contractor into starting a construction business.

The concept of opportunity and necessity was further developed into the concept of "first order" entrepreneurs and "second order" entrepreneurs [8].

3.7.1 'First Order' Contractors

The opportunity oriented contractors as business persons are considered to be *first order* entrepreneurs. These contractors are pulled by the opportunities to succeed in construction business [8]. The 'first order' contractors are driven by pull factors, the choice or urge to exploit opportunities among other alternative.

3.7.2 'Second Order' Contractors

The necessity oriented contractors as business persons are considered to be *second order* entrepreneurs. These contractors are pushed by the necessity of starting a construction business [8]. The 'second order' contractors are driven by push factors or lack of other alternative for survival.

3.8 Motivation factors and growth

According to [14], pull factors that motivate a person into starting a business is positively related to firm growth while push factors are negatively related to firm growth. This is related to the personal needs prior to start a business and there are two types of needs that is; higher-order needs and lower-order needs.

- **Higher-order needs**

These needs can only be satisfied intrinsically, because they involve personal status in the society and self-esteem [15].

- **Lower-order needs**

These needs can be satisfied extrinsically because they involve physiological and safety needs usually money can satisfy these needs [15].

3.9 Growth of firms

Growth means increase in size or an improvement in quality as a result of a process of development, in which an interacting series of internal changes leads to increase in size

accompanied by changes in the characteristics of growing object [15]. Growth of firms is a multidimensional construct which can include assets increase and employment size, increase in variety of business functions, product and services, increase in volume of sales and profitability [1].

The growth of firms can be measured by the number of workers including employees, founders and contract workers, also it is measured by the inputs in the organization that is the value of the firm's assets and market capitalization, and it is also measured by the outputs of the firm that is revenues, profit and sales.

There are several factors that contribute to growth of construction firms but the most overwhelming factor that determines whether the business will prosper or not is the human factor. The management of the construction firms is very important in determining the capacity and capability of the firm. Construction business is management intensive this is due to the factor that a large number of decisions are required to be taken daily both on site and within the organization, hence good management, personal qualities of the entrepreneur and access to financing are the most important factors in the growth and success of the firm [1].

Growth of firms is divided into two types that is qualitative growth and quantitative growth, and the quantitative type of growth is further divided into two types that is vertical quantitative and horizontal quantitative.

3.9.1 Qualitative growth

This type of growth can occur through changes in or sophistications of the firm and the changes cannot be quantified, for example changes in the organization structure from owner-operated to owner-directed [15].

3.9.2 Quantitative growth

This type of growth has to do with quantifiable changes, like sales, revenue, workforce size, investments, product mix and profitability. This can either be horizontal quantitative growth or vertical quantitative growth [15].

- **Horizontal quantitative growth**

Horizontal growth happens when the number of firms which falls under same management increases, the firms can relate or unrelated to existing activities. It also means working to make an organization broader and developing customer base by going after more and more new business [17].

- **Vertical quantitative growth**

Vertical growth is the increase in output, quality, services in the same firm, it also means digging deeper into a single business and working harder to grow in that business. Vertical growth for individual firm growth plays an important role in the economy of a society/sector. Some of the importance of vertical firm growth includes increased output, quality of goods and services, increased job opportunities and promotes innovative behavior.

According to [17], vertical growth is the key to success but it doesn't mean that the firm cannot expand horizontally. It is important for a firm to make sure that it is making profit vertically that is, keeping a single operation until it is favorable to expand.

3.10 Indicators of growth

Various indicators can be used to show the degree to which firm's growth has occurred. The indicators can be grouped into four categories that is qualitative indicators, firm outcomes, outputs and capacity of the firm [15].

- **Qualitative growth indicators**

[15] states that qualitative indicators of firm size may include structure, management practices, degree of formalization and others. The structure of the firm can take many forms at one level the owner is responsible for performing all the roles in a business this is usually known as owner-operator as shown in Figure 3.2. Owner-manager is another level of growth whereby the owner oversees day to day activities and decisions but have few employees and delegates some or most day to day operations. Another level is that of owner-director, meaning that the owner is responsible for the strategic directions of the business but has delegated day to day decision making to employed managers.

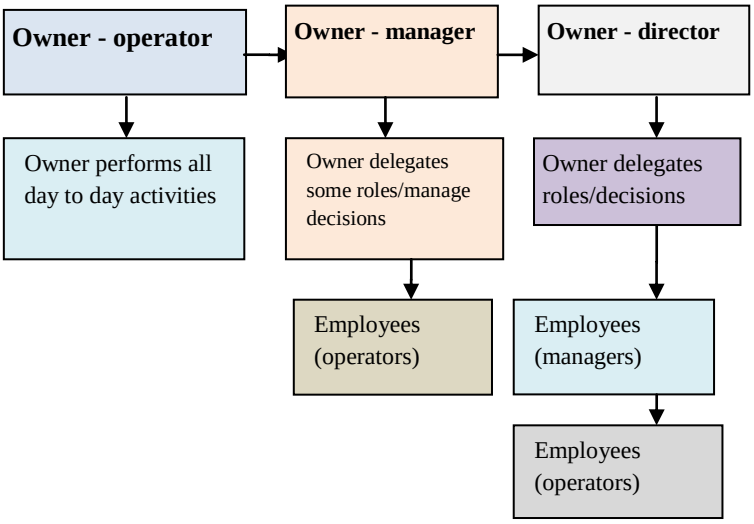

Figure 3.2: Forms of structure of a firm

Source: [15]

The Figure 3.3 below shows a general typical structure of construction firm organization, however, different firms can have different organization structures.

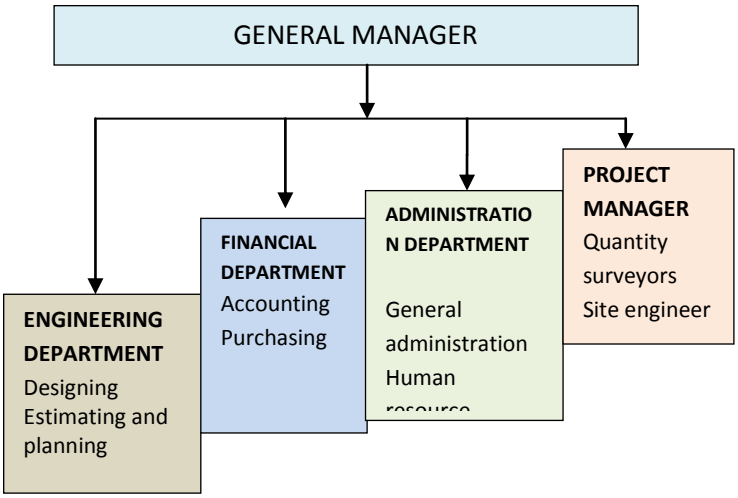

Figure 3.3: a general typical structure of construction firm

Source: [23]

- **Outcome indicators**

The outcomes of a firm can be easily seen through the profits the firms make. Profit is the difference between revenues and costs. It is a common target of all private firms and has to be achieved in order for any other objectives to be sustainably realized. The amount of profit that a firm makes is a function of revenues generated as well as the level of efficiency in the firm. Increased profits will then signify an increase in sales which is a quantitative change and an increase in efficiency which is a qualitative change because it cannot be quantified.

- **Output indicators**

The main outputs of a business are the product that it produces and sells. Production level can be a reasonable indicator of size because it is likely to reflect both the capacity of the organization and its potential for profit. This means that if the outputs of the firm increases then the profits of the firms will increase as well and in turn the capacity of the firm will increase in terms of assets, workforce size and others.

- **Capacity indicators**

Capacity indicators reflect the potential of the firm to produce outputs that is the products which are produced and sold by the firm and the outcomes, that is the profit made by the firm. This includes value of assets, capital invested, production capacity and the firm workforce size.

3.11 Measures of growth in construction firms

- **Size of a firm**

[1] identifies one of the measures of a construction firm growth is the size of the firm. The size of the construction firm is measured in terms of the total number of workers or key personnel in the organization including employees, founders, and contract workers the size of the firm indicates qualitative changes in terms of sophistication of the firms' organizational structure that is from owner-operator to owner-manager and owner-director.

- **Firm's inputs**

A firm's growth can also be measured in terms of inputs like investment funds or financial investment like stock and other sureties and in terms of the value of the firms such as fixed assets, like plots, buildings and other assets which include plants and equipment, technical personnel, technical knowledge and software.

- **Firm's outputs**

In this part the firm's growth is measured in terms or sales, revenue and profits. In construction firms the sales and profit could be obtained through the number of construction projects undertaken per year by the firm and the firms' revenue is from the annual turnover.

- **Firm's technical capability**

In upgrading from one class to another the Contractors' Registration Board (CRB) measures the growth of local building contractors through the following criteria;

- Key personnel
- Plants and equipment
- Safety gears
- Annual turnover
- Liquidity (cash in the bank or other securities)
- Fixed assets
- Office building and equipment
- Yard or workshop

According to the CRB, in determination of appropriate class for registration as a contractor or upgrading to another, they will be evaluated on bases of the criteria set with accordance to Section 10 of the Contractors' Registration Act No. 17. With reference to Tables 3.1 to 3.4 below, an applicant who scores an aggregate of 60 points and above, but not less than 50% of the points allocated in any criteria shall qualify for registration in the relevant class.

Table 3.1: Scores for different requirements

SN	Requirement	Score (Class I to III)	Score (Class IV to VI)	Score (Class VII)
1.	Staff Qualifications	25pts	35pts	40pts
2.	Plant and Equipment	20pts	20pts	30pts
3.	Office and Services Facilities	10pts	10pts	20pts

4.	Safety Gear	5pts	5pts	10pts
5.	Financial Status	30pts	30pts	Not Required
6.	Experience of the firm	10pts	Not Required	Not Required
	TOTAL	**100pts**	**100pts**	**100pts**

Source: [4]

Table 3.2: Score for Staff/Key personnel

Staff qualification	Class I-III	Class IV-VI	Class VII
Adequacy of staff in accordance to minimum requirements	10pts	15pts	16pts
Qualifications of individuals	5pts	8pts	8pts
Experiences of individuals	10pts	12pts	16pts
Total	**25pts**	**35pts**	**40pts**

Source: [4]

Table 3.3: Plants and equipment, Safety gears, office and other facilities

Plants and equipment	Class I-VI	Class VII
Adequacy of equipment as compared to minimum requirement	15pts	20pts
Age and condition of equipment	5pts	10pts
Total	**20pts**	**30pts**
Safety Gear		
Helmets	0.83pts	1.67pts
Boots	0.83pts	1.67pts
Jackets	0.83pts	1.67pts
Gloves	0.83pts	1.67pts
Dust masks and others	0.83pts	1.67pts
First Aid kit	0.83pts	1.67pts
Total	**5pts**	**10pts**
Office and services facilities		
Office building	3pts	6pts
Communication facilities	1pts	2pts
Yard/workshop	2pts	4pts
Furniture/office equipment	2pts	4pts
Hygiene facilities	2pts	4pts
Total	**10pts**	**20pts**

Source: [4]

Table 3.4: Financial status

Criterion	Minimum requirement as a percentage of current class limit				
	Class I-III	Score	Class IV-VI	Score	Class VII
Average Annual Turnover	15%	10pts	N/A		N/A
Liquidity (cash in the bank or redeemable securities)	5%	10pts	2%	15pts	N/A
Fixed Assets	20%	10pts	10%	15pts	N/A
Total		**30pts**		**30pts**	

Source: [4]

3.12 Correlation of variables

A correlation study determines whether or not two variables are correlated, this means to study if an increase or decrease in one variable corresponds to increase or decrease in the other variable. In this study the two variables are motivation factors and growth of contractors, that is, if primary motivations of contractors lead into increase or decrease of construction firms' growth. Figure 3.4 below highlights dependent and independent variable depicting a relationship between owners' motivation and growth of the construction firm.

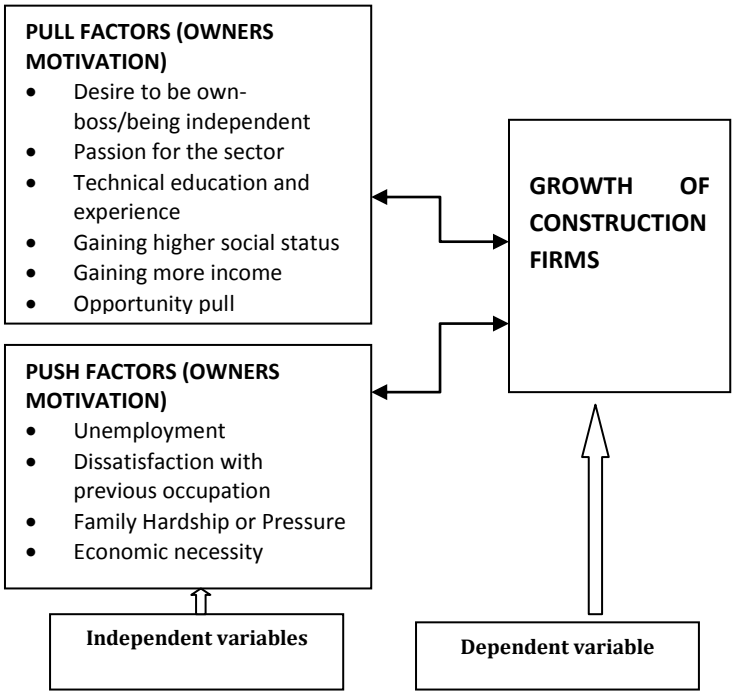

Figure 3.4: Relationship between owners' motivation and growth of the construction firm

3.13 Types of correlation

There are three types of correlation [12], [22];

- **Positive correlation**

The positive correlation between two variables is a relationship which exist between variables in such a way that an increase or decrease in one variable leads into an increase or decrease in another variable.

- **Negative correlation**

The negative correlation between variables is a relationship between variables in a way that an increase in one variable leads to a decrease in another variable and vice versa.

- **No correlation**

In this type of correlation there is no relationship between variables that is two variables are uncorrelated and when a change occurs in one variable it doesn't lead to change in the other variable.

In correlation study the relationship between two variables is determined by a correlation coefficient (r) which defines the variables relationship, the coefficient of correlation varies between negative one (r = -1) and positive one (r = +1). A value close to positive one (+1) indicates that the two variables are strongly and positively correlated. While a value close to negative one (-1) shows that the two variables are weakly and negatively correlated. A value near zero (r=0) indicates that the two variables are uncorrelated.

r=0 no correlation (no linear relationship between variables)

0.8 < r <1 very strong relationship

0.6< r < 0.8 strong relationship

r < 0.3 weak relationship

Coefficient of Determination (r^2) is the square of correlation of coefficient, represented in % and interpreted as the number of percentage the independent variable has explained all dependent variables [12], [22].

4. Methodology

In this research two research designs were adopted that is Correlation research design which was used to find the relationship between variables that is, the motivation factors as independent variables and growth as dependent variable. Qualitative research design was also used since the study involved personal characteristics and values of contractors that is, their needs in the business and primary motives in starting a construction business.

4.1 Study population

The study involved 933 local building contractors in Tanzania from class 1 to class 6 [4] as shown in Table 4.1 below. Only six classes where involved because upgrading from one class to another is considered as growth indicator in the construction industry. Upgrading from one class to the next, have specific criteria which include the increase in capital and other financial resources, annual turnover, assets and fixed assets, firm size, key personnel, plants and equipment and these are considered as growth indicators.

4.2 Sample selection

The researcher adopted proportionate stratified random sampling technique and simple random sampling technique. Proportionate stratified random sampling method takes the size of the stratum into consideration in the selection of the sample. The proportionate stratified sampling has been used in the study due to the following reasons;

i. The categorized sample have similar traits hence it is easy to establish a connection.

ii. The method is simple and with high precision and it saves time and costs.

iii. Nature of population that is the list of contractors is known and available.

iv. Each stratum has different size and that is the reason for considering the size of the stratum to ensure each stratum gets a sample size which is proportionate to its size and avoid over representing or under representing some strata.

In stratified random sampling method, the population is divided into groups with similar traits before a sample is selected. In this case local building contractors were grouped into their respective classes before a sample was drawn (class I to class VI), the total number of classes (6) of contractors were used as strata to stratify the population (K).

From Contractors' Registration Board (2017) [4] records the total number of registered local building contractors in Dar es Salaam region was 933, whereby class I contractors were 84, class II 32, class III 29, class IV 130, class V 327 and class VI 331 as depicted in Table 4.1.

Table 4.1: Size of respondents from each class

Category	Classes	Number of Registered contractors	Proportion = elements in stratum/total population	N=P x sample size
Registered local building contractors in Dar es	I	84	0.09	4
	II	32	0.03	1
	III	29	0.03	1

salaam	IV	130	0.14	6
	V	327	0.35	15
	VI	331	0.36	15
	TOTAL	**933**	**1**	**42**

A total sample (N) size of 42 respondents using proportionate stratified random sampling design was obtained using the following formula;

The size of respondents from each stratum (n) was obtained by using the formula below.

n= Sample size x (P)

P= elements in each stratum

total population size

K=6 interval (strata)

N=42 total respondents (sample size)

Note:

N = Total number of population for each group that is class I to class VII.

K = The number of strata used to stratify the population (interval).

n = Number of selected sample from each group (class I to class VII).

P = Proportion of elements in each stratum and total population.

The reasons for selecting such a sample size were availability and accessibility of respondents because only owners were required for the interviews. Interviews and review of previous documents were used to collect primary and secondary data respectively.

5. RESEARCH FINDINGS

Out of 42 local contractors from the sample size, only 35 responded. Out of 35 respondents, 26 of them had been in the business between 5 to 15 years and 9 had been in the business for more than 15 years and it was evident that all those respondents had a good experience in construction. 23 respondents out of 35 had construction education background and the remaining 12 had no construction background and this showed that most people in the construction business has construction knowledge which gives them confidence on the business as indicated in Table 5.1. There is a sense that those the second category without construction education background were pushed into construction background.

Table 5.1: Educational background, classes of contractors and number of years in the business

Category	Class	Number of respondents	Educational background	Number of years in the construction business
High class	I	4	3 Electrical engineers 1 Quantity surveyor	3 (above 15 years) 1 (5 to 15 years)
	II	1	1 Quantity surveyor	1 (5 to 15 years)
Middle class	III	1	1 Civil engineer	1 (5 to 15 years)
	IV	6	3 Civil engineers 3 Quantity surveyors	6 (5 to 15 years)
Lower class	V	11	3 Civil engineers 3 Quantity surveyors 3 Business and commerce 2 Business and marketing	11 (5 to 15 years)
	VI	12	3 Civil engineers 2 Quantity surveyors 4 Business and marketing 3 Secondary education	3 (5 to 15 years) 2 (5 to 15 years) 4 (above 15 years) 3 (above 15 years)

5.1 Motivation Factors in starting construction business

The motives in starting construction business had been divided into push and pull categories. The prospect of gaining more income from the pull category had the highest rating of 68.6% as shown in Chart 1. This is because many contractors started the business for the purpose of economic gain, while family hardship and unemployment from the push category had the lowest rating of 8.6% each as shown in Chart 2 because most contractors had not faced such problems.

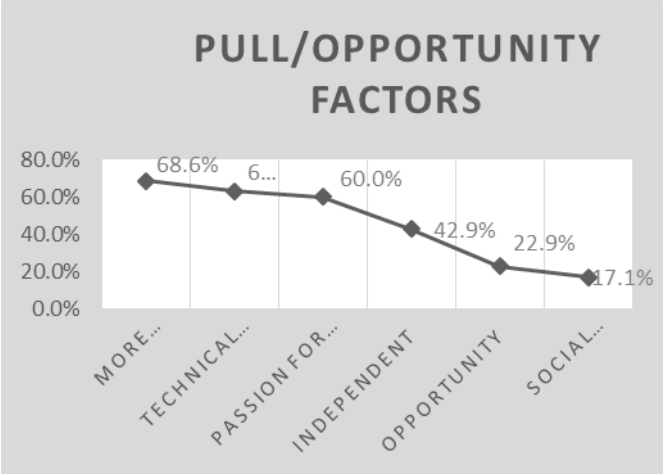

Chart -1: pull/opportunity factors

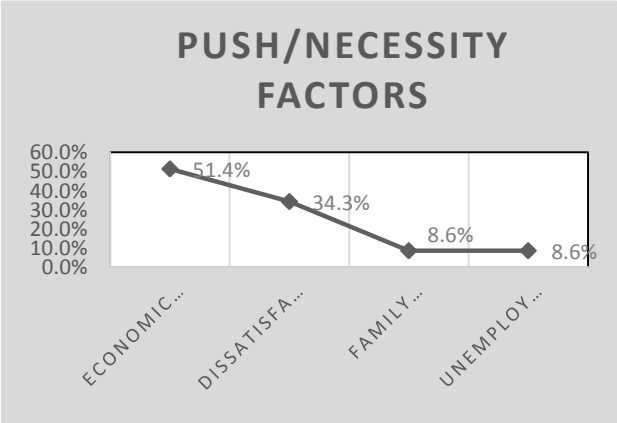

Chart-2: push/necessity factors

5.2 Growth vs. Motives

The growth of contractors measured by the indicators of growth in construction industry showed that most contractors from class VI to class II had medium rate growth (31% to 60% growth) and class I contractors showed a high growth rate of above 61% in terms of capital and financial resources, annual turnover, fixed assets, service facilities, key personnel, plant/equipment and firm organization.

On finding the relationship between motives and growth by finding the correlation between the variables the following results were obtained. Correlation between pull factors as an independent variable and growth as a dependent variable, a coefficient of correlation of 'r'=0.988 was obtained indicating a very strong relationship between the two variables as depicted in the model summary from SPSS analysis and Chart 4 below.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.988[a]	.977	.971	1.32932

a. Predictors: (Constant), PULL
b. Dependent Variable: GROWTH
c. R is the coefficient of correlation
d. R^2 is the coefficient of determination
e. Standard error of the estimate is the measure of accuracy of prediction/ the difference between actual score and predicted score.

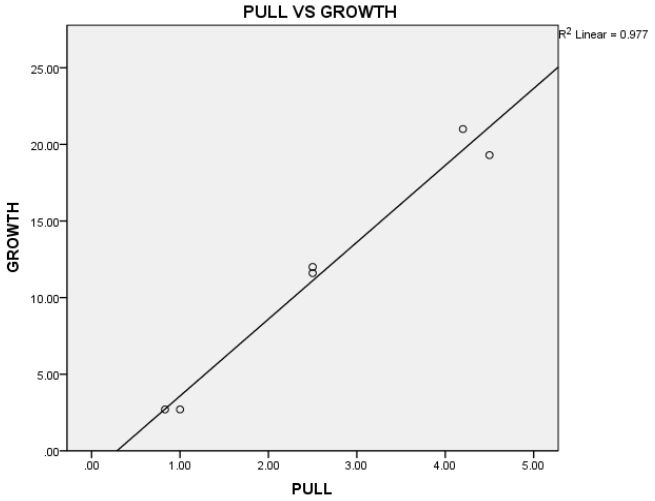

Chart-3: growth vs. pull & push factors

Correlation between push factors as an independent variable and growth as a dependent variable a coefficient of correlation of 'r'=0.828 was obtained also indicating a very strong relationship between the variables as seen in the model summary and Chart 4 below. This means that both push and pull factors have a great effect on the growth of construction firms.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828[a]	.685	.607	4.90742

a. Predictors: (Constant), PUSH
b. Dependent Variable: GROWTH
c. R is the coefficient of correlation
d. R^2 is the coefficient of determination
e. Standard error of the estimate is the measure of accuracy of prediction/ the difference between actual score and predicted score.

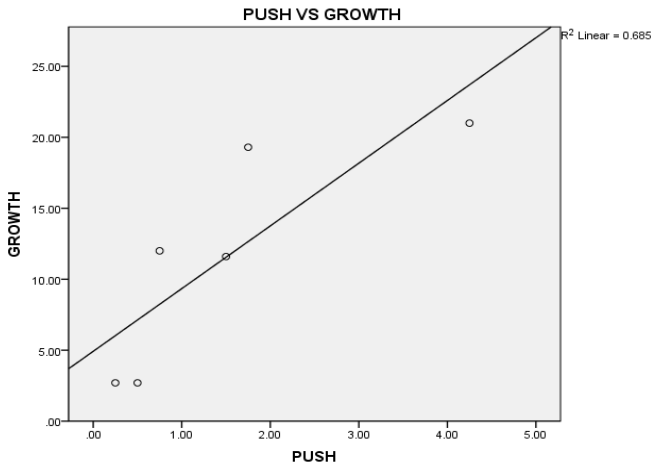

Chart-4: growth vs. pull & push factors

5.3 Contractors growth plan in the construction industry

During the research, contractors were asked about their growth plan, that is if they wanted to invest more in the construction business (vertical growth) or they wanted to invest in other business (horizontal growth). 22 contractors said they plan on investing more on their current construction business (vertical growth) and 13 contractors wanted to invest on other business (horizontal growth) as shown in Table 5.2. Initially many contractors had been motivated differently and they had different growth plans but due to changes in circumstances and challenges faced in the industry many have out grown their initial motives and plans.

Table 5.2: Contractor growth plan

Growth plan	Response	Response in percentage (%)
Vertical growth (investing more in construction business)	22	62.9
Horizontal growth (investing in other business)	13	37.1
Total	**35**	**100%**

5.4 Measures to ensure growth of construction industry

Findings obtained in achieving the objective showed that the government, local construction firms, Contractors' Registration Boards (CRB) and other regulatory authorities have a role to play in ensuring the growth and better performance of the construction industry. Majority of the respondents indicated a need for the CRB to remove some barriers especially in the upgrading criteria which hinder contractors from moving from one class to another. For example, contractors must own plant and equipment even when they are not in use which is very costly. Public Procurement Regulatory Authority (PPRA) should consider the regulations concerning bid securities and advance payment bonds/guaranteed. Local building contractors to be open minded and change their needs from lower-order needs to high-order needs, so that they can work on advancing and investing more on their firms, financially and technically rather than be satisfied after gaining money only.

6. CONCLUSIONS

The study has established that more contractors from upper and middle classes were motivated by pull factors compared to push factors. Gaining more income had the highest rating of 68.6% because many contractors started the business for the purpose of economic gain, while family hardship and unemployment problems had the lowest ratings of 8.6% each on motivation factors because most contractors were not faced with these problems. The study had also shown that the motives that is; push and pull factors, have a very strong relationship with the growth of local contractors, and the coefficients of correlation obtained were r=0.828 and r=0.988 for push and pull factors respectively although some of contractors who were pulled showed a small to medium growth rate contrary to the known theory about motives of owners and growth of their firms as stated in literature in previous sections. To ensure the growth of local contractors and construction industry, the government, regulatory authorities, CRB and building contractors must work together on the same goal and ensure the growth and performance of the construction sector. These results conform to reviewed literature asserting that for any sector to grow and succeed, it needs individual firms in that particular sector to grow, perform well and be competitive.

In addition, various literature reviewed has identified various factors for growth indicating that contractors differ in their qualitative and quantitative growth and their growth affects the growth of the overall construction industry.

The findings of the study have further validated the literature as presented in Sections 1 & 3. Essentially, a realization of correlation between motivation and growth is needed in contracting firms and hence necessitating interventions as briefly outlined in the next Section 6.1.

6.1 Recommendations

Motives and growth do have a very strong relationship. Hence, it was recommended that building contractors have to outgrow their motives and adapt to the situations or circumstances in the construction industry, given the current dynamics in political, economical, socio-cultural, fast changing technologies and other environmental factors. It was also recommended that contractors have to be open-minded and change their needs from lower-order needs to high-order needs, so that they can work on advancing and investing more on growth of their firms rather than be satisfied after attaining monetary gains only. A need for CRB to reconsider some criteria in upgrading from one class to another or during the first registration was also noted. The current criterion that contractors must own plants and equipment even when they are not in use is considered to be costly. A need to harmonize the hiring facility process is paramount. Lastly, tender security regulations for advance payment bonds/guarantees, bid bonds/guarantees and performance bond/guarantees call for considerations to be reviewed especially for public projects, despite high contractors capabilities to execute building projects following intensive verifications carried out. These regulations hinder flow of money in construction firms as the money secured for a period of time could be invested in other areas of the business. On the other hand, most clients (especially public clients) prefer bank guarantee as a major form of tender security, which is considered expensive for many building contractors to qualify.

6.2 Limitation and contribution

The study has limited its scope to building contractors only registered as Class I to VI based in Dar es Salaam, in the Tanzania's Construction Industry. This is because upgrading starts from class VI to I whereby, upgrading from one class to another is a growth indicator. Henceforth, the results were influenced by the nature and characteristics of the study. However, it is Author's belief that developing countries of similar economies and cultural set up could benefit as well. These are among variables that shape entrepreneurship of which motives and growth dimensions belong.

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