

## Profit Maximization Strategies Employed by the Small and Medium Size Building Contractors in Dar-Es-Salaam, Tanzania

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### ABSTRACT

When it comes to a firm's growth, profitability and profit maximization are sensitive matters that cannot be neglected, due to the fact that profit and profit maximization are the main aims for any building construction business. Thus, the study intended to explore the profit maximization opportunities available for small and medium size building contractors (SMSBCs) in Dar-Es-Salaam, Tanzania; by exploring the profit maximization strategies employed; examining the challenges faced by these contractors that affect realization of profit maximization; and proposing profit maximization measures, that can be employed by the SMSBCs in Dar-Es-Salaam, Tanzania. This designed survey study, employed the SMSBCs in Dar-Es-Salaam Tanzania, as a unit of analysis, which involved building contractors from Class IV, V, VI and VII, as study population and unit sample. Moreover, the descriptive design survey study involved probability sampling as a sampling technique. Literature review; open and closed ended questionnaires, were used in collecting primary and secondary qualitative and quantitative data. In collecting data, total of 94 questionnaires were distributed, whereby 78 (84.3%) were returned. Quantitative data were analyzed using Statistical Package for Social Sciences (SPSS), while qualitative data were analyzed thematically. Findings revealed charging for all amendments and change orders; dropping of low performers; minimization of waste on site; timely execution of works on site; proper tendering procedures; improving construction productivity; reliable chain of supplies; and requiring more site job experience, as the most important opportunities employed by SMSBCs. Furthermore, the critical challenges revealed were; non-payment of debts; taxes and license; lack of capital equipment; low share of work opportunities; delays caused by clients; as well as uncertainty and unexpected climate conditions. The study concluded that; most of the contractors use all the opportunities to maximize their profits in construction projects. Most of them have survived because, they continued maintaining professionalism when it comes to work despite having low share of work/ tender opportunities. Also, corruption is one of the critical factors that affects the industry, hence hindering the contractor's growth. With the new reform and government systems, this factor has reduced to some extent as compared to how businesses were operated before, but not completely eliminated. The overall satisfaction of the profits and growth of these SMSBCs has been reduced by government reforms and policies, despite the government

effort to fight corruption. When it comes to taxes and license fees, most of the contractors are irritated with constant need to pay for cost/license of operations or the presence of both withholding tax and Skills Development Levy(SDL) imposed to them when conducting business. Lastly, the study recommended; introduction of proper taxation policies; centralization of government agencies responsible for collecting annual payment from contractors should be centralized, in which only one agency should be used to supervise process; payment made by government for its construction projects to be made on time; as well as government making sure on the availability of equal opportunities for tenders in private and public sector.

**Keywords**— Profit, Maximization, Strategies, Small and Medium, Building, Contractors, Dar-Es-Salaam, Tanzania

### I. INTRODUCTION

The construction industry, acts as an economic catalyst by playing an important role in the growth and strengthening of the economic performance for most countries globally. That is why, most governments spend a big chunk of their budgets on infrastructure development, Yin (2013); Macharia (2016); Teshager (2016); Yong & Mustaffa (2012) in Adjei *et al.* (2018). In-line with writings by Skibniewski (2017); the construction projects compared to other manufacturing industries, are unique, must be in place and can be completed by different assembly teams. Such setup in many cases may cause the anomalies related to the resource allocation and availability, which when seasoned with stakeholder needs, may push projects to be delayed as well as be over budget, hence affecting the maximization of profit of the Small and Medium Size Building Contractors (SMSBCs). Construction project are one-off undertakings, characterized by presence of unique designs, customized to suit specific needs at different locations. They are basically works whose tender prices are a function of all-in-rates components featured by "supply and fix" involving materials, plant and labour.

Moreover, the SMSBCs operating in various construction commercial environments, are one of the

stakeholders contributing to an increase in the overall economic performance. Basically, the internal and external environment of contracting companies is very dynamic, forcing the building contractors to employ multiple strategic decisions within the construction industry, in the course of doing business for the purpose of profit maximization. Parkitna & Sadowska (2011); Bakar *et al.* (2011); Li & Ling (2012); Keramidou, *et al.* (2013); Akanni, Oke & Akpomiemie (2015); Manser (2013) in Hu & Liu (2016); Macharia (2016); Malik (2011) in Teshager (2016); Wanguu & Kipkirui (2015) in Babalola & Anifowose, (2018); and Lung'aho & Omagwa (2018) enlighten that; profit maximization is one of the major objective of any building construction firm, which explains the firm's economic or financial success, and it acts as a key determinant of a firm survival. It is determined by matching revenues and costs associated in generating that revenue; and can be achieved by increasing revenues, decreasing expenses or by combining both, Keramidou *et al.*,(2013) & Macharia (2016).

For SMSBCs, profitability and growth relies much on the good governance (i.e. all governance levels) for their survival and success, through increasing transparency and improving communication, ESPON (2018). Furthermore, Jaafari (1997) in Chuan Ming & Lin (2014) assert that; in order for building construction firm to survive and increase their competitive level, constant improvement in strategies employed, technical and management skills, mentoring, as well as access to finance and various incentives, are among many different factors that make SMSBCs successful, alongside maximizing their profit. Moreover, Thwala & Mvubu (2009); Ndulane (2015) avails that; small and medium contractors can be powerful instrument in generating job opportunities, despite such industry, being faced by a number of challenges that lead to their slow growth or death. These include late payment by clients, financial constraints, low share of work opportunities, poor quality of services and products, inadequate training facilities, lack of sufficient skilled personnel in management techniques and construction practices, and lack of proper policy implementation in the construction industry. Other challenges may be lack of appropriated cost engineering or quantity surveying skills that are key towards successful estimating and pricing analysis for competitive tender prices. More initiatives have been undertaken to combat such challenges so that the SMSBCs can grow and maximize more their profits. On the other hand various construction computers software's have been developed to address shortcomings in estimating and pricing analysis. The situation today still remains unchanged.

#### **A. Problem Statement**

The construction industry which contains 92% of the SMSBCs, with the small segment of 8% being large

contractors Ndulane (2015).; is a growing market which constantly faces a number of challenges, e.g. low profit margins, adequate capital etc. Tanzania's SMSBCs, being not immune to these challenges; it has also been experiencing the same, when measured against the usual criteria of cost, productivity, quality, safety and environmental responsibility (Ofori 2002 in Ndulane 2015), despite having all the regulatory bodies such as the Contractors Registration Board(CRB), the Engineers Registration Boards(ERB), and the Architects and Quantity Surveyors Registration Board(AQRB), supporting these contractors, still challenges on profitability and growth prevails, (Ndulane 2015). Profitability, which is one of the importance pre-conditions for long-term firm's survival and success; reflects the final outcome of any business operations, and maybe reduced due to the continuation on decline of market demand, Yoo & Kim (2015); Teshager (2016) and Babalola & Anifowose (2018). Moreover, Teshager (2016), insists that; profitability is the ratio which measure the performance of the company, and it shows a company's ability to generate earnings for a certain period at a rate of sales, assets and certain of capital stock. Understanding factors affecting profitability is the key point that helps managers in developing an effective profitability strategy for their companies, which is in-line with an empirical study by Hedley (2015) enlightening that; losing small change on your building construction projects, can add up to thousands of dollars at the end of the year. Thus, maximizing profit must be a top priority, right along with getting your building projects completed on time. On the other hand, Hou, Liu & Chen (2011) assert that; most construction companies have suffered from inadequate cash resources for a long time. It is likely to be the final causes of failing for many companies, since cash flow is the most important power of running construction companies. Lack of cash brings extra expenses to construction companies and decreases profitability. Thus, the study aims at assessing their profitability strategies employed by the SMSBCs in Dar-Es-Salaam, Tanzania; by exploring the profit maximization opportunities available; examining the challenges encountered during project operations in realization of profit maximization; and proposing profit maximization measures that can be applied by the SMSBCs in Dar-Es-Salaam, Tanzania.

## **II. LITERATURE REVIEW**

### **A. Conceptualization of the Construction Industry**

Construction project development involves numerous parties, various processes, different phases and stages of work and a great deal of input from both the public and private sectors with the major aim being to bring the project to a successful conclusion. The level of success in carrying out construction project development activities

depends heavily on the quality of the managerial, financial, technical and organization performance of the respective parties, while taking into consideration the associated risk management, the business environment, and economic and political stability. According to Wang (1994) in Ndulane (2015), construction is becoming more complex, leading into a necessity need of a more sophisticated approach in dealing with initial planning, financing designing approval, implementing and completing a project for the purpose of profit maximization.

**B. The Contractor**

The construction industry is vital for the development of any nation as it is the most booming industry in the world. In many ways, the pace of the economic growth of any nation can be measured by the development of physical infrastructures, such as buildings, roads and bridges, which require the service of the construction company(i.e. a contractor) to be realized. A construction company is no different to any other business; and by definition, it is a company or an organisation that looks after its own interests in generating profits from the sale of goods or services, Reverso (2012) in Buys & Van Rooyen (2014). Besides, as per CRB (2017) & RL (2019), a contractor or general contractor is any person who for reward or other valuable consideration, oversees a construction site, i.e. undertaking to carry out, and complete any construction work of any structure situated below, on or above the ground or water bodies, for another person. According to RL (2019), contractors submit fixed price bids or propose cost plus price contracts. When creating their proposals, they consider the cost of the materials, equipment, labour, office and site overheads and profits. Furthermore, contractors are responsible for supplying the necessary equipment, material, labor, and services to complete a project. They hire specialized subcontractors to perform either a portion or all of the work. Contractors use Subcontract Agreements to protect themselves and the subcontractors they hire. These agreements outline what materials and services will be provided by the subcontractor as well as the price of the job and any warranties that might be included (RL 2019). They may apply for permits, provide temporary on-site utilities, ensure that the property is secure, and manage any personnel working on site. Contractors may also be responsible for maintaining accurate records and monitoring cash flows.

**C. Types of Contractors**

There are five (5) types of contractors, namely; building contractors, civil works contractors, mechanical contractors, electrical contractors and specialist contractors, CRB (2019), which operate in two main categories; local contractors, and foreign contractors. Local contracting firms, are those whose

majority shares are owned by citizens of the United Republic of Tanzania, whereby those not meeting these criteria will be registered as a foreign one, CRB (2019).

Furthermore, the contractors are classified into seven(07) discipline classes as seen in Table #2.01 and according to the amount of contractor limit in any single contract. For the Specialist contractors, there are only three classes. Foreign contractors are restricted to classes one and two in the former types and one, two and three in the latter type(i.e. specialist)". This study, focuses on local building contractors, basing on small and medium size building contractors, (i.e. class IV, V, VI and VII).

**Table #2.01;** Classification of contractor class per single contract, i.e. the class size ranging from class one to class seven, and the amount of works in million Tshs. the company can handle.

SN.	Class Limit For Any Single Contract (In Million Tanzania Shillings (Tshs))				
	Class	Civil	Building	Mechanical	Electrical
01.	One	Unlimited	Unlimited	Unlimited	Unlimited
02.	Two	5000	3000	2000	2000
03.	Three	3000	2200	1200	1200
04.	Four	1500	1200	600	600
05.	Five	750	600***	300	300
06.	Six	300	200**	150	150
07.	Seven	150	120*	75	75

Source: CRB (2020).

**NOTE:** Means Class Seven, are not allowed to build storey structures, \* Means Class Six, are restricted to 3 storey structures, and \*\*Means Class Five, are restricted to 4 storey structures.

According to Jagg (2020), a modern building requires dozen of expertise from different contractors engage in the project execution, to completion. While many individuals have skills in different areas, union regulations often prevent them from working in more than one field. Effective coordination of the activities of different trades is the responsibility of the general contractor, who works as a liaison between the client and the building activity.

- **General Contractor;**- oversees a building project from start to finish, and it may involve the creation of a building from the ground up, or a renovation project involving any combination of the trades.
- **Electricians;**- work on virtually every construction project, because, very few buildings are built today without electricity. Electricians install breaker boxes, wiring and fixtures, and deal with power companies to have grid power turned off so that new systems can be hooked up safely. They are increasingly involved in the installation of alternative and decentralized energy systems such as solar, wind and geothermal.
- **Plumbers;**- are responsible for water systems in a building, including connecting a house to a well or municipal water main, installing water heating equipment, and building and maintaining drainage and septic systems.

- **Heating and Ductwork Contractors;**- install and service furnaces, boilers, and the extensive piping and ductwork that they require to heat a building. These contractors may work in conjunction with electricians and plumbers, since their systems interlock.
- **Dry Wallers;**- install drywall onto framing, and tape, spackle and sand the wall smooth. On a well running jobsite, dry wallers are called in as soon as the plumbers and electricians have completed their work, allowing the work to continue swiftly without the various trades stumbling over each other as they try to get their jobs done.
- **Finish Painters;**- begin their work as soon as the dry waller has completed the sanding of the drywall. Finish painters prime the spackled drywall and then apply finish coats to suit the client's tastes
- **Finish Carpenters;**- are the final sub-contractors to work on the interior of a building. Finish carpenters install door and window trims, baseboards, and other interior trims that may include works such as crown molding and wainscoting.
- **Other Contractors;**- depending on the nature of the job being undertaken, other contractors might include pool builders, masons, roofers, excavators, landscapers, cabinetmakers, and interior design consultants.

#### **D. Definition of Small and Medium-Sized Enterprises (SME's)**

Bonaccorsi & Giannangeli (2008) in Bakar *et al.* (2011) assert that; firm's size is measured in terms of total number of workers, including employees, founders, and contract workers. Example, Lu, Sexton & Abbott (2008), describe SMEs, firstly using the Companies Act 1985, which defines SME in relation to compulsory audit thresholds, as a company (or group) which qualifies as a small or medium-sized company (or group), if it meets two out of three criteria relating to turnover, balance sheet, and total number of employees in its first financial year, or in the case of a subsequent year. Secondly, in terms of Business, Enterprise and Regulatory Reform (BERR), micro companies are defined as those having less than 10 staff, small companies as those having less than 50 staff, medium companies as those having between 50 and 249 staff and large companies as those having 250 staff and above. In Tanzania, the SMSBCs fall on the contractors class IV, V, VI, and VII. This is due to their classification in relation to Contractors Registration Board (CRB).

#### **E. Key Characteristics of Small and Medium Size Enterprises (SME's)**

Nooteboom (1994) in Kamal & Flanagan (2014), stated that the general characteristics of SMEs among different countries can be observed based on their source of capital, where most SMEs derived their capital from either

a bank or private sources of the entrepreneur or friends and family. Most SMEs feel comfortable to obtain the startup capital for business from internal funds, i.e., family and friends, because of emotional reasons (love, friendship, loyalty) and because they do not require strict repayment of debts as banks would, which exploits the maximum profit opportunities. Furthermore, Kamal & Flanagan (2014) state, small companies orient more towards personal values. Many small firms do not have a goal to innovate or grow. For example, it was found that; many Dutch SMEs prefer to use their profit to reduce their debt, rather than investing it on innovations or expanding their business. They prefer maintaining a traditional lifestyle and work for their own interests and their family's interest. This situation is reflected by Lu, Sexton & Abbot (2008), who found that; most small businesses in Britain are family-owned businesses. Small companies are also described as having unstructured procedures with an emphasis on oral communication instead of written documentation and a wide scope for improvisation and spontaneity. Sexton & Barret (2003) in Kamal & Flanagan (2014) views the challenges and characteristics of small construction organisations, are similar to the findings of Rothwell & Zegveld (1982), where they identified small manufacturing organisations with four unique challenges and characteristics:

- Lack of technical staff, which restrict their ability to accept appropriate,
- Lack of resources for external interaction that results in limited information and awareness about new technical trends and opportunities,
- Lack of management expertise because most are dominated by a single owner or a small team, and
- Lack of financial resources, which results in a limited scope for new capital or ongoing investment for new technologies.

CIDB (2006); Kamal & Flanagan (2014) reports that; investment in the Malaysian construction industry ranges from negligible to non-existent. The reason is partly the difficulty of patenting new ideas in construction and partly the manner that construction businesses are organised with multiple sub-contracting layers, and notably few direct employees. For most construction SMEs, cost and affordability are critical. With the minimum number of staff and expertise, they usually cannot afford to have their own team in the specific field to generate their own background knowledge and act on product development and new technologies.

#### **F. Building Construction Profitability Concept**

Deng & Smyth (2013); Zhang *et al.* (2015 ); Hu & Liu (2016); Pimentel *et al.* (2005) in Teshager (2016); Babalola & Anifowose (2018), affirm that; profitability

which has become one of the most popular indicators utilized to measure performance in building construction, may be defined as the ability of a given investment to earn a return or make profit from its use after a certain operating period, i.e. the final measure of economic success achieved by a company in relation to the capital invested in it. This economic success is determined by the magnitude of the net profit accounting. According to Kumar (2015) in Macharia (2016) profitability is the firm's ability to consistently generate net income, and it is usually affected by various factors such as capital structure, inflation rates, firm size, competition etc. Besides, profitability is usually measured using ratios which assist in summarizing large volumes of financial data into meaningful figures for interpretation, whereby, various stakeholders compute firm's profitability ratios in establishing firms' ability to generate profits which is an indicator of firm's performance, (Macharia 2016). Likewise, Teshager (2016); Babalola & Anifowose (2018) assert that; profitability is often expressed as a profit percentage of work done or turnover (POT) or return on capital investment (ROI). It is also said to be a function of three factors; sales volume (or work done), sometimes called turnover, the capital investment necessary to support, and the margin of profit earned. Furthermore, profit is the residual of sales revenue once all costs, including interest payments on debt, have been deducted; it thus constitutes the return to equity holders, (is the aggregate profit of profitable enterprises minus the losses of loss-making enterprises).

### G. Profits in Building Construction

DBW (2020), details that; in accounting, the term 'profit' refers to the financial benefit that is achieved when the work done and the expenses incurred by a business are exceeded by the amount of revenue generated by the activities of the business. Simply,

$$\text{Profit} = \text{Total Revenue} - \text{Total Expenditure}$$

Besides, profit may be calculated as a percentage, which will vary according to risk, workload and economic climate and so on. The owners of a business are responsible for deciding what to do with profit, and may reinvest it in the business, pay off outstanding debts, reward employees with bonuses and pay-rises, make payments to shareholders, and so on. There are different types of profit that can be measured:-

- Gross profit,
- Operating profit, and
- Net profit

Profit may also be referred to as a "Profit Margin"; which is the percentage of the gross revenue that represents profit. When contractors submit tenders for construction works, they typically identify profit and overheads as

separate items in addition to the cost of labor, materials, plant, and so on (DBW 2020). It can also relate to the turnover of capital employed for each project; the more times a contractor can turnover its capital on a project the more it can afford to cut margins (DBW 2020). The general practice shows that, most companies all 20% to 25% of net rates as/to cover for profits and overheads. DBW(2020) adds that; construction contracts will generally provide for the contractor to claim direct loss and expense as a result of the progress of the works being materially affected by relevant matters for which the client is responsible. Contracts generally allow direct losses to be recovered (such as the cost of labor and materials), but may exclude indirect or consequential losses (such as loss of profit).

### H. Factors that Affect the Percentage of Profit Margins in Construction

Miksen (2020) expounds that; there are numerous factors that affect a construction company's profit margin, i.e. from unexpected delays to unexpected disasters, these includes the following:-

- **Time;** when a construction company's bid for a project takes into consideration all cost factors, including time which is a crucial element to maximizing the profit margin. A construction company doesn't charge per hour, rather; it charges a price for the whole project, and that price is determined by estimating how long is the project duration, how much do the supplies cost, how much labor is involved and so forth. When the project completion time, far exceeds the estimated time, the profit margin for the project falls drastically.
- **Supplies Costs;** whereby, the supplies specifically building materials, petrol/diesel needed to complete a project do not come with consistent price tags, as their costs change often. If a construction company purchases all its project supplies at the same time, it won't be affected by rising prices. But if it purchases supplies as the project progresses, it may be saddled with extra costs that were not figured into the bidding document, leading to a thinning profit margin. Of course, that works both ways. The cost of supplies may drop at any given time, leading to a larger profit.
- **Financing;** when a construction company cannot fund a project with its own assets, and it has to or must borrow from a bank, it risks higher than expected interest rates. Example, if the construction company is banking on a 5 percent profit margin, but borrows money with an interest rate that's 1% higher than expected – or must borrow more money than initially expected – the profit margin for the project can fall.
- **Unexpected Problems;** which arise and wreak havoc with a construction company's profit margin. Such problems include damaged materials due to a natural disaster, theft of supplies and unexpected foundation

problems that require drastic corrections. Most of these problems are difficult or impossible to predict, (Chris 2018).

### **I. Profit Maximization Strategies in Building Construction**

Goodman (2020) states that; profit maximization must be a top priority along with completing a construction projects on time. It is important to not only focus on daily tasks and responsibilities, but to make time for cultivating the financial tools and strategies specifically for profit maximization. Strategies reported by Langmade (2018); Goodman (2020) & St. Clair (2019) includes:-

**Accurate General Conditions and Estimating for Profit;** general conditions in construction include the on-site administration, supervision, temporary facilities, temporary protection and soft costs required to get a project built. Estimating accurate general conditions for projects can be a simple task, when the estimator is accountable for getting it right. Most estimators use unit prices that are rarely checked against the actual final job cost, which may result to extra costs, hence causing loss, thus carefulness in estimation is important. The estimator's primary job is to calculate an accurate estimate of what it will cost to construct each project. After each completed project, the estimator must look at the actual job cost to see if he miscalculated, overestimated, or underestimated any of the project line items. Before pricing any project, the estimator should meet with the project manager and field superintendent to determine what will be required to run the project that's being bid on. Estimators should also research to determine, if they are charging the right price for the project needs and staffing, specifically temporary signage and barricades, fencing, temporary power, safety and first aid, and final clean up, just to name a few.

**Charge for All Amendments on Change Orders;** change orders are written documents amending the original contract agreement, between parties observing an addition or change in scope, price, time, schedule, terms or work items on a construction project. Most often, they require extra finances for the additional services required by the change. If formal approval or authorization for extra work is postponed for days, weeks or months after the event occurred, then the customer is in a great position to settle or offer to pay a discounted price, change his/her mind or decide that the additional work should have been included in the original contract. To avoid this problem, present a complete cost breakdown for every proposed change order that your customer requests before starting the job. Use a standardized format, cost template and rate sheet to ensure that you include all additional costs ensued from added work. Every time extra work is performed, extra costs become evident. Liability insurance and overhead cost may also go up. If the project has a payment performance bond,

this should be calculated into the pricing. The general condition costs that are needed due to time extensions caused by the additional work or services should be included. Some items may have to remain on the job site for extended times, such as: construction trailers, temporary facilities, fencing, protection, etc.

**Implement Technology;** the faster you adopt new construction technology, the faster you will increase your productivity and construction revenue. With so many different software solutions on the market, there is no time to wait!. Whether a company needs help with project management, organization, or communication, construction software technology will help the company to work faster and more efficiently. This will not only help the company to meet all its deadlines alongside eliminating the need for rework.

**Minimize Waste;** it is not a secret that, job sites create waste. Thus, one must be careful in knowing how much of the waste generated goes to the landfill, and how it can be saved in order to increase profit margins. Example, the State of Nebraska has been trying to encourage construction firms to reduce waste not only to protect the environment, but as a way for companies to cut back on lost profits. Lumber and manufactured wood products alone can make up to 35% of construction waste. If the contractor procure those materials, the 35% will still come out of the contractor's budget. St. Clair (2019) highlights that; for the firms that set up strategic programs to minimize construction waste, they realize job site savings that turn into a better bottom line, and suggests to:-

- Optimize designs to maximize usage of purchased building materials at supplied dimensions,
- Store materials to minimize the risk of damage and theft. Where possible, have supplies delivered via returnable containers; you won't have to pay to dispose of them, and the supplier can pick up empty containers for re-use at their next drop-off,
- Negotiate supplier buy-back of unused materials if need be,
- Donate leftover materials (in useable condition) to organizations such as Habitat for Humanity (donations may also be tax-deductible, so discuss this option with your company's tax professional),
- Keep back scraps for backup or patch pieces,
- Order only what you need, and try to avoid materials with excessive packaging
- Check with state or local officials for programs or incentives for waste reduction, reuse, or recycling, and
- Decrease equipment downtime with consistent maintenance.

St. Clair (2019) adds that; maintenance cost money and time. But it does not cost as much as dealing with a broken machine that should have been working on site.

Whatever the size and scope of your fleet, you are running equipment. Even if it is a just truck, it is essential to the day-to-day operations, and minimization of breakdowns and costly repair should be adhered in order to realize profit maximization, and the best way to do regular maintenance;-

- Know where the equipment is, what it's doing, and what dates it has been on a job,
- Track vehicle data for when equipment is running, working, idling, or off (many pieces of modern equipment have built-in sensors and tracking for data collection),
- Follow supplier and manufacturer recommendations for maintenance schedules,
- Keep track of operator notes and feedback, in order to be more aware of equipment condition and potential problems,
- Dedicate resources to maintain equipment at regular intervals, and between jobs,
- The better the contractor takes care of its equipment, the better they will take care of its business—and that will help take care of profits, a

**Improve and Increase Safety Training;** Riddell (2017), underlines that; just like employee training, safety training is key to maximizing profits and construction revenue. Often, construction projects experience delays and increased costs from accidents on the job site. By investing in better training, employees learn how to avoid potential risks better, and increase productivity. It is also important to continually educate and train employees so that everyone stays up-to-date on the latest safety practices. Practicing safety awareness, not only avoid project delays and eliminate increased costs, but also protect employees.

**Move Toward Shorter and Team-Friendly Contracts;** Langmade (2018) reports that; “Draconian” contracts continue to impede productivity and impact the bottom line of projects. When each party seeks to provide as much legal insulation as possible, it makes it more difficult for team members to engage directly with each other, increasing the likelihood of errors and discrepancies that lead to inefficiency. Rather than beefing up your legal team, modern construction negotiations would do well to follow the lead of Japan and Korea, where shorter contracts require less legal mediation and more direct engagement from team members. In this scenario, problems and solutions are discussed fully and openly and compensation is agreed upon with less legal involvement. All of this serves to improve overall productivity of a construction project.

**Improve Construction Productivity, Training, Job Site Experience and Managing Job Production for Profit;** Langmade (2018); Shiner (2013) also highlight on the importance of contractors providing enough training to building construction supervisors, insisting that; a good

training can improve process and profitability, which is why it is crucial to remember that, right training is an investment, not an expense, because replacing employees is expensive. Studies show that the costs associated with advertising, interviewing time and training can add up to almost half of that employee's annual wages. Likewise, they add that; supervisors have the ability to make or break a job, and contractors that invest in training employees end up reaping huge dividends. While the industry traditionally sees training employees as essential for project completion example, how to operate a new piece of equipment, few contractors actually train their supervisors on how to increase productivity or be mindful of it. Supervisors need to be trained not to look at a job on a day-to-day basis, but on how to increase the odds of on-time completion. Does the project have milestones? If so, is the project on pace to meet those milestones on schedule and within budget? In addition, the industry as a whole can benefit from requiring design students to complete internships on job sites to reduce conflict between designers and contractors and help designers create more “constructible” designs.

Shiner (2013) clarifies that; once a building construction company is awarded a job, it's important to carry out the work in the maximum cost-effective way possible if it assumes to make a profit, giving an example on how most contractors lose cash on trade orders because they do not systematically track costs, alongside making effort to bill for the change work they perform. Sarcasically, alternate orders can be a good source of additional profit because you have no competition for the work. In order to better track and manage change orders, you must create procedures to record changes in the field, turn those changes into work orders, and obtain signoff on approved work for billing purposes.

**Increase Use of Prefabrication;** with a large project comes repetition—with many repetitive elements, opting prefabrication in a factory rather than building each one from scratch on site, may be the best option vs. profit maximization. However, many are unaware that using prefabricated elements not only decreases costs, but also increases quality.

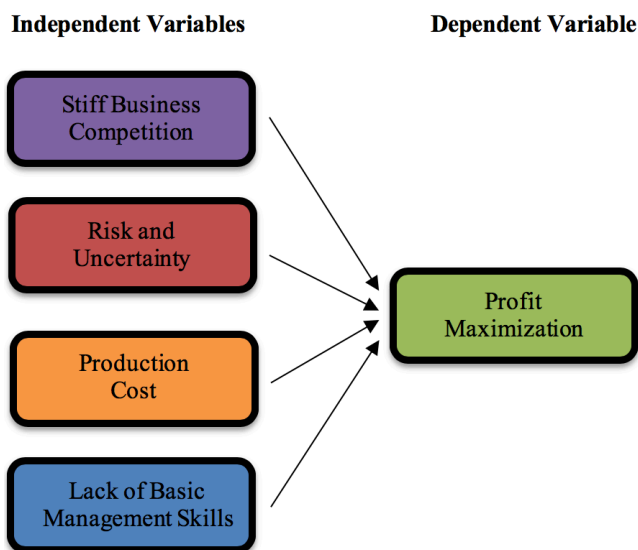
### ***J. Synthesis of the Literature Review & Knowledge Gap.***

The study by Lea & Lansley (1975a); Lea & Lansley (1975b), for instance, neglected to provide any indication of the numbers of groups considered in relation to the independency of size of firms and profitability, revealing only several situations where contractors find it difficult to meet the normal profit (i.e. ending up with low profit), that may be caused by low markup values in contract bidding, in order to enhance the prospects of work acquisition. Fellows & Langford (1980) found that; some firms deliberately make low profits only in the short run by 'buying work' to survive in recession periods or in order to

obtain further work from the same source. The problem of course is that; although this strategy may lead to long term profits, the dangers of underestimating production costs are ever-present thereby increasing the risk of failure.

The indications from previous research are that; low profitability levels predominate construction contracting. This could either be intentional in the short run with the expectation of profit maximization in the long run, or possibly due to unfamiliarity with the risks involved in contract bidding, or simply due to the effect of persistent keen competition in the industry. Whatever the cause, the result is that a firm may not necessarily make a profit on every tender won. Paradoxically however, a firm is nevertheless expected to make adequate profits on its total annual business activities if it is to continue to remain in business.

From the above empirical studies it is clear that; there are a set of factors that are normally considered when assessing profit maximization strategies employed by small and medium size building contractors in Dar-Es-Salaam, Tanzania. Various studies such as Thwala & Mvubu (2009); Ndulane (2015); Handayani (2006), however focused on performance improvement and problems facing small and medium size contractors in various parts of Africa. They did not address the issue of profitability strategies of these Small and Medium Size Building Contractors (SMSBCs) or challenges facing the implementation of the profitability strategies. Thus, based on the theoretical and empirical literatures presented above, the study intends to use the same to assess the profitability strategies employed by Small and Medium Size Building Contractors (SMSBCs) in Dar-Es-Salaam, Tanzania and come out with presented model of the conceptual framework shown in Figure #2.01 below:-



**Fig. #2.01:** A conceptual framework of the profit maximization strategies, **Source:** Author (2020).

### III. METHODOLOGY

In line with the research guidelines highlighted by Kumar (2011); Kombo & Tromp (2014); Saris & Gallhofer (2014); Magigi (2016); Kothari (2019), writings; the research design employed in this empirical investigation was a descriptive cross-sectional study. The study investigated various SMSBCs, (i.e. Class IV to VI), in Dar-Es-Salaam, Tanzania, who were also the unit of analysis. Also, the study used both qualitative and quantitative approach, which made it easier in determining the intended objectives, samples and design of the study, as well as ranking the profit maximization strategies employed by SMSBCs, and the challenges encountered against proper running in realization of profit maximization.

#### A. Data Collection Methods

Generally, both primary and secondary data collection, were done using multiple sources of evidence. Questionnaire survey and was used to collect primary data from a portion of population of SMSBCs registered as local contractors by the Contractors Registration Board(CRB) from Class IV, V, VI and VII, in Dar-Es-Salaam, Tanzania. The respondents answered the questions on their own, Jongo, *et al.* (2019). Some of the questions were close ended and others were open ended for the respondent to attest their own opinion, and give more information. Furthermore, secondary data concerning the profit maximization strategies employed by SMSBCs, and the challenges encountered against proper running in realization of profit maximization, were collected from literature review peer reviewed journals, newsletters, magazine papers, webpages. All respondents had different years of experience in the construction industry.

#### B. The Study Sample Size and Population

The study employed random probability sampling techniques in line with guidelines stipulated by Kumar (2011); Kombo & Tromp (2014); Saris & Gallhofer (2014); Magigi (2016); Kothari (2019) with registered local SMSBCs from Class IV, V, VI, and VI, in Dar-Es-Salaam, Tanzania, as sample units and sampling frame. An accessible total population of 1464 Class IV, V, VI and Class VII SMSBCs located in Dar-Es-Salaam, as per CRB,(2019), were selected as seen in Table #3.02.

**Table #3.01:** the study population (registered building contractors by the Contractors Registration Board (CRB))

Population Type		Population Size (N) in Tanzania	Population Size (N) in Dar-Es-Salaam
Contractors	Class IV	275	145
	Class V	798	379
	Class VI	706	336
	Class VII	1691	604
Total Registered Firms		3470	1464

**Source:** CRB (2020).



Basically, Dar-Es-Salaam was selected as the study area as most of the contractors are located in the area as seen in Table #3.02. The respondents were randomly selected so that each unit of the population has identical chances of being selected, and three criteria employed in determining the appropriate size were also used. These included the level of precision, the level of confidence or risk and the degree of variability in the attributes being measured (Miaoulis *et al.* 1976 in PEOD6, 2003). Moreover, a simplified formula by Yamane (1967) in Jongo *et al.* (2018) was used to calculate Sample Size(n), as seen below;-

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

**Where;-** *N* = Total Population Size i.e. = 1464  
*n* = The Sample Size  
*e* = Level of Precision i.e. = 10%, and a confidence level assumed 90%

Using the study population of Small and Medium Size Building Contractors(SMSBCs) as seen in Table #3.01, the total distributed samples (N) was 94 as shown in Table #3.02.

**Table #3.02:** the study sample distribution of the SMSBCs

Population Type		Population Size (N) in Dar-Es-Salaam	Distributed Sample (n)
Contractors	Class IV	145	09
	Class V	379	24
	Class VI	336	22
	Class VII	604	39
Total Registered Firms		1464	94

Source: CRB (2020) & Author (2020).

The respondents biographic data for gender distribution and years of experience was as seen in Tables #3.0.3 and #3.04 respectively.

**Table #3.03:** Respondents gender distribution

SN.	Gender	Respondents
01.	Female	26
02.	Male	68
TOTAL		94

Source: Author (2020).

**Table #3.04:** Respondents years of experiences

SN.	Years of Experience	Respondents
01.	Less than 5 years	11
02.	Between 6 - 10	54
03.	More than 10 years	29
TOTAL		94

Source: Author (2020).

**C. Questionnaire Design**

Based on guidance from Kumar (2011); Kombo & Tromp (2014); Saris & Gallhofer (2014); Magigi (2016); Kothari (2019); the study questionnaires were prepared in accordance with objectives of the research. The questionnaire design was divided into four(04) parts which covered registered local SMSBCs by the Contractors Registration Board(CRB) from Class IV, V, VI and VII, in Dar-Es-Salaam, Tanzania. The first part, requested on general information about respondent; the second part inquired, profit maximization strategies employed by registered local SMSBCs; the third part, covered challenges encountered against proper running in realization of profit maximization; and the fourth part, dealt with proposed profit maximization measures, that can be employed by the SMSBCs. Through a quantitative approach, data used were acquired with a questionnaire survey, in which the closed ended questionnaire was compiled based on the refined list above, after a pilot study. The pilot study was carried out to mark better the quality of the questionnaire and improve reliability of the questions. Based on the 5-point likert scale, as per Kothari (2019); the respondents (registered local SMSBCs from Class IV, V, VI, and VI) were asked to respond to each statements, by indicating which statement is Strongly Agree,(SA) = 1; Agree,(A) = 2; Moderate,(M) = 3, Disagree,(D) = 4 and Strongly Disagree,(SD) = 5, so as to explore the profit maximization strategies employed; examine the challenges encountered against proper running in realization of profit maximization; and propose profit maximization measures, that can be employed by the SMSBCs in Dar-Es-Salaam, Tanzania. A total number of 94 questionnaires were distributed, depending on their classes, employees, works conducted as well as the strategies used in running such companies, whereby only 78 completely filled questionnaires were returned as seen Table #3.05., equivalent to an average of 84.3% respondents, which was in line with the work of Mugenda (2003) in Mikapagaro *et al.* (2018) that; a rate of 50% or higher is satisfactory for data analysis.

**Table #3.05:** Response from questionnaires distributed

Population Type		Distributed	Returned	Response Rate
Contractors	Class IV	09	08	88.8%
	Class V	24	21	87.5%
	Class VI	22	18	81.8%
	Class VI	39	31	79.4%
Total	Reg. Firms	94	78	Average = 84.3%

Source: Author (2020).

**E. Data Processing, Analysis and Presentation**

Both qualitative and quantitative data obtained from open-ended and close-ended respectively, were analyzed, whereby qualitative data were examined and analyzed manually, through contents analysis, and categorized according to the way they relate to the research

objectives and questions. Quantitative data were analyzed using descriptive statistics, and computed by using Statistical Package for Social Science (SPSS). The computation of the cumulative data and ranking was done by using the mean score formula, i.e.

$$\text{Mean Score Value} = \frac{\sum FXS}{N}$$

Where:  $F$  = Frequency of response for each score

$S$  = Score given each cause

$N$  = The total number of respondent for each factor

The mean score comparison table was used to rank the results by considering the result of the mean score obtained as shown in Table #3.06.

**Table #3.06:** Mean score values (M) comparison table

SN.	Mean Score (M)	Ranking	Colour
01.	$4.0 \leq M \leq 5.0$	Critical/High Influencing Factor.	Yellow
02.	$3.0 \leq M \leq 3.9$	Moderate Factor.	Green
03.	$1.0 \leq M \leq 2.9$	Low-rate Influencing Factor.	Red

Source: Author (2020).

The study scope and limitation was established based on the works of Simon (2011); and Simon & Goes (2013) concentrating on registered small and medium size building contractors (SMSBCs) by the Contractors Registration Board(CRB) from Class IV, V, VI and VII, in Dar-Es-Salaam, Tanzania.

#### IV. RESULTS, ANALYSIS & DISCUSSION

Main parameters used for investigation in this study were exploring the profit maximization strategies employed by the SMSBCs; examining the challenges encountered against proper running in realization of profit maximization; and proposing profit maximization measures that can be applied by the SMSBCs in Dar-Es-Salaam, Tanzania.

##### A. The Profit Maximization Strategies Employed by the Small and Medium Size Building Contractors (SMSBCs)

The level and intensity of adoption of profit maximization strategies may vary between firms. However, common strategies identified by studied firms are ranked as summarized in Table #4.01 below,

**Table #4.01:** The profit maximization strategies employed by the small and medium size building contractors

SN.	Profit Maximization Strategies Employed by the Small and Medium Size Building Contractors (SMSBCs).	T N R	MEAN	SD	R A N K
01.	Charging for all amendments on change orders,	78	4.34	0.877	6
02.	Accuracy on estimation of general conditions for profit,	78	4.32	0.702	7
03.	Pre-construction planning (PCP)	78	4.81	0.749	1
04.	Implementing technology (use of software and other planning and implementation tools),	78	4.01	0.946	10
05.	Moving towards shorter and team friendly contracts.	78	2.56	1.101	13
06.	Proper tendering procedure in relation to profit overheads,	78	4.78	0.985	2
07.	Onsite waste minimization, and the Green Innovation Strategy (GIS),	78	4.42	0.672	4
08.	Improving and increasing safety trainings,	78	2.38	0.520	14
09.	Timely execution of work on site,	78	4.34	0.876	5
10.	Better communicate, (communication between client and other consultants),	78	4.13	0.870	8
11.	Improving construction productivity and requirement on more job site experience,	78	3.87	0.804	12
12.	Converting one-time clients into recurring clients,	78	4.10	1.024	9
13.	Dropping Low Performers,	78	4.48	0.570	3
14.	Expanding the firm to reach a broader market.	78	3.91	1.100	11

Source: Author (2020).

**Pre-construction Planning, (PCP);-** was rated first with the mean score of 4.88, whereby the respondents insisted that; its effective application has a great positive effect on the project profitability and successful completion of the project, and it usually requires 2% to 5% of total installed cost of a project but also depends on type and complexity of the project. Such results which were in line with the work by Abbas, Din & Farooqui (2016). Their analysis further adds on the outstanding benefits of PCP, which includes understanding of the project complexity and risk, due to the joint integration between contractor and designer at the early stages of the project. Other related benefits shared by Abbas, Din & Farooqui (2016) include:

- PCP reducing construction cost, time and design changes,
- Enhancing information regarding certainty of cost and schedule,
- Increasing probability of project success,
- Improving performance during construction,
- Having higher chances of accomplishment of business goals,
- Better understanding of risks, and
- Fewer scope and design changes.

In its best practice report, CII (2012) for example indicates that; 609 building projects with the cost of \$7 Billion achieved 10% less cost, 7% shorter project duration and 5 % fewer changes due to effective PCP application. Moreover, Abbas, Din & Farooqui (2016) highlight that; PCP covers a number of aspects, which one must observes so as to realize profit maximization, these include;-

- **Project Scope (PS)**; the process of a project is defined and prepared for fast execution approach,
- **Area & Site Investigation(ASI)**; the design process of geological investigation & defining political & security issues of the area,
- **Team Selection (TS)**; effective communication strategy within the team selection of a contractor,
- **Design Review Coordination(DRC)**; reviewing of drawings according to specifications and coordination among designer, consultant, and contractor,
- **Constructability (CONS.)** the conceptual planning (regarding performance of schedule, quality, cost, and safety) phase of a project,
- **Value Engineering (VE)**; identifying alternative ideas for accomplishing the project function at the lowest cost,
- **Risk Analysis (RA)**; chances of delays due to accidents during construction of a project and their respective outcomes,
- **Safety in Design (SID)**; the initial integration of hazard identification and risk assessment methods into the design process, and
- **Long Lead Procurement (LLP)**; the early procurement of material to accommodate it for long procurement spans.

**Proper Tendering Procedure in Relation to Profit Overheads**;- was rated second with the mean score 4.75, whereby; DBW (2020); Bowen *et al.* (2020) asserts that; for a SMSBC to maximize profit, proper tendering must be done with consciousness of the project overheads<sup>1</sup>. This is possible by keenly taking consideration on the; the economic status and type of the client; the level of inflation and expected competition; project location, type, size, value and complexity; contract conditions and duration; financial state of tenderers; the tenderer's resources; and time for tender preparation. Other include; the perceived riskiness of

<sup>1</sup> **Project Overheads**;- which as per DBW,(2020), are sometimes referred to as site overheads, preliminaries, general cost items or expenses; are the costs of administering a SMSBC company and providing off-site services. They are also known as the cost of site-specific project costs that cannot be allocated to individual activities or being included in all-in or composite rates. They include among other things, these costs may include; site management, site office, safety precautions, job-related insurances, bonding costs, electronic communication bills, water, electricity costs, etc. The essential characteristic is that these overheads serve more than one activity, e.g. tower crane, skips, general site labour, etc. However, in practice some resources that could be allocated to an activity, e.g. scaffolding for falsework, are included in the preliminaries because of the contractor's preferred method of pricing.

the project; expected variations; expected claims, the availability and quality of the tender information; quality of tender; escalation conditions; and work-load of tenderers.

**Dropping Low Performers**;- was ranked third with the mean score of 4.72, as most of respondents claimed that low performers tend to drag down the productivity of the company. According to Shiner (2013), setting profit-sharing goals based on job responsibilities helps employees feel in control over their contribution. Just because someone works really hard, doesn't mean they are working well. We all know the person who stays late every night, and works every weekend, yet never seems to get all the work done. Employers should not be fooled by effort, instead they should look at each employee's results.

**Onsite Waste Minimization and the Green Innovation Strategy (GIS)**;- was ranked fourth with the mean score of 4.71, due to the fact that; opportunities to reduce waste exist throughout a project, specifically in design, procurement and logistics. Wrap (2018) supports this strategy by insisting on its benefit, as it is a direct cost saving to the project, and for every skip of waste that is eliminated through waste reduction strategies, so is the associated cost of the procurement and purchase. This is also in conformity with the empirical results of a 2019 study by Lin *et al.* (2019), which indicated that; GIS positively affected corporate Financial Performance (FP). Precisely, their study showed that; small and medium sized firms were more prone to variations and visibility for accessing better resources that could generate higher profits. Zhu *et al.* (2012) in Lin *et al.* (2019), stated that; these eco-innovative activities help firm decreases their waste and increase brand promotion which stimulate their market shares and new business opportunities.

**Timely Execution of Work**;- had a mean score of 4.63, and ranked fifth. Basically, Shiner (2013), underlines that; most contractors make the mistake of thinking of each job as an independent project with a start and a stop, and as a result, they rarely take time to analyze each new project and assess the overall success of the business, in terms of profit maximization. Further, Shiner (2013) insists that; if you think of your projects as circular rather than linear, you will find effective ways to reduce costs and increase profits. Some respondents highlighted that; contractors, often have trouble ending jobs because they are more focused on starting the next one. Yoo, & Kim (2015) unwraps that; project timely execution can also be attained when construction companies focus on reducing production costs or by practicing efficient business processes, which leads to a higher profitability.

**Charging for All Amendments and Change Orders**;- was ranked sixth with a means score of 4.59, as it is one of the critical strategies where a contractor may maximize the profit. Essentially, most contractors lose money on change orders, due to non-systematical track

costs and negligence in taking time to bill for the change of work they perform. Likewise, change orders can be an excellent source of additional profit, and in order to better track and manage change orders, contractors must create procedures to record changes in the field, turn those changes into work orders, and reach agreement on approved work for billing purposes. However, how the nature/type of contract condition governs these matters are a lot. This is because some contracts don't allow re-measurement, thus omitting possibility to maximize profits.

**Accuracy on Estimation of General Conditions for Profit;**- was ranked seventh, with a mean score of 4.53. Shiner (2013) enlightens that; the true cost of a proposed project is based upon three essential elements: overheads, risk and job expenses. Every of those factors must be reflected in the estimate ahead of time in case you expect a profit once the job is completed. For example, overheads "know how" is critical, as they are costs that would remain even if the building construction company does not do any work for weeks, due to the fact that; the company will still need to pay the salaries, cellphone, insurance, hiring various services, utilities etc. Additionally, it is far essential to include risk elements in each estimate as the costs that would remain here and there. In that manner, the building construction company can measure true costs against a real price budget, instead of a padded one. Time and materials jobs have the least amount of risk even as the bidding process for contract jobs consists of the maximum. Job expenses, labor may be the riskiest and most difficult part of the estimating process. In order to prepare a correct estimate, one must realize how long each undertaking will take, and how much every project will cost and that relies upon at the relative performance of company's personnel (Shiner 2013).

**Better Communication;**- was ranked eighth, with a mean score of 4.44, due to the fact that; communication in any building project, is the key factor to proper coordination of events/activities, hence leading to timely completion, or even before time, and thus profit maximization. Shiner (2013), revealed that; most projects have a number of construction professional groups (i.e. client, general contractors or builders, subcontractors, employees, bonding agents, architects, engineers and inspectors) that must always maintain regular contact, in order to be successful and profitable.

Other profit maximization strategies included converting one-time clients into recurring clients with mean score of 4.22; adopting innovative technologies (use of software and other planning and implementation tools) with mean score of 4.09; expanding the firm to reach a broader market with a mean score of 3.91; improving construction productivity and requiring more job site experience, with mean score of 3.87; moving towards shorter and team friendly contracts with the mean score of 2.56; and

improving and increasing safety trainings which had a mean score of 2.38. Moreover, additional strategies were listed by some of the respondents in an open question in the questionnaire, which included; professionalism in dealing with clients; discipline in execution of works; as well as maintaining high quality work and not taking risks when it comes to work.

The study revealed that; the firm's profit maximization strategies are crucial for their growth, whereby an evaluation to review the satisfaction of the accuracy of profit maximization strategies employed by the SMSBCs, was conducted and the results as depicted in Table 4.02, exhibited that; 46.9% of all the respondents revealed their strategies to be highly accurate, while 40.6% revealed their measures to be accurate, showing that; they are confident with how they run their firms or companies. Whereas, 12.5% showed little satisfaction with the strategies they applied in maximizing their profits.

**Table #4.02:** the accuracy of profit maximization strategies

SN.	Accuracy	Frequency	Percent	Valid Percent	Cumulative Percent
01.	Highly Accurate	15	46.9	46.9	46.9
02.	Accurate	13	40.6	40.6	87.5
03.	Moderate	4	12.5	12.5	100.0
04.	TOTAL	32	100.0	100.0	

Source: Author (2020).

Likewise, when analyzing different government systems that at one point or another, do affect the SMSBCs, the study as depicted in Table 4.03, revealed that; 84.4% of all the respondents said the government systems were somehow satisfactory and acceptable to the overall performance and growth of their firms, While 15.6% denoted normal satisfaction and acceptance to the government systems despite such systems affecting them in one way or the other. Akanni, Oke & Akpomimie (2015) affirm that; government's political environment which basically is concerned with government policy, and the effect of political decisions upon construction projects, plays a significant role in the construction industry, alongside the clients, regulators of the national economy, and regulators of the construction environment such as laws that guide ethics and construction practices and many others.

**Table #4.03:** Satisfaction on Government Systems on Overall existence and performance of their firm

SN.	Accuracy	Frequency	Percent	Valid Percent	Cumulative Percent
01.	Somehow satisfactory and acceptable,	27	84.4	84.4	84.4

02.	Satisfactory and acceptable	5	15.6	15.6	100.0
03.	TOTAL	32	100.0	100.0	

Source: Author (2020).

**B. The Challenges Affecting Realization of the Profit Maximization for the SMSBCs**

This study also evaluated the extent in which existing challenges affect profit maximization strategies in the SMSBCs. Table #4.04 therefore, summarizes factors/challenges that were ranked by respondents that negatively affected realization of profit maximization in SMSBCs.

**Table #4.04:** the challenges against realization of profit maximization for the SMSBCs

SN.	Factors that Affect the Profit Maximization Strategies of the Small and Medium Size Building Contractors.	T N R	MEAN	SD	R A N K
01.	Non-payment of debts, and price fluctuation,	78	4.81	0.749	1
02.	Poor accounting system and records	78	3.99	1.080	9
03.	Unavailability of credit facilities,	78	4.48	0.985	2
04.	Lack of management skills,	78	2.47		12
05.	Lack of capital equipment and project complexity	78	4.42	0.570	3
06.	Lack of skilled personnel,	78	2.41		13
07.	Taxes, license fees and Skills Development Levies(SDL)	78	4.10	0.870	8
08.	Unexpected climate conditions,	78	4.32	0.702	7
09.	Delays caused by client uncertainty,	78	4.35	0.878	6
10.	Supply costs due to change in time (materials),	78	2.38	1.201	14
11.	Lack of raw materials/irregular supply,	78	3.00	0.803	11
12.	Low share of work opportunities,	78	4.35	0.876	5
13.	Poor quality of services and products,	78	3.31	1.100	10
14.	In adequate training facilities,	78	1.78	0.887	15
15.	Inclusive and efficient management system		4.35	0.872	4
16.	No difficulties,	78	1.02	0.983	16

Source: Author (2020).

**Non-payment of Debts & Price Fluctuation;** was ranked the first, as the most critical challenge with the mean score of 4.91. The results are in line with previous work by Artidi & Chotibongs (2005) in Ansah (2011), stressing that; all the problems in the construction industry begin when, payment in the exact amount due by the date shown on the statement, is not received. Disagreements then lead to arguments as relationships sour, and the stage is set for conflict; finger pointing, blaming and judging, buck-passing and lawyers. Mtweve (2012) reports that; the fluctuations of the value of the shilling is a challenge that has been facing most local building companies, due to the fact that price

quotations provided by building contractors are in most cases billed in the local currency and often fixed, such as when one party delays, so does the erosion of profit of the local construction company. Example, Jog (2012) in Mtweve (2012), cited the effects of inflation, as it pushed the price of almost every building item by over 25%, to a great extent devastating the construction sector, in terms of profit maximization.

**Unavailability of Credit Facilities;-** was ranked second with the mean score of 4.81, thus underlining its negative impact, whereby Bakar *et al.* (2011) & Adjei *et al.* (2018) insist that; the availability and accessibility of bank loans, overdraft and other credit facilities, is important for profit maximization and growth of any building construction company, as long as they have sufficient collateral to secure the loan. In a Survey conducted in Sri Lanka, De Silva *et al.* (2005) availed that; the construction industry has always had a close relationship with the banking system, where to money transaction are always enormous. However, in Sri Lanka, most of the bankers behave only as money lenders in extending financial facilities. Further, obtaining of a loan from a bank is a tedious procedure which, in some cases, takes months. This longer time period discourages the SMSBCs who require short term bridging finances.

**Lack of Capital Equipment and Project Complexity;-** was ranked third with the mean score of 4.63. In no way a SMSBC company may be able to construct any building project without appropriate equipment, which assists in making the construction works easy, safe and quicker. The building construction equipment can be classified into three categories depending on the application, which includes; earthmoving construction equipment used in shifting large amount of earth, i.e. digging foundation, landscaping, site clearance etc. (e.g. hydraulic excavators, bulldozers, compressors and loaders); construction or engineering vehicles, which are heavy-duty vehicles specifically designed for executing construction tasks, most frequently, ones involving earth moving; and material handling construction equipment (e.g. bulldozer, tractors, graders, excavators, backhoe, loader, cherry pickers, cranes, forklift, paving machines, road roller, compactor, pile driver, dump truck, concrete mixer). They can be bought or rented, and they are expensive in terms of cost to an extent that; they can impact cash flow and profit potential of a SMSBC company due to the high costs associated with ownership, i.e. acquisition, principle and interest, taxes, maintenance, and replacement, Clapp *et al.* (2007). According to Vorester (2005) in Clapp *et al.* (2007), heavy building construction equipment costs average approximately 30% of the company assets, thus underlining capital equipment as often one of the largest investments for a SMSBC company. Clapp *et al.* (2007) insists on building construction companies to have an

equipment acquisition policy, as it has a great impact on the profitability of any building construction firm. Without capital equipment, it is difficult to realize/ maximize profit in any company, especially if the project is complex in terms of constructionability. Willscot (2018) details that; new building designs are becoming increasingly complex. The finished structures are visually dramatic and energy efficient. But creating these buildings requires experienced tradesmen with best equipment that can execute quickly, safely and with great precision. The project complexity makes managing project timelines, resources and budgets exponentially more complicated, thus creating construction challenges that make delivering projects more difficult, hence minimizing the project profit. Further, Muhegi (2012) in Mtweve (2012) reports on inadequate availability of construction equipment and capacity in the sector, in Tanzania.

**Inclusive and Efficient Management System;-** was ranked fourth with the mean score of 4.58. Working as a team, is always vital for the prosperity of any building construction company, especially within the site, within the office and between the site and office. The same is also shared by Bakar *et al.* (2011) and Li & Ling (2012) who suggest that; building construction companies must always maintain the move away from authoritative management styles, toward variations of participative management and employee involvement, if at all they are to realize profit maximization.

**Low Share of Work Opportunities;-** was ranked fifth with the mean score of 4.53. Most of the multibillion building construction works are executed by large building construction companies (i.e. Class I, II & III), leaving the SMSBC companies with the lowest share of construction tenders, due to the competition being stiff, accompanied by favouritism, corruption, difficult bid/tender conditions etc. Muhegi & Malongo (2005). Muhegi (2012) in Mtweve (2012) assert that; the number of contractors (7,000 by 2012) in the country was larger than the number of construction works/tenders, which led and still leads for some contractors ending up with the lowest share of works. Jog (2012) a director of Advent Construction Limited, a class one construction company, was cited in Mtweve (2012) reporting on how most of the biggest construction projects were awarded to Chinese firms, hence creating the biggest challenge to local contractors. The situation has also become more stiff, with the most state building projects being awarded to the state owned construction companies such as TBA, NHC, SUMA JKT, Prison Brigade etc. leaving most SMSBC companies struggling. Example, according to Mwakalebela (2019), by 2019, the Chinese construction firms had been engaged in construction projects worth 17 Billion USD (i.e. over 39/- Trillion, Tanzania Shillings), making China the largest contractor in

Tanzania. Moreover, the amount is expected to rise as more construction projects are underway.

**Delays Caused by Client Uncertainty;-** was ranked sixth with the mean score of 4.41 as it plays a major role in payment to contractor as well as project completion. In line with Reeves (2003) in Ansah (2011); this is subjected to public servants taking longer than the stipulated time in terms of the contract, on the payment of certified claims, by wrongfully withholding the payment including errors in withholding taxes and retention monies; with the expectation of obtaining some kind of remuneration from contractors, once they disburse the payment. This act is also shared by Assaf, Srour & Hassanain (2013), who described corruption practice, alongside with fraud in their study, as one of the causes of delay on the clients side.

**Unexpected Weather(Climate) Conditions;-** was ranked seventh with the mean score of 4.31 whereby Akanni, Oke & Akpomiemie (2015) claims that; the environment (mostly rainfall) interferes with the planned progress of construction projects. The less predictable environment, the greater its potential effects, and the more it must be taken into account in managing the development of construction projects.

**High Taxes, License Fees and Skills Development Levies (SDL);-** was ranked eighth with the mean score of 3.34, with a study by Muhegi & Malongo (2005) highlighting high taxes for imported building material and bureaucracy in clearances, as a challenge hindering the development of most construction companies. Basically, the problem that arises from taxes and licenses may be a bit challenging for profit maximization for construction companies. Taxes may be paid in every stage of construction, and most of these problems are difficult or impossible to predict (Miksen 2020). ATE (2019) accentuates that; there are multiple taxes and tax administrations that amount to 11, fees and other charges imposed by Tanzania Revenue Authority (TRA) in construction, which includes corporate tax, VAT, the 5% withholding tax, spare parts related custom duty, 15% penalty due to lack of pre-shipment verification Conformity (PVOC) Standards, off-set taxes across different taxes and Local Government Authority (LGA) taxes and regulatory fees. Other include Skills Development Levies (SDLs). All these inhibits the profit maximization of the SMSBCs companies. The industry is also engulfed by multiple regulatory registration bodies in construction, whereby a limited company must be registered with the Business Regulatory Licensing Agency (BRELA), the Architects and Quantity Surveyors Registration Board (AQRB), the Engineering Registration Board (ERB), and the Contractors Registration Board (CRB), which add to costs of doing construction business to the private sector, specifically the SMSBCs companies.

**Poor Accounting System and Records;-** was ranked ninth with the mean score of 3.33, conforming with the studies by Assaf, Srour & Hassanain (2013); Adjei *et al.* (2018), who insist that; financial related issues such as high interest rates paid, poor financial accounting system and records, mismanagement of cash flow, poor debt collection are among the most hostile challenges, that cause the failure of SMSBCs in developing countries. Moreover, poor cost planning of both parties due to lack of proper budgeting, and hence resulting to poor quality of work, was also shared by the respondents. Shiner (2013) enlightens that; real job cost accounting can maximize the profitability of any construction company, through knowing the actual cost associated with each activity. A proper accounting device needs to accomplish two things: one, successfully meet, the company's daily accounting and bookkeeping needs and two, meet the company's precise requirement as a contractor. That means streamlined processing and an effective way to manage workers' reimbursement, liability insurance, bonding etc. Basically, an accurate construction accounting system must distinguish overhead costs and direct task costs.

**Poor Quality of Services and Products;-** was ranked tenth with the mean score of 3.31, was ranked low, due to the fact that; they do affect the SMSBCs, but not to a large extent due to availability and advancement of technology and easy transportation. The work is left for the contractor, to order and make sure that the materials are of the right quality and delivered on time and with right amount.

**Lack of Raw Materials/Irregular Supply;-** was ranked eleventh with the mean score of 3.00. Rahman, *et al.* (2013) assert that; the success of any construction project highly depends on how proper and effective procurement, supply and management of construction resources e.g. building materials. The scarcity of raw materials frustrates the project progress, hence delaying and extending its completion alongside causing unnecessary cost overruns, that affects the project maximization. Study by Muhegi & Malongo (2005) pointed out that; high prices, price fluctuation, and low quality of the building materials available, as other factors challenging the effective running of the SMSBCs companies. A material management system includes the fundamental functions required in any construction project such as identifying, acquiring, supplying, storing, distributing and disposing of materials, Rahman, *et al.* (2013).

Other challenges against proper running of the SMSBCs in realization of profit maximization with low mean score includes; lack of management skills with mean score of 2.47, with most respondents insisting on nowadays availability of the management skills, alongside non-willingness on the payment of the training course for employees or hiring a more skilled one. Contrary to Azhar

*et al.* (2008) in Chuan, Ming & Lin (2014), who insist that quality management is important in determining a success and profitability of any construction project, as it is considered as the main factor in fulfilling client satisfaction; the situation had been different, depicting De Silva *et al.* (2005) findings in which management and co-ordination of projects kept being shown as great difficulties in the construction industry. Moreover, lack of skilled and experienced personnel with mean score of 2.41, alongside difficulty in maintaining skilled staff during idle time, as well as replacing key personnel, was also another challenge, as also revealed by Assaf, Srour & Hassanain (2013).

Further challenges included; supply cost due to change in time with mean score of 2.38; inadequate training facilities with a mean score of 1.78, and no difficulties at all which had a mean score of 1.02. Additional challenges shared by respondents via open-ended questionnaire included; high plants costs; high competition of work opportunities in the market; and delay caused by long processes in the government systems for permit to running a project, alongside the institutional environment of a country which may indirectly affect firm growth and profitability, as per Yoo, & Kim (2015).

## V. CONCLUSION & RECOMMENDATION

### A. Conclusion and Implication of the Study

Basing on specific objectives of this research inquiry, the study concluded that; a significant number of the SMSBC companies rely on multiple strategies, rather than adopting a few specific strategies towards profit maximization for construction business. This is because, unlike other businesses, construction projects are technically unique, customized to meet specific needs, while delivering building and civil engineering infrastructures solutions. Though other profit maximization strategies have been highly ranked as the most adopted mechanism, SMSBCs have not abandoned the use of the lowly strategies, signifying the combined methods play a great role in impacting/influencing profit maximization and ultimately corporate financial performance of the SMSBCs. Generally, SMSBCs, use the window of charging for all amendments and change orders; pre-construction planning (PCP); timely execution of work on site; on-site waste minimization; dropping low performers; accuracy on estimation of general conditions; better communication between client and other consultants; and proper tendering procedures in relation to overheads to maximize their profits in building construction projects. The application all of these profit maximization strategies had high mean score between 4.81 and 4.42. On the other hand, the rest of the strategies had low mean score ranging between 4.10 and

2.50 as depicted in Table #4.01. Despite the SMSBCs employing the mentioned strategies, they face various challenges. These include non-payment of debts; unavailability of credit facilities; lack of capital equipment; inclusive and efficient management system; low share of work opportunities; high taxes and license fees; delays caused by client uncertainty; unexpected weather (climate) conditions; which had a means score between 4.91 and 3.34. The implication for managers is that; the ability to maneuver multiple strategies rises the survival rate of construction companies during turbulent economic and political environments. Another implication is that, with increasing disruptive innovation, complex project varying clientele, there is a sense that profit maximization strategies are likely to undergo reforms in order to curb future challenges in the construction industry in Tanzania. The study further noted that the overall satisfaction of the profits and growth of the SMSBCs, has been reduced by government system and policies despite the government efforts on fighting corruption. Corruption is one of the factors that has affected the industry to a large extent, especially the SMSBCs, hence hindering their growth, although; the new reform of the government systems has dealt with it to a reasonable extent, hence reducing it drastically, in comparison to the past. However the problem has not been not completely eliminated. It was noted, government policy reform can significantly affect the sustainability of local private firms when public projects are executed using state owned construction agencies alone. This slows down innovation process at the same time deprive national competitive tendering opportunities to the SMSBCs. When it comes to high taxes and license fees most of the contractors are irritated with high cost and licenses of operations, the presence of withholding taxes imposed to them when conducting business, and Skills Development Levies (SDLs). The measure should go along with the implementation of the recommendations in the Blueprint.

### **B. Recommendations**

Basing on the findings and conclusion drawn, the study recommends profit maximization measures that can be applied by the SMSBCs, which includes;

- The government agencies related to processing payments to SMSBCs may consider to revise their procedures, and simplify the payment process, so as to create a more healthy construction business environment. Payment made by the government for public projects involving government as a client, should be made on time, as per the contract. Most of the government development works conducted, involve construction to a large projects, e.g. construction of roads, buildings, offices; which when completed the contractors, they encounter delays on payment, caused by long processes on the government

systems (bureaucracy), as well as a long list of corruption.

- Providing Bid Bond and Advance Payment Guarantees to contractors through the Contractors Assistance Fund (CAF). Another effort is the establishment of government owned plant and equipment hiring companies,
- The SMSBCs should seek advice from financial consultants and well experienced certified public accountants.
- The government providing equal share opportunities between SMSBCs and large building contractors, as far as the public construction projects are concerned, alongside reducing the dependence on foreign construction companies. This can also be achieved via providing opportunity to SMSBCs to work with the larger construction companies; for the purpose of equipping them with new construction techniques and professional practice knowledge, towards sustainable innovation.
- Introduction of proper taxation policies, which involves reviewing the tax systems and deletion or reduction of withholding tax to the contractors. This should go along with implementation of the recommendation in the Blueprint.
- Providing a tax exemption (including VAT) over the five year period for all capital plant and equipment for the project.
- The government to ensure on the presence of equal opportunity of tenders, for both public and private construction companies. This has arisen due to recent government directives on most if the construction works being implemented by Tanzania Building Agency (TBA), National Housing Corporation (NHC), SUMA JKT, Prison Brigade etc. which are a public construction companies.
- Implementation of the one stop center for all government agencies dealing with the construction business, alongside government initiatives purposely designed to promote local SMSBCs.
- Tanzania Bureau of Standards (TBS) to effectively enforce on quality assurance for all imported materials, so as to avoid or eliminate low quality products in the market.
- Introduction of one regulatory body – the Construction Industry Development Board which will host CRB, ERB, and AQRB as departments as stipulated in the recommendation in the Blueprint, in order to enhance coordination and improve efficiency.

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