Strategies for Local-less-competitive Contractors to Compete Against Overseas Counterparts: A Tanzania Case

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Abstract: The consequence of globalization resulted from the world economic growth, development and the agreement on free market has necessitated the struggle for the global construction industry market competitive environment, which has largely affected the construction industry of developing and less-developed countries. Thus, un-maintainable and less competition resulted from several hindrances facing Local-less-competitive firms in less-developed countries has raised the need to identify effective strategies as a competitive advantage for improving and thus attaining an effective performance. A questionnaire survey tool was used to gather and collect potential data from the experienced construction industry practitioners and stakeholders including engineers, architects, quantity surveyors and surveyors. Ranking, factor analysis, and structural modeling techniques were adopted and hence facilitated the identification of twenty two (22) potential strategies for the sustainable competitiveness of Local-less-competitive firms. Assets (A), processes (P), performance (PER), and government support (GS) related strategies ($\beta_1=0.223$, $p=0.05$; $\beta_2=0.208$, $p=0.04$; $\beta_3=0.391$; $p=0.00$, $\beta_4=0.153$, $p=0.06$) respectively has proved to have an optimistic statistical positive significance prediction in accelerating sustainable competitiveness of local-less competitive firms of less-developed countries' domestic market. The study findings may serve as valuable input for policymakers and construction industry stakeholders in understanding the effective strategies adopted by Local less-competitive firms in domestic construction.

Keywords: Local Less Firms, Construction Industry, Competitiveness, Competitive Strategy

1. Introduction

Less developed countries have envisaged Construction Industry (CI) as the most crucial sector for their national economy. The CI plays a fundamental role in providing essential infrastructures, including roads, electricity, airport, railway, real estate, schools, hospitals, and water distribution networks. [1] The developed infrastructures enhance productivity and quality of life and strengthen the nation's economic growth. Despite the crucial importance of CI to the economic development of less developed countries, the CI has been faced with tremendous challenges. Challenges include the globalization effect, which led to competitive pressure. Globalization has raised knowledge based on the principal economy, which has later increased market demand and trade liberalization [2].

Moreover, globalization has led to the removal of borders, opened fast international construction trade growth, and accelerated the struggle for construction market share and working opportunities between industrialized and least-developing countries (LDC). Furthermore, other challenges include historical poor performance culture, practice, and lack of advanced technology that continuously improves production performance. Additional challenges are low productivity and GDP, lack of competence and skilled labor, chronic resources availability, lack of skills and experienced

employees, and ineffective formulated strategies [3]. Generally, challenges have led to ineffective practice, which has increased cost, contracted time, and poor quality delivery.

Various general strategies were formulated to enable resource coordination and improve CI performance and practice while reducing the challenges. Developed strategies comprised forming agencies and boards in different countries to oversee CI, formation of construction industry development boards such as the national construction council (NCC) in Tanzania. The formulated strategies have failed to improve either performance or competitiveness to LDC's firms. Contrariwise, several developed countries' initiatives to review the state of CI involved the formulation of long-term strategies at different levels of development. Suggested strategies include supply chain integration, increasing the knowledge and skills, continuously benchmarking CI to maintain competitiveness, investment in innovative research and development, setting regulation as the stimulus for better CI improvement, and aligning national and international construction standards [4]. The formulated strategies by developed countries have resulted in CI development and performance in their countries. These developed strategies have made Singapore the first top-ranked country globally in the easiness of doing business [5]. Despite the strategies formulated, the government of developed countries' willingness and facilitation have to maximum facilitated attaining the goal set within CI. Thus, this study aims to identify effective strategies that can contribute significantly to the sustainable competitiveness of LLCF to compete against foreign firms. The study intends to add knowledge to CI stakeholders and policymakers by identifying the integration of government support to APP framework towards attaining sustainable competitiveness to LLCF against counterparts in the local market.

2. Literature Review

2.1. Performance of Local-Less-Competitive Firms (LLCF)

In this study, LLCF is considered a firm with an accumulative capital of not more than 40,000$ with less than twenty (20) permanent employees. LLCF in LDC has always attained a low level of growth because of ineffective practice and poor delivery, which has affected their SC. over counterparts firms [6]. Despite the increased firm registration, the CI of LDC has continued to rely on foreign firms. [7] Recognized that often-foreign firms had attained competitive advantages over local firms for different reasons. Edward and Miles (1984) also noted the "international" or "foreign" firms to be prominent among large construction firms in LDC.

The analysis made in Tanzania found out that, of 68 substantial construction projects undertaken between (2005-2015), only 6.48% of the total contracts value was awarded to LLCF, while the remaining 93.52% being undertaken by foreign firms [8]. In the same line, [9] noted almost the same scenario to Zambia as local construction firms have failed to acquire the economic opportunity advantages. It was reported that LLCF took only 17% of road construction projects' market share while the rest (83%) remained in the foreign firm's hands. The same trends of the ineffective practice of the local firm in LDC were noted in Nigeria. [10] Reported that, although 50-70% of the county's investments involve construction as a capital base of the national economy, and 90% are locally registered construction firms, the performance of CI has continued to be very poor.

Moreover, [11] noted that the experienced constraints faced by Uganda construction firms greatly limited its growth. The prolonged persistence of the limitations resulted in the Uganda construction firm's failure to have sustainable construction firms in place for civil works and maintain its infrastructure. Furthermore, his analysis [12] noted that the foreign firms dominated 70% of the construction market shares of the southern Africa region.

2.2. Competitiveness Concept and Theories

Despite being a long-time concept to researchers in the academic and business industry, its definitions have failed to attain a universal consensus. [13] Described competitiveness as multi-defined, multi-measured, multilayered, dependent, relative, dynamic, and process-related concept derived as a management idea reflecting the economic indicators, including profitability, market share, and productivity, together with other indicators to enable performance improvement [14]. The Competitiveness concept can be analyzed at the firm, industry, and national levels. However, each level integrates different sets of theories.

The effects of globalization have generated an interconnected and interdependent world, leading to world complexity and a dynamic place of free trade and hence competitiveness environment. However, the published book titled "Competitive strategy" by Michael Porter contributed expressively and rapidly ever-increasing competitiveness concept [13]. Theories on competitiveness developed by Porter portrayed the potential strategic area, which led to competitiveness [15]. Two theories are dominating as tools for analyzing the competitiveness of firms. While the first theory adopts five competitive forces, including Strength, Weaknesses, Opportunity, Threats (SWOT), and Value chain [16], the second theory reflects the Resource Base View of the firm [17]. The first theory is the market-Base View (MBV), which argues that firms' external market orientation and industrial factors are fundamental determinants of firm performance [18]. Moreover, the firm's strategic market position theory describes the firm's unique performance in executing similar activities compared to counterpart firms, which define profitability. [19] argued that competitive advantage is a crucial fundamental determinant of the firm performance which arises as a result of either a protected market position [20] or a specific (intangible resources) of the firm, which includes knowledge and skills, leadership, culture, and a dynamic capability which involves periodic innovation [20].

The second theory describes the Resource Base View (RBV) of the firm. This theory reflects firms as collecting different assets or resources together with value activities or processes that involve core competence, knowledge, and capability in transforming assets into economic profit [21] to attain better performance. [22] Supported the RBV strategy is emerging, which involves firms' internal structure and resource capability as a popular theory of competitive advantage. Moreover, it was noted that the resources possessed and effectively utilized by the firm are more critical compared to the industrial structure and are the fundamental source of competitive advantage [23]. However, the two concept theories complement each other intending to realize competitive advantage [14]. Despite their arguments on the classification taxonomy, different researchers classified firm resources into different categories, namely: physical, monetary, and human, which were further described as organizational resources comprising of skills, knowledge, and technology. Physical, human, technological, and capabilities resources were an alternative classification named by [24].

Additional resources such as physical-capital resources, human capital resources, and organizational capital resources [25]. However, human management-related resources were further proposed and included in the list [26]. From the above theory, it can be concluded that, only firms which can sustainably be able to coordinate, control, and utilize more effectively and efficiently the available, valuable, rare, unique, and non-substitutable resources can eventually gain the potential competitive advantage of the firm and hence comprehensively implement the strategies compared to other competitors [25]. Resources includes all assets, competence, and capabilities, value activities, firm attributes, information, knowledge,. *Thus, this raises the need for testing the hypothesis (H1 and H2) if the firm has owned asset (A) or resources and process (P) has a positive relationship in attaining a sustainable competitiveness of the LLCF.*

2.3. Competitive Strategy Theories

Defined a competitive strategy as a long-term plan of a firm aiming to attain above-average performance competitive advantage to deal with strengths, weaknesses, opportunities, and threats facing the firm against other competitors. In achieving the competitive edge, [27] emphasized the adoption of pure strategy; focus, differentiation, and low-cost-leadership. Differentiation strategy can be attained through quality design or technology to provide unique and valuable services to customers compared to other competitors. However, low construction cost consideration needs to be forecasted and considered during design, cost leadership. Focusing on cost reduction and control is the heart of cost-leadership strategy, making a firm attain profit and compete [28]. Therefore, through experiences, different ways must be applied to lower costs while maintaining efficiencies [29]. Ways include reducing the operational, overhead, and R&D cost, using economical construction methods to facilitate attaining competitive advantages, etc. Most services need to achieve significant market in-terms of quality, style, convenience, and price; specializing in pure strategy may produce a gap in customer needs compared to a hybrid approach, which maximizes performance. The dynamism and turbulence of the current state of CI have forced the construction firms to adopt a hybrid or combinative approach (integration of both cost leadership and differentiation element) in attaining the competitive advantage [30]. It is clear that hybrid strategy is not only a suitable strategy instead, but it can also be more profitable compared to pure strategies of differentiation or low-cost leadership. Its profitability can be realized, as a combination of multiple factors that do not give competitor is a chance to identify the potential one and imitate. However, adopting a hybrid strategy approach is advantageous [31] to realize better firm performance [30]. *However; this raises the need for testing the hypothesis (H3) if better performance (P) of a firm has a positive relationship in attaining sustainable competitiveness.*

Similarly, another researcher has mentioned different general competitive strategies that enable the construction firm to increase performance, including core competence management [32] and the participation of every individual at all levels in the firm in scanning the business environment. This helps obtain the critical information that can assist in evaluation, identifying performance and competitiveness gap, hence formulating an alternative strategy to fill the void. A study conducted in Indonesia identified that knowledge, technical, human, and conceptual skills are essential strategies for a firm's competitiveness [33]. A study by [34] proposed the strategic alliance as a fundamental strategy for firms to compete domestically or internationally. [35] Identified strategic planning as an essential element since it affects the dairy firm's daily operation. The findings by [36] coined management competence as the best strategy for the continued survival and growth of the firms. However, high investment in fixed assets also positively affected their ability to compete on some projects. Other strategies identified include financial stability and partnership, firm owner's characteristics, human resource development and management [37], resource development [38], best construction method, collaborative concepts (SWOT) analysis, and quality practice standards.

In attempting to attain the competitive strategies, government support has been noted as a catalyst in playing a fundamental role as a client, promoter, and regulator in coordinating all undertakings towards a successful transformation of a particular LLCF [39]. However, [40] have identified government support as an opportunity to facilitates the creation of a business working environment, facilitation in using locally available materials, certifying training, capacitating the institution, and enforcing policy and strategies for the CI performance SC. *Thus, this raises the need for testing the*

hypothesis (H4) if the integration of government support to APP has a positive relationship in attaining sustainable competitiveness of LLCF. Researchers used theories and concepts above to identify different factors influencing competitiveness that were further used to establish several other frameworks. The framework was additionally applied for measuring and understanding the competitiveness between different firms existing in the business environment [41].

The most considered and tested frameworks in the construction industry include the Diamond framework [42] and Double Diamond Framework, which involved four determinant factors. Total Value Competitiveness involved finance, technical and social factors, management and organizational structure, and Asset-Processes- Performance (APP) framework, which focused on resource, processes, and performance factors. The frameworks were tested and used to formulate a long-term plan strategy in different countries, including Singapore, Turkey, Mexico, Canada, and New Zealand [43]. However, despite basing on most developed countries, the preceding frameworks did not consider integrating government support during strategy formulation. Thus, this study intends to fill the gap by extending the APP framework through the integration of government support in identifying the effective strategies of LLCF to attain a competitive advantage hence sustainable competitiveness in the LDC domestic construction industry market.

3. Methods

3.1. Identification of Preliminary Strategies

The comprehensive literature review from journal papers, reports, policies, governing laws, and regulations enabled the identification and formulation of a preliminary list of competitiveness strategies. Strategies were explored based on features of the LDC business environment, mainly focusing on resources (finance, skilled labor, materials, and equipment availability), general management process (time, cost, training, safety, and environment), performance (profitability, productivity, and quality) and government support (plans, policies, subsistence, and provision). Using the purpose-sampling technique, professionals with 20 or more years of experience in CI from contractors, consultants, clients, engineering-related training institutes, and other potential stakeholders were identified and consulted. Using experienced professionals, an in-depth interview was performed to assess, weigh and evaluate whether the provided list comprehensively contains all essential competitiveness strategies of the LLCF. Opportunities and options were given to add more or remove the strategy (s) while considering the prevailing characteristics practice in the domestic market. This process led to the identification of 35 preliminary strategies (Table 1 below), which formed the basis of the questionnaire tool development and design for further study action.

Table 1. Preliminary strategies.

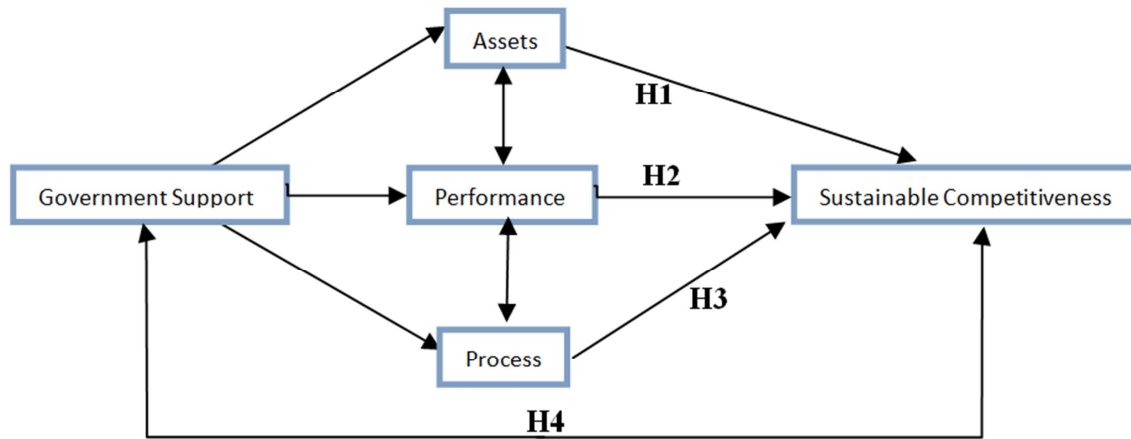| CODE	STRATEGIES	CODE	STRATEGIES
ST1	Allow tax exemption on imported construction materials and equipment. *Van de Bosch, F (1994).*	ST19	Retain a better contract management team. *Weishang et al. (2008).*
ST2	Supportive home Industry. *Momaya (2004).*	ST20	Maintain Quality Monitoring and Control. *Lee, Y. & Lee, S. (2007).*
ST3	Maintain High Productivity. *Lim, E. and Alum, J (1995).*	ST21	Effective Bidding Strategy. *Tan, Y. et al, 2010).*
ST4	Sustainable firms owned fixed assets. *IMD and WEF (1993).*	ST22	Maintain financial partnership. *Tabassi, A. et al. (2011).*
ST5	Employ and retain expertise. *Ofori. G. (2000).*	ST23	Develop an effective organizational structure. *Ho, A. T. & I, T. (2015).*
ST6	Empower human resource training for capacity building. *Fei Deng et al. (2013).*	ST24	
ST7	Capacitate local financial institutions. *Seung H et al (2010).*	ST25	Employ Skilled and Competent human resources. *Sadler-Smith, E (2004).*
ST8	Cheap Material availability and use. *Jauch, H. & I. Sakaria (2009).*	ST26	Motivation or provide incentives to Workers. *Abdul Aziz. J. (2019).*
ST9	Enhancing Professionalism. *Ofori. G. (2000).*	ST27	Retain the Qualified Professionals. *Ofori. G. (2000).*
ST10	Cheap modern equipment available and use. *Weishang et., al. (2008).*	ST28	Effective Supply Chain Management. Carr, A. (2002).
ST11	Ensure Modern Technology availability and use. *Martin, L. (2002).*	ST29	Government support to capacitate construction institute. *Ofori. G. (2000).*
ST12	Certify CI related training. *Delery, J. E., & Doty, D. H (1996)* Adopting an Integrated Approach to Construction. *C21 (1999).*	ST30	Ensure strategic alliance and management (*Wang, G., & Yang, J, 2011).*
ST13	Maintain client relationship with stakeholders. *Weishang et al. (2008).*	ST31	Government policies on national bids preference to local firm. *Ofori. G. (2000).*
ST14	Maintain low operational cost of the firm. *Tabassi, A. et al (2001).*	ST32	Enforce Joint Venture with foreign firm. *Berman, L. et al. (2002).*
ST15	Impose and enforce professional Integrity. *Storr, L. (2004).*	ST33	Government follow up on policies & regulations. *Van de Bosch, F (1994).*
ST16	Ensure financial capability of the firm. *Momaya, K and Selby, K (1994).*	ST34	Practice of construction Industry e,g. (PPP). *Li-yin S. et al. (2007).*
ST17			
ST18	Effectively utilization of resources. *K. Momaya (2019).*	ST35	Create better work conditions. *Cho, D. S (1994).*
ST19	Invest in Research and Development. *Weishang et al. (2008).*		

Figure 1. *A Conceptual Framework of the study.*

3.2. Questionnaire Survey

To identify the effective strategies, a questionnaire survey was conducted in Tanzania. Questionnaire tools were distributed to respondents from an official list obtained from Engineers Registration Board (ERB), Architect and Quantity Surveyors Registration Board (AQRB), and Contractors Registration Board (CRB). Two hundred eighty (280) questionnaires written in both English and national language (Swahili) were distributed & administered from April-June, 2021 through personal distribution (interviewing), email, and social media (WhatsApp and We Chat). The study participant includes clients (40), consultants (50), contractors (140), training Institute (20), other stakeholders (30) involved engineers, quantity surveyors, architect, and surveyor professionals, Engineering related academic institute and other stakeholders who had the experience of more than five years.

The questionnaires were divided into three parts: The first part comprised an introduction to the study topic. The second part intended to get the respondents basic demographic information; the third part consists of listed competitiveness strategies on a five-point Likert scale. The numerical Likert scale number (from 1=Not Important, to5=Very Important) was used to indicate the numerical levels only; neither absolute quantities nor equality interval between them was intended. More free space was provided to the questionnaire incase the respondent wish to add more information. A total of (150) questionnaires comprising of clients (23), consultants (32), contractors (84), training institute, and other stakeholders (11) equal to (53.57%) were correctly filled and hence used for data analysis. (Tan, Y., Shen, L., and Langston, C, 2010) Supported that the validity of the data for analysis needs to attain a respondent rate above 20% of the distributed questionnaire.

Table 2 below indicates the frequency and percentage distribution of respondents. Statistics show that many respondents (82.7%) have more than ten years of experience in CI; more than 80% from reputable and relevant firms, and senior professionals who have acquired higher positions were involved in this study.

Table 2. *Profile of interviewees.*

Item	Frequencies	Percentage Respond (%)
Working Experience		
Less than 10 years	26	17.3
11-20	67	44.7
21-30	41	27.3
Above 30	16	10.7
Education Qualification		
Secondary Level	13	8.7
Diploma Level	65	43.3
Degree Level	51	34.0
Masters Level	12	8.0
Ph.D. Level	9	6.0
Respondent's Profession		
Engineer	66	44.0
Architects	37	24.7
Quantity Surveyor	34	22.7
Surveyor	13	8.7
Nature of the Firm		
Client	23	15.3
Consultant	32	21.4
Contractor	84	56.0
Training Ins & stakeholders	11	7.3
Respondents Position/Title		
General manager	24	16.0
Project Manager	17	11.3
Depart. manager	32	21.3
Site Engineer/	46	30.7
Technician	20	13.3
University Lecturer	11	7.4

3.3. Data Analysis

Before testing to what extent the constructs, asset, process, performance, and government support affect the competitiveness sustainability, using SPSS 24; Cronbach's Alpha test was computed to estimate the internal consistency and reliability of every group of (predictor) of a particular variable. The Cronbach's Alpha (α) test obtained for assets (0.925), process (0.899), performance (0.871), and government support (0.924) have attained the recommended and agreed value of 0.7 [44]. Based on data collected, two essential procedures were undertaken to achieve effective strategies: opinion survey methodology and factor analysis.

3.4. Ranking of Preliminary Strategies

The analytical process involving opinion survey methodology was adopted from different studies. A complete set of preliminary strategies obtained from an intensive literature review were provided to an experienced CI practitioner and ask them to rate or weigh them concerning their importance. It is through their tangible experience and expertise attitudes that facilitated the identification of effective strategies. However, only strategies rated low were excluded from the list as non-effective ones.

The distinctive and effectiveness of this approach has convinced the author to adopt a similar opinion survey methodology in identifying effective strategies. SPSS-24 has facilitated data ranking of identified preliminary effective strategies by mean scores and standard deviation. However, the lower standard deviations whose mean coincide were assigned the upper rank in a list, after computing the average mean score values (4.05), which correlate with position 4 in Likert scale defining important or agree (This was considered as a probability basis for the choice of effective strategies). After ranking Strategies in ascending order, only those whose mean value scored above the average computed mean were considered effective strategies.

3.5. Factor Analysis

Factor analysis (FA) is a confirmatory statistical technique that tests the data validity and permits identifying a relatively small number of factors that can be used to represent relations among a set of interrelated variables into a homogeneous group known as a cluster. Therefore, the FA technique combines the interrelated variables into a small set of constructs [45]. Confirmatory Factor Analysis was performed to determine the model's fitness for the data collected using Structural Equation Modelling.

Structural equation modeling (SEM) is a statistical approach applied to test the hypotheses of the relations between observed and latent variables [46] and to determines the extent to which the theoretical model (including observed and latent variables) is supported by the sample data collected, Using SPSS-AMOS 24, observed and latent variables were defined and listed retrieved from saved data set file. After naming, the path coefficient for regression of a latent variable about an observed variable was defined. Errors associated with observed variables were established, followed by defining the correlation covariance between latent variables. The unit scale of latent variables was fixed on regression weight through objective properties. Hence, estimate computation of free parameters that provide the model fit indices (MFI) was performed (Table 4).

Table 3. *Ranking of strategies on Effectiveness.*

RANKING	CODE	STRATEGIES	MEAN	STD DEV
1	ST12	Certify CI related training	5.11	1.13
2	ASS18	Effectively utilization of resources	5.01	1.13
3	ASS17	Ensure financial capability of the firm	4.94	1.15
4	PRS23	Maintain financial partnership	4.92	1.23
5	ASS25	Employ Skilled and Competent human resource	4.91	1.27
6	PRS6	Empower human resource training for capacity building	4.89	1.36
7	ST3	Maintain high productivity	4.82	1.40
8	PRS28	Effective Supply Chain Management	4.81	1.28
9	PRS22	Effective Bidding Strategy	4.73	1.25
10	PRS30	Ensure strategic alliance and management	4.65	1.26
11	ST13	Adopting an Integrated Approach to Construction	4.64	1.22
12	ST29	Government support to capacitate construction institute	4.63	1.36
13	ST31	Government policies on national bids preference to local	4.51	1.23
14	ST33	Firm Government follow up on policies and regulations	4.42	1.52
15	ST1	Allow tax exemption on imported construction materials and equipment	4.35	1.34
16	ASS8	Cheap Material availability and use	4.33	1.46
17	ASS10	Cheap modern equipment availability and use	4.28	1.26
18	ST15	Maintain low operational cost of the firm	4.26	1.32
19	ASS7	Capacitated local financial institutions	4.21	1.35
20	ASS4	Sustainable firms owned fixed assets	4.16	1.52
21	ST21	Maintain Quality Monitoring and Control	4.15	1.25
22	PRS32	Enforce joint Venture with a foreign firm	4.07	1.28

MFI describes the degree to which a pattern of fixed parameters itemized in the model is dependable with the pattern of variances and covariance defined from a set of observed data. Thus, after computation, Keiser-Meyer-Olkin (KMO) obtained as a measure of Sampling adequacy was (0.889), Bartlett's Test of Sphericity of approximately (3327.566), the significant level was 0.000, Chi-square value of (χ^2=598.1) and Degree of Freedom (Df) of 289 (Table4). Attained values in Table 4 satisfy the recommended parameters [47] for justifying the perfectly positively identified model fit of the data.

Table 4. *Model Fit Indices (MFI).*

Model Fit Indices (MFI) Type	Acceptable Threshold For MI	Indices Result (I. R.)
Absolute Model Fit		
Chi-square (χ^2) indices		598.1
Degree. of Freedom (df)		289
Parsimonious Fit		
Minimum Discrepancy		
$=\chi^2/df$	Less than 5	2.106
RMSEA	<0.08 Good	0.080
Incremental Fit		
Tucker Lewis Index (TLI)	>0.8	0.889
Comparative Fit index (CFI)	>0.9 Better	0.903
Adjusted Goodness of fit index (AGFI)	>0.9 Better	0.96

The principal components analysis created under varimax rotation facilitated the generation of four group solutions whose eigenvalues exceed One (1) and possess the total variance percentage of approximately 73.7%. (Table 5) indicates four group components resulted from variables whose factor loading value exceeds 0.50 as the degree of individual factor contributes to the particular group component, namely as a cluster. Only variables that attained the above-required factor loading value (Table 5) allowed creating the strategy group pattern [48]. However, all 22 strategies have attained the required factor loading value.

Table 5. *Rotated Component Matrix of High Ranked Strategies.*

CODE	DESCRIPTION OF OUTSTANDINGSTRATEGIES	CL1	CL2	CL3	CL4
ASS18	Effectively Utilization of Resources	.789			
ASS17	Ensure Financial Capability of the Firm	.769			
ASS25	Employ Skilled and Competent Human Resource	.779			
ASS8	Cheap Material Availability and Use	.804			
ASS10	Cheap Modern Equipment Availability and Use	.593			
ASS7	Capacitated Local Financial Institutions	.697			
ASS4	Sustainable Firms Owned Fixed Assets	.756			
PRS23	Maintain Financial Partnership		.692		
PRS6	Building Empower Human Resource Training for Capacity		.726		
PRS28	Effective Supply Chain Management		.783		
PRS22	Effective Bidding Strategy		.817		
PRS30	Ensure Strategic Alliance and Management		.763		
PRS32	Enforce Joint Venture with Foreign Firm			.525	
PERS3	Maintain High Productivity			.594	
PERS13	Adopting an Integrated Approach to Construction			.708	
PERS15	Maintain Low Operational Cost of the Firm			.712	
PERS21	Maintain Quality Monitoring and Control			.775	
GSS12	Certify Construction Industry Related Training				.862
GSS29	Government Support to Capacitate Construction Institute				.818
GSS31	Government Preference to Local Firm on National Bids				.830
GSS33	Government Follow Up on Policies and Regulations				.892
GSS1	Allow Tax Exemption on Imported Construction Materials and Equipment				.888
NOTE	1. Initial Eigenvalues:	.675	3.372	1.823	1.343
	2. Percentage of Variance (%):	43.977	15.326	8.285	6.104
	3. Cumulative percentage of Initial Eigenvalues	43.977	59.303	67.588	73.692
	4. Factor analysis extraction Method: Principal Component Analysis				
	5. Rotation Method: Varimax with Kaiser Normalization.				

3.6. Hypothesis Assessment

The multiple regression (MR) (Table 6) indicates four predictors that have attained a model fit of 60% (R^2=0.60) of S. C variation. This implies that all hypotheses of the identified strategies raised (assets, process, performance, and government support) have found a positive statistically significant contribution in predicting the Sustainable Competitiveness to LLCF.

Table 6. *Standardized Regression Weight.*

Hypotheses	Strategies	β	S. E	T-Value	P	Decision	Hypotheses Path
H1	Assets Strategy (ARS)	0.223	.074	2.828	.05	Accepted	<---
H2	Process Strategy (PRS)	0.208	.079	2.929	.04	Accepted	<---
H3	Performance Strategy (PERS)	0.391	.062	5.413	.00	Accepted	<---
H4	Government Support Strategy (GSRS)	0.153	.058	2.728	.06	Accepted	<---

SC Model=$\beta_0 + \beta_1$Assets + β_2Process+ β_3Performance + β_4Government Support + ε:

Where ($\beta1=0.223$, $p=0.05$; $\beta2=0.208$, $p=0.04$; $\beta3=0.391$, $p=0.00$, $\beta4=0.153$; $p=0.06$) and ε=an error.

4. Discussions of Findings

The analytical and ranking process has attained the identification of 22 effective strategies (Table 3). Only the most top-ten and last top-five ranked strategies were considered for discussion. However, the related strategies were combined during the discussion.

4.1. Effective Strategies

Certified Training

Training strategies have been ranked first & foremost (Table 3). Certified training imparts knowledge and skills to employees on different aspects, including setting goals, teamwork planning, resources, and progress monitoring. Therefore, training has been identified as one of the effective strategies for employees as it acts as recognition, rewards to employees, and leads to better firm performance. Certified training was noted to facilitate a competitive advantage of the firm growth hence sustainable competitiveness. However, the study has identified that most of the firm owners in LDC have been witnessed to possess only the financial power rather than knowledge and skills on construction. As marked during an interview, one of the firm owners said, "Money is everything; nothing more is needed." He insisted that "a firm owner can do whatever possible to win the tender; hence, experts continue with the project execution." Thus, lack of knowledge and skills to firm owners and CI stakeholders has made unsustainable growth and competitiveness of LLCF. However, Zaini et al. (2009) supported that training for knowledge and skills can enhance good management practice and produce a significant relationship with a firm's performance and quality productivity.

Moreover, in their study, Delery & Doty (1996) noted that training constitutes strategies, policies, procedures, lessons, and tools for better performance and higher productivity. Therefore, seminars and workshops need to be always prepared for knowledge and skills on the job training, seminars, and workshop. However, the government (agency or institute) must prepare, enforce training and provide certificates to participants. Training is to be frequently conducted by reliable institutes to capacitate and empower the stakeholders on their performance, leading to sustainable competitiveness.

Effective Resources Utilization

Maintaining the firm's resources was noted among the top strategy towards attaining competitive advantages for sustainable competitiveness. Resources need to be thoroughly maintained, properly allocated, and effectively utilized. Resources include skilled workforce, finance, technology, equipment, agencies/institutes, materials, environment, fixed assets resources such as land, real estate, and leadership. While agencies can fully control CI and facilitate formulating, establishing, and implementing plans and strategies, fixed assets can act as collateral security when applying for a financial institution [49]. Environment as resources always supports CI sustainability; therefore, it needs to be conserved to support the general living standards.

Finance Capability and Partnership

Respondents' ranked financial capabilities or capacities and partnership strategy were the top third identified to correlate with the firm's SC directly and suggested creating a competitive advantage to LLCF. A study conducted by Tabassi, A. et al. (2011) indicated that financial partnerships attained the highest rank among better business strategies. The global competitiveness report of 1996 on competitiveness in Canada, India, and Japan indicated financial capability to be among the top-ranked factor for competitiveness. Moreover, [50] noted financial resources as an important ingredient strategy for firms' sustainable growth and competitiveness in the global market. [51] Emphasized financial institutions, including banks and insurance agencies, to recapitalize the firms for SC. However, during the interview, many respondents criticized the burden of the highest interest rate charged on loans and other imposed conditions by local financial institutions, which proved to facilitate weakening in accessing financial capital to LLCF. However, financial partnerships have failed to be attained due to the untruth-worth of many firm owners. Weishang et al. (2008) conducted a study in China only indicated a negative significance of financial-related factors to competitiveness. However, the author was surprised by the result. Most building developers in China always require contractors to input their finance in advance as one of the conditions of awarding the contract. Thus, financial stability and capability were distinguished as the most important strategies for LLCF.

Capacitated and Competent Human Resource

Competent human resources have also attained the top rank among the top effective strategies to facilitate firm effective performance. Fei Deng et al. (2013) mentioned the critical importance of competent human resources to firm performance in project cost, quality, time, and ergonomics principles. Zhao and Shen (2008) noted the Chinese human

resources always be competitive because of the competence acquired through different programs before sent to construction projects overseas. Sadler-Smith, E. (2004) emphasized that the effectiveness of CI in most countries will always depend on human resource competence. However, Noe, R. (2008) insisted on the importance of skilled and competent human resources to the development and better performance of the firm. He argued for better competence skills development plan to be adopted. Competent human resources need not be much underestimated. Many LLCF are unenthusiastic to set funds for human resources competence training; however, they need to understand its impacts on increasing productivity.

Supply Chain Management

Supply Chain Management (SCM) was defined by Domenica et al. (2003) as an efficient and effective means of minimizing resources used to accomplish a specific goal. It involves designing and management of proper distribution channels to deliver the quality product and services needed. SCM involves innovations, differentiation; facilitate assemblies of assets, skills, and competencies, resource management towards value creation. An effectively integrated supply chain provides a better strategy, tactics for better performance [52]. Most respondents in this study have identified SCM as among the effective strategies since it encompasses many undertakings that can result in better firm performance when joined. C Arr & Pearson. N. (2002) noted supply chain as an integrated philosophy used to assist firms' purchasing and distribution processes, which contributes significantly to improving a firm's profit through customer services improvement because of better coordination along with the material flow. Therefore, LLCF is required to entail proper SCM as a competitive advantage compared to experienced counterpart firms.

Effective Bidding Strategy

Despite the Public Procurement Act (PPA, 2001), which emphasized the lowest bidder to be awarded a contract, many LLCF has no bidding knowledge and strategy during tendering. The foreign firm operating in LDC are competent with bidding strategy as they always win most bids. Lu, W. et al. (2009) noted that bidding strategy significantly affects the firm competitiveness. Tan, Y. et al. (2010) identified the frequently used and effective strategy is low bid. As many firms concentrated on this concept (low-bid), it was observed that it results in intense competition in the local market. However, firms need to think strategically and develop the bid with reasonable profit, which can win the tender. Mohamad. A. et al. (2015) noted that quality-bidding strategy has proportionality on firm's project profit increases. Therefore, firms need to strategize bidding as influenced by different factors, including policy, firm goals, etc. Thus, it was proposed that LLCF should always plan to reduce unnecessary costs, resulting in high costs imposed during the bidding process.

Strategic alliance and Joint Venture

Strategic alliance and the joint venture were ranked the topmost strategy as it plays a significant role in enhancing skills and knowledge. Working in collaboration with foreign firms can facilitate attaining skills and knowledge, technological transfer to most LLCF. While Strategic alliance acts as a cooperative strategy and essential source of resource-sharing such as fund, equipment, labor, capabilities, and core competence as well as learning to create competitive advantage, joint venture involves a legal binding independent of two or more firms aiming to share their combined resources, competencies and capabilities to achieve competitive advantages in the competitive market. Strategic alliance and joint ventures facilitate the establishment of continuing bonds that enhance knowledge transfer through experiences gained and advanced technologies capability, ensuring the firm's good productivity with customer value. LLCF needs to adopt a strategic alliance. The government is supposed to enforce laws on a joint venture in some public projects to learn different strategies adopted by experienced foreign firms that assist in problem-solving that enhance sustainable competitive advantage for the success and growth of the firm. Other high-ranked strategies include creativity and innovation recognition, government support on tax exemption, capacitating the construction institute and preference to the local firm on national bids, cheap local material, modern equipment, and technology availability, maintaining the low operational cost.

The lowest five ranked strategies include: Employing and retaining of expertise, the practice of construction industry such as non-use of a public-private partnership approach in construction, impose and enforce professional integrity, ensure affordable modern technology availability and supportive home Industry. Because of financial, economic limitations, and culture, many LLCF do not only engage experts in most projects but also do not have modern technology. In addition, there are very few projects undertaken through public-private partnerships, most LDC. Different reasons for little government practice of PPP in most LDC include lack of public trust, integrity and absence of organizational capacity, non-stability political environments, bureaucracy, and unfavorable foreign direct investment environment. However, very small investments in technology have been witnessed during the interview because of its imprecise benefits. Because of low technology and very few home industries available, respondents have noted these strategies to be unimportant for the sustainable competitiveness of the firm in the domestic competitive market.

4.2. Clustering of Effective Strategies

Clusters obtained from factor analysis were named as reflected from the conceptual framework for easy identification. Four clusters are named Asset Related Strategy, Process Related Strategy, Performance Related Strategy, and Government Support Related Strategy. Each cluster constitutes interrelated strategies as explained hereunder:

Cluster 1 (Asset Related strategies)

Assets strategy as a dominant factor of productivity

represents the fundamental elements considered to be of utmost importance for SC. Table 5 indicates that asset-related strategy involves seven interrelated effective strategies, namely: Effectively utilization of resources (ASS18), Ensure financial capability of the firm (ASS17) and employ Skilled and Competent human resource (ASS25). Moreover, cheap material availability and use (ASS8), cheap current equipment availability and use (ASS10), capacitated local financial institutions (ASS7) and sustainable firms owned fixed assets (ASS4). As noted from World Economic Forum (WEF), the significance of assets is also named from the formula; (*Assets X Process=performance*). The formula indicates a direct correlation between asset and performance in attaining SC. (Porter, M. 1990) developed a diamond framework with factor condition, which involves material and equipment as a physical resource, knowledge as skills, finance, and technology [53]. Therefore, LDC's governments need to create a financial asset policy and encourage

financial institutions to establish different program (s) for loan acquisition by firms. As many LDC's governments have introduced the women bank, agriculture bank, the need also has arisen to introduce the construction bank. However, a conducive environment needs to be established for quick and reasonable interest when accessing the loan.

On top of that, the availability opportunity of local construction materials needs to be utilized effectively. However, partnership and joint venture among local and foreign firms will facilitate knowledge sharing and technology transfer and adoption. Tan, J. & Peng, M. (2003) mentioned the firm size that constitutes of assets invested, capital (finance) intensity of the firm, and human resources to impact firm performance and hence competitiveness positively. Ahmada, S. & Schroeder, R. (2003) supported as highlighted the organizational variables of the firm, which include skilled human resources as a major strategy for SC. Generally, for a firm to attain SC, it needs to invest in assets.
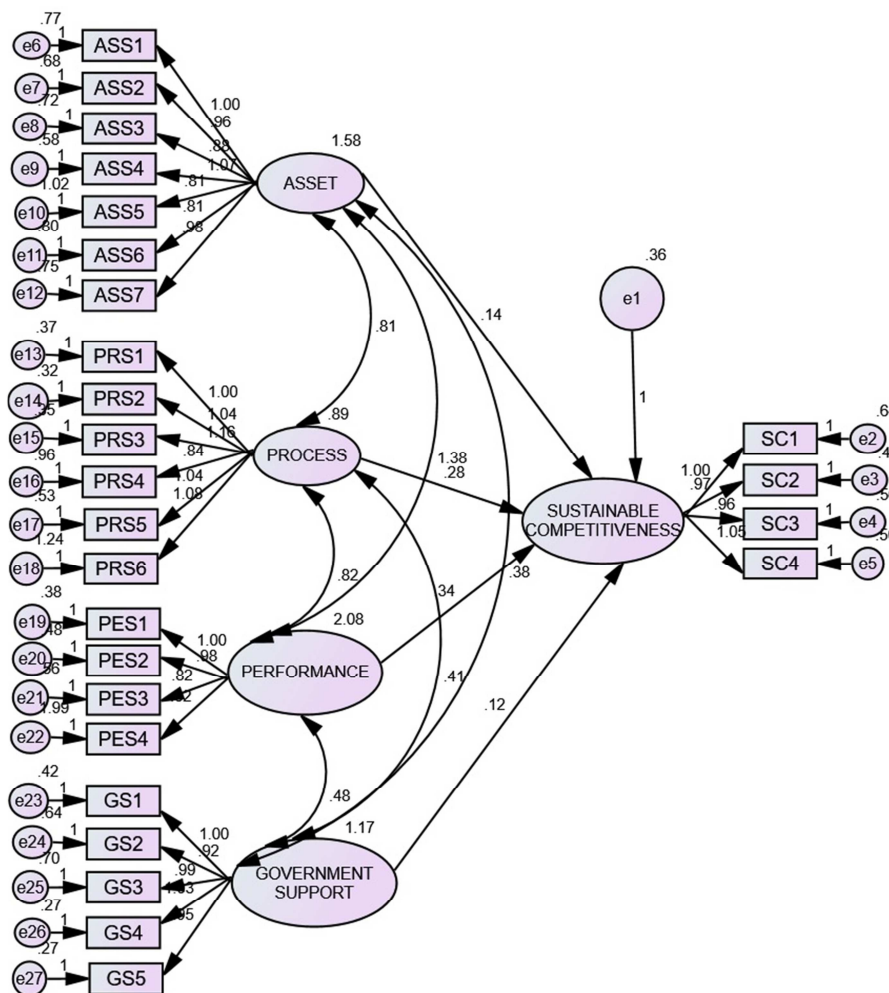

Figure 2. Path Diagram of Standardized Estimates.

Cluster 2 (Process Related strategy)

The second cluster, named Process-related strategy, always transforms assets through a process to attain effective better performance, enhancing sustainable competitiveness. Process related strategy includes six effective strategies: Maintain

financial partnership (PRS23), empower human resource training for capacity building (PRS6), empower human resource training for capacity building (PRS28), effective Bidding Strategy (PSR22), ensure strategic alliance and management (PRS 30), enforce joint venture with the foreign

firm (PRS32), maintaining financial partnership is among the most competitive advantage. As LLCF are faced with financial challenges, a partnership among LLCF and conglomerate (foreign firms) is the most effective strategy to reduce the challenges. Most foreign firms working on LDC have proved to be well financially due to their country's financial support easy access to local financial institutions' loans. However, a partnership could be attained through joint venture and strategic alliance strategy. In addition, strategic alliances need to be considered to share technology, capital, and experience with conglomerates. Therefore, LLCF needs to adopt effective strategic alliances and planning for better performance of the firm.

Cluster 3 (Related Performance Strategies)

Performance strategies that focus on efficiency and effectiveness includes: maintain high productivity (PERS3), adopting an integrated approach to construction (PERS13), maintain low operational cost of the firm (PERS15) while attaining value for money. Also, maintain quality monitoring and control (PERS21). The performance of the firm can be attained upon conquering objectives intended which always aims to satisfy customer efficiently and effectively as compared to other competitors. Effective performance requires an integrated construction approach. Therefore, it requires the firm to recognize the cooperation among employees that minimizes waste, low operational cost, and high quality with low construction cost to maintain high productivity and satisfy customers and stakeholders.

Maintaining low operational costs during construction is among the effective strategy. Experience has shown that most LLCF uses advance payment from the client to fulfill or solve their personal problem rather than for proper intended use during a performance. Others tend to buy new luxurious cars, houses and spend abroad, which eventually results in project frustration because of scarcity of funds. Unlike foreign firms, managers or senior staff can share the same house, cars, and offices with junior workers to reduce firm operational costs. However, low operational costs facilitate the smooth running of the projects and increase profit to the firm, accelerating growth and SC. Performance Quality productivity (PQP) strategy is a function of profitability, proper resource allocation, and uses proper financial use and technology integration (Tamlyn S. and John Smallwood, 2017). PQP regulates and forecasts the input relative to output during construction hence facilitates timely and project completion within a low budget while attaining value for money. Many LLCF tends to increase the volume of work (increase more project) rather than focusing on profit. This perception tends to acquire even projects with extremely very low-profit margins. However, as firms increase projects (volume of work), they increase employees, offices, cars, and other related costs, which eventually increases overhead costs. However, operating strategically is very important for LLCF to sustain competitiveness. Therefore, performance strategy has been identified and proved in this study as an effective strategy in facilitating SC of the firm.

Cluster 4 (Government Support Related Strategies)

Effective government support Strategies including Certify CI related training (GSS12), Government support to capacitate construction institute (GSS29), Government support to capacitate construction institute bids (GSS 31), Government follow up on policies and regulations (GSS33), Allow tax exemption on imported construction materials and equipment (GSS29) was mentioned to affect the SC of LLCF positively. The government needs to influence the good performance and development of CI as it acts as the potential component in contributing to GDP. The previous study has noted that most efforts imposed by many governments in LDC do not only lack coherence, undertaken without considering experience, lacking a concrete plan and financial investment but also entails the effort duplication by its agencies. Therefore, the efficiency and effectiveness of government are needed to resolve the situation and monitor the CI undertakings very closely. The same policy on tax exemption for imported goods as experienced to foreign firms in case they have a project in LDC local market needs to be adopted to LLCF. Moreover, a policy on compulsory certified training attendance to firms' owners should be imposed.

However, to ensure policy alignment with full implementation, governments on LDC are required to establish an interlinked committee comprising of a key national ministry involved in CI in discussing and ensuring focused economic, organizational, cultural, and political support and coordination of measures aiming at institutional capacitating, improved infrastructure delivery, development, and growth.

4.3. Study Implication

The proceeding findings indicate that the model tested for acceptable fit has attained the magnitude within the prescribed values (Table 4). The standardized regression weight comprising T and P-values also signifies the positive contribution of the identified strategies to the sustainable competitiveness of LLCF. Therefore, the study findings have proved that government support plays a fundamental backward-forward linkage role in conjunction with assets, process, and performance-related strategies to attain sustainable competitiveness to LLCF. Thus, this alarms the LDC's governments to play parts in facilitating to attain the competitive advantages for better performance of LLCF in the domestic market, hence competing against the counterparts for the development and growth of CI economic growth. The study's findings have demonstrated the applicability and usefulness of Asset-Process-Performance (APP) in integration to government support to address the competitive strategy of LLCF to compete against overseeing firms. The findings support the theory of growth of the firm that considers the firms as the collection of compatible resources and organized into value activities (process) by managerial or governmental limitations to attain a firm's growth. It also supports the endogenous growth theory, which has identified human capital and training and knowledge

capital as an important resource for growth. Hence, from the study, new insights have been identified for LLCF to adopt the identified strategies to improve their performance hence growth. However, the study does not restrict only the identified strategies; firms may adopt any other strategy (s) needed to find an easy way to squeeze and suit themselves to breach the performance gap, leading to sustainable competitiveness.

5. Conclusions

Competitiveness is a critical challenge to most LLCF as it is affected by different challenges and dynamics such as lack of resources (finance, materials, skilled labor, and technology), poor value activities and general management skills, ineffective performance with low productivity and profit as well as lack of government policies and strategies. The challenges have proved the currently less competitive atmosphere of LLCF in the domestic market for decades. Thus, creating poor, difficult, and even no operations engagement in the global construction industry market. However, to attain the competitive construction advantages of LLCF, 22-effective strategies were established towards building local capability and capacity for sustaining competitiveness. From the preceding analysis and discussion of the study, it can be concluded that assets, process, performance (APP) related strategies have been proved to facilitate sustainable competitiveness to LLCF of Less developed counties.

Moreover, integration of government support strategy to APP strategies has proved to play a fundamental forward-backward linkage in attaining a positively significant impact as a competitive advantage to LLCF in the domestic construction market. Governments' support needs to be integrated within asset sourcing to ensure availability, within value activities to ensure smooth running and undertaking together with effective and efficient performance to facilitate and enable LLCF to build their capacity and competence through established effective strategies. Among other strategies identified, include using locally available resources, enforcing policies on certified training to empower knowledge and skills to CI stakeholders. Establish construction bank and empowering local financial institutions for easy access to a loan with less interest. Equally, waiving taxes on imported construction materials and equipment, capacitating construction institutions to undertake research and development, the government emphasizes and enforce policy on compulsory joint ventures and partnership between foreign and local firms on some public projects between local and international firms to enhance skills, knowledge, and experience. Technology transfer, development, and general management skills. Thus, government (s) as a first-born procurer in the construction industry should consider the opportunity preferentially in giving government construction projects to LLCF and or a joint venture.

It is proposed that the results of this study cannot be generalized but can only be considered for generalization to countries with the same CI business environment as Tanzania. Because of the dynamics of CI because of the effect of globalization and radical developmental changes, frequent studies need to be undertaken to raise strategies in conjunction with challenges and changes. However, further studies need to be undertaken to prioritize the effective competitive strategy (s) based on construction firm's attributes and identify the potential strategic competitiveness and better performance areas for foreign construction firms in LDC domestic market.

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