

## A FRAMEWORK FOR DEPLOYING JOINT VENTURE (JV) PERFORMANCE BY LOCAL CONTRACTING FIRMS IN TANZANIA

**Yazidi H. B. Mwishwa**

Department of Construction Management and Technology,  
Mbeya University of Science and Technology, (MUST),  
P.O. Box 131, Mbeya, Tanzania  
Email: [mwishwa@gmail.com](mailto:mwishwa@gmail.com);

### ABSTRACT

Construction industry in Tanzania is plagued with poor project performance. The industry through the projects' undertaking is continuing recording time overruns, cost overruns as well as dissatisfaction of the work quality. This problem is caused mainly by the incapability of the parties involved in the project pursuit. In last three decades, local firms were taking-up a project share by value ranged from 10% - 20% in 1998 against their foreign counterparts. Recently, this has improved to an average of 36.6% in 2017. Since the Joint Venture (JV) performance initiative is evidenced to yield positive results elsewhere (i.e. it has helped firms build their capabilities), but, this has not yet been sufficiently utilized in the Tanzanian context. This study investigates JV practices by the local firms, on the: awareness to the terminology, elements, motivation and obstacles of deploying it. Critical review work on JV was conducted; also questionnaire survey and interview were conducted in three regions in the country (covering Mbeya, Dar es Salaam and Geita) to solicit local firms' JV performance issues. A response of fourteen firms (47%) was obtained and used. In results, the studied firms showed high level of awareness with the JV and its potentials as the majority of them (86%) agreed that it contributes to project performance and the firm's growth. Respondents (82%) also showed they understand JV obstacles (factors) that hinder its implementation. In addition, respondents (84%) agreed on/understanding the factors that motivate firms to undertake JV. The factors that hinder JV project include: fearing involvements of new individuals to a JV firm, and difficulty to measure JV project, amongst others. Since the firms had shown high level of awareness with regard to JV facets, but some practiced it partially, and other did not deploy it; a framework was developed as guidance. It has five elements, firm: define its role/capability; prepare its readiness to conduct JV; assess JV facets; implement JV and continue measuring results and improve. Local firms are urged to use the proposed framework and benefit. In future studies, a framework should be validated and results measured for improvement. This study has implication to the local firms in Tanzania and to other firms in developing countries.

**KEY WORDS:** contracting firms, joint venture, JV elements, JV hindrances, motivations to JV efforts.

### 1. INTRODUCTION

Construction industry in Tanzania is plagued with poor performance. The inadequate performance of the industry is observed through the project performance indicators that over the time recorded: time overrun, cost overrun and substandard quality performance of the works (MoW, 1997; Msita, 2001; Ntyakunze, 2011). The inadequate performance of the industry is caused by the incapability

of the main project participants – client, contractor and consultant (Kasuwi and Mamiro, 2005; Joseph and Haule, 2008).

Clearly, the incapability of the local firms is viewed from their low project share participation as compared to the foreign firms' counterparts (MoW, 1997; Muhegi, 2007; Mawenya, 2011). In order to build capability of the local firms, the Ministry of Communication and Infrastructure Development, the then Ministry of Works (MoW) set an objective stipulated in the construction industry policy in 2003 that local firms should undertake most of the construction project shares in value in the country by the year 2012. However, after several efforts utilized by the industry players to achieve this objective, local firms managed to take-up a project share by value from 10% to 20% in 1998 (Muhegi and Malongo 2004); 30% to 40% in six years period 2005 – 2011, (Muhegi, 2007; Mawenya, 2011) and then to an average of 36.6% in the period, 2015 – 2017 (Kikwasi and Escalante, 2018). These statistics shows that the target of taking up 100% project share by the local firms by the year 2012 has not yet being met; despite the efforts tried, such as, dividing huge projects into small shares to help small firms participate in the project shares, Contractors Assistant Fund established by CRB to help contractors advance projects, firms coached through seminars and workshops, amongst others (Msita, 2001; Mlinga, 2005; Muhegi, 2007; Mawenya, 2011). The problem still persists. The author of this paper has views that although some improvement is noticeable; however, the efforts were not directly linked with boosting capability of specific local firms enhanced to address their own challenges. Adoption of joint venture (JV) may help specific firms build their capability.

It is well agreed that in order for a firm to improve its performance capability, JV performance is one of the appropriate option. This is so because JV allows firms to share resources it doesn't have as well as sharing the project risks. JV helps firms to: learn, store, use and retain a new knowledge/technology it didn't have previously (Devapriya and Ganesan, 2002; Nystron, 2004). This is also supported by Omar *et al.*, (2012) who noted that a JV or partnering effort stands as a vehicle for technology transfer. This technology/knowledge transferred become more useful when it continues being used at own firm's settings (Weerasinghe and Ekanayake, 2012). JV has been seen as an application across several sectors, including: international manufacturing projects, research and development projects, crude oil industry and construction projects (Sahebi *et al.*, 2015). While JV adoption efforts are evidenced to be successful approach elsewhere through creating performance capability of various organizations that in turn created productivity improvement (Kadefors, 2004; Nyström (2004), Bygballe *et al.*, 2010), such perspectives have seen little efforts of being practiced in Tanzania.

In Tanzania, very few firms (contractors and consultants) had adopted JV. Literatures on JVs' performance in Tanzania include: studies of joint venture formation between construction organizations (Minja *et al.*, 2012), evaluation of enabling factors for Technology Transfer (TT) in construction industry (Mselle, 2014), assessment of international JV performance (Pius, 2014), joint venture in housing projects in Dar es salaam, (Kavishe and Chileshe, 2017), implementation of risk management strategies in JV building projects in Dar es salaam (Mikapagaro *et al.*, (2018), study on Contractors' contractual relationship within JV projects (Maro and Mnyigumbi, 2019). Critical work done by Minja *et al.*, (2012) on JV performance in the country identified only 102 JV registered projects by Contractors Registration Board (CRB) in the periods from 2007 to 2010. From all reported JV performance in the country, one would expect a significant benefit reported

to be achieved, but none is documented in the literature. Like it is noted by the researchers, that, no true TT related efforts can be said to prevail on a practiced initiative until the technical knowledge and techniques learned, received, saved and benefited by a specified firm growth is noticeable (Weerasinghe and Ekanayake, (2012). Muhegi and Malongo (2005) also noted potentials of JV and advocated local firms to deploy it so as to benefit.

In the country, as of December 2017, the huge numbers of 8,669 and 314 registered contractors and consulting firms respectively practice construction works (Kikwasi and Escalante, 2018). From this statistics and the stated JV performance issue, it become evident that majority of firms had not yet done JV. Those who practiced it did not benefit or had it at marginal levels.

This paper investigates JV performance by the local firms in Tanzania. The five un-answered questions were posed and answered: (i) what are JV performance factors? (ii) to what extent local firms are aware with the JV tenets? (iii) Which reasons make local firm reluctant in deploying JV? (iv) which obstacles, remedial measures and motivation factors for deploying JV? and (v) Which framework is necessary to guide local firms implement JV successfully? Methods for answering these questions are briefly described in the methodology Section.

This paper contributes to the knowledge by offering critical JV tenets that help local firms to understand it. It also provides a framework to guide local firm implement JV initiative. The paper is organized into five Sections. Section one covers Background and Introduction to the paper. Section two and three describes literature review and methodology. Whereas Section four explains data collection and analysis, Section five describes conclusion and recommendations.

## **2. LITERATURE REVIEW**

The reviewed work is organized into six sub sections: the need for individual firm to build capability; meaning of JV, importance, experience of use, elements, obstacles, motivation and factors for firm's growth. Brief descriptions follow:

### **2.1. A need for individual firm to build capability**

The theme 'capability' deserves attention in this paper. Its theory states that capability has emerged from the field of strategic management. This view looks beyond factors of production and production functioning to recognize the importance of how firms learn and orchestrate assets in a ways that market cannot replicate. The capability view also recognize that technology and know-how do not fall like manna from heaven (Teece, 2017) but, rather, results from value creation activities, including search, learning, R & D and managerially directed assets orchestrated process (Omar *et al.*, 2012; Teece, 2017). The capability need to be planned, built and firms should ensure they guide it for sustenance.

### **2.2. Joint Venture – It is Synonymous with Partnering**

Joint venture (JV) is described to mean, a long-term commitment between two or more organizations for the purposes of achieving objectives by maximizing the effectiveness of each participant's resources (CII, 1991). It is a form of teamwork that supported with a collaborative approach in which all participants agree to share their efforts to complete the project successfully (Devapriya and Ganesan, 2002). Jaeger (1961) states the synonymy of JV with partnering in the following six similarities, both are based on: association between two or more companies; created

by agreement between parties; both firms intend to use optimal resources; both focus on economic gain; allow firms to exercise lawful business and relationships to the third party. The term JV is used in this study.

**2.3. Elements of JV**

A number of key elements and principles of JV were identified by various researchers. They include: establishment of the common goals formulated during initial stages of the project (Bennet and Jayes, 1998), team building based on trust and respect (Bygballe *et al.*, 2010), development of well structured yet open and informal communication flows (Kadefors, 2004), commitment of individuals for all participants, equity, responsiveness to problems, continuous evaluation and joint problem resolution (Cook & Hancher 1990; Construction Industry Institute 1991; Chan *et al.*, 2002). Researchers for example Bennett, (2003) identified other elements as: strategic efforts that aim to meet the client’s objectives and understanding how each JV firm engage with the work; examination and availability of all necessary skills, fair distribution of the work efforts, integration – the way and importance of two companies are sharing resources, benchmarks the results and ensuring feedback of the lessons it saved and implemented. The elements are also regarded as the critical success factors or principles of JV (Chen and Chen, 2007). Liu and Fellows (2001), and Nyström (2004) also state the elements of JV as: long term commitment, shared understanding, mutual trust, common goals, commitment, and effective communication for the benefits of improving construction performance (CII, 1991; Bygballe *et al.*, 2010).

The elements of JV commonly practiced elsewhere were selected, briefly described, widely accepted/used ones were selected (Table 2.1). The JV elements accepted by more than five researchers were regarded as the critical JV factors and were sent to a survey of local firms for eliciting the extents to which such elements: are familiarized by the firms and, or obstruct firms on their performance.

**Table 2.1:** Elements for Success of JV Performance, Evaluated from other Researchers

JV element	Description(s)	Authors								
		A	B	C	D	E	G	H	I	
<i>Comprehensive &amp; fair written agreement</i>	Agreement fair set out of the obligations, rights, risks and rewards for partners	✓	✓	✓	✓	✓			✓	
<i>Risk share b/n parties</i>	Anticipated project events, example, inappropriate/lacking of a particular resource(s) shared by both parties		✓	✓	✓	✓	✓	✓	✓	
<i>JV partner selection</i>	a partner select based on knowhow of JV tenets, patented resources and technology a firm has access to, culture and value of that firm and brief history experience of the firm	✓	✓	✓	✓	✓	✓	✓	✓	
Financial stability	A prospective JV partner can generate sufficient financial resources to maintain the venture’s effort		✓	✓		✓				
<i>Mutual understanding</i>	Created through a careful selection of people who are to work in a JV provides mutual bonding of partners	✓	✓	✓	✓	✓	✓		✓	
Openness, transparency	Working on openness and transparence build trusts between partners, this would raise morally of the work		✓		✓	✓				

<i>Communication/information clarity</i>	Effective communication helps to reduce difference between partners their culture and way of doing work	✓	✓	✓		✓		✓	✓
Roles/responsibility clarity	Capitalized by knowing the compatibility of partner’s objectives, and trust and transparense, then, parties work on committed way			✓	✓	✓	✓		
<i>Commitment of the parties</i>	Action of key decision regarding continuation of relationships, acceptance of the joint goals and the value of the partnership	✓	✓	✓	✓		✓		✓
<i>Cooperative between members</i>	A degree to which the partners share responsibilities both for dealing with problems and maintaining their relationships – they share information and resources	✓		✓	✓	✓		✓	
<i>Compatibility of Objectives</i>	Firms set to know each other’s objectives such that, even if they differ, everyone sees its gains as well as the gains to the colleague obtained through a mutual commitment		✓	✓	✓	✓	✓		✓
<i>Interpersonal trust</i>	contribute to implantation of strategy, greater managerial coordination, and effective work teams	✓		✓	✓	✓	✓	✓	✓
Management control	Helps firms to synchronize activities efficiently and effectively implement their strategy	✓	✓	✓			✓		
<i>Partner experience</i>	Attributes relating to more understanding, competence and confidence in managing the inputs of a JV	✓	✓	✓	✓		✓		✓
<i>Motivation for forming up JV</i>	Motive behind deployment of JV will make it success, e.g. shared risks, transfer of technology, build own capability etc.		✓	✓		✓	✓	✓	
fairness	Relating to any decision made with any partner member to be on a neutral ground, making win-win to both parties	✓			✓		✓		
integrate activities	Work activities interrelate one another and are other in parallel, their interrelationships provides smooth work operatives		✓		✓	✓			✓
<i>Understanding culture of other firm</i>	Culture as a way of doing thing reflect uniqueness of individuals of firms – beliefs, values, norms etc. must be considered and respected		✓	✓	✓	✓		✓	✓
Timely decision making	Once the fact about a particular event or a direction towards a work to be done is obtained, decision is to be made instantly		✓		✓		✓	✓	

Keys: A - Mba and Agumba (2018); B – Ayunyumu *et al.*, (2021); C - Adnan and Morledge (2003); D - Maro and Mnyigumbi (2019); E – Alashwal *et al.*, (2017); E – Mikapagoro *et al.*, (2018); G - Mba and Agumba (2018); H - Devapriya and Ganesan, 2002), I - Adnan *et al.*, 2011.

**2.4. A Need for/Motivations for Performing JV**

Firms undertaking projects must be full of resources. Such resources include: financial, managerial skills, plant and equipment, appropriate technology, employee skills and unskilled labour (Bennert, 2003; Blakck *et al.*, 2005). While the way to manipulate each of these resources differ between organizations, and also the fact that project operation environments differ, firms would require

continuous learning facilitated by appropriate mechanism such as JV activities (Devapriya and Ganesan, 2002). At the time the firms do not, or have partial resources, the performance situation becomes poor (Jerger, 1961; CII, 1991). JV adoption helps the firms to work in great cooperation while maximizing the extents of sharing truth, fair and collaboration (Kale *et al.*, 2005) that facilitates new lessons and transferring of the knowledge and expertise the firm doesn't have, or the firm has in partial. Researchers state that a firm can be motivated to undertake JV if it understands its facets and benefits. JV benefits a firm through undertaking and transferring a technology. The 'technology' refers to as the materials and processes used in transforming inputs into outputs (Dawson, 2002). It is the knowledge and machinery that are needed to run an enterprise (Omar *et al.*, 2008). It is of three types: knowledge, skills and tools (Omar *et al.*, 2008). Knowledge has two parts, soft technology that covers explicit knowledge (e.g. meetings, seminars, etc.) and tacit knowledge, such as viewing, on job training, etc. (Devapriya and Ganesan, 2002; Kumaraswamy and Shrestha, 2002). Techakanout and Terdudomthan (2004) note that explicit knowledge can be easily: coded, shared, transmitted, retrieved, reused, transferred in a formal way or systematic language such as production of manuals, academic papers, etc. On the other side, tacit knowledge is characterized by being difficult to codify, communicate, transfer, generally exchanged through action, commitments and direct involvement e.g. face to face communication, or on the job apprenticeship type of training (Ernst and Kim, 2002). Tools (hard technology) cover machines, equipments, software, etc. The knowledge to be transferred therefore, relate to specific skills, technical know-how, machinery use mechanisms, and capital machinery/equipment use (Omar *et al.*, 2008; Mba and Agumba, 2018).

## **2.5. JV Experience and Benefits of its Adoption**

Over years, JV partnering seems to becoming widely applied within the construction industries in the United States, the United Kingdom, Australia, and Hong Kong (Cheung *et al.*, 2012). However, it still remains in its low extent of adoption in countries from East-Asia, Africa – where Tanzania falls in (Hong *et al.*, 2012) and other European countries such as Sweden, Norway and France (Alashwal *et al.* (2017). In the countries where it has a record of successful performance some benefits are evident (Fong and Lung, 2007; Hosseinia; Black *et al.*, 2005; Adnan and Morledge, 2003), that it: provides on-time and within-budget delivery, enhances communication, increases the quality of the product and provides better customer satisfaction, increases productivity, facilitates more innovation, increases flexibility, resolves problems between the participants, transforms confrontational relationships into cooperative ones, establishes continuous development, improves work environment and facilitates continuous improvement of quality.

## **2.6. Obstacles and Remedial Measures of JV Deployment**

Firms may face challenges of implementing JV for different reasons and perspectives. Firms that meet and work for the first time, therefore, a firm culture face hardship to change its operational modalities; which may obstruct achievements (Adnan and Morledge, 2003). Other factors include: unclear description and understanding of the goals of a colleague, difficulties in measuring JV performance that have been constrained by disagreements on the comparability and reliability of alternative performance measures and methods (Geringer and Hebert, 1991 in Hong and Chan, 2014), difficulties in meeting consensus on JV variables between the members, discontinuous results - when a firm completes one project successfully, and rarely extends the lessons studied to new projects (Adnan and Morledge, 2003). They also include, lack of: appropriate knowledge on JV aims, commitments from one party, cooperation, management control, motivation for forming

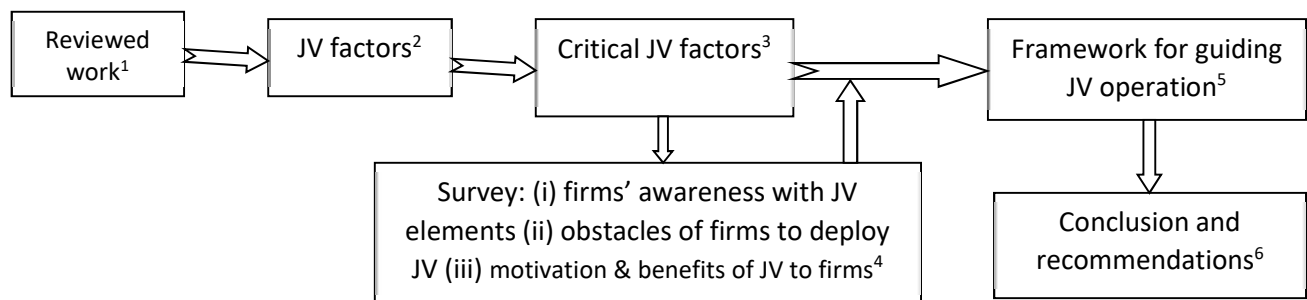
JV, modes of knowledge transfer, cultural understanding, amongst others (Chan *et al.*, 2002; Fong and Lung, 2007). Obstacles of JV deployment can be avoided when a firm has: good understanding of the motivation derived by the benefits of its adoption, good preparation to undertake it, mutual commitment in meeting the pre-set objective, amongst others (Kumaraswamy and Shrestha, 2002; Adnan and Morledge, 2003).

A firm striving to undertake JV need to be aware that it aims to build its capability, and the fact that such capability roots from planned efforts, commitment and efforts deployed through many efforts, one of them is JV. Such elements include: selecting JV to partner with, commitment, corporation, knowing culture of the partnering firm etc. the JV would only be successful if firms are aware of the facets of technology to be transferred that gives a motive behind. They include (Omar *et al.*, 2008): knowledge, skills and tools.

### 3. METHODOLOGY ADOPTED IN THE STUDY

#### Research Approach and Sample Size

The paper approach is descriptive and exploratory (Figure 3.1). In the Figure, the first four steps exhibit descriptive feature and step five is of exploratory nature since it explores new phenomenon resulting from descriptive study (Kothari, 2004). In descriptive study, the paper evaluated literature to identify and describe JV elements, obstacles and motivations for adoption of JV. It identified critical JV factors that were sent to the practitioners through a survey to solicit their opinions on implementation of JV. The results help in the formulation of a JV framework.



**Figure 3.1:** Schematic Study Methodological Steps

There were no restrictions of the geographical location of the respondents and their sample sizes because the insights sought are aimed to formulate a framework to be used by all local parties in the country. The survey was targeted for the thirty contracting parties (consultant and contractors, but, only 14 (47%) respondents were found (Table 3.1). The paper stems from the previous one ‘Minja *et al.*, (2012)’ who reported 102 firms in Tanzania who had conducted JV projects from the year 2007 to 2010 and identified in the literature in the country: Pins (2014); Kavishe and Chileshe (2017); Maro and Mnyigumbi (2019). Non-probability sampling was used in the study due to two reasons (i) sample could not represent the whole country; the issue was to meet study aims and meet the constraint of economy and (ii) issues studied can be adopted by other firms to deploy JV (Kothari, 2004; Bernard, 2006). A sample size used was sufficient because the characteristics of studied firms are similar to other firms. The collected data is mainly quantitative; therefore, results would be generalized. Information obtained were described to help identify

insights for determination of exploratory materials to formulate a framework for guiding JV performance.

**Table 3.1:** Number of Questionnaire Distributed and the types of Firms involved

Category of firm	Dar es salaam	Mbeya	Geita	Total
Contractors	8	6	5	19
Consulting firms	5	3	3	11
Total	13	9	8	30

## 4. STUDY FINDINGS

### 4.1. General

Local construction organizations (contractors and consultants) in Tanzania are characterized by incapability of construction project performance. The recent (in 2018) project share by value taken by local firms was 36.6% against 63.4% picked-up by their foreign counterparties. Although there is variety of approaches to enhance building capabilities, this study considered JV as appropriate route. The study evaluated JV elements in literature and solicited them through a questionnaire survey; i.e. the firms': awareness, obstacles/hindrances to pursue JV and their motivations to pursue JV. Such insights helped to formulate a JV model to guide firm's growth.

A number of questionnaires distributed and collected per three study regions are summarized in Table 4.1. Out of 30 distributed, 10 (53%) from contractors and 4 (36%) from consultants giving a total of 14 (47) were responded. Other JV studies, for example, Adnan and Morledge (2003) and Mba and Agumba (2018) had response rates of 20% and 28.5% respectively and continued with data analysis. Therefore, the current study with a response rate of 47% that is higher than the quoted studies permit data analysis process to proceed.

**Table 4.1:** Number of Questionnaire Distributed, Types of Firms and Respondents

Firm Category	Dar es salaam		Mbeya		Geita		Total	
	Distributed	Collected	Distributed	Collected	Distributed	Collected	Distributed	Collected
Contractors	8	4	6	4	5	2	19	10 (53%)
Consulting firms	5	2	3	1	3	1	11	4 (36%)
Total	13	6	9	5	8	3	30	14 (47%)

The questionnaire was divided in three parts: general information, likert scale (closed) and brief explanation questions. Results and discussions is as follows:

### 4.2. Respondents Profile

The respondents targeted were only registered contractors and consultants since they are the main parties into a project. Consultant designs and supervises projects and contractors execute it. The expertise involved were those in the managerial positions: site agents, firm owners and site managers since they are the ones who decides their firms to either deploy JV project or not; and

modality of its implementation. Their careers were civil engineers, architects and quantity surveyors; these are ones with construction knowledge and are involved in the day to day project operations. The firms used were those with more than eight years experience in the construction business.

**4.3. Elements of JV, Hindrances to Implement JV and Motivations for Adoption**

Five questions were posed in this research to determine (i) critical JV factors (ii) if firms are aware with the JV performance factors (iii) reasons that obstruct deployment of JV (iv) motivational factors for deploying JV and (v) framework to guide local firms implement JV. While the first four questions follow a response of practitioners, question five is formulated by the researcher based on data analyzed.

**4.3.1 Critical JV Performance Factors**

The critical JV factors as are widely accepted in literature (see Table 2.1), they include: comprehensive and fair written agreement; Risk share between parties; JV partner selection; Mutual understanding; Communication clarity; Commitment of the parties; Cooperation between members; Compatibility of Objectives; Interpersonal trust; Motivation for forming up JV; and Understanding culture of other firm. These factors were solicited by the firms in a survey on their extents of familiarization and use.

**4.3.2 Awareness of Firms on the Elements of JV**

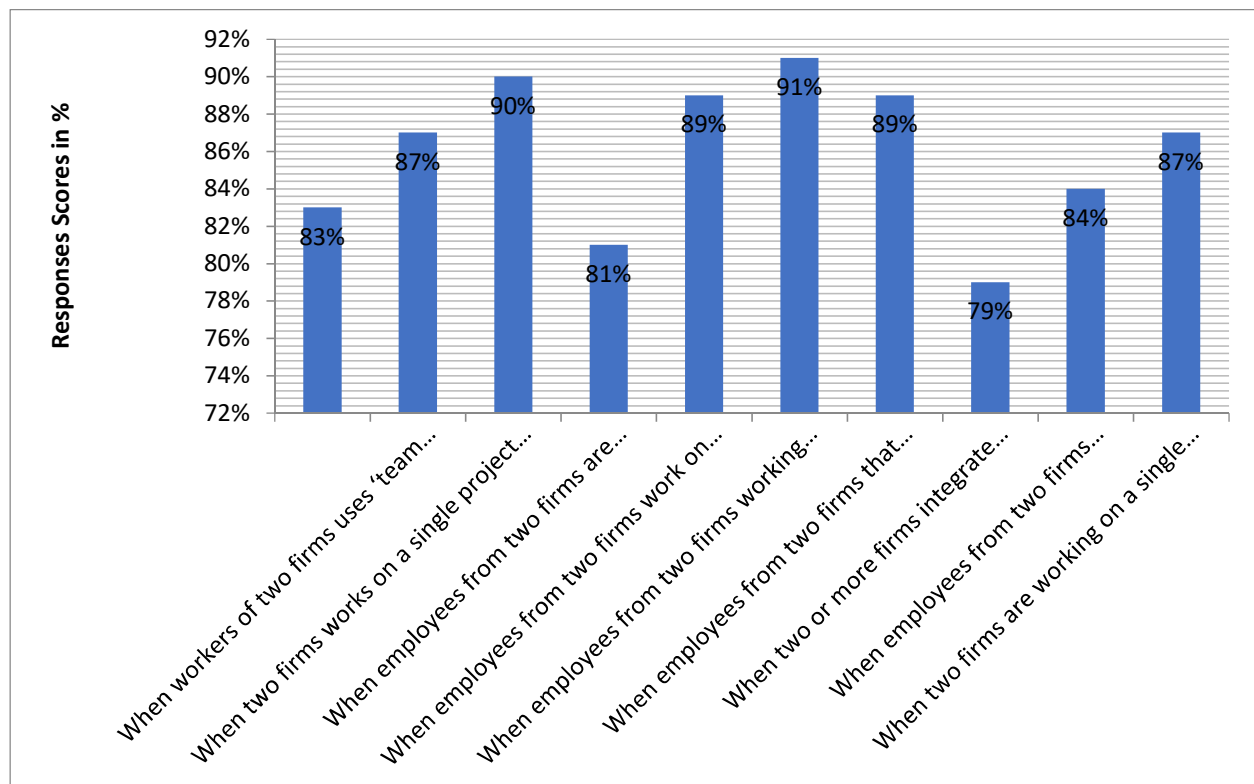
Ten (10) attributes were used, where respondents were to indicate the extent to which adoption of a factor improves a project and contribute to a firm’s growth (Table 4.2). Idea was that if a firm is aware that a JV factor can attribute to project improvement and a firm’s growth, such a firm is familiar with it (a JV factor). The results of fourteen respondent firms are summarized in Table 4.2 and Figure 4.1.

**Table 4.2:** Firms’ Responses on Elements of JV Contributing to Project Performance Improvement and a Firm’s Growth

s/n	Use 5 point scale [where 1 translates as strongly disagree to 5 – strongly agree] to indicate the extent to which each of the following factors improves project performance and creating specific firm’s growth. Please, put a tick on a right cell as appropriate:	Scores					MS X Resp.	Resp. scores	% Score
		1	2	3	4	5			
		1	2	3	4	5	5	100/100	100%
1	When two or more firms plan, set and implement a common agreed project goal, this improves project performance and creates specific firm’s growth	-	-	4	4	6	70	58/70	.83
2	When workers of two firms use ‘team building based on trust’ to implement a tasks, this improves project performance and creates specific firm’s growth	-	-	2	5	7	70	61/70	.87
3	When two firms work on a single project at a ‘structured fashion, yet uses open and flexible communication flows, this improves project performance and creates specific firm’s growth	-	-	1	5	8	70	63/70	.9
4	When employees from two firms working on a single project deploy high commitment on job, this improves performance and creates specific firm’s growth	-	1	1	8	4	70	57/70	.81

5	When employees from two firms work on a single project, each of them getting the share of his/her efforts fairly, this <b>improves project performance and creates specific firm’s growth</b>	-	1	2	6	6	70	62/60	.89
6	When employees from two firms working on a single project are shaped to be responsive to problems they encounter, this <b>improves project performance and creates specific firm’s growth</b>	-	-	4	8	4	70	64/70	.91
7	When employees from two firms that work on a single project are shaped to continue evaluating and giving joint solutions to problems, this <b>improves project performance and creates specific firm’s growth</b>	-	-	1	8	5	70	62/70	.89
8	When two or more firms integrate together their project activities to share the resources, this <b>improves project performance and creates specific firm’s growth</b>	-	1	3	6	4	70	55/70	.79
9	When employees from two firms that work on a single project benchmark activities, this <b>improves project performance and creates specific firm’s growth</b>	-	-	2	7	5	70	59/60	.84
10	When two firms are working on a single project implement the feedback to a new ones, this <b>improves project performance and creates specific firm’s growth</b>	-	-	2	5	7	70	61/70	.87
Average									86%

Key: MS – Maximum score, res. - respondents



**Figure 4.1:** Response of Firms on JV Contributing to Project Performance and Firm’s Growth

From Table 4.2, the attribute ‘When employees from two JV firms work on a single project are shaped to be responsive to problems they encounter’, this improves project performance and enhances a firm growth, was ranked first with a response rate of 91%. The attribute ‘When two

firms works on a single project at a ‘structured fashion, yet uses open and flexible communication flows’, this improves project performance and enhances the firm growth, was ranked secondly with a response rate of 90%. The attribute ‘When employees from two firms work on a single project, each of them getting the share of his/her efforts fairly’ this improves project performance and enhance firms growth was ranked third with a response rate of 89%. Generally all fourteen respondents involved are aware of the elements of JV as they had an average of 86% score rate. Since firms indicate that they are aware of the JV elements but do not undertake it, reasons for hindrances were necessary to be sought.

**4.3.3 Responses of issues that Obstruct Firms to Perform JV**

Eight (8) attributes were used, where practitioners were asked to determine the extent to which such attributes obstruct or cause them not to deploy JV. The extents to which attributes obstruct adoption of JV project was responded by the firms at the perspectives of not completing projects efficiently. Results for fourteen respondent firms are summarized in Table 4.3.

**Table 4.3:** Responses on Factors that Obstruct local firms to deploy JV Projects

Use 5 point scale [where 1 – strongly disagree to 5 – strongly agree] to indicate the extent of agreeing or disagreeing with the factors given.		Scores					MS X Resp.	Resp. scores	% Score
		1	2	3	4	5			
1	Firms hesitate to engage with <b>Joint Venture (JV)</b> projects because of not knowing its benefits	-	-	2	6	6	70	60/70	.86
2	Trust – a firm/person you had never work with (not knowing each other) may attribute to the JV successes	-	-	3	6	5	70	58/70	.83
3	Individuals from one of the JV firm may not commit to the work; thus, leaving more burden to the other party that obstruct JV initiative	-	-	3	5	6	70	59/70	.84
4	Payment distributed unfairly to individuals may obstruct JV adoption	-	-	2	5	7	70	61/70	.87
5	Project activities are difficulty to divide and assign to employee fairly; this obstruct JV deployment	1		5	5	4	70	56/70	.8
6	Difficult to know a honest/trust firm when on financial issues obstructs JV adoption	-	-	3	5	6	70	58/70	.83
7	JV conditions set by the regulatory boards are hard to implement, they attribute to JV deployment hardship	-	2	4	6	2	70	50/70	.71
8	Since firms are in different levels of operation capability, this creates a challenge on how to share the risks and opportunities; thus obstructing JV performance issue	-	-	4	5	5	70	57/70	.81
Average factors									82%

From Table 4.3, the attribute ‘if payment to individuals in two firms engaging with JV project is unfairly distributed’, this creates hindrances to JV project implementation was ranked firstly with a response rate of 87%. The attribute ‘Firms usually hesitate to **engage with joint venture (JV)** projects because of not knowing its benefits’, this creates hindrances to JV project implementation was ranked second with a response rate of 86%. The attribute ‘if individuals from a particular firm do not commit to the work; thus, leaving more burden to the other party’, this creates hindrances to JV project implementation was ranked third with a response rate of 84%. Generally all fourteen respondents involved agree on all outlined factors that they obstruct firms to implement JV with an average score of 82%. Some factors obstructing JV (e.g. risk relating to antitrust, financial,

unclear activities of the large scale project etc.) as responded by the practitioners concur with other researchers (Lu *et al.* 2020). Other obstacle factors mentioned are incompatible organizational culture, inconsistent management styles and different organizational policies.

**Interviewing one respondent, a ‘consulting firm in Dar es salaam’ ‘would you state why many local firms had not or had failed to implement JV project’,** the respondent had this to say, “*We had never seen a direct benefit of the firms who performed JV previously.*” Further saying, “*there are firms in Tanzania who had practiced JV, but the JV project related benefit is not seen.*” Such a statement, can perhaps be related with the information presented previously in this study that had showed a very small number of firms (107) who registered JV studies. The fact is that from that list, no single firm is recorded to have undertaken JV successfully. Mselle (2014) advocated JV/partnering or technology transfer studies requirements in the country.

**4.3.4 Responses on Motivations for Firms to performing Joint venture**

Five (5) attributes were used to study motivations of firms in engaging with the JV. The extents to which the proposed attributes motivate adoption of JV project as responded by the firms are presented. Results are summarized in Table 4.4.

**Table 4.4:** Motivations of Firms to performing JV Projects

s/n	Use 5 point scale [where 1 – strongly disagree to 5 – strongly agree] to indicate the extent to which each of the following factors motivate firms to perform joint venture (JV) projects. Please, put a tick on a right cell	Scores					MS X Resp.	Resp. scores	% Score
		1	2	3	4	5	70	1.00	100%
1	Joint venture lessons/concepts need to be trained to the firms to widen their awareness			2	6	6	59/70	.85	85%
2	Burning punishment need to be set and given to firms/individuals who work contrary to the JV agreements	1		1	5	7	61/70	.86	86%
3	The clients should make it mandatory for majority of projects to be implemented through JV approaches	1	2	1	4	7	59/70	.84	84%
4	A firm with high frequencies of performing JV should be given priority of new bid projects		1	5	8	2	59/70	.84	84%
5	Firms with high frequencies of pursuing JV should be recognized and rewarded			2	7	5	59/70	.84	84%
									84%

From Table 4.4, the attribute ‘Burning punishment need to be set and given to firms/individuals who work contrary to the JV agreements’, this creates motivations to firms to pursue JV project was ranked first with a response rate of 86%. The attribute ‘Joint venture concepts need to be trained to the firms’ (beneficiaries) to widen their awareness’, this creates motivations to firms that engage with JV project implementation was ranked second with a response rate of 85%. Generally all fourteen respondents involved agree on all five outlined factors that they create motivations to them on implementing JV project with average score of 84%. The motivation factors posed here

stand at the eye of the regulator – to enforce the law of implementing JV due to its potentials. To a large extent, the responses by practitioners concur with other studies e.g. Babar (2016). The author posed the motivational factors as, it helps firm: small and medium ones to win tenders, decrease cost, share risks, expand markets, transfer technology, learn management skills, and undertake large projects.

**4.3.5 Awareness of JV by the Firms**

A question was given to respondents on whether they are aware and recognize the term ‘Joint Venture’ or not, and if ever they heard it to state from which source. In results, all respondents agreed that they had already heard the term Joint venture. The sources to which they heard this terminology differ. Four respondents heard the term ‘JV’ from the conferences they attended, five respondents heard it from fellow firms, two of them heard from Contractors Registration Board (CRB) and three respondents did not respond to this question.

Respondents who heard the term JV from the conference stated that this was a remark made by one of the conference participant raised as a means to help small and medium firms increase project shares. Those who heard from friends, it appeared as a tool to help them to obtain/win a tender. Those who heard from CRB, such respondents and other colleagues were advised by a CRB member to engage with JV as it has benefits of sharing resources. This shows that the respondents are aware of the term JV. One can conclude that what they lack is full knowledge of JV benefits, elements, sensitization and perhaps a holist tool to guide JV implementation.

**4.3.6 Why Firms could not engage with the JV Project**

Drawing from the previous question, the follow-up question was ‘if firms were aware with the term JV why they could not plan and implement it’. Varying responses were given as summarized in Table 4.5

**Table 4.5:** Responses on why Firms did not Implement JV Project

Posed question	Responses	Number of firms responses
The firm was asked if it was/is aware of the term ‘JV’ why it did not plan and implement it (JV)?	We were not aware of the benefits the JV offers	One contractor
	We hesitated to work with new firm(s), new employees; risk of sharing resources	three contractors; one consultant
	No reason (a contractor said); but we thought JV is for large class level contractors	One small contractor
	Lacking trust to other firms since we are not familiar with one another	One contractor
	No response was given	Six firms did not respond to this question

From Table 4.5, it appears that majority of firms 6 out of 14 (43%) did not indicate why they do not implement JV although, initially, only three of them also did not respond about recognition of the term. One firm noted that he was not aware of JV benefits; the other respondent thought it is for large class levels, and the other one lack trust from colleagues. All these reasons and those that gave no reason show the requirement of further training and sensitization on JV facets. A framework to guide local firms implement JV is presented next (this was also a question based in this research).

#### **4.4. A Framework to Guide Implementation of JV performance by the local Firms**

Drawing from the critical review of the literature, survey and interviews conducted, a framework for guiding implementation of JV by the local firms is proposed in Figure 4.2. The framework has five steps to be implemented stepwise starting from top to bottom part (brief description follows):

##### **Step 1: Defining firm's Own Capability and Current Status**

Any contracting firm striving to grow in business should recognize its performance capability. The fact that the performance capability focuses on the importance of how the firm learns and orchestrates assets in a way that market cannot replicate. It explains that technology and know-how result from value creation activities, including search, learn, research and development and managerial action that is practiced (Teece, 2017). The capability therefore need to be planned, built and firm ensures that it is guided for sustenance. As such, firm's targeting to build own capability should firstly realize the potential for managing a change process. In this regard, a capability change initiative is through engagement with the JV. Therefore, the firm should question whether it had pursued JV previously or not. The fact is that whether or not the firm had already undertaken JV previously, no successful result is observed; as such, the firm should plan from the scratch to start JV journey. To start JV, preparation effort is of paramount importance (Chan *et al.*, 2002).

##### **Step 2: Assessing Firm's Needs to Change and Prepare to Conduct JV**

Vaidya (2009) states the necessity of making preparation before embarking to the JV initiative, that it helps to set targets for the effort, example the benefits relating to the shared risks and the technology to be transferred. Preparation also helps to avoid or reduce chances of JV failure implementation (Markino *et al.*, 2007). In this part, the study had built-in a work done by Akunyumu *et al.*, (2021) who identified four variables of preparatory readiness to conduct JV, firm's readiness on: (i) management (ii) process (iii) people and (iv) technology. Management readiness –a critical element that leads to the adoption of JV issue by carefully orchestrating business strategy (Ruikar *et al.*, 2006); process readiness relate with firm streamlining its business process indicating how it functions and the attributes to be altered such as people, tools and procedures towards achievement of the goal (Ruikar *et al.*, 2006); technology relate to information technology (hardware and software) usage and its availability as well as the focus set for the technology transfer component; people readiness relate with social and cultural aspects - attitudes, outlook and feeling.

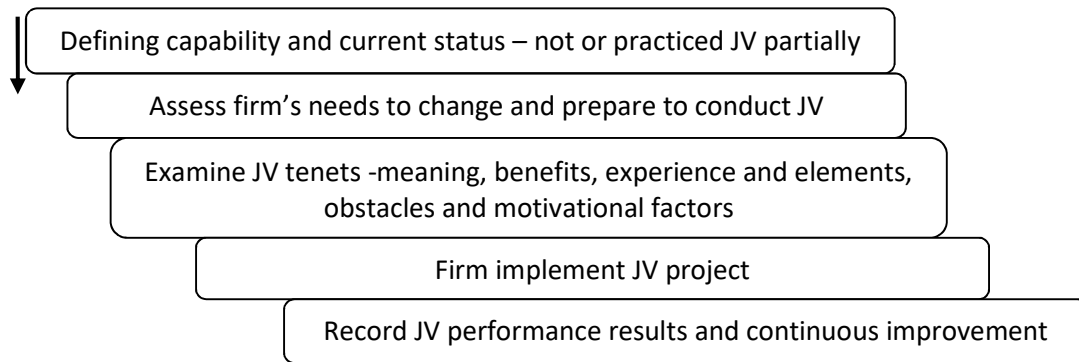
##### **Step 3: Examining JV Tenets**

A firm striving to perform JV must firstly understand its fundamental attributes that include meaning, benefits, experience of use, elements, obstacles and motivational factors. These attributes would help undertake the project successfully and avoid any pitfalls. Firm shall recognize that by engaging with the JV, it is focusing to a shared commitment so as to achieve objectives and maximize effectiveness of each participant. Taking a note also that JV had been successfully achieved elsewhere by helping them decrease cost, share risks, expand markets, transfer technology, learn management skills, execute large projects etc. these facets appear as the JV benefits as well as motivation to a firm to undertake JV. The JV elements must be focused on including the following: ensuring to have clear, comprehensive and fair written agreement,

knowhow of the risk activities to be shared between the parties, clear picture of the JV partner to be selected for the sake of working together, mutual understanding between employees on both JV partners and the associated activities, communication/information clarity Commitment derived by each partner, cooperation between members strengthened, ensured compatibility of the objectives, allow interpersonal trust, understanding and respect culture of each partnering firm. Failure to recognize and implement each partnering element positively, example, one party not committing to the work, this creates a failure of the JV initiative.

**Step 4: Firm Implementing JV Project**

To implement JV the firm should revisit the previous stages, defining a need to develop its capability, review firms’ preparatory variables: management, process, people and technology. Firm also should establish and be aware with the JV facets: meaning, benefits, experience of use, obstacles and remedial measures, motivation/success factors and JV elements. To implement JV, partners should be careful on selecting a JV partner, evaluating critically the contract and ensure all employees are aware of the overall JV issues. Firm also ensures to commitment with the job, share risks, whenever there are misunderstanding both firms stand to solve amicably, amongst others.



**Figure 4.2:** A Framework to Guide Implementation of JV to Local Firms

**Step 5: Firm recording JV Performance Results and Continues in Improving Performance**

This phase has a number of steps (i) conducting continuous learning and benchmarking in which issues should be learned between employees or from best practices and then benefit with new lessons (ii) Training – on job training, formal training and participatory in seminars (iii) Planning and setting funds to manage changes after JV – this is done through planning, acquisition and management of cash flows (Zigiaris, 2000) and (iv) Recruiting, retaining and recognizing manpower competencies (v) Maintaining records: Firms systematically record and store up to date information (Rivard, 2003).

**5. CONCLUSIONS AND RECOMMENDATIONS**

Construction organizations in Tanzania record poor project performance in terms of time overrun, cost overrun as well as dissatisfaction on quality of the works. The poor project performance is attributed to the incapability of the main parties involved in the project performance. This paper

evaluated literature of the facets of JV and identified critical JV factors. They included, firms ensure to have: comprehensive and fair written agreement; risk share of activities, select right JV partner, mutual understanding, communication/information clarity; commitment to the works, cooperation between members, compatibility of objectives, interpersonal trust amongst others. Through a questionnaire survey and interview conducted in three regions (Dar es Salaam, Geita and Mbeya) firms were studied on the awareness, elements, motivation and obstacles of deploying JV. A response of fourteen firms (47%) was obtained and used. In results, the firms (86%) indicated that they are aware with the potentials of JV elements in contributing to project performance improvement and to a firm's growth. Additionally, respondents (82%) agreed on the factors that hinder JV performance as they hinder project successes. Also, 84% respondents agreed on the proposed factors for motivating firms to undertake JV effort. The observed factors that hinder JV project include: fearing involvements of new individuals of the JV partner, and difficulty to measure JV performance. Motivation to undertake JV include: chances for small and medium firms win the project is high, JV helps lower operative cost, risk sharing, and technology transfer amongst others. Results from reviewed work, questionnaire survey and interview helped to formulate a framework for guiding JV implementation by the local firms. The framework has five steps: step one: defining firm's capability and current status, step two: examining firm's readiness to perform JV, step three: examining JV facets, step four: firm implementing JV initiative, and step five: firm recording results and making continuous improvement process. Local firms are urged to implement the proposed framework and benefit. In future work, the framework should be validated and results measured for sustaining firm's growth.

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