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A Factorial Analysis of International Construction Joint Venture Performance Measures: A Case of Ghana

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ABSTRACT

Little study on performance measurement has been conducted within sub-Saharan Africa, where international construction joint ventures (ICJV) have become an emerging trend in construction. Consequently, the reliability and comparability of existing performance measures in such a new region are unknown. This paper adds to the existing knowledge by identifying the relevant joint venture (JV) performance measures within the Ghanaian construction industry. Using a self-administered data obtained through a questionnaire survey by purposive and snowball sampling, respondents rated their perceptions of 20 performance measures identified from the literature. Factor analysis established the variables measuring aspects of the same underlying dimensions. A total of four key performance measures were identified and explained in terms of a cooperative relationship, financial measures, strategic and learning measures. The findings would enlighten JV stakeholders of the reasons underlying the choice of performance metrics, while in a broader picture assist in choosing the right measures to evaluate the extent to which the objectives of the newly formed JV have been achieved.

Keywords:
Construction Joint venture Performance measures

1. Introduction

It is well known that joint ventures serve as a platform where advanced technologies and management expertise are realized and used to improve quality and reduce wasted work at the project level. It also mitigates the effect of cyclical domestic market conditions as well as establishes continuing strategies for the balanced growth of domestic and international construction portfolios [16,44]. In developing countries, the attractiveness of foreign investment through JVs is because they serve as a means of sustaining market development, acquiring advanced technology as well as boosting economic growth through the development of managerial skills [31]. An International Construction Joint Venture (ICJV) can be considered as an arrangement that enables two or more legally distinct firms to jointly carry out Architectural, Engineering and Construction (AEC) projects; and where the headquarters of at least one partner is situated outside the venture’s country of operation [24].

Ghana has since the mid-1960s established an extensive collaborative participation programme through legislation and administration of investment codes with the objective to develop, finance and contribute to national so-
cial-economic development by building infrastructure and productive facilities\cite{2,9}, provided evidence to support the overwhelming preference by foreign investors for JVs in Ghana. A report from \cite{21} as in tables 1 and 2 below shows that, of the 1821 registered projects between the years of 2011-2016, a total of 595 projects (32.7%) were executed as JV arrangements. However, from Table 2, out of the 595 JV projects, 206 (34.6%) were building/construction projects.

Table 1. Approved recorded projects in Ghana by ownership type (2011 – 2016)

<table>
<thead>
<tr>
<th>Year</th>
<th>Without JV arrangement</th>
<th>Joint venture</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number (%)</td>
<td>Number (%)</td>
<td>Number (%)</td>
</tr>
<tr>
<td>2011</td>
<td>327 63.6</td>
<td>187 36.4</td>
<td>514 28.2</td>
</tr>
<tr>
<td>2012</td>
<td>239 59.9</td>
<td>160 40.1</td>
<td>399 21.9</td>
</tr>
<tr>
<td>2013</td>
<td>311 74.4</td>
<td>107 25.6</td>
<td>418 23.0</td>
</tr>
<tr>
<td>2014</td>
<td>135 73.4</td>
<td>49 26.6</td>
<td>184 10.1</td>
</tr>
<tr>
<td>2015</td>
<td>110 64.7</td>
<td>60 35.3</td>
<td>170 9.3</td>
</tr>
<tr>
<td>2016</td>
<td>104 76.5</td>
<td>32 23.5</td>
<td>136 7.5</td>
</tr>
<tr>
<td>Total</td>
<td>1226 67.3</td>
<td>595 32.7</td>
<td>1821 100</td>
</tr>
</tbody>
</table>

Source: Ghana Investment Promotion Centre, (2016)

Table 2. Sectorial composition of recorded projects in Ghana under joint venture (2011–2016)

<table>
<thead>
<tr>
<th>Year</th>
<th>Construction (%)</th>
<th>Others (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number (%)</td>
<td>Number (%)</td>
<td>Number (%)</td>
</tr>
<tr>
<td>2011</td>
<td>49 26.2</td>
<td>138 73.8</td>
<td>187 31.4</td>
</tr>
<tr>
<td>2012</td>
<td>55 34.4</td>
<td>105 65.6</td>
<td>160 26.9</td>
</tr>
<tr>
<td>2013</td>
<td>61 57.0</td>
<td>46 43</td>
<td>107 18.0</td>
</tr>
<tr>
<td>2014</td>
<td>8 16.3</td>
<td>41 83.7</td>
<td>49 8.2</td>
</tr>
<tr>
<td>2015</td>
<td>19 31.7</td>
<td>41 68.3</td>
<td>60 10.1</td>
</tr>
<tr>
<td>2016</td>
<td>14 43.8</td>
<td>18 56.2</td>
<td>32 5.4</td>
</tr>
<tr>
<td>Total</td>
<td>206 34.6</td>
<td>389 65.4</td>
<td>595 100</td>
</tr>
</tbody>
</table>

Source: Ghana Investment Promotion Centre, (2016)

Although foreign direct investment in Ghana through international joint ventures (IJV) has gained widespread attention, yet still, the rate at which it is growing is slow as compared to the previous years. In addition, some international joint ventures get dissolved with time, while others fail \cite{41}. As a result of this trend, companies keep evaluating their JV strategies. Therefore, there exist implications for the various measures employed by ICJVs in evaluating their performance.


drformance in Ghana. The success and failure of these firms could be unique to the country thereby necessitating a study into the measures of ICJV performance. This study contributes to ICJV literature by addressing the common challenges faced by potential JV partners in selecting appropriate performance measures in such a new region. This was achieved by analyzing the perspectives of executive officers who are currently involved or have once been involved in ICJV projects in Ghana.

2. Literature Review on IJV Performance Measurement

Accompanied by the growing body of related benefits associated with IJVs is the high degree of instability and poor performance. Results from several studies show a high estimated rate of about 30% to 70% IJV failure \cite{6}. It is therefore not surprising that a large number of studies have concentrated on how to determine the existence of key explanatory factors of the JVs’s performance, and even more into international cases \cite{38}.

The establishment of IJVs is based on a number of different reasons in a variety of circumstances \cite{2}. Accordingly, Child, J., and Yan, Y. \cite{14} revealed that there exists some relationship between an IJV’s performance evaluation and objectives under which an IJV is formed. They, however, stressed that the JV partners may have different objectives as well as conflicting agendas, which suggest that different performance criteria may be used by each partner. The situation becomes more complicated when different perspectives on performance and the diversity of performance measures are examined simultaneously \cite{30,38}. While in many cases the partners may share common objectives, and use similar performance measures, in many other cases each partner may employ different sets of performance criteria based on their idiosyncratic perspective\cite{43}.

Literature indicates that there has been no consensus on an appropriate conceptualization and measurement of IJV performance over the past decades. Considering the opinions of managers and reports from earlier studies, performance measurement is classified into two main groups. They are financial and non-financial measures. The financial measures rely on traditional indicators like profitability, growth and cost information which are short-term in nature \cite{27}. Non-financial measures represent different aspects of a firm’s performance such as management related, strategic related and learning related \cite{30}. Thus, they are quantitative measures of either an individual or an entity’s performance that are not expressed in monetary terms. They are used to measure non-financial aspects of the firm and include client satisfaction, attainment of stra-
ategic objectives, market share, efficiency and productivity. Another stream of research also advocates that performance measurement can be regarded as either subjective (perceptual) or objective [30]. Subjective measures include partners’ satisfaction, perceived financial performance, the overall JV satisfaction, partner relationship, market position, JV’s returns from the client and parent firm’s returns from JV. Objective measures, on the other hand, are based on independent data that can be obtained from third parties [34]. They include longevity, survival, profitability and stability. Most financial measures turn out to be objective. Other studies have also focussed on similar performance measures. A summary of the performance measures identified from the literature review is presented in table 3. The table shows 20 performance measures identified from extant literature and their sources.

3. Choosing Performance Measures: A Multi-dimensional Perspective

Literature reveals some underlying reasons for choosing one performance measure over the other. According to [19], there exists some relationship between the objectives for which an organization is created and its choice of performance measures. This is evident in the works of [30,40]. Financial measures which include return on investment, profit and loss account become useful when measuring objectives such as efficiency and market gaining set up by JVs to achieve. From another perspective, the cultural differences amongst parties to an IJV is a driving force particularly behind the use of objective financial measures [35]. This is because financial measures are formed on the basis of using numbers in measurement, hence, they are clear and easy to read and understand by the parties to the JV arrangement [21] found that firms having prior experience in managing IJVs put less emphasis on financial control. Similarly, the experience of local managers in a chosen host country is advantageous because this provides insight for the parties to help cope better with uncertainties. Prior experience is, therefore, a major contributing factor to choose one performance measure over another. Also, in situations of uncertainty of host country conditions, where there is high legal and social uncertainty, businesses focus less on non-financial measures, that may be easily affected by the changes or uncertainty.

4. Research Methodology

The survey comprised of a self-administered questionnaire and interviews. Interviews were conducted to collect additional data on issues not clearly addressed in the questionnaire. Questionnaires were administered to target industrial practitioners from international joint venture construction firms. Industrial practitioners were identified in assistance with the building directory of the Registrar General of companies whilst simultaneously merging with data obtained from Ghana-Yello.com (2017) building directory. The selection of respondents was based on the criteria that respondents were currently involved or have had some prior experience as part of the management of an international joint venture construction project. Data was collected from senior management personnel, which consisted of mostly executive officers (managing directors, project managers, contract managers, finance managers) operating in Ghana. Out of 78 questionnaires issued out, responses were received from 67 respondents which represented a response rate of about 86%. Care was taken to ensure that questionnaire respondents held senior
management positions in their firms. This was intended to prevent potential response bias and common method variance problems.

The initial section of the survey collected data on the demographic information of the respondents and their projects, such as respondents’ position, experience as part of an ICJV, the number of projects undertaken within the last 10 years and whether they have been involved in evaluating the performance of their JV. The second part of the survey had respondents’ rate 20 performance measures (see Table 3) on a 5-point Likert scale, where (5 = always; 4=very often; 3 = sometimes; 2 = rarely; and 1= never). Data collected were analyzed using Principal Component Analysis (PCA) through the International Business Machines Statistical Package for Social Sciences (IBM SPSS) version 23 which was used to identify the number of groupings that could represent the 20 identified performance measures.

5. Factor Analysis

Because of the extensive number of variables (20 ICJV performance measures; see Table 3) involved in this study, there was the likelihood that some of the variables would result in effects which are directly related and to ascertain which of the specific variables could be measuring aspects of the same underlying facet a data reduction technique, namely factor analysis, to refine and reduce these items to form a smaller number of coherent subscales. According to \[39\], factor analysis is useful for finding clusters of related variables and thus ideal for putting many variables into fewer ones that can be easily understood.

5.1 Initial Considerations

Factor analysis relies on the correlation matrix of the variables involved. The reliability of factor analysis is dependent on the size of the sample. In order to avoid computational difficulties, \[18\] proposes that a minimum of ten observations per variable is necessary. However, different statisticians have also expressed different opinions on the question of sample size in factor analysis for decades, some looking at total number of the population, some at the ratio of subjects to items but none of these possibilities have been comprehensive enough to be definitive items \[17\]. The technique adopted in this research is the same technique used for similar analysis by \[11\] with a sample size of 57, \[22\] with a sample size of 61 respondents and \[17\] with a sample size of 45 respondents. These authors had comparatively low responses with the rule of 5 not applicable, but satisfied all the appropriate statistical tests, were accepted and has been considered worthy \[12\].

The Kaiser-Meyer Olkin measure of sampling adequacy (KMO test) offers a suitable choice in SPSS to check whether the sample is big enough. \[38\] recommends accepting values greater than 0.5 as acceptable. In reference to table 4, the data from the survey were adequate by these tests with the value of KMO being greater than 0.5.

<table>
<thead>
<tr>
<th>Table 4. KMO and Bartlett’s Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
</tr>
<tr>
<td>Df</td>
</tr>
<tr>
<td>Sig.</td>
</tr>
</tbody>
</table>

After all necessary tests of reliability and survey instrument, survey size adequacy and population matrix were satisfied, the data set was subjected to factor analysis using principal component analysis with varimax rotation. The rotation optimized and improved the clarity of the results. The Guttman-Kaiser rule and the Cattel scree test were used in determining the number of factors to be extracted. With the Guttman-Kaiser rule, only factors with an eigenvalue greater than 1 should be retained whereas the Cattel scree test suggests that only components above the baseline of one should be considered. Applying these criteria to the number of principal components to be extracted suggests that four (4) components should be extracted. Cronbach’s Alpha was used as a reliability test. This test measured the consistency of correlations amongst the items in each component. The Alpha coefficient ranges in value from 0 to 1. The higher the score, the more reliable the generated scale is. \[36\] indicates 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. From table 6, all components were reliable.

6. Results and Discussions

6.1 Respondents Information

An examination of the job title of the respondents showed the following: Executive Officer (6%), Project Manager (37%), Contracts Manager (21%), Construction Manager (23%), and Finance Managers (13%). Averagely, the respondents have 12 years’ experience and have nearly 6 years’ experience as part of an ICJV business arrangement. This illustrated that the respondents had significant experience in the field of study. The profile of respondents, therefore, assured the value and reliability of responses. A non-response bias was tested for by applying a t-test comparing the early responses with the late responses along

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with some key descriptive variables. No significant differences between the two groups were found which indicated that non-response bias was not a major problem in this study.

6.2 Results from Factor Analysis

Factor analysis was run on the data (performance measures) collected from the survey. The results from the extraction procedures are as shown in tables 5 and 6.

Table 5. Initial matrix and rotated matrix of performance measures of ICJVs

<table>
<thead>
<tr>
<th>Factor (Measures)</th>
<th>Extraction sums of squared loading</th>
<th>Rotation sums of squared loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Variance(%)</td>
<td>Cumulative(%)</td>
</tr>
<tr>
<td>Financial</td>
<td>2.581               12.905          42.245</td>
<td>3.082                       15.410          37.612</td>
</tr>
<tr>
<td>Strategic</td>
<td>2.338               11.691          53.936</td>
<td>2.895                       14.474          52.086</td>
</tr>
<tr>
<td>Learning</td>
<td>2.051               10.256          64.192</td>
<td>2.421                       12.107          64.192</td>
</tr>
</tbody>
</table>

Extraction method: principal component analysis

The analysis of the performance measures yielded four factors which together accounted for about 64.2% of the variance as shown in table 5.

Table 6. Factor analysis of ICJV performance measurement items

<table>
<thead>
<tr>
<th>Variable items</th>
<th>Factor loading 1</th>
<th>Factor loading 2</th>
<th>Factor loading 3</th>
<th>Factor loading 4</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative and relationship measures</td>
<td>0.892</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Commitment</td>
<td>0.771</td>
<td>0.843</td>
<td></td>
<td></td>
<td>0.793</td>
</tr>
<tr>
<td>(2) Trust</td>
<td></td>
<td>0.779</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Work satisfaction</td>
<td>0.863</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Overall ICJV satisfaction</td>
<td>0.897</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Complementarity</td>
<td></td>
<td></td>
<td>0.643</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Relationship with authorities</td>
<td>0.470</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.775</td>
</tr>
<tr>
<td>(1) Return on investment</td>
<td>0.787</td>
<td></td>
<td></td>
<td></td>
<td>0.793</td>
</tr>
<tr>
<td>(2) Cash flow</td>
<td>0.758</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Cost control</td>
<td>0.607</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Growth and cost position</td>
<td>0.502</td>
<td></td>
<td>0.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Asset turnover</td>
<td></td>
<td></td>
<td></td>
<td>0.874</td>
<td></td>
</tr>
<tr>
<td>Strategic measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.705</td>
</tr>
<tr>
<td>(1) Productivity</td>
<td>0.681</td>
<td></td>
<td></td>
<td></td>
<td>0.775</td>
</tr>
<tr>
<td>(2) Reputation</td>
<td>0.660</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Innovative strength</td>
<td>0.603</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Market share</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Resource safeguarding</td>
<td>0.693</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.705</td>
</tr>
<tr>
<td>(1) Management know-how</td>
<td>0.646</td>
<td></td>
<td></td>
<td></td>
<td>0.705</td>
</tr>
<tr>
<td>(2) Technological know-how</td>
<td>0.720</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Market know-how</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction method: principal component analysis

Rotation method: varimax with Kaiser normalization

6.3 Cooperative Relationship Measure

A good relationship is invaluable, where two or more construction firms seek to join forces in order to attain their goals. Results show that most of the factors under this component are subjective in nature, thus, they capture the perspectives of managers. These measures which are not based on specified output goals but on an evaluation of the company’s transparency, internal transformation, clear responsibility, the ability to deal with conflicts and continued survival versus premature dissolution of the joint venture. Due to the unstable nature of this hybrid form of alliance in emerging economies, cooperative relationship has always been the issue with direct implication on performance. A good relationship opens greater opportunities for JV partners in the long-run as it creates an informational and reputational benefit of a dense network from its foreign partner. It also builds a strong cooperative relationship which provides a competitive edge that creates a repeated tie of the same network with the foreign partner firm to develop a cohesion-exclusion mechanism for their alliance.

6.4 Financial Measures

The main aim of contractors is to assume the risks associated with executing construction works so as to make profit. In order to measure the extent to which such financial objectives have been achieved, ICJVs resort to the use of financial measures of performance. These measures represent a standard, legitimate and familiar business practice. Their importance becomes evident where managers seek to compare important data such as assets and liabilities. holds the view that the financial measurement systems assist in making good decisions in the months ahead. The factors under this component, assist managers to measure the efficiency of their firms, evaluate the rate of success or failure of the ICJV, ways to generate significant positive cash flows at a faster rate amongst others.

6.5 Strategic measures

Managers adopt ICJVs as part of their firms’ business plan, as a strategic means of achieving the short and long-term goals of their organizations. Child, J., and Yan, Y. attest to the fact that the formation of IJVs is not necessarily to achieve conventional business goals but for other qualitative objectives. ICJVs are set up to increase the capability of the parties to undertake large projects where independent contractors find it difficult to do so. Productivity as a measure is used to determine how effective the
operations of ICJV managers are on project sites. Similarly, market share as a business strategy is adopted by firms to gain positive cash flow by expanding their markets. Notwithstanding the exposure to risks, stated that a higher control of a construction market is directly related to higher profitability. Market share, therefore, becomes an essential measure of performance where managers seek to determine their control of the construction market.

Autio, E. et al. stated that innovative strength as a performance measure is used to assess the result of an interactive process in which different specialized agents absorb, exchange and assimilate knowledge in a physical or socially shared context. This process does not largely depend on the knowledge that a firm develops internally but also focuses on a firm’s capacity to assimilate the knowledge of other firms. The intended result of innovation is to increase the number of different ideas, improve the quality of ideas, efficient implementation of such ideas and improved success from implementing the ideas. Reputation as a performance measure, under the context of business organizations, reflects how an organization is regarded by its numerous stakeholders. It results in the organization obtaining credibility and trust in society, which assists in the achievement of the organization’s goals and objectives. It is a perceptual representation or assessment of a firm and is different social expectations or corporate personality traits that people attribute to companies. Reputation as a performance measure is a strategic means of obtaining strategic advantage and increases public confidence.

6.6 Learning Measures

Dlungwana, W. S., and Rwelamila, P. D. emphasized the importance of external expertise and technology to African construction companies who go into international joint venture agreements. A joint venture provides a suitable environment where learning processes such as cooperative learning may take place simultaneously. An organization identifies and learns specific knowledge which exists in another organization or in its different parts. This learning process can provide firms with modern knowledge which improves their capacity to cooperate and, furthermore, acquire innovative ideas. The success of an organization in today’s competitive business environment is strongly related to its ability to utilize knowledge and build their capacity and sustain its competitive position in the changing business environment.

Stages

1. Definition of objectives
   - Commercial objectives
   - Growth objectives
   - Relationship building
   - Knowledge assimilation

2. Identification of Parameters
   - Financial measures
   - Strategic measures
   - Cooperative relationship measures
   - Learning measures

3. Determine the metric for analysis
   - Return on investment
   - Cashflow
   - Growth and cost position
   - Asset turnover
   - Productivity
   - Reputation
   - Innovative strength
   - Market share
   - Resource safeguarding
   - Commitment
   - Trust
   - Work satisfaction
   - Overall ICJV satisfaction
   - Complementarity
   - Relationship with authorities
   - Management know-how
   - Technology know-how
   - Market know-how

4. Conduct performance analysis

5. Decide on performance reports
   Source: Constructed by the researchers, 2018

Figure 1. ICJV performance measurement support system
According to Hong, Y., and WM Chan, D., the validity and reliability of performance measurement depends on making good judgement in selecting a metric for ICJV performance measurement. In support, Jusoh, R. et al. stated that a system of measuring performance is inevitable where firms seek to develop strategic plans, evaluate the achievement of their goals and in rewarding managers. The above proposed system is to assist managers in selecting the right metrics to be used in evaluating the extent to which the objectives of their business have been achieved. The system outlines five key stages to follow. Each stage requires the JV manager to have good understanding of the goals of their business and the performance evaluation process.

Before the unification of two or more contractors as a JV for a particular project, each contractor has to make some critical decisions. This includes establishing the objectives of the JV participation, investment decisions, researching on the proposed project amongst others. Stage 1 requires the JV management to clearly define the objectives for which the parties entered into the JV arrangement. A clearly defined objective is what drives the company in the direction as the mission of the business. The objective defined can be categorized into four groups namely; Commercial, Growth, Relationship building and Knowledge assimilation. Stage 2 recommends a particular parameter to consider in order to select the appropriate metrics to be used in evaluating the identified objectives. Focussing on a unique parameter helps ensure that the objectives identified in Stage 1 are properly aligned with the appropriate metrics to be used. The metrics, as summarized in stage 3, have their strengths and weaknesses. For example, whereas suggested that measures which are subjected in nature such as Overall ICJV satisfaction are the more important measures to use in evaluating a JV’s performance because they capture the opinions of the managers involved, Julian, C. C. argued that subjective measures are biased, hence, limits their ability to effectively evaluate joint ventures performance. It is therefore recommended that the JV manager is comfortable and has good knowledge of the metric selected.

With the initial stages satisfied, the manager can now carry out performance analysis as identified in Stage 4. The system should be fed with appropriate and accurate data in order to get reliable results. From the performance evaluation report, Stage 5 explains the need for the JV manager to interpret and make informed decisions about the success or failure of the JV. The information obtained from performance reporting systems is to promote action and should lead directors to initiate a chain of actions that will enhance the ability of the firm to meet its short- and long-term aims.

7. Conclusion

Performance evaluation is inevitable where firms seek to develop strategic plans, evaluate the achievement of their goals and in rewarding businesses. The measures of performance are inextricably related with the success or failure of the joint venture and are, therefore, of utmost importance to managers of such business alliances. In this paper, the relevant measures used in evaluating performance are examined. The paper investigated the underlying reasons for the use of some relevant performance measures, from the perspective of ICJV managers. Results from principal component analysis grouped the measures into four components, namely; cooperative relationship measures, financial measures, strategic measures and learning measures. The results of this study would serve as a guide for selecting performance measures for evaluating the performance of international construction joint ventures in developing countries. The information obtained from performance evaluation would also lead managers to initiate a chain of actions that will enhance the ability of their firms to achieve its short- and long-term goals.

References


