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Risk Management in Construction Joint Venture Projects in Real Estate

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Abstract:
The construction sector in India is developing towards international procurement practice. There is scope for the foreign contractors to join into development of India by making Joint Venture with the local contractors. During the joint venture, the difficulties in management systems, technological exercise, and cultural background among the partners within joint ventures brings difficulties to the well-functioning of joint venture. Thus, foreign firms greatly spend more efforts in studying proper strategies of managing risk in their joint venture businesses. The risk of failure of constructional joint venture (JVs) are rapidly increasing day by day and their financial loss are more expensive. This study identifies risk factors associates with construction joint venture (JVs). The risk factors are grouped into three main group: (1) Internal; (2) Project specific; and (3) External. By taking questionnaires survey and analyzing this survey by Relative Importance Index (RII) and finding the most critical risk factor. It study the most effective mitigating measures adopted by construction professionals, in handling these risks for their construction projects. Detailed questionnaires survey, literature surveys and case studies, this research methodology will be adopting in risk management in joint venture (JVs) construction projects in real estates.

Keywords: Joint ventures, Risk management, Critical risk factors, Construction industry

INTRODUCTION

Joint ventures, special types of strategic alliance, offer a unique opportunity to combine the distinctive competencies and the complementary resources of participating firms. Joint ventures provide opportunity to share costs, and risks, to attain knowledge, to enter new markets, and to gain economics of scale or to rationalize operations (Contractor and Lorange). A JV involves at list two partner organizations that contributes equity and resources to semiautonomous legally separate entity (Geringer 1991[2]). International joint venture (IJV) is also defined as a joint venture with at least one partner headquartered outside the joint venture's country of operation.

The number of construction JV operations has increased as globalization rapidly JVs are difficult to manage because of the presence of two or more partner organizations.

The feasibility and the desirability of joint venture must be assembled by careful analysis of the economic, political, social and cultural environment within which the venture will be achieved and managed. A planned approach take a thorough and careful evaluation of these aspects by both partners to ensure successful implementation. Risk management techniques are not so developed in the construction industry and there is need to develop proven techniques, rather than rely on intuitive methods. What are these risks and how can they best be managed? By studying the critical factors that contribute to successful JVs and the risk factors associated with JV operations, it should be possible to identify potential areas of disputes, or high risk factors, early during the planning stage to enable a suitable management response to be formulated to enhance the potential success of JV operations.

A. Definition of JV

A joint venture can be defined as a cooperative business activity formed by two or more separate organizations that creates an independent business entity and share ownership, operational responsibilities, and financial risks and rewards to each member, while keeping their separate identity/autonomy (Lynch, 1989[4]). Norwood (1999[5]) defined joint ventures as the commercial agreements between two or more companies in order to allow greater ease of work and cooperation towards achieving a common aim, through the manipulation of the appropriate resources.

A contractual agreement joining together two or more parties for the purpose of executing a particular business undertaking all parties grant to share in the profits and losses of the enterprise.

- Shared contribution of equity
- Shared authority, control and responsibilities
- Shared Revenues & Losses
- Shared Assets

B. Steps in formation of JV

1. Planning

The planning stage is important stage in which involves the decision on, specifying the objectives and goals, determination of product and market, market analysis, technology decision, revenue prediction, cost benefit analysis and personal SWOT analysis.

2. Partner selection

Partner selection is main task in JV which includes; financial resources of the prospective partners, technological capabilities, presence in market and selection of partners for the feasibility study.

3. Feasibility study

Affirmation of the culture and structure of the Joint Venture, analysis of partners comfort with and adaptability to the new technology and culture of the JV, analysis of the authority, responsibility and financial gains and loss sharing among the partner, analysis of the sustainability of the JV in times of uncertainty, cost Benefit Analysis, environmental Analysis of the JV in the market and growth Predictions.

4. Incorporation

A Joint Venture can be applied about in the following major ways:

- Foreign investor buying an interest in a local company.
- Local firm achieving an interest in an existing foreign firm.

Both the foreign and local entrepreneurs collectively forming a new enterprise.

C. Risk Management

Complex nature of construction business activity, process, environment, and organization, the participants are widely exposed to a high degree of risk. Risk management is an important component to make sure the success of the construction project or to make sure the profitability for the contractors. There are many literatures about construction project risk management. The experience of the construction project risk management can also be used to manage risk in construction joint ventures. A joint venture structure is different from the normal firm structure. It will make risk management different with the project risk management in a normal firm.

D. Problem Statement

In India there are numbers of different combinations of local partners and also with foreign contractors are working together on construction projects in the form of Joint venture in real estate.

Real estate projects are vary in type, scale and complexity of work. Need is firstly to map out the risk factors and to investigates the most effective management and strategies in mitigating these risks.

E. Aim

To identify the most critical risk factors in joint ventures of construction projects in real estate and to investigate effective management and strategies measures in mitigation.

F. Objective

- Study of joint ventures in real estate.
- To identifies the critical risk factors in Real estate construction Joint Ventures.
- Strategies and effective management.
- Preparation of questionnaires and collection of data.
- Analysis of collected data.
- Identifies the critical risk factors from analysis.
- Prepare mitigations and strategies among the critical risk factors to successful implementation of JVs in real estate construction projects.

In this paper we cover only study of joint venture, preparing the questionnaires for surveying and which method is adopting to analyze the data which will be collected.

The result of this study are expected to provide useful guideline for forming and operating effective and efficient joint ventures in real estate.

LITERATURE SURVEY

[1] Title- Risk management in International construction joint ventures

Authors- Li Bing, Robert Lee-Kong Tiong, Wong Wai Fan, and David Ah-Seng Chew

Year- 1999

Description

This paper identifies the risk factors associated with international construction joint ventures (JVs) from and ‘‘integrated’’ perspective. The risk factors are grouped into three main groups: (1) Internal; (2) Project specific; and (3) External. It examines the most effective mitigating measures adopted by construction professionals in managing these risks for their construction projects in East Asia. Based on an international survey of contractors, it was found that the most critical risk factors exist in the financial aspects of JVs, government policies, economic conditions, and project relationship.

[2] Title- An assessment of risk management in joint venture (JV) in Malaysia

Author- Hamimah Adnan

Year- June 2008

Description

This paper identifies risk factors associated with joint ventures projects in Malaysian construction industry at the project-specific, internal and external levels. He was adopted methodology for his research was by risk factors identifies from literature review and through questionnaire survey to both local and foreign construction companies in Malaysia.

The major risk factors to be agreement of contract, partner selection, control/equity, sub-contractors, renegotiations and training.

Questionnaires survey was distributed to 550 Grade G7 and G6 registered contractors under construction industry development board Malaysia (CIDB). By gating risk factors from interview with managers which are involving in joint venture projects and analysis these factors on Likert scale of 1-5. Research concluded that there must be risk management technique introduced into construction industry, in order to manage effectively, comprehensive method for managing risk during the construction process, in pre-contracting and contracting stages.

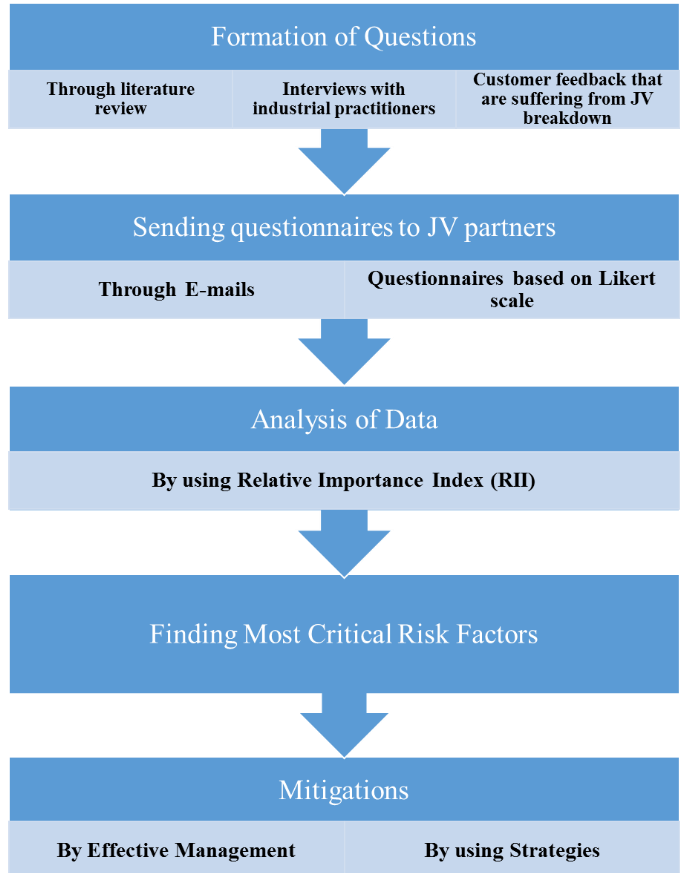
[3] Title- Risk Avoidance for the Building team, E & FN, Spon, London
Author- Swaczuk, B
Year- 1996
Description

Other parties in the construction team such as consultants, contractors, subcontractors and supplier are also exposed the risks. This statement is supported by Sawczuk(1996[6]), who he stressed that no matter how small or simple the project is, it still can go wrong, as soon as the two parties; the client and the contractor have signed a contract, they have taken onboard the risks. Risk awareness is of imperial importance to all participants to ensure that the possible risk occurrence is reduced.

METHODOLOGY

Methodology adopting in the research of risk management in construction joint venture projects in real estate are in following ways.

The research methodology consists of a detailed questionnaire survey and case studies. A thorough literature review will be initially conduct to identify the factors that affect the performance of JV. Several interviews with industrial practitioners will be conduct to produce a set of questionnaires. Analysis of collect data by Relative Importance Index.



ANALYSIS

Collected data will be analyzed in following categories.

Profile of respondent.

1. Analysis on risk factor groups (internal, project-specific and external)
2. Questions will be analyzed by Likert scale of 1-5 in questionnaire survey B.Li(1999[1])
   - 1- For not critical
   - 2- For fairly critical
   - 3- For critical
   - 4- For very critical
   - 5- For extremely critical

Questionnaire format as given bellow,

Table No.1
Questionnaire format

Sr. No.	Questions	Risk Realized by your organization					Mean
		Very low risk	Low risk	Medium risk	High risk	Very high risk	
		1	2	3	4	5	

Data Analysis

The analysis was aided by the use of Statistic Package for Social Science (SPSS) where the risk assigned to each factor by the respondents were entered and consequently the responses from the 22 questionnaires were subjected to statistical analysis for further insight. The contribution of each of the factors to overall risk was examined and the ranking of the attributes in terms of their criticality as perceived by the respondents was done by use of Relative Importance Index (RII) which was computed using equation (1)

$$\mathbf{RII} = \frac{\Sigma \mathbf{W}}{\mathbf{A*N}} (0 \leq \mathbf{RII} \leq 1) \qquad (1)$$

Where,

W – is the weight given to each factor by the respondents and ranges from 1 to 5, (where "1" is "very low risk" and "5" is "very high");

A – is the highest weight (i.e. 5 in this case) and;

N – is the total number of respondents.

Questionnaires to be asked are in following categories-

[1] Internal risk group- This group represent that, the risk that are unique in JV because of different organization are involved.

Table-2
Internal risk group

Sr. No.	Questions
1	Partner's parent company in financial problem.
2	Disagreement on accounting of profit and loss.
3	Employees from each partner distrust each other.
4	Policy change in your partner's parent company towards JV.
5	Partners lack of management competence and resourcefulness.
6	Disagreement on allocation of staff position in JV.
7	Disagreement on allocation of work.
8	Technology transfer disputes.

[2] Project-specific- Unexpected development during the construction period that leads to time & cost overrun.

Table-2
Project-specific Risk

Sr. No.	Questions
1	Cash flow problem of client.
2	Poor project relationship.
3	Incompetence of sub-contractors/ suppliers.
4	Excessive demands and variations by client.
5	Disagree some conditions of contract.

[3] External risk- Risk that are generated from the competitive micro-environment that the JV operate in.

Table-3
External risk factors

Sr. No.	Questions
1	Inconsistency in policies, laws and regulation.
2	Economy fluctuation.
3	Exchange rate.
4	Restriction on fund repatriation.
5	Impact restriction.
6	Security problems.
7	Language barrier.
8	Different social, culture and religious.
9	Pollution.

Conclusion

This paper concludes that, by this research we can understand about JV. We can identifies the critical risk factors in construction JV projects in real estate, so we can plan for success of JV projects. Helps in conflicts resolution during period of JV. It will help to making decision while choosing or making the JV in real estate. Finding the critical risk factors and mitigating these factors by adopting the effective management and strategies while doing JV.

The result of this study will be providing the useful guideline for forming and operating effective and efficient joint venture projects in real estate.

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