

ORGANIZATIONAL STRATEGIES USED FOR BID DECISION IN INDIAN CONSTRUCTION INDUSTRY

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ABSTRACT

To establish the existence and to be successful in the construction industry any organizations should take appropriate decision on selection of project. Organizations generally adopts a strategy which satisfies their financial and organizational goals. The large construction organizations considers a set of factors with their branded weightage to study the appropriateness of a project for bidding. Several such patterns of bidding are exhibited by construction organizations at various bidding situations. Identifying such strategies practiced by their competitors is common in the construction organizations as it helps them to evaluate and compare their bid with their other competitors. Hence, thorough understanding of major strategies used by the construction organizations, the database about the various types, the logic behind the standardization of a specific strategy for an organization etc., are to be gathered before submitting the bid. This helps the budding construction organizations to refine and redefine their bid proposals to make it more competitive. However, this information about organizations' strategy is not shared in Indian construction organizations as it is considered as highly confidential. The present study attempts to identify such bidding strategies as well as to know the degree to which they adhere to their set strategy. In order to gather such information, a structured interview of decision makers from ten large construction sectors was carried out. Then, the descriptive text analysis was used to identify the key factors from the interviewed data. The identified factors were analyzed using inductive thematic analysis, which resulted in five major bidding strategies namely 'selective and risk taking', 'Selective and non-risk taking', 'High volume and risk taking', 'high volume and non-risk taking' and 'highly selective and calculated risk taking'. Using these strategies, the bidders can either classify themselves as an organization practicing one such major strategy, or it can classify and predict its competitors' strategy for a proposed bid.

KEY WORDS: Bidding strategy, thematic analysis, descriptive text analysis, structured interview

1. INTRODUCTION

A 'bid' or 'no bid' decision process is a formal process a contractor has to carry out in order to determine whether to submit a bid proposal or a no bid letter in response to a bid invitation. The bid decision is made not only for winning the tender, but it also on the need to consider the possibility that the organization can finish the project successfully in line with the contract agreement. Since, in most of the cases, the time given for the bid decision and bid preparation is limited, it is a challenging task for the organization to decide on it. The decision also depends upon the experience, intuition and guesses.

In competitive bidding process, a client selects a number of contractors to bid for the proposed project. The selected contractors must make the decision whether to bid or not to bid. The contractors need to submit an estimated price if they intended to bid. The client would select the contractor who submitted the preferred price. Therefore there are two stages involved in the bidding process, first, the decision to bid or not to bid, and if yes, then the markup decision. In this study, the discussion on the bid decision is presented.

Generally, large construction organization has a predefined approach for conducting bid/no bid decision making. Either, the organization may adopt a simple direct approach called "we bid everything" which generally results in high bid and proposal costs and a relatively low bid winning rate or they can opt for the "no-blind-bids-approaches" in which the organization only bids only those projects in which they are experienced, which leads to higher bid win rate.

However, selection between these two strategies is complex and hard to make, because, if the organization being more selective and decides not to bid, the organization loses an opportunity. On the other hand, if the organization is enthusiastic to bid any project and decides to bid for an inappropriate project, this incorrect decision would lead to lose the operating capacity, reputation and capital of the contracting organization.

2. LITERATURE REVIEW

In this competitive world, it is very difficult to survive in the construction industry. It is very much important to be different from others. It is the essential for every contractor to consider the various factors influencing bid decision before bidding any project. Several research studies were carried out for identifying and compiling the factors influencing the bid decision. The study of factors affecting bid decisions by Abdurrahman Bagies and Chris Fortune, (2006) [1] identified 94 potential factors. These factors were grouped under 10 headings namely project characteristics, business benefit, client characteristics, the contract, project finance, company characteristics, firm's previous experience, bidding situation, economic situation and competition. The research also presented about bidding strategy models used for bid/no bid decision. The study carried out by Jarkas, M.A, et.al., (2014) [2] emphasized on the previous experience, project type, size, current workload, financial conditions of organization and clients, available time for completion of project, tender documents quality levels. In a study on Hong Kong construction industry by Fu, W.K et.al., (2003) [3] the competitiveness of experienced and inexperienced contractors in bidding. It was found that the effect of experience has more significant when contract packages are more standardized. Also, the cost of bidding was more for inexperienced contractors than the experienced contractors.

Further, Tan, Y.T et.al., (2007) [4] conducted a study in Hong Kong construction industry to find the important Key Competitiveness Indicators (KCI's) which helps to know the strength and weaknesses of contractors in setting out unique strategies. Various indicators, which affect the competitiveness, were selected based on literatures and were grouped under six major headings namely corporate images, technical ability, financing ability, marketing ability, management skills and human resource strength. The research results were helpful for contractors to understand their strength and weaknesses.

Later on Lu, W. et al., (2008) [5] conducted a research study on critical factors which affect the competitiveness of contractors in Chinese Construction Industry. Total of 48 success factors were listed out through past literatures. The factors with mean more than or equal to 4 were then considered as the critical factors affecting competitiveness. Total number of critical factors was then reduced to 35 which were further grouped under eight clusters namely project management, organization structure, organization resources, competitive strategy, relationship, bidding, marketing and technology. The results showed that the factors like bidding strategy, competitive strategy, relationship with government departments, cost management are the most important factors and IT application, firm size and history are the least important factors for determining competitiveness. The results are helpful for contractors to set unique strategies during bidding process. Deng, et.al., (2013) [6] made an empirical investigation on factors formulating competitiveness of the Chinese Construction Industry. The qualified professionals, skilled workers, bidding strategy, management and work ethic and steady growth of home market are ranked in top. The results of cluster analysis showed the stable home market, supply chain management, corporate management

practices, qualified professionals, satisfactory business environment and migrant workers were found to be the major clusters. These results are helpful for contractors to consider these factors during the preparation of bid in turn facilitating the increase in competitiveness of contractor and to improve their bidding strategies. Lan, B. OO, et.al., (2010) [7] proposed a model called Linear Mixed Model for the use of contractors as a part of a more informed approach in identifying key competitors. The competitiveness between bids is examined according to project size, work sector, work nature and number of bidders. The results showed that, the model developed is helpful to know the key competitors and to develop a competitive strategy against a particular competitor. Yongtao Tan et.al. (2010) [8] carried a research to find out thirteen typical bidding strategies, their used frequency in bidding, and their effectiveness for winning contracts of different types and between different groups of contractors. The study was carried in Hong Kong. Thirteen strategies were listed from literatures, namely low bid, high technology, management innovation, joint venture, partnership, public relationship, claim, longer time of warranty, technology transfer, unique architectural design, risk sharing, sustainable practice and social responsibility and accountability. Questionnaire survey was carried to find out the most frequently and effectively used strategies. Frequency and effectiveness indices were then calculated and found that lowest bid is the most frequently and effectively used strategy by contractors. The effectiveness and frequency of these factors were then checked by considering public, private building projects and civil engineering projects. The results show that lowest bid, high technology and management innovation are the most important strategies used frequently and effectively by the contractors. Later on Mehmedali Egemen et.al (2007) [9] developed a framework for contractors to reach strategically correct bid/no bid and mark-up size decisions. This study identifies the key determining factors and their importance weights of bid/no bid and markup size decisions, by using the data from Northern Cyprus and Turkish construction markets. The results reveal that for bid/no bid decision process; the most important factors were found to be mostly related to need for work, project profitability, strength of firm and client's financial situation. However, for the mark-up decision process, it was observed that most important factors were usually related to competition and risk. Harijanto Setiawan et. al. (2015) [10] conducted a study to find out the competitive aggressiveness of contractors in Indonesia. This study aims to clarify the issue of competitive aggressiveness of contractors by identifying its key factors. Semi-structured interviews were carried out. The qualitative data collected during the interviews were analyzed using an inductive thematic analysis method. Acting as a problem solver for clients, being different compared to competitors, maintaining client's confidence, maintaining good relationship and concern about quality are the main key factors identified by the study.

From literatures pertaining to the factors influencing the competitiveness of the contractor majorly influenced by the bidding strategy adopted by the contractor. It can be documented from the literatures related to various strategy used by the contractors that, the contractors adopt different strategies in deciding the bid. This depends on the need for work, project profitability, strength of firm and client's financial situation. Hence, deciding to bid or no bid is a crucial job with consideration of multiple parameters. Contracting firms should be competitive enough and unique to face the competitive world. Self-evaluation of the contractors and clients will lead them to know their strength and weakness and also it increase confidence among themselves. The most important thing is, it increases the confidence level of contractor to bid and it upholds the competitiveness of the contractor. Every construction project is unique in its nature. Similarly, every contractor's perception about bid decision is unique in nature. Therefore, every contractor will use his/her own strategy to get the particular project. Obtaining information regarding the strategy that contractor used is difficult and considered to be confidential in nature in Indian construction Industry. Also, the data regarding factors affecting bid or no bid is almost the same. So, in the present study to identify various strategies used by the contractors for bidding using the qualitative method. The inductive thematic analysis of the data was proposed to define various strategies from the obtained data [11].

3. METHODOLOGY

Following are the steps which are to be followed in the analysis process:

- Conversion of recorded interview audio in to text format
- Summarizing the responses
- Deriving Interpretations, inferences, implications from the analysis

Conversion of recorded interview audio in to text format

The first step in the analysis is the conversion of audio in to the text format. If the interview data is not converted in to the text, it causes confusion in the further analysis process and it becomes complex to compare with all the Experts. Also, it becomes easy to recheck the results in future with the typed conversion.

The objectives of the research majorly includes the identification of most preferred contract, factors influencing the bidding strategy, verification of appropriateness in bid selection, critical success factors, and development of decision support system to predict appropriate bid decision in Indian construction industry[12]. In order to address these areas of the research, the methodology has to be carried out in three phases. The objectives of the methodology are listed as follows:

- To identify the factors influencing strategy of bidding.
- To analyze those factors to understand its relevance and interdependence and importance in bid decision making quantitatively.
- To gather various conditions convincing the bidder to opt for a bidding strategy though qualitative approach.

4. RESULTS AND DISCUSSIONS

The interview of the experts with knowledge domain and expertise in the bid decision area was carried out in person. The interview questions were sent to experts through e-mail prior to the meeting. During the interview, the respondents' conversations were recorded with the permission of the respondent to avoid missing of any valuable information, may be in terms of key words or facts and figures. The recordings were then converted into text to carry out discourse analysis and to classify the same under various themes. These identified themes helps in understanding the various strategy that are used in the Indian construction industry to make the most crucial decision on bid or no-bid. The analysis of the structured interview used thematic analysis, on the responses of 10 selected experts meeting the eligibility criteria. In selecting the experts, major emphasis was given to their years of experience in contract department, key roles played by the expert in the organization, the reputation of their organization and their past experiences from various organizations in which they have served or had association.

The step by step analysis was done question wise, in order to address individual areas concerning to the bid decision making. The major areas identified from the literatures were segregated and used to classify the responses. The questionnaire included in the interview, covered the topics related to requisites of bid decision making process for a contracting organization. Some of those essentials like major factors responsible for bid decision and mark-up decision, effect of number of bidders in competition and their familiarity, season in which the bid is offered and its duration, available time for bid proposal preparation, resources obtainable for proposed project, lessons learnt from previous project in generating profit and overall experience, possibility of taking new work along with coping up with the current work load, deciding the type of project and size of bid, preferred percentage of subcontract out of main contract, importance of special conditions and general conditions of contract, contracting organizations' capacity to adapt new technology in the proposed project, project characteristics like geography, location, local climate, site accessibility, political situations, infrastructure (water, power etc.), and security expectations, client characteristics like ambiguity in clients' cost estimate, insurance, taxes, government or legal issues, and the decision on choice of priority on cost, time and quality.

4.1 The analysis of factors influencing bid or no bid decision:

The result shows that, the experts consider a set of factors for bid decision making, which helps them to follow a typical approach towards decision making majorly based on their organizations' policies & procedures. Most of the factors highlighted by the experts were similar to that which were mentioned in the literatures. However, experts also addressed some unique factors which were either organization specific or individualistic.

The Figure 1 shows the total number of factors under various group of factors, which are listed after combining the responses from all 10 experts and removing the overlapping responses. Even though the experts revealed several other factors during their interview in later stages, for the initial reference, it can be summarized as fifty one number of factors. Also, it can be observed from the figure 1 that, more number of responses are obtained under the heads of project characteristics, company characteristics and business benefits.

Other than the existing factors, eight new factors were identified from the study. Under the head of client characteristics, 'Bid decision based on whether the proposed work is with the existing client or with the new client', 'the board members present in the clients' organization and their financial commitment' were identified.

Under the head of Company characteristics, 'the results of SWOT analysis of the contacting organization during bidding' and 'proximity to the available resources' as well as 'the availability of assets with the company which can be used to arrange the resources' were identified.

Under the Project characteristics, the 'payback period of the project', 'Whether the proposed work is a new work or an extension work', 'Knowledge about the guidelines given by the governing bodies for approving the constructed facility' and 'Existence of more expensive and critical activities' were identified.

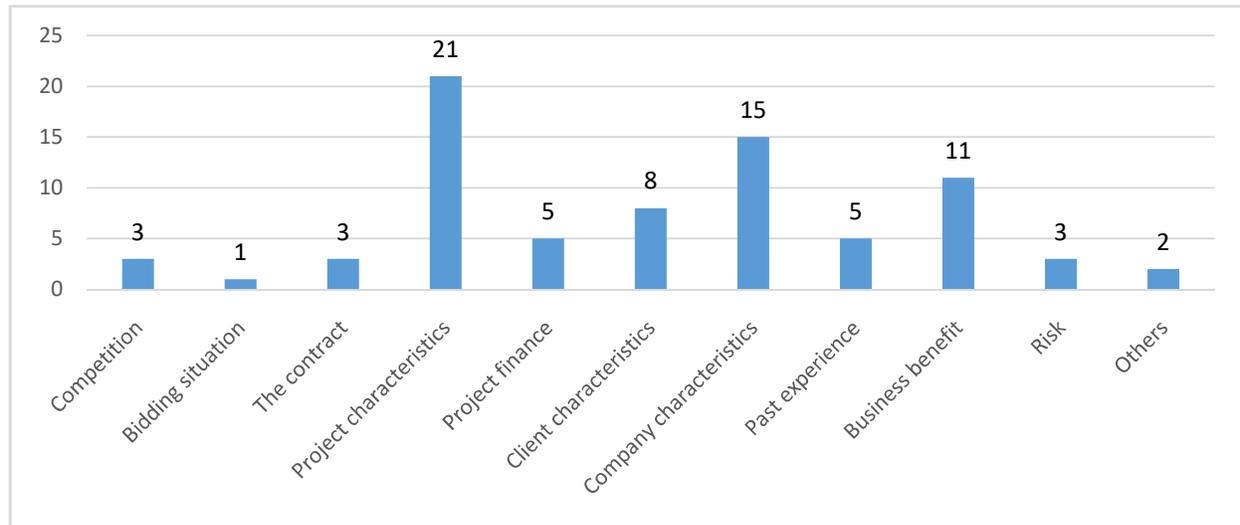


Fig. 1 Total responses under various group of factors for bid decision making

Under the head business benefit expected by the contracting organization, 'Future continuity with the same investment' was identified. Further, among the responses given by the experts regarding the factors to be considered during bid decision, five major patterns were identified based on the emphasis given to various group of factors. The important features of these five patterns are as discussed below.

In the first pattern, the 'contract, project and company characteristics and business benefits' expected from the projects are emphasized. This shows this type of contracting organizations are more bothered about the issues related to contractual management, project type, size, location and complexity as well as the organizations readiness to accept the contract like need for the job, current work load, availability of resources etc. Even the contracting organization making decision in this pattern will study the possibility of any future benefits in the business. Here, the importance to competition, situation of bidding and the risk involved are considered as secondary. Hence, they are also 'non-risk takers'. Further, the Client characteristics and the past experience in the similar projects are not considered. So, it is clear that, these contractors are not bothered about the client, bidding situation and other players in the competition if they don't find any obligations from contract or from their own company or from the proposed project. Hence, these type of contracting organizations can be also classified under 'Selective type of bidders with non-risk taking nature'. Figure 3.2 shows the pattern 1, which is the response obtained from expert 9 and 10 (R9 & R10). The frequency of factors received as the responses from the experts during the interview are classified and grouped under the various predetermined heads as shown in the figure 2.

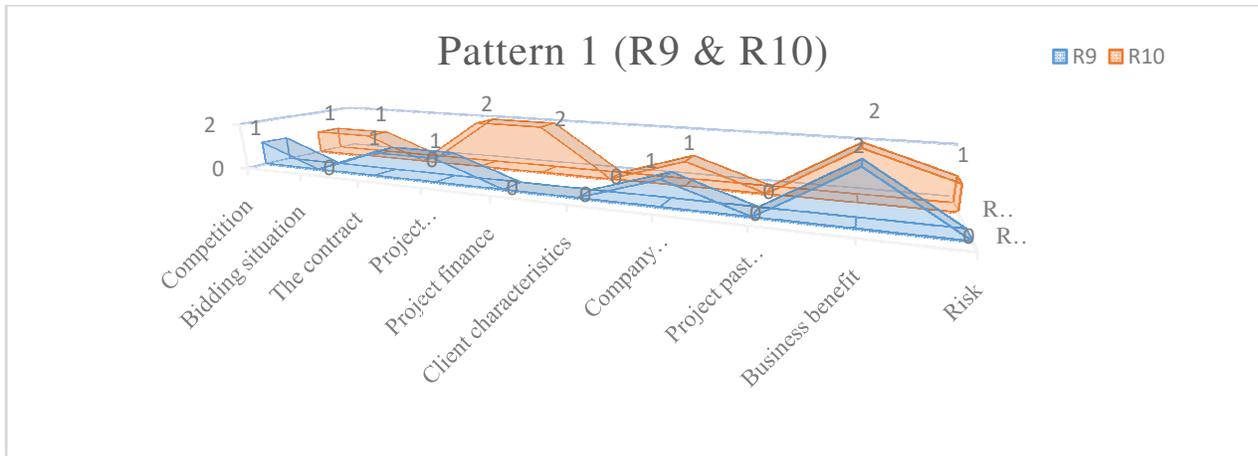


Figure 2 Response pattern 1 for bid decision making.

In the second pattern, ‘Project characteristics and Risks involved in the project’ are considered as main group of factors. Figure 3 below shows the response pattern 2, obtained during the experts’ interview. Here, the contracting organization considers the project finance and the past experience in the similar projects as secondary important groups. Even though, these type of contracting organization considers only project specific features, the risk involved in the project and the past experience in similar projects are taken care off. The competition, bidding situation, type of contract, client, company characteristics and business benefits are of least preference for these type of contractors. Hence, these type of contractors can be classified under ‘High volume non-risk taking bidders’.

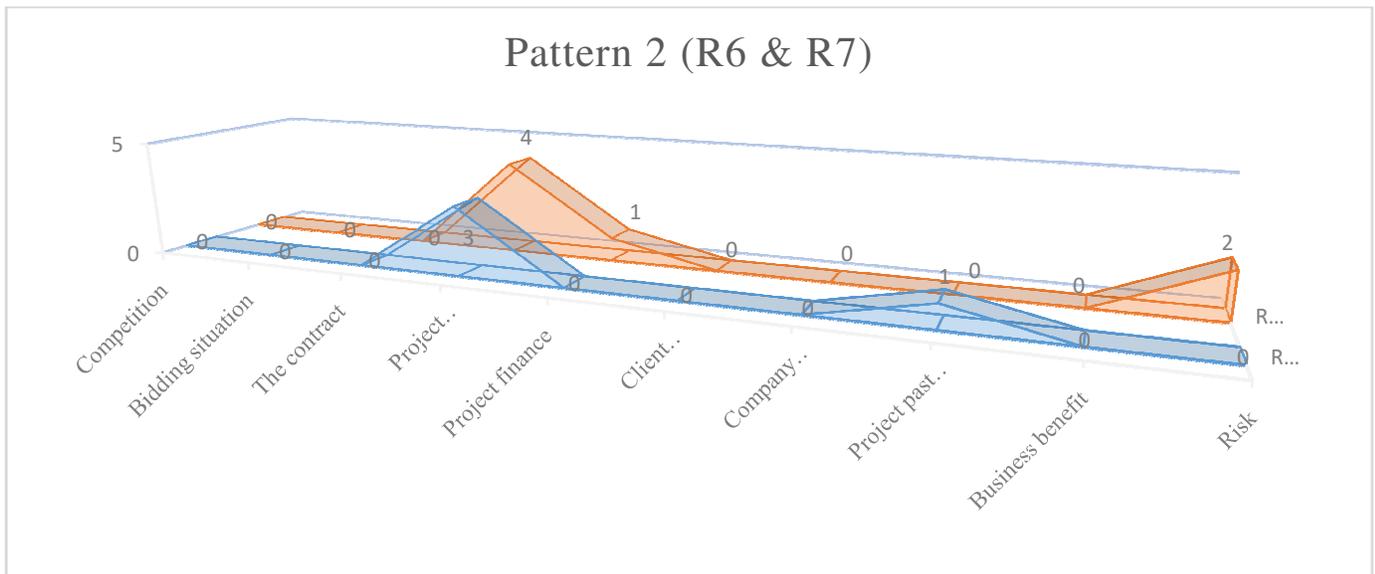


Figure 3 Response pattern 2 for bid decision making.

In the third pattern, ‘project characteristics, the client characteristics’ are considered. Figure 4 depicts the emphasis given to project and client characteristics along with secondary preference to project finance, company characteristics and past experience of similar projects. Hence, these type of contracting firms take risk in bidding by considering majorly the project and client related factors. So, these contracting organizations can be classified under ‘High volume risk taking bidders’

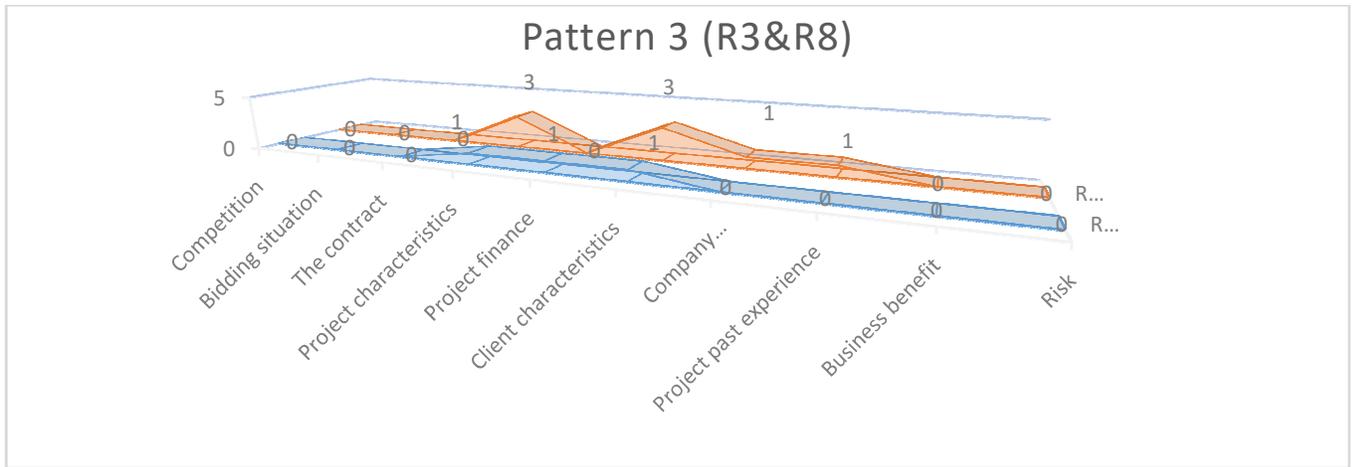


Figure 4 Response pattern 3 for bid decision making.

In the fourth pattern, ‘Project characteristics and company characteristics’ are majorly considered. Figure 5 depicts the response pattern 4 obtained from the responses of expert 4 and 5 (R4 & R5). It can be seen that, highest priority in bid decision making is given to Company characteristics than Project Characteristics. Also the contract, past experience and business benefits are of secondary considerations. Further, the emphasis on competition, bidding situation, project finance, client characteristics and risks involved in the projects are zero. Hence, these type of contracting organizations can be classified as ‘Selective risk taking bidder’.

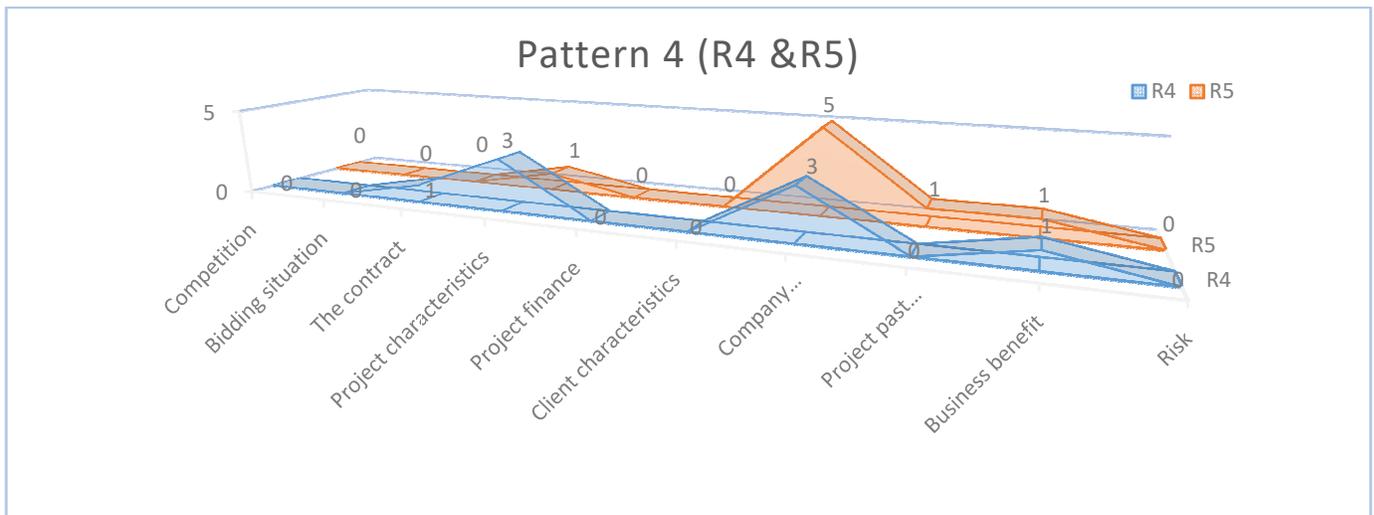


Figure 5 Response pattern 4 for bid decision making.

In the fifth type of pattern, except the bidding situation, all other group of factors were addressed with greater emphasis on ‘project, client and company characteristics’. Hence, these contractors are generally logical, organized and futuristic in bidding. Since, these type of contracting organization addresses almost all major groups of factors and hence, these contracting organizations can be classified as ‘Highly selective calculated risk taking bidders’.

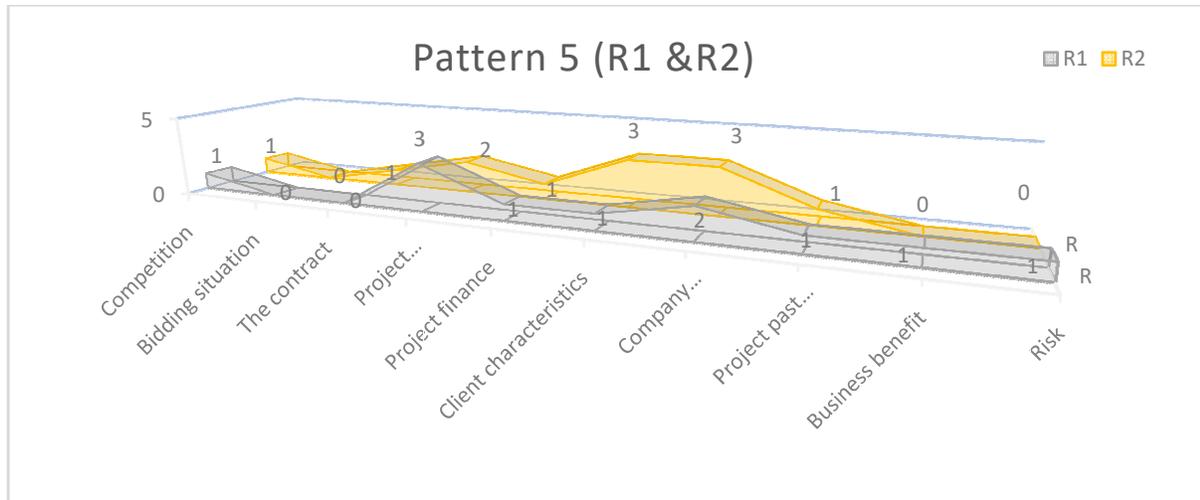


Figure 6 Response pattern 5 for bid decision making.

Interpretations and Inferences

The Competition

From Table 3.2.1 showing the bidding situations where decision to bid or No-bid are done based on the knowledge about the competitors and influence of number of competitors. Experts' opinion about bid or not in the situation of competition varies from expert to expert. Moreover, the most of the experts agree that, knowledge about the competence of other competitors helps in understanding the position of contracting organization in winning a bid. Also, it is better to bid in the situations like the competitors of equal caliber that of them to have a healthy competition. The number of bidders in the competition may not seriously influence the bid decision. However, the minimum number of eligible bidders are always preferred over the other case in order to maximize the profit margin. In addition to the above, the same will not have any effect on bid decision if the invitation is from a reputed or a known client or in case of a government or semi-government contracts. It can be observed that, even the bid volume plays a very important role in bid decision making.

Under the situations like a well-established competitor in the proposed project location, existence of lobbying between the competitors, existence of a competitors of lower profile or a small organizations with high need for the work or suicidal bidders, smaller bid volume, political instabilities in case of government projects etc. are the situations where it is preferred to take No-bid decision.

The Bidding situation

Under the head of bidding situation, the major factors like preferred and un-preferred seasons for execution of the project and the long term and short term projects are addressed by the experts. Further, it is clear that, selection of duration of project depends on several factors like payback period of the project facilitating the smooth cash flow of the organization. Also, the long term projects has the cushion to arrange the mobilization of additional resources if any required to compensate the lost productivity during the unfavorable climatic seasons. However the contract without the price escalation clauses in long term projects are not preferred. The same may be preferred in short term projects with proper considerations to possible price variations during the execution of the project.

The experts also discussed about the possibility of additional duration estimated by the client to safeguard themselves for arranging the financial resources or during lesser demand for the constructed facility and hence the client is dragging the payment time to his convenience. So, the accuracy of the time schedule prepared by the contracting organization by accounting the following factor plays a vital role on bid decision making. The factor like seasons, expected loss of productivity in extreme climates, additional resource required to balance the schedule, season of commencement based on its nature and duration of the project, payback period, bid volume are to be considered during detailed analysis of time schedule.

In most of the cases, the insufficient time given for bid preparation leads to no bid decisions. If the project volume is high and time given for preparation is less, then, it results in quoting improper prices. But in some cases, if there is a call for from reputed clients, then organization may take a risk of bidding even under short notice. If the management, execution team and the contract department are well connected and has updated knowledge about available resources, idle resources and nominal resources which can be kept idle results in lesser time for gathering information while deciding bid or no bid.

The Contract

Conditions of the contracts are very important elements which are to be considered during bid preparations. It is important to read both GCC and SCC before bidding which otherwise leads to issues regarding money. Also, it is better to clarify the ambiguities if any in GCC and SCC before bidding. Some of the contracting organization's bid decision may not depend on these factors. Because, when the contracting organization is willing to bid a project, whatever may be the rigidness of special conditions of contract, contractor will opt for bid by considering those constraints in his schedule. However, cost of that project may increase in such situations to overcome the constraints. Whereas, some of the contracting organization's bid decisions may be depend on these factors. If the special conditions are too stringent and complex and riskier, then, contracting organization may think of no bid.

The negligence in observing the GCC and SCC before bidding will lead contractor to loss a chance of making profit in some cases. Sometimes, the description given for executing a task in technical specification influences cost and markup decision.

Project Characteristics

Contracting organization has to thoroughly analyze geography, location of the project, local climate, site accessibility, political situations, and infrastructure and security expectations of the proposed project.

The selection of type of project depends upon nature and type of resources available in hand, organization's resource expertise and core competency, profitability, goal, country's economic status, time of recovering of invested money, the projects with fewer tendency of fluctuations in durations and the projects with lower complexity of execution.

Finance

The selection of range of bid value depends on organization's size and stature, financial resources, staff and labor, plant and machinery etc. Some organizations follow-up the strategy of avoiding execution of many number of smaller bid volume projects and go for single large bid volume project so as to avoid the repeated deployment of staff, administration and management. The threshold value generally arrived based on the turnover of the organization and their existence in the market. If the target which is fixed from the contracting organization is fulfils, the organization may think of no bid for new project. Also, in some cases, the decision on the bid value depends on overheads of proposed project. Similarly, if there is a chance of repeat order from the same client, then, some organizations may think of bidding.

Client Characteristics

Working with the client who understands the contractor and maintains good relationship, a supplier or a sub-contractor who supports the contractor in meeting the deadlines and takes the partnership in achieving the goal of safety, quality, cost and delivery (SQCD) is always better than working with new partners. Also, if the work executed by the contracting organization is appreciable, there may be a chance of getting repeat orders from the same client. However, contracting organization also have to verify the present reputation, financial conditions before taking decision to work with same client to nullify the future risks if any.

In case of continuing the work with the same client if large projects are expected in the near future, depending upon the work continuity available, the contracting organization may even take the risk of quoting negative profit in the proposed project and compensate the loss in the expected future project.

Company Characteristics

Generally for any contracting organization, the availability of resources in hand is the key factor for deciding bid or no bid decisions. The contracting organization should have the details of all the resources which are set free, which are currently working, which are to be deployed next etc. before taking the new proposal. Otherwise, the hiring of additional resources may result in fixing up higher markups. In extreme cases, if the job is very specialized in nature, skilled labors have to be hired. Or else, it is always better to integrate the resources within the contracting organization in order to bid with lowest price as much as possible.

The percentage of sub-contract works mainly depends on the complexity of the work involved in the project and the available resources in the hand. Moreover, as the percentage of sub-contracting increases, the profit level gained by the contracting organizations decreases. In infrastructure projects, since there is a deployment of various machineries, the sub-contracting percentage may be in between 70 to 90%. Generally, for the projects of smaller bid volume, usually the percentage of sub-contracting varies from 10 to 25%.

Company's past experience

Before adopting new technology, contracting organization has to realize the number of repetitions that a new technology can be used in the future, stableness of the adopted technology in the market, available owned resources, possibility of acquiring new resources, cost involved in training the same, retention of employees and possibility of dynamic deployment of resources for a short period etc. The deployment of new technology is riskier due to the investment of huge amount at the beginning. However, the efficiency of working improves by reduction in both times of execution and the work load.

The deployment of new technology causes increase in fixing up markup levels than in case of conventional technology which results in bidding with higher bid value. Thus in many cases, it makes contracting organization to take a decision to no bid.

Business benefits

When the contracting organization has sufficient work load and if the proposal for new project offered which increases the financial conditions and the reputation, it is important to see the availability of resources in the hand before taking the decision to bid. Meanwhile, the status of current projects also has to be seen. If the proposed project is very important in all the aspects, then, the contracting organization may think of hiring the required resources on either contract basis or permanent basis. When there is a fixed volume strategy, unless and otherwise the proposed project has large potential for profit and reputation, the organization will decide for no bid. In such cases, the decision to bid depends on the fulfilment of financial targets which are imposed by the organization.

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Risks

The contracting organization decides not to bid if the location of the project is in the heart of the city, if there is no proper site accessibility is provided, if the project area is near to the terrorist area etc. Even though if the contracting organization takes the decision to bid, the chances of winning will become complicate due to fixing up high markups to overcome from various possible risks related to these factors.

Generally there is no effect of insurance premium, tax liabilities and government legal issues in the bid or no bid decisions as well as markup decisions. The information about the taxes, terms of payment, the variation in percentage due to modifications by government and responsibility of payment should be mentioned in the contract document. It is mandatory to pay all the taxes and insurance premiums which are governed by the government during the execution of the project. Generally the costs of all the taxes and insurance premiums are shown separately from the bid value, or else, the same may increase the bid value which results in reducing the chances of winning. In some cases, if the clauses related to the payment of additional taxes and insurance premiums are not included in the contract, then, the decision to bid or not may take based on the duration of the project. If it is a long term project and no reimbursement of variation in taxes by the client, then, it is higher risk for contracting organization. So, organization may decline for bidding. However, for short duration project, the contracting organization may take a risk of variation in taxes and opt to bid. However the markup levels quoted will be generally high in International contracts due to the unavoidable fluctuations in the exchange rates.

Hence, for the above study and analysis, following themes under which the opinions from the experts can be compiled.

'Selective type of bidders with non-risk taking nature'

'High volume non-risk taking bidders'.

'High volume risk taking bidders'.

'Selective risk taking bidders'

Highly selective calculated risk taking bidders'

5. CONCLUSIONS

In this study, qualitative approach is followed to overcome the drawbacks of quantitative approach to address the issues which are considered confidential in the construction industry. From the results, the following conclusions can be drawn.

This study gives details of the factors which are to be accounted before taking the decision to bid or not. Additionally, due to experience in the field of contracts, the experts disclosed some of the unique factors which they have considered during bid decision making.

These listed factors support the new contractors during bid decision making which helps them to avoid the risk of omission of certain factors which are essential for bid decision making. The results also discuss the inter-relations among the factors and influence of one on the other, which helps the contractor to take the right decision..

Experts opinion, the bidding strategy can change from client to client, project to project depending on the need of the job and profit for the organization.

However, the study also shows that, the pattern of bid or no bid decision for a large contracting organization is generally constant. However, depending on the company's policy, goals, person responsible for decision making, project type, client and the current status of the contracting organization during the bidding, even these organization changes their pattern of bidding with large deviation from their standard move.

The themes obtained by the experts' responses can be classified into five types of strategies which are generally adopted by contracting organization. This shows that, a contracting organization has a signature style of making bid decision.

The study provides the guide lines to take decision to bid or not under various possible situations. This can be utilized as the guideline for the new contracting organization to take decisions on bid.

The factors influencing the mark-up were discussed by the experts. However, the procedure for fixing up the mark-up was not disclosed by the respondents as it is they consider it as confidential.

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