Assessment of risks in the purchase process of construction companies

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ABSTRACT

This paper is appre...
2. METHODOLOGY

Questionnaire design:

Likert-Scale type: A psychometric response scale primarily used in questionnaires to obtain participant’s preferences or degree of agreement with a statement or set of statements. Likert scales are a non-comparative scaling technique and are one-dimensional (only measure a single trait) in nature. Respondents are asked to indicate their level of agreement with a given statement by way of an ordinal scale.

Questionnaire: Questionnaire is designed based on the common risks that occurs in the purchase process of the construction company. 30 different questions are framed based on the risks occurs with 5 number rating.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Eliciting Response: The framed Likert scale questionnaire are distributed to 43 different construction companies of India and the response are collected from the officials of each company.[18-19] The data entry is done based on the drawn out responses and the data analysis is done using MS-Excel.

Data analysis: Data analysis is done to find the risk perception from the responses that were collected from the officials of 43 different construction companies. Response % for all 30 questions are shown graphically. Using the responses got from the officials the maximum priority risks that often occurs in the purchase process are identified.

Interpretation: The responses are drawn out from 43 different construction companies in India. Those companies are classified and arranged into 3 categories. They are:

- Large scale construction companies (28 Nos)
- Medium scale construction companies (6 Nos)
- Small scale construction companies (9 Nos)

Risk in Large scale construction companies: Maximum average % of strongly agree given by large scale Construction company is 37.50% for the payment delays which leads to delay in supply of materials. Maximum average % of agree is 71.88% for the miscommunication between the company and vendor which leads to delay in purchase of the materials.

Risk in Medium scale construction companies: Maximum average % of strongly agree given by Medium scale Construction company is 50% for the payment delays which leads to delay in supply of materials. Maximum average % of agree is 100% for the pilferage at site that cause loss of purchased materials.

Risk in small scale construction companies: Maximum average % of strongly agree given by small scale Construction company is 55.56% for the payment delays which leads to delay in supply of materials. 33.33% - strongly agree - Small scale construction company - Rectification of custom-fabricated materials results in increased costs. 77.78% - agree

- Delays in payments result in delays in supply.
Price escalation of materials leads to delays in the purchase approval process.

Change in government regulations leads to delays in the purchase process of certain basic materials such as sand and coarse aggregate.

Rectification of custom-fabricated materials results in increased costs.

**Overall Maximum risk:**

Overall maximum % of strongly agree by the construction companies is 42.55% for the delay in the payment which leads to delay in supply of the materials.

And the overall maximum % of agree by the construction companies is 65.96% for the inadequate storage which results in loss of purchased materials.

3. CONCLUSION

The risks that occur in the purchase process of a construction company are assessed for all types of companies and the highest priority risks are identified.

**REFERENCES**


