Assessment of factors Influencing Communication among bottom line and top management in Construction Industry

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Abstract

In day-to-day life the construction industry has become active with more designs and construction project. Their emerging field existence involves management and execution by highly qualified and task coordinated project team from various organization. Throughout the project, required information must be identified and discussed amount of information flows among the entire workers in the construction industry. Few factors has been identified through the research. The identified factors are inaccuracy, misunderstanding, barriers, project complexity, timeliness, project communication media, arrangement of organization of structure, trust among workers, project culture, clarity in information. The questionnaire design was prepared after the identification of factors and circulated among more companies. The most affected critical factors are misunderstanding, Barriers, Project complexity, Communication media, Organization structure. The supervisor has the ability to solve the problem between the labors ranks 1 and the factor trust among the workers is more. The factors were analyzed by using SPSS software and relative important index was calculated to rank the factors.

Keywords: *Poor Communication, Top management, Bottom line, Relative important index, Communication media, Construction.*

1. Introduction

The construction industry differs for other industry as it has unique structures and characteristics. It involves many parties therefore effective communication is required to overcome the strategies (Gamil Y et al., 2017). Communication is a stream that transports information from one person to other person. Communication within the construction presents a special challenge (Aulich T 2013). Many of the problems occurs in the construction industry are result of temporary and inter disciplinary nature of project team members. These projects require highly trained and task organized team for management and execution (Olanrewaju A et al., 2017). Mostly the multidisciplinary organization exchange more number of information and data. The information and data should be identified and distributed among the team members (Thomas SR et al., 1999). The project

team need clear and timely information about the project works so that they can make proper decisions to make success in project. The project failure occurs due to poor communication among the team members (Crampton SM et al., 1998).

The poor communication is described as ineffective communication or lack of communication which should be avoided in the construction site (Hoezen M et al., 2006). To have smooth information flow the communication system should link the project team members. If there is a clear information between team members, technical information can be communicated easily and team work will be improved.

2. Materials and Methodology

Figure 1 Methodology

Through the literature survey the factors have been identified and the questionnaire were designed and circulated among the workers in the construction site. Responses have been collected and analyzed by using SPSS. The methodology has been represented as figure 1.

2.1. Types of Communication in Construction Industry

Understanding the concept and meaning of communication in construction industry is very difficult due to different people come from different places (Chmielecki M, 2015). The communication can be classified in four types. They are intrapersonal communication, interpersonal communication, small-group communication, multi-group communication. The intrapersonal communication enables an individual to process the information. The inter-personal enables the individual to establish and maintain the relationship. The small-group used to coordinate the activities among the work group. The multi-group used to coordinate activities among different groups. Communication in construction industry is classified as internal and external communication. Internal communication is done within the project and external communication done to the clients, customers etc (Mitkus S et al., 2014).

3. Project Team Members in Construction Industry

The completion of project depends upon the project team members. Different project teams works at different types of project. The communication process is not only a information flow but also a mutual understanding between the workers (Anumba C et al., 1997). The project team communication includes Information transmission, Work coordination, and Relationship management.

3.1. Information Transmission

The communication process in the project team is the information is delivered and exchanged between the team members.this information will be quantitative and consists of designs, schedule, plan.

3.2. Work Coordination

The communication process in the project team is the information is delivered and exchanged between the team members.this information will be quantitative and consists of designs, schedule, plan.

3.3. Relationship Management

In the project team the workers comes from different organization and have different perceptions on work.

Figure 2 Management levels in construction industry

To influence others and maintain good relationships, one person can use range of communication technique. This form of communication is typically achieved by a representative of company and personal interaction. The management levels has been represented as figure 2.

4. Factor Identification

The factors influencing the communication are identified. The main factors of communication in construction industry are inaccuracy, misunderstanding, untimeliness, barriers, project complexity, communication media, organization structure, project culture, trust, working environment.

Figure.3. critical communication factors

4.1. Inaccuracy

The indicators of inaccuracy was poor communication and lack of team work. Several researchers have identified conflicting, inconsistent instructions and direction as important communication problem (Shindina T, 2016). The best way to organize the team work is to communicate among project workers. As a result the inaccuracy the communication and lack of communication indicates inaccuracy of communication.

4.2. Misunderstanding

Misunderstanding is described as a distortion of information expectations and requirements between workers. In return for communication to be accurate, it must provide information that fulfills the standards and needs to workers (Bowen PA, 1996). It is necessary for the sender to understand fully the contacts requirements. Understanding the expectation in information of others is very difficult.

4.3. Barriers

Barriers are described as the presence of interpersonal, availability, organizational and other barriers that interrupt and restrict communication among the workers. Barriers are the common communication issue among the project members. In effective communication the information should be provided to right workers. Design and drawings should be maintained correctly so that they can be accessed easily.

4.4. Project Complexity

Project complexity is one of the factor that affects the communication. The project complexity occurs due to location of the project, size of the project, type of the project and complexity of design.

4.5. Media for Communication

The media is a tool to transfer information to one person to other. The information can be passed through postal letter, electronic mails, telephone, fax, meetings and face to face conversation. The communication media can be classified into three methods. Oral, non-verbal and written (Cheng EW et al., 2001). Oral speech can be done like speeches and group discussions. Non verbal communication like face expression, body language. Written media is like letters, fax, electronic mails, notices etc. It is important to use appropriate media to transfer information and promote the communication process in order to ensure that communication has the desired results. Different types of media have different characteristics. The choice of the media depends on the nature of the working site. The richness of communication media varies, as do their capacities for processing accuracy of data.

4.6. Arrangement of organization structure

Organization communication mainly depends on the structure of the organization. The communication can be evaluated by the positional responsibilities (Aiyewalehinmi E, 2013). The communication is related among positions within an organization. The required information for the workers are related to organization responsibilities.

4.7. Untimeliness

The untimeliness includes the updating the changes made in the designs and drawings. The main responsibility for the management is to receive the information timely. So that the every member in the project can access the information clearly. The critical factors have been identified and represented as figure 3.

4.8. Analysis

The Questionnaire was prepared and distributed to the construction companies. The responses were collected from different levels of management. It was done by the means of google forms. Percentage of responses for each questionnaire were collected. The analysis shows how the factor which leads to communicate in project. The frequency analysis was used to analyze the factors and relative important index was calculated to rank the factors. The results are mentioned below in table1. The analysis was done by using SPSS.

Table 1 Results of Frequency analysis

Sl.no	Statement	Mean	Median	Mode	Standard deviation	Varian ce	RII	Rank
1	Familiar with other workers roles and responsibilities	3.63	4.00	4.00	0.942	0.888	0.473	18
2	The information	3.78	4.00	4.00	0.905	0.819	0.43	19

	given by the engineers are distributed to every workers						6	
3	Disputes may occur between the workers while working at worksite	3.57	4.00	4.00	0.721	0.521	0.505	16
4	The theoretical concepts are applied in the actual field by the supervisors	2.97	3.00	4.00	1.24	1.54	0.605	13
5	Delay in completion of the project work due to misunderstanding of design	2.92	3.00	2.00	1.07	1.15	0.615	12
6	The labors may be Misunderstand the drawing compare to supervisors	3.55	4.00	4.00	1.00	1.01	0489	17
7	Difficulty in understanding in construction design	2.92	3.00	3.00	0.881	0.777	0.615	12
8	Shortage of Communication with foreign operatives	3.47	4.00	4.00	1.10	1.229	0.505	16
9	Failure to provide training for labors	3.13	3.00	3.00	1.234	1.523	0.503	15
10	Due to language the communication gets affected	3.84	4.00	4.00	1.027	1.055	0.431	20
11	Having less information about the sudden changes in work a worksite	3.47	3.5	3.00	0.95	0.905	0.505	16
12	The changes made in drawings can not reaches to entire labor force	3.65	4.00	4.00	1.04	1.09	0.731	4
13	Technical	3.42	4.00	4.00	0.948	0.899	0.68	7

	specification and Alternation of drawings are shown to workers with clarity						4	
14	Complex building function leads to difficulty in design	3.39	3.50	4.00	0.886	0.786	0.678	8
15	The physical location of the project site affects by the communication	3.02	3.00	3.00	1.15	1.32	0.605	13
16	The media used to receive information is accurately attained	3.42	3.50	4.00	0.826	0.683	0.684	7
17	The information passing through the media is affected due to the size of crew	3.42	3.00	3.00	0.889	0.791	0.689	6
18	Top management receive communication from bottom line/middle managers through media	3.39	3.00	3.00	1.151	1.326	0.678	8
19	Improper communication between top and bottom line leads to poor quality and productivity	3.76	4.00	4.00	0.970	0.942	0.752	2
20	The organization is getting proper feedback from the middle level and bottom line	3.31	3.50	4.00	1.042	1.087	0.663	10
21	The information from the Top management is	3.50	4.00	4.00	1.10	1.23	0.7	5

	responding in delay							
22	The trust and good spirit is formed between the managers and labors	3.71	4.00	4.00	1.037	1.076	0.74 2	3
23	Relationship among top management and labour not improved	3.34	3.00	3.00	0.908	0.826	0.66 8	9
24	The supervisor has the ability to solve the problem between the labors	4.00	4.00	4.00	0.900	0.811	0.8	1
25	More number of workers working at site influences the communication	3.42	3.00	3.00	0.826	0.683	0.68 4	7
26	The more number of workers employed specifically for the information management	3.00	3.00	3.00	0.929	0.865	0.6	4
27	Disputes might occurs between the middle level and bottom line due to over controlling and directing	3.50	4.00	4.00	0.951	0.905	0.7	5
28	The labors shows attitude among the project team	3.28	3.00	3.00	0.98	0.968	0.65 7	11
29	Decision making affects due to Lack of leadership qualities the by manager	3.5	4.00	4.00	1.10	1.230	0.7	5
30	Egotism occurs between middle level managers while making decisions	3.39	3.00	3.00	1.027	1.05	0.67 8	8

31	The supervisor sends the information are correctly received to the workers	3.65	4.00	4.00	0.908	0.826	0.731	4
32	Employee grievances may not be added properly due to loss of communicates	3.34	3.00	3.00	0.847	0.718	0.668	9

5. Conclusion

From the previous literature the factors has been identified and critical factors are considered as important. This paper found the most critical factors that affect the communication are Inaccuracy, Misunderstanding, Barriers, Project complexity, Communication media, Organization structure, Untimeliness. From the responses collected it was observed that the factors misunderstanding, Barriers, organizational structure affects the communication in the site. Relative important index was calculated to rank the factors. The supervisor has the ability to solve the problem between the labors ranks 1 and the factor trust among the workers is more. A special preventive measures should taken to overcome the communication problems in the construction site.

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