

An empirical study of the variables affecting construction project briefing/architectural programming

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Abstract

Briefing is the process of identifying and articulating client requirements in the early design process of a construction project. It is crucial to the success of construction projects. The importance of effective briefing has been emphasised in many research studies during the past two decades. However, many problems still exist in current briefing practice. The inadequacy of briefing may be attributed to the lack of a comprehensive framework for identifying the requirements of clients. A more holistic approach to tackle the problems is required. The objective of this paper is to develop and validate a theoretical framework for construction project briefing. A questionnaire survey was conducted to investigate the significance of 13 variables identified in the research study and their related attributes to the briefing process. The survey results indicate that all these 13 variables which have an impact on the briefing process are significant. Major findings regarding the elements of briefing is that the client should determine the time at which the brief becomes fixed and secondly the brief should be fixed before detail design commences. Significant variables and attributes will be considered and used in drafting a comprehensive and practical framework for systematic identification and representation of client requirements in the briefing process.

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1. Introduction

Briefing, a term commonly used in Hong Kong and the UK, is the process where client requirements for a construction project are defined, articulated, and significant decisions made. It is known as Architectural Programming in the USA. The briefing process is both critical to the successful delivery of construction projects and problematic in its effectiveness to achieve its stated objectives. Problems in buildings can often be traced back to the briefing process. The famous Pruitt Igoe project, which solved the financial

and image problems of public housing, was demolished in 1976 because it did not respond to the behavioural and social needs of the users [1]. This incident illustrated very well that a systematic identification of client requirements is a prerequisite to project success.

The importance of effective briefing is examined in various research studies during the past two decades [2–8]. It is also reflected in the number of briefing guides [1,9–14]. Although many initiatives have been taken to investigate and improve the briefing process, current briefing practice is still considered “inadequate” and having many limitations [5,7,15]. The problems associated with briefing include lack of a comprehensive framework, lack of identification of client requirements, inadequate involvement of all the relevant parties of a project, inadequate communication between those involved in briefing and insufficient time allocated for the briefing [15]. These problems appear to suggest that a more holistic approach is required to tackle

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such inadequacies through examination and design the briefing framework.

This paper presents part of a research project conducted by the Hong Kong Polytechnic University and Glasgow Caledonian University to investigate the briefing process in the construction industry. The aim is to investigate whether a framework using the value management approach for the briefing process can (1) systematically identify and clarify client requirements, and (2) represent these requirements precisely and explicitly to facilitate the design process. In order to achieve this objective, major tasks to be undertaken include: (a) establishing, evaluating, and improving the framework for identifying and clarifying client requirements; (b) developing a mechanism for precise and explicit representation of the requirements; and (c) validating and verifying the approach and framework by implementing it in the briefing process for a number of real-life projects.

The objective of this study is to develop and validate a theoretical framework for construction project briefing which formed the basis of the research project. A questionnaire survey was conducted to investigate the significance of 13 variables identified in the research study and their related attributes to the briefing process. Based on the survey results, the significant variables and attributes will be evaluated and used in drafting the practical framework for systematic identification and representation of client requirements in the briefing process.

2. Different schools of thought on construction project briefing/architectural programming

There are basically two schools of thought relating to construction project briefing. One approach considers the brief as an entity in itself, which should be frozen after a critical period; hence briefing becomes a stage or stages in the design process [6,12,15,16]. In the USA, Hershberger [12] defined architectural programming as the first stage of the architectural design process in which the relevant values of the client, users, architect, and society are identified, important project goals articulated, facts about the project uncovered, and facility needs made explicit. It follows that the architectural program is the document in which the identified values, goals, facts, and needs are presented.

The second approach regards the brief as a live and dynamic document that develops iteratively in a series of stages from an initial global brief. Briefing is thus deemed an ongoing activity that evolves during the design and construction process [5,8,17–19]. In the UK, Barrett and Stanley [5] defined Construction Briefing as the process running throughout the construction project, by which means the client requirements are progressively captured and translated into effect. In the context of Blyth and Worthington [8], briefing is an iterative, creative process, a journey to support the client, design and construction teams in achieving the user's expectations.

3. Research methodology

3.1. Brainstorming session and literature review

This research project was approached through an initial brainstorming session to identify factors likely to be significant in a theoretical framework for briefing. This session was carried out with three research team members, two Professors and a PhD student with 10 years practical experience in the construction industry. They were encouraged to list and read aloud as many factors as they could. No criticism was allowed at this stage. This step was followed by a question and answer session to make sure that everyone fully understood each response. A subsequent comprehensive literature review confirmed or rejected the factors as significant and highlighted other variables initially not included. As a result, 13 variables were identified as having an impact from a theoretical perspective and became the theoretical foundation for the project. The 13 variables were investigated in detail as a first stage in identifying their impact, if any, on the construction briefing process. They were written-up to form a working research document within which a description of each variable was given in detail [20]. This research document gives those inputs most likely to influence how the briefing process should be undertaken with the objective of developing a theory behind the factors involved. Fig. 1 highlights the 13 variables input to the theoretical framework as the foundation for the overall methodology of the research project.

3.2. Questionnaire survey

A questionnaire survey was used to identify any missing factors and to validate the established theoretical framework. Questionnaires are widely used for descriptive and analytical surveys in order to find facts, opinions and views on what is happening, who, where, how many or how much. The questions were formed and questionnaire drafted with reference to the working research document described above [20]. The questionnaire contained four sections. The first involves the background information of the respondents. The second collects the respondents' opinion on the briefing process. The third tests the 13 variables and their related attributes. The fourth requests the respondents' opinions on critical success factors for briefing.

The survey was conducted in Hong Kong, the UK and the USA from where most briefing literature comes and effective channels to collect data have been established. Multi-methods were used to distribute the questionnaire to the subjects. A web-based questionnaire was used to administer the questionnaire survey in the UK and the USA. In Hong Kong, a postal questionnaire was used.

The targeted population of the survey includes client's project managers and architects in Hong Kong, the UK and the USA. In Hong Kong, the questionnaire was mailed and emailed to 150 experienced professionals including 21

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