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## **Identification of Building and Locational Characteristics' Ranking for Purpose-built Offices in Malaysia: A Delphi Methodology**

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### **ABSTRACT**

Building and locational characteristics of purpose-built office (PBO) can be found in any office building assessment. These characteristics consist of physical and non-physical elements depending on types of building assessment. Identifying the attributes or characteristics of PBO is fundamental in developing tools to evaluate the quality level of PBOs in any building assessment. In Malaysia, there are many building assessments unveiled by government and private sectors. However, the structured framework for both building and locational characteristics of PBO is still unclear. This paper is propose to identify the building and locational characteristics of PBO in a comprehensive manner and rank these characteristics by applying the Delphi method. The application of this method provides insights into aspects of this method in the context of property research.

**Keywords:** Delphi Method; Purpose-built Office; Building and Locational Characteristics; Ranking

### **INTRODUCTION**

In a global context, identifying building and locational characteristics have been well studied due to tremendous development of office building such as in United States, Australia, and Hong Kong. In Australia, Ho et al. (2005), has identified the importance of key factors influencing the quality of CBD office buildings. From these identified characteristics of office building, they found a strong relationship between office building quality and rent. The grading system is also reported as 'A Guide to Office Building Quality' by the Property Council of Australia (PCA) in 2006 from the structured framework of office building characteristics.

Similarly, Building Owners and Managers Association (BOMA) in United States have categorised office building characteristics into six groups, which are rents, building finishes, systems standards and efficiency, building amenities, location/accessibility and market perception (BOMA, 2007). These characteristics have been grouped and transformed into grading system. The need of this grading system is to show the competitive ability of each building to attract similar tenants (Daud et al. 2010).

Unlike Hong Kong, they developed a simple grading matrix from combinations of physical building features, management and parking facilities. Location is not in priority since there was a trend to be located in office buildings at accessible areas not within the CBD with good transportation infrastructure. It is because the majorities of these office buildings are new and are well constructed with great technology and facilities (Daud et al. 2010).

In Malaysia, the research on identifying building and locational characteristics of PBO is still an on-going process. Previous studies on office building occupation have shown different characteristics of office building affect the decision (Adnan et al. 2009). Hence, there is some importance in identifying the characteristics of office building from the global and local contexts from the following perspectives (Alexander, 1979); (Yusof, 1999); (Ho et al. 2005); (Ahmad and Isa, 2008); (NAPIC, 2008); (Adnan et al. 2009); (Daud et al. 2010).

1. To give an idea for property market participants to develop tools for any building assessments (building performance, green building, sustainable, classification, intelligent building).
2. To attract and retain tenants for existing office buildings.
3. To improve the occupancy status of the existing and incoming supply.
4. To fulfil their (building owners, investors, tenants, marketing agents) specific objective.
5. To maximise the returns when office building was attractive.
6. To show the competitive ability of each building to attract similar tenants.

This paper is intended to identify the characteristics consists of building and locational features in office buildings. More specifically, the study is to identify and rank the building and locational characteristics of purpose-built office by selected expert panels. The Delphi method as a qualitative approach will be applied to give a more significant and reliable method in developing ranking for building and locational characteristics of purpose-built office in Malaysian context.

## **METHODOLOGY**

Generally, there are many techniques and methods that are used in order to create and build a certain ranking. Through literature reviews, the Delphi method is deemed as one of the most suitable decision making technique as it involves the feedbacks and opinions of the experts according to the required fields.

To accomplish the research objective, the researchers instils elements of qualitative where interview sessions with specialists in PBO development and management are done. This is to ascertain building and locational characteristics of PBO that have been utilised can be identified and validated with the intention that they are precise and appropriate for the research. For this reason, the researcher opts for a unique and specific interview technique called Delphi method. Further details regarding research methods that applied in this research will be elaborated in the next topic.

### **Source of Documents**

Before any interviews are conducted, the researcher seeks for various sources pertaining to building and locational characteristics of PBO in local and global context. All the characteristics of PBO are enlisted and they are obtained from sources such as reports, local and international articles written on office building industries, and in-house publications by property developers. Subsequently, all the characteristics will be refined through interviews that apply Delphi method in compliance with the research and environment in Malaysia.

### **Delphi's Interview**

Most researchers who implemented interview method heavily referred to the works of Rose (1994). He described that common interview types are structured, non-structured, and semi-structured. The classification of interview types depends on types of constructed questions. However, the researcher prefers Delphi method. This is as a result from previous studies; where interviews using Delphi method

are more flexible and easier to analyse. Apart from that, it also focuses mainly on the topic to be discussed where the goals of interviews can be achieved accordingly. Details on this methodology will be discussed in the next topic.

## Selection of Interviewees

As informed earlier, the researcher prefers semi-structured interview that is Delphi method in conducting interviews. Delphi method is a medium that provides space for expert panels to publish their opinions regarding to the topic to discuss. This technique encompasses a survey which will be carried out in two or more rounds where results from the interview are on the second round (Cuhls, 2003). The panels are free to choose whether to agree or disagree with the results and if the choice is the latter, next rounds will be implemented until they all unanimously agree. Nevertheless, the uniqueness of Delphi method is defined by its anonymous interview. That said every expert panel does not know each other. It could prevent one-sidedness as a result from each expert panel does not influence others (Cuhls, 2003).

For this reason, the researcher decides to interview ten expert panels to identify building and locational characteristics of PBO. Ten expert panels are selected according to research size and topics to be discussed. In this matter, the researcher distinguishes all building and locational characteristics of PBO in local and global context that are implemented via relevant sources. Therefore, the interview intends to validate and develop ranking characteristics of the PBOs. In this case, based on the guidelines of Delphi method, a number of ten expert panels are adequate to validate and rank characteristics of the PBOs and it does not involve a big-sized research. Table 1, indicates information on said personnel involved, consisting of expert panels (registered and not registered) who are engaged in PBO management and development.

Table 1: Expert Panels Interviewed for Developing and Validating Building and Locational Characteristics Ranking of Purpose-built Office

Fields	Details	Number of expert selected
Property Valuation	Valuers (Government & Private Sector)	2
Property Management	Property Managers	2
Architecture	Architects	2
Estate Agency	Estate Agents	2
Building Surveying	Building Surveyors	2
Total		10

Table 1 shows expert panels who are interviewed in this research. The selection of expert panels includes a range of field studies utterly where they express their thoughts on building and locational characteristic of PBO from different points of view. The researcher intends to incorporate all the concepts of building and locational characteristic of PBO based on ideas contributed by expert panels from valuation sector, architecture, property management and quantity surveyor. In some way, this research will be able fulfill all the necessities commonly required within the aspect of building and locational characteristics of PBO. The next topic will elaborate on procedures undergone during the interview sessions.

## Delphi's Interview Procedure

In this study, interview sessions utilise the Delphi Method where it is categorised as decision making technique for expert panels to assist them during the interview sessions. There are many researches on decision making technique by expert panels that can be applied in interviews. All of these techniques have their unique approach and design such as Social Choice Theory, Creative Problem-Solving Process, Nominal Group Technique, Delphi Method as well as Voting System. The

understanding of each technique is very important because it cannot be applied in every case. Basically, these techniques require expertise, goals, and duration of time. However, Horn (2006), insisted that the capability of experts to make decisions immensely influences a discussion result. This is due to their limitation in overcoming systematic mistakes that normally take place during a discussion for instance characteristics of the minds of each expert or the perceptions of the experts upon an outcome of a discussion.

Most of these decision making techniques in the interviews introduce psychology, human judgment or decision making, which is very difficult to monitor (Josephson Institute of Ethics, 2005). To avoid these problems, the selection of a suitable decision making technique is very crucial. This research, however, reveals that Delphi Method is suitable in experts' decision-making in the interview to develop and validate building and locational characteristics of PBO.

Delphi studies are procedures that include the preparation, an interview in two or more rounds and some resolutions and application or implementation when the interview is finished (Cuhls, 2003). In order to realising the application of Delphi method in this research, an anonymous interview is done to each panel respectively. Five expert panels have been selected to be involved in the interview session. Figure 1, shows the organization of a Delphi method in this interview.

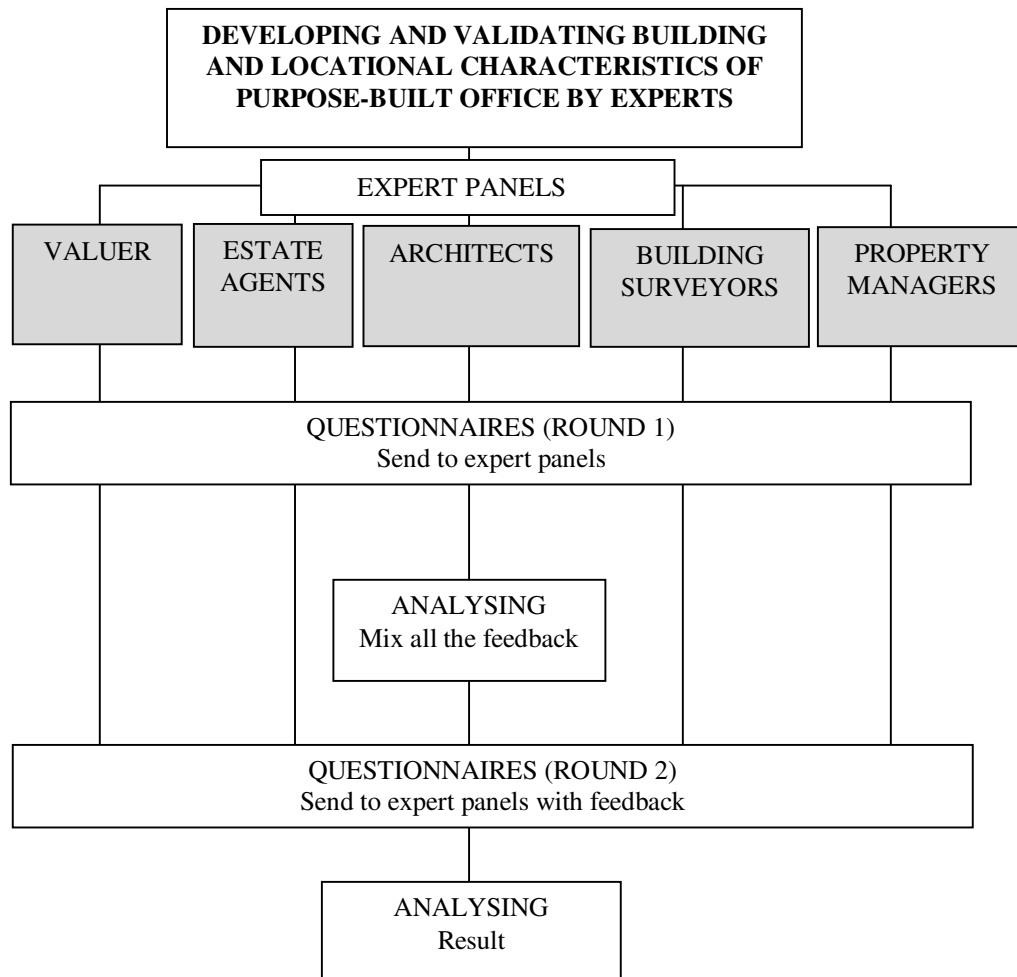


Figure 1: Organisation of a Delphi survey in developing and validating building and locational characteristics ranking of PBO by Experts.

Figure 1, shows ten selected expert panels from different fields consist of two expert panels to represent of each field. A questionnaire that is developed in the previous study is obtained from source documents on a global and local context as mentioned earlier. Based on a Delphi theory, the interview in this study is divided into two rounds of survey. On the first round, a questionnaire is given to each panel to give comments and their expert opinions concerning the ranking framework of building and locational characteristics of PBO. Then, all questionnaires that contain expert panels' feedback is analysed by comparing and revising from the original framework. Next, the revisions of the questionnaire are resubmitted to expert panels for substantiation as a second round. As a result, expert panels will revalidate the revised framework, and any amendments are finalised. Finally, the results from all expert panels are blended and documented as a final result of the analyses.

## **Method of Delphi's Analysis**

During the analysis of this interview, Delphi method assists the researchers in analysing the results. For the first round, the researcher manages to gather all feedbacks from expert panels where analysis is carried out by blending all of them. The blended technique is applied with the hope that all the opinions from different fields of expert panels could be collected.

Following that, the second round was executed where results from the first that represent all opinions by the expert panels will be returned to all panels to be validated. In this round, the researchers hope that the expert panels will come up with an agreement and once again review results obtained from the first round whether or not to make amendments. For this research, it is a major head start to reveal that the entire panels unanimously agree and are satisfied with the results. Hence, it is means that the quest for identifying building and locational characteristics of PBO in global and local context to answer research question is accomplished. For that reason, research objective in this study is successfully achieved where the ranking of building and locational characteristics of PBO is developed.

## **Findings and Discussions**

The analysis process that involves the Delphi method is very subjective. In this particular study, the researchers used a qualitative interview approach in which all the responses and opinions of the expert panels were concluded as a whole so that we can achieve a general result. Therefore, this means that even though the interview sessions in this Delphi method were done anonymously, the results achieved will be consolidated and concluded in general. This is done in order to meet the requirements and conditions of the Delphi method itself; to avoid any bias or issues and matters that could be embarrassing or insulting to the selected expert panels. Each result that were achieved will be collected, concluded, improved and later given back to the expert panels for them to either give their consent, present their new opinion regarding the matter or remain with their original opinion. This matter may involve several rounds of interview until a final decision is reached unanimously.

## **CONCLUSION**

This paper has aimed to get opinions from multidisciplinary expert panels in order to develop more structured building and location characteristics of the purpose-built office ranking framework. This method was covers all fields related to the characteristics of PBO from expert panels. A Delphi method demonstrates to unveil a unique technique to become a preference method apart from conventional techniques.

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