

Malaysian Legal Framework and Risk Management: Design Professionals

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Abstract

Construction projects are associated with various aspect of risks, be it risks associated with the feasibility stage, design stage, construction stage and post construction stage. This paper is meant to illustrate the criticality of designer's understanding of risks and the law relevant in managing such risks, from the viewpoint of experts in construction and law. The expert evaluation of issue related to professional designers perception over design related risk and the law is a second stage to earlier data collection process, namely in the form of questionnaire survey and in-depth interview. The expert evaluation is gathered from expert interview session, which completed the triangulation approach.. Questionnaire survey was deployed to generate general perceptions of professional designer on the issue in question. The general perception of the respondent gathered from the questionnaire acted as a basis for further in-depth data collection. In-depth data collection involving experienced architects and engineers was conducted, in form of in-depth interview. This method will give clearer picture on the state of professional understanding of design risks and the relevant provisions of law corresponding to the management of such risks. Finally, the findings of the critical issue gathered from the questionnaire survey and in-depth interview were evaluated by experts in both fields, namely construction and law.

Keywords

Design risks, Professional designer, Legal framework, Risk management, Expert evaluation.

1. Introduction

Similar with any other industries, risks exist in the construction field. One of the major risks in construction is the design risks, such as on design quality and communication framework (Dey, 2009). Accordingly, the construction industry is statistically one of the most hazardous industries in many countries (Gangoellis *et al.*, 2010). In order to complete the project successfully, the parties involved must be able to manage the risks associated with the project. Managing risks is one of the most important tasks for the construction industry as it affects the project outcomes (Dey, 2009).

Accordingly, there are risks within the scope of design works and design professionals in a traditional procurement route in Malaysia. Various measures to improve the matter can be done, which include through the means of law. The spirit of risk management is similar with the soul of the law, namely to address the public safety, security, clarity, flexibility, transparency and adaptability (Raquib, 2002). In

order to achieve the objective and establishing a proper legal framework for design risk management, the risks involved and the existing Malaysian law needs to be scrutinized.

2. Design and Risk

Risk is the potential for loss or gain: quantitative, qualitative, or both (Richardson, 2010). Edwards and Bowen (2005) submitted that, the definition of risk by the Royal Society is much preferred for its conciseness and completeness. It incorporates the three essential elements of risk, namely:

- 1) probability of occurrence
- 2) potential loss
- 3) time

Accordingly, British Standard on risk (BS 4778, 1991 Part 3 – in Royal Society, 1991) defined risk as “...a combination of the probability, or frequency, of the occurrence of a defined hazard and the magnitude of the consequences of the loss.” In the above-said definition by British Standard, risk is seen from the perspective of “hazard.”

The Royal Society of United Kingdom further elaborates the definition of risk in one of the findings of its study (Royal Study, 1991): “Risk is the probability that an adverse event occurs during a stated period of time.”

In order to avoid the occurrence of possible events that may jeopardize the project, it is important to manage the risk properly. It is achievable through risk management procedures. According to Skorupka (2003) risk management can be defined as a set of methods and activities designed to reduce the disturbance occurring during project delivery. The primary objective of the risk management process is to ensure that all steps needed to achieve the project objectives will be taken.

3. The Essentials of Risk Management

Risk management techniques can be classified into three different stages (Woods and Ellis, 2003):

1. Risk identification
2. Risk analysis
3. Risk response

3.1 Risk Identification

Risk identification entails understanding and determining the potential unsatisfactory outcomes likely to affect a project. Risk identification is associated with the use of the following techniques: expert judgment, brainstorming, Delphi technique and interviews (Kululanga and Kuotcha, 2010). According to Williams (1995), the identification of each risk is the important steps in risk management. Bajaj (1997) stated that if risk is not identified, the risk cannot be controlled. However, this task of identifying risk is the most difficult part during the whole process. The above can be summed up by referring to Williams (1995), where he said that the identification of each risk is an essential first step in risk management and is possibly the most difficult.

3.2 Risk Analysis

The assessment of risk is a key component within the overall construction project design and management process. It should provide a rigorous, objective and analytical assessment of potential risks contained in a project. Accordingly the assessment of risk has become a key component within the

design and management process of any project and should involve a rigorous, objective and analytical assessment of all potential sources and combinations of risks within the project. By deconstructing projects into sources of risk and systematically analysing them, it is possible that more efficient design decisions can be made (Mansfield, 2008).

3.3 Risk Response

According to Hlaing *et al.* (2008), risk response or treatment consists of the selection and implementation of appropriate risk treatment strategies for dealing with surprises. The objective of the risk treatment process is to remove as much as possible the potential impact and to increase control of risk (Al-Bahar and Crandall, 1990). There are four alternative strategies – risk avoidance, risk reduction, risk transfer, and risk retention, for treating risks in a construction project. The formulation of appropriate risk treatment strategy depends upon severity of impact, resources available to determine and implement treatments and cost of possible treatments (Hlaing *et al.*, 2008). Once the risk has been identified and analyzed, the parties involved have to make a decision in responding to the risks. Accordingly, the higher the degree of risk involved, equal response must follow. These steps can be taken single handedly or in combination, depending on the circumstances.

4. The Law

It must be noted the role of law is significant during the whole risk management process. Risk management is an area, which may be effectively thought of in the formulation of law and establishment of legal framework. It is essential to analyze how those potential risk factors related to human actions could cause human sufferings. Those actions could be protected by legal terms so that risk of damage cannot occur at all. Any law should address the public safety, security, clarity, flexibility, transparency and adaptability. Use of risk and risk management knowledge can effectively serve these purposes in meaningful ways (Raquib, 2002). This purpose is in line with the objectives of the law itself, either by refraining people to commit certain acts, or binding people to do certain acts. The basic example of the role of law within this context is the regulation of speed limit on highways. The purpose of limiting the speed limit is to protect human lives and properties in a better ways. It may be perceived that if lawyers and legal administrators learn risks and related management procedures, existing legal framework may be more stronger, as risk management encompasses a ‘shield guard’ to protect human lives and properties (Raquib, 2002).

5. Research Framework and Methodology

5.1 Questionnaire

The questionnaire was structured into four parts, namely Part A, Part B, Part C and Part D. Part A is meant to identify the respondents understanding of the risks involved. Part B is drafted to look at the respondents understanding of risk management practice. The respondents understanding of proper risk management practice is very essential in order to scrutinize the law, which meant to complement a proper risk management framework. In relation to this, the respondents understanding of the law regulating their duties is tested in the subsequent Parts of the questionnaire. Part C emphasized on the contractual duties of the architects, while Part D is mainly focused on their understanding of the general law regulating their works.

5.2 Interview

The interview is meant to get in-depth data related to the research problems. The general perceptions of the respondents were collected through set of questionnaire survey. From the general understanding, the

researcher needs to gather further data to really comprehend the main issue as stipulated in the research questions. As the questionnaire is mainly focusing on the general issue in questions among the general respondents, the interview session involved more experienced respondents. In addition, as compared to the questionnaire survey, the in-depth data collection is more inclusive, as far as the research is concerns. The respondents of the interview were selected not only among architects but also engineers. The respondents from architectural and engineering field will gives clearer and in-depth picture of the problems related to professional designer in Malaysia.

6. Expert Interview

According to Cabanis (2002), an expert may be defined as someone with special skills or knowledge evidence of leadership in professional organizations, holding office in a professional organization, presenter at national conventions, published in recognised journals, etc.

Referring to the above definitions, experts with extensive knowledge and experience in construction and law, endorsed with relevant credentials and recognised by the industry was selected as an expert respondent for this research. During the in-depth interview, the respondents were asked to name individuals in the industry appeared to them as having extensive knowledge in law and construction. From the replies, a list of expert was created. In addition to this, suitable expert was also identified by referring to the professional bodies such as Board of Architect Malaysia (BOAM) and the Institution of Engineers Malaysia (IEM). Conference and seminars were also attended in identifying the right expert for this research.

7. Critical Issue Evaluation by experts on points identified from Questionnaire Survey and In-depth Interview

From the expert interview, the expert evaluations on findings gathered from questionnaire survey and semi structured, in-depth interview can be illustrated. The evaluation will indicate the criticality of the designer's perspective on design related risks. In addition, it will also portray the aspects related to design risks where legal provisions can play an efficient role in providing better design risk management structure. Accordingly, the questionnaire survey and semi-structured, in-depth interview offers an insight from the perspective of the designers. Expert evaluations acted as endorsement over the matter and provide important insights on the level of criticality. While questionnaire survey and semi-structured, in-depth interview gave a better picture on the designers' perception of design risk, the experts evaluation signify the direction how the law should correspond to design risk management.

7.1 Risk Elements in Relation to Design Professional and Design Works

With reference to risk elements in relation to design professional and design works, replies from research methods applicable in this research showed critical area the law may effectively improved. The experts agreed that all points formulated from findings of semi-structured, in-depth interview and questionnaire survey as critical, except for risk related to the contractor. Accordingly, the experts were in disagreement on the criticality of risk occurrence due to low understanding on part of the contractor. Expert 1 evaluated this point as critical, while Expert 2 viewed it as less critical. The disagreement between the experts is an indication on the seriousness of the issue. This particular issue can be the basis for the law to clarify.

7.2 Risk Factors

Based on replies gathered during questionnaire survey, more than 70% of respondents submitted that the sources of design related risks are building contract and the structure of traditional procurement system applicable in Malaysia. Details of the sources were solicited during semi-structured, in-depth interview, on which the findings were categorized as factors leading to design related risks. Out of the factors submitted by the in-depth interview respondents, some critical points can be identified, based on the evaluation by expert respondents over the factors listed. There were, however, disagreement between the experts existed on risk factors, namely:

1. Poor control over the design process by the designer
2. Pressure from client
3. Change of requirement by the authority
4. Lack of enforcement by the authority

The fact that the experts were in disagreement signals the areas on which further clarification is needed. Accordingly, the law may improve the situation by properly illustrate the manners to manage the risk factors.

7.3 Reasons in not Applying Risk Management

Overall view of the methods applicable in relation to the above point indicates that the reasons for not applying risk management should not diminish the importance for risk management. Replies from questionnaire survey show that the respondents understood the elements of proper risk management. However, the respondents during semi-structured, in-depth interview submitted that risk management is hard to be practiced due to certain reasons. These reasons were evaluated by the expert respondents. Accordingly, none of the reasons cited were evaluated as critical which warrants the inapplicability of risk management. Based on the findings, it is submitted that the reasons for not applying risk management will not overweight the importance for risk management to be conducted. On the other hands, the findings also illustrate the importance for the law to imposed basic risk management practice, as the reasons cited for not applying it are not sufficient to overwrite its importance. The application of risk management practice via legal provisions will increase its applicability among designers, irrespective of excuses cited by the respondents on problems applying risk management.

7.4 Protection for Designer (Professional Indemnity Insurance).

Other critical points to be considered for the law to improve the management of design related risk is on the protection available for the professional designer, in particular, the coverage of professional indemnity insurance. From the research methods applied of questionnaire survey, the respondents indicated that the level of protection available under the building contract is insufficient. In addition to this, their understanding on risk allocation, namely the nature of insurance contract, was low. With insufficient level of protection provided by the building contract and low understanding on risk allocation, the professional indemnity insurance available in Malaysia have to be able to confer the necessary protection. Details on professional indemnity insurance currently available in Malaysia were solicited during the semi-structured, in-depth interview. Findings from the semi-structured, in-depth interview on professional indemnity insurance submitted were on the issue of redundancy, drafting and languages of the insurance contract as well as insurance cost. These points were evaluated by the experts, who gave different perspective on its criticality. On all points submitted, expert 1 viewed it as critical. However, expert 2 was having different evaluation, where he considers the points as less critical. Overall analysis of this point from findings of the questionnaire, semi-structured, in-depth interview and disagreement of experts indicates that this issue should be resolved and clarified as

insurance is an efficient risk management tool. The law can proactively clarify the issue with proper provisions on this matter.

7.5 Insufficiency of Building Contract

In the questionnaire survey, mix replies were given by the respondents on the sufficiency of the building contract in illustrating the duties of designers. In addition to this, the respondents also submitted that the level of protection provided by the contract is insufficient. During the semi-structured, in-depth interview, the respondents were asked to illustrate the duties and liabilities of designer's under the building contract. The respondents listed a few duties as perceived by them. However, none of the respondents ever quoted health and safety as part of their duty as listed by the contract. In order to sum up the matter, experts were asked to give their evaluation on this point. Accordingly, both experts shared the same view that the building contract available today is insufficient. Similar evaluation was made on health and safety issue. Both experts confirmed that health and safety is part of designer's duty, and it is critical for the designer to understand this point. Professional indemnity insurance is one of the critical areas related to design risk management on which the law can effectively improve.

7.6 Legal Provision on Health and Safety

As illustrated above, health and safety issue was regarded as critical by the experts. However, the provision related to this point is low, as none of the respondents during semi-structured, in-depth interview quoted health and safety as part of designer's duty. Emanating from this, the next critical area to be considered is on the introduction of external provisions on health and issue matter, as an external requirement for risk management practice. During the semi-structured, in-depth interview, reference was made to the United Kingdom Construction (Design and Management) Regulations 1994 as illustration on external provision regulating design risk management on health and safety. Nevertheless, merely thirty one percent (31%) of the semi-structured, in-depth interview respondents agreed on the importance of external requirement as to provide a better outline on risk management. when the point was presented before expert respondents, both experts confirmed the need for external provision to be introduced, particularly on health and safety issue. Comparing the experts' evaluation and percentage of respondents on external provisions regulating design risk management issue, it signifies the need for the law to properly structure the matter. Obviously, consensus of the experts shows that there is a need for external provision to be introduced.

7.7 Sufficiency of Designer's Understanding of the Law

While it is important to have a proper legal framework corresponding to efficient risk management practice, its practicality will not materialize if the target group fail to understand the legal provisions meant to achieve the above. Overall analysis of the research methods applicable in this research reveals certain critical areas requiring improvement, particularly on the understanding of the designers on the law.

Designers' understanding on legal provision was solicited via the application of questionnaire survey and semi-structured, in-depth interview. The criticalities of the findings were then evaluated by expert respondents. Accordingly, the areas signifying designers understanding of the law are:

1. Responsibility of lead designer over fault by other consultant engaged by him
2. Yardstick of measurement on the duty to be performed by designer
3. Role of law in managing design related risk

8. Conclusion

The expert evaluation over the criticality of findings gathered from questionnaire survey and in-depth interview was generated from expert interview sessions. The criticality of the issue as viewed by the experts gave an indication on the level of understanding by the professional designers on design risk and its management, as well as the law relevant to it. The importance of the evaluation is, it will signify the areas where improvement can be made, particularly on the role of law in relation to risk management. In addition, criticality of the matter will also indicate the direction on how the law should behave in managing design related risks. On matters where the experts were in disagreement over the criticality of the matter, it signals the importance for that particular point to be further reviewed. Accordingly, the point in contention can be the basis for further research.

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