The Relevance of the Consumer Decision-making Theory to Construction Projects in Malaysia

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Abstract

The use of standard form contracts is a popular option in the Malaysian construction environment due to the resources and experience required to produce a customized contract, and the reassurance resulting from the “tried and tested” clauses found in standard form contracts. The use of the consumer decision-making theory is relevant in explaining the intentions of the client and employer organizations in the transfer risks to the contractor during the operational stages of the project, in the conventional client, consultant, and contractor arrangement. The isolating of the consultant in the competitive bidding process and the design and build strategy also reveals the objective of the employer in pursuing a single source of accountability on such projects. This theory also is useful in explaining the contractor’s assessing of internal resources and the desirability of the project against the acceptance of the risk and responsibilities during evaluation of alternatives before the purchase decision, and the defense mechanisms against the employers and consultants post-purchase behavior in the challenging project environment.

Keywords: Project Management; Construction; Marketing; Consumer Decision-making; Purchase Behavior; Contracting

1. Introduction

The construction industry in Malaysia is a “highly dynamic sector and plays a very important role in the development of the country” and has experienced “rapid growth since its independence” (Memon et al., 2012. p. 45). Sambasivan and Yau (2007. p. 518) underscore the importance of this sector to the overall economy of Malaysia because it “accounted for nearly 3.3% of gross domestic product in the year 2005 and employed about 600,000 workers including 109,000 foreign workers.” As Malaysia accelerates its progress toward industrialization, the role of the sector grows in importance. For example, the need to “mass-produce quality housing that is affordable to all Malaysians” becomes increasingly relevant as the development of Malaysia accelerates (Alaghbari et al., 2007. p. 192).

Construction projects usually cover a wide spectrum of activity, with the involvement of many stakeholders with divergent and even competing interests coming together into achieve project completion. Hence, construction contracts can be quite complicated, and the finalization of the contract can take an extended period of time. As a result, customized contracts can be daunting tasks for smaller or more inexperienced employer organizations and even larger organizations with no functional expertise on construction contracts. This leaves the adoption of a standard form contract as the more popular option for most construction projects since it is “one of the key methods of ameliorating a potentially fractious relationship to achieve a common end” (Tay, 2006. p. v).

Well before the selection of the contractor, the client has multiple options when considering the type of contract and the use of standard form contracts. There are several types of standard form contracts available in Malaysia, the Public Works Department (PWD) 203A, the International Federation of
Consulting Engineers, and the Pertubuhan Arkitek Malaysia PAM 2006 Form. These different contracts were written for and used in varying sectors in the construction industry.

There are a number of underlying considerations on procurement in the construction industry and the use of standard form contracts. The consumer decision-making theory is relevant when explaining the consumer decision-making process and the motivations, perceptions, and attitude that come into play before and after the consumer makes a purchase decision in the Malaysian construction environment. Munthiu (2009. p. 28) described the five steps of buying decision process: Problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. This theory will be relevant in explaining the relationship between the client and contractor and behavioral characteristics of client organization when selecting and engaging a contractor on a construction project. The contractor is also deeply interested in managing the client’s post-purchase behavior, meeting the client’s expectations, and enhancing the client’s perception of their company’s performance (Munthiu, 2009. p. 30).

The consumer decision-making theory will also be pertinent in explaining how the bidding process has changed in the construction industry, with market pressures to keep costs low and reduce construction time has forced new contracting systems on the contractor, with turnkey and design and build contracts, where contractors “make their bid for the design, delivery time, and construction at the same time.” These contracts all but remove the consultants from associated risks and design and delivery responsibilities, since the contractor is “responsible for the whole package, which includes the design even if the contractor has sublet the design” (Gyulay, 2012. p. 3).

2. Literature Review

2.1. Allocation of risks in the standard form contracts used in Malaysia

Miles (1996. p. 6) described this relationship in the British system between the client, the consulting engineer, and the contractor as an “adversarial relationship,” where the client “bears overall design risk, except those which may result from negligence on the part of the consultant,” and the contractor who bears most of the construction risks at the operational stage.

The PWD 203A makes a separation of construction and design “where the design team is contracted by the client” and client who is the government engages the contractor with the role of contract supervision assigned to the Superintendent Office (Zakaria et al., 2013. p. 37). The contract also clearly states the roles and responsibilities of the Superintendent Officer, the design team, and the contractor. The design team is commissioned to “provide the contractor with a complete design” (Ashworth, 1991, as cited in Zulkifli, 2011. p. 37), however, Clause 22.1(c) of the contract also states:

“The contractor shall be fully responsible for the design, execution, and maintenance of the works or part thereof for which his design has been accepted by the government and shall absolutely guarantee the government independent of fault that the design, materials, and workmanship for the works or part of the works is suitable, functional, safe, and compatible with the requirements of the government” (Government of Malaysia, 2007).

Statements such as the above place most project risks, even design risks on the contractor, and the contract does not explicitly state the responsibilities and liabilities on the design consultant. On the other hand, the PWD 203A standard form makes clear and places much authority on the Superintendent Officer and the Superintendent Officer’s representatives that are responsible for the “overall supervision and directions of the works” (Zulkifli et al., 2011. p. 37).

On the other hand, the PAM 2006 standard form contract has been widely used by the building industry for the past 40 years, which included its predecessor, the 1998 version of the form (Zakaria et al., 2013. p. 37). This form of contract is the most popular on commercial or non-governmental projects in Malaysia. As mentioned by Rajoo (2010. p. 248), it is considered as the “de facto Malaysian Standard Form of Building Contract” (Rajoo, 2010. p. 248).

Not only does the coverage of the PAM 2006 seem more comprehensive and involving than other local form of contracts, since it includes the roles and responsibilities of, since the PAM 2006
standard form includes the roles and responsibilities of the employer, contractor, and architect, the contract too makes reference to other consultants, with the architect as the contract administrator. On the whole, the PAM 2006 standard form contract appears to be the most involving, with most key stakeholder’s roles for the project implementation included in the terms of the contract. Rajoo (2010. p. 105) also elaborated that the 2006 version of the contract puts greater limits on the rights of the employer and transfers more risk away from the contractor thus being perceived as more “contractor friendly.” However, employers and consultants still remain very influential in the project environment in the PAM 2006 version and in the Malaysian context.

There is also another standard form contract from the Construction Industry Development Board (CIDB) that was launched in 2000. However, as mentioned by Rajoo (2000. p. 147-160), the terms in this document was viewed as “pro-contractor,” which makes it unfavorable from the client’s or employer’s perspective, resulting its rare use in the Malaysian construction industry.

2.2. Consumer decision-making theory

The consumer decision-making theory is one of the cornerstone theories in marketing research and studies on consumer behavior. Since the client inevitably makes a purchase decision by engaging the contractor in a build contract, the consumer decision-making theory is very relevant to this research topic.

As discussed in the introduction, Munthiu (2009. p. 28) described the five steps of the buying decision process, as shown in Figure 1.

The first step in the model in the problem or need recognition where “the buyer recognizes a need or problem that can be triggered by internal or external stimuli” (Lautiainen, 2015. p. 13). The internal stimuli can be triggered by basic needs such as hunger and thirst, whereas the external stimuli are triggered by an external source, such as an advertisement or a conversation with a friend that sparked an interest on a purchase. In this case, the external stimuli for clients on commercial projects could be based on a number of factors such as changes in market conditions, the competition, consumer’s buying power, regulations, or financial institutions, among many others.

Once the consumer has acknowledged the existence of a problem or a need, the next step is the information search. Munthiu (2009. p. 28) postulated that “the more the product or the service has a higher value and reduced buying frequency, the more researched information tends to be more thorough, from multiple sources…the amount and thoroughness of the newly researched information are deeply connected to the previous experiences of the consumer and the error cost that he perceives when taking the wrong decision.” This understanding has a large implication on the commercial construction project environment, where projects are high value, especially in comparison with the size and financial capabilities of the client organization. Client companies on construction projects in Malaysia often leverage of debt financing to enhance their firm’s capital structure and find their projects (Sahudin et al., 2011). It is to be understood then if client organizations invest much resources in information search, before engaging on such large and long-term endeavors. Such information searches could be market or environmental scanning, feasibility studies, or cost-benefit analysis, among other forms of research that client organizations engage in before embarking on a construction project.

Figure 1: The consumer buying process

Source: Munthiu (2009. p. 28)
The third step in the consumer decision-making model is the evaluation of alternatives. These evaluations could be from the pool of brands, vendors, or service providers that are available to the consumer. In small purchase decisions, the customer may make “little or no evaluation and make their buying decision based on impulse and intuition” (Lautiainen, 2015. p. 15). In the case of commercial projects, the evaluation of alternatives can take on broad and extensive meanings and not just confined to evaluations of service providers, build contractors, and vendors. In the construction environment, the client evaluations start well before the tendering and bidding process, since the form of contract also presents several alternatives to the client.

The fourth stage in the model involves the purchase decision that can result in a positive purchase decision, a non-purchase decision, or a change in purchase intention, where the consumer decides to postpone the purchase or replace the purchase with another product or service (Munthiu, 2009. p. 15). In this case, if the customer changes the purchase intention and considers another product or service, a reevaluation of alternatives may occur again.

In the case of construction projects and a change in purchase intention, a bidding exercise may have revealed significant gaps in the information gathering and research processes, or the bidding process may have exposed ambiguities or inadequacies in contract documents, or unrealistic budget or time constraints. Such issues are the main causes of construction cost and extension of time claims from the contractor, leading to conflict and disputes. (Kumaraswamy, 1996, as cited in Yates, 1998. p. 3-4).

The fifth stage in the consumer decision-making model is the post-purchase behavior, after the purchase decision has been made, and the consumer has decided to purchase the product. This results in an evaluation of the satisfaction level, which if meets or exceeds the expectations, can be translated into brand loyalty (Lautiainen, 2015. p. 15-16). Kotler and Keller (2006, as quoted in Munthiu, 2009. p. 30) simply describe possibilities in this phase as if the product “falls short of expectations, and the consumer is disappointed; if it meets expectations, the consumer is satisfied; if it exceeds expectations, the consumer is delighted”. These tie back to the research topic of satisfying project stakeholders by meeting expectations. On the other hand, post-purchase behavior is far more complex than potentially increasing or diminishing the chances of a repeat purchase. Post-purchase behavior and consumer satisfaction can mean that disputes are avoided, successful practical completion, profitability, and an enhanced reputation for the contractor (Takim and Adnan, 2008. p. 76-77).

2.2.1. Evaluation of alternatives in the form of contract
The evaluation of alternatives, as the second phase in the consumer decision-making theory, carries more dimensions in the construction project management industry than just the selection process among different contractors.

Well before the selection of the contractor, the client has multiple options when considering the type of contract and the use of standard form contracts. Section 2.1 of this research already discussed the standard form contracts in Malaysia, and the unique contracting environment presented by the PAM 2006 standard form contract, the most popular commercial standard form contract in the local industry. The section also elaborated on the degree of protection and exposure on project stakeholders in the different standard form contracts, with the least preferred being the CIDB 2000 form, since it is perceived to be pro-contractor with more risk exposure to client stakeholders (Rajoo, 2010. p. 145).

This addresses the fundamental objective of the construction contract, which is the apportionment of risk and responsibility between the client and the contractor. The use of standard form contracts is advantageous in this regard, since the clauses have been “tried and tested over the years, so their interpretation becomes easier and there is less need to become involved in costly litigation” (Miles, 1996. p. 1-2).

In essence, the implementation of a construction contract is in effect an attempt for the client as the project owner to share or transfer risk to the contractor. As discussed earlier, when choosing the PAM 2006, standard form contract, the client makes an informed decision to empower the consultants, particularly the architect, to act as his representative, agent, and an independent certifier. This creates a
distribution of the risk between the client, consultant, and contractor although the majority of exposure in this form of contract is placed on the contractor (Thuraisingam, 2011. p. 18; Rajoo, 2010. p. 156).

Figure 2 shows how the key stakeholders are structured when using this form of contract.

However, as time and cost pressures increase, augmented by the “adversarial relationship” between project stakeholders and the complicated circumstances around construction project disputes, in the evaluation of alternatives in construct contracts, clients have chosen the design and build contract, in an effort to consolidate risk exposure to the contractor, “whereby the contractor bears all risks, inclusive of project costs, and pricing risks” based on a turnkey and even a fixed price approach (Rahman, 2009. p. 16). In this design and build scenario, structure of key project stakeholders changes significantly, along with the risk allocation to consultants, since the responsibility and the integrity of the design are now under the role of the contractor as shown in Figure 3 (Berg and Persson, 2013. p. 5).

While this form of contract is still unpopular, especially on large commercial projects, with the PAM 2006 well established as the preferred standard form, the discussion on the use of contracts is critical in understanding the intentions of client stakeholders to transfer risk and responsibility in the evaluation of alternatives in the consumer decision-making process.

2.2.2. The relevance of the consumer decision-making theory to consultants

As discussed in the preceding section, the PAM 2006 standard form contract on commercial projects provides a degree of authority, autonomy, independence, and empowerment to the consultants and the architect as the contract administrator in particular. The unique structure of the key project stakeholders in the context of this standard form contract has implications to the consumer decision-making theory in practice.

In the architect’s capacity as the agent of the employer and as the supplier of information to the contractor, “in order to enable the contractor to carry out his contractual works,” the architect and team

![Figure 2: Key stakeholders in the PAM 2006 standard form contract](source: Thuraisingham (2011. p. 5))

![Figure 3: Key stakeholders in the design and build contract](source: Berg and Persson (2013. p. 5))

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of consultants inevitably occupy an integral role in the information search, evaluation of alternatives, the purchase decision, and the post-purchase behavior which are the last four stages in the consumer buying process (Figure 4).

This is due to the advisory nature of the consultant’s role and expectations of the client to the consultants as the lead designers of the project. As a result, client stakeholders often rely and actively involve the consultants early in the project and constantly seek their advice and even scrutiny during the course of the construction project (Kadefors, 1999).

Mohemad et al. (2010. p. 36), in the discussion on the tender processes in the construction industry, puts roles of the client, consultant, and contractor in perspective at this stage of the project, as shown in the flowchart in Figure 5.

The above process flow indicates the integral involvement of the consultants in the tender stages, which corresponds to stages three and four in the consumer decision-making process. In reality though, there is a much larger and more intricate role of the consultants from a consumer decision-making process perspective from the information search to post-purchase behavior. Kadefors (2001. p. 2) throws some light on the matter by emphasizing the key role of the consultants as the specifiers of the building design, where the contractors are “invited to tender, either openly or after pre-qualification.” Often times, in the Malaysian environment, consultants are also involved in the information search where consultants are hired for feasibility studies, cost and time estimation, and procurement measures (Mohemad et al., 2010. p. 37). Information searches also include the pre-qualification of contractors, and consultants are a key party in determining an even recommending contractors into the pre-qualification process. Pre-qualification submission documents are also copied to consultants, in an effort broaden the due diligence efforts, and take on-board the consultants perspectives as design subject-matter experts. As the evaluation stage draws to a close, the consultants also play an active part in the finalization of parties invited to tender on the projects.

The evaluation of alternatives in the tender process also heavily involves consultants, since the submissions of the tenderers are measured against the design intent of the consultants in the form of tender drawings, tender documents, and bills of quantities, which all fall under the scope of the consultants and information provider (Mohemad et al., 2010. p. 37; Kadefors et al., 2001. p. 2).

The post-tender process where the client arrives at a purchase decision also requires consultant participation, as the specifier of the building design and subject matter experts. The recommendations of the consultants in the purchase decision to engage a contractor carry much weight and as the agent of the employer, with clients assigning the “selection of the contractor to a consultant engineer/designer… relying on their expertise in this field” (Kang et al., 2015. p. 69). The PAM 2006 standard form contract also places a significant authority on the architect as the lead consultant in the purchase decision phase, with a provision to even nominate “subcontractors and suppliers on the Employer’s behalf, supervises and approves the work,” which carries the authority of the consultant into the post-purchase behavior phase (Thuraisingam, 2011. p. 7).

Kadefors (1999. p. 233) in the discussion of consultants influence on post-purchase behavior explains in detail the role of the consultants for instance, in negotiations for variations and project cost closure, since the consultants offer “their advice and opinion concerning contractor proposals”

Figure 4: The consumer buying process

Source: Munthiu (2009. p. 28)
although the client makes a final decision. It is needless to say that the combined role and influence of the consultants on the entire duration of the project, as shown in Table 1, carries significant consequences on the client’s post-purchase behavior. This is echoed by Rajoo (2010. p. 105) who acknowledges clients and consultants as “the single most influential segment of the local building industry.”

An understanding of the consultants and their influence on the client in the consumer decision-making process is critical in understand the consultants interests in adherence to the drawings and design specifications, which inadvertently form a reflection of their “general capability and competence” as a project consultant (Kadefors, 1999. p. 238).

2.2.3. Evaluation of alternatives in competitive tendering

The evaluation of alternatives, as the second phase in the consumer decision-making process, has changed dramatically with the increased use of the internet. The increasing exploration into competitive tendering has offered attractive advantages to client organizations with the unending drive to reduce their cost structure since the result would be that contractors are obliged to offer the “lowest prices in
order to be chosen and that the price tendered be the chosen contractor is all that the client will have to pay” (Miles, 1996. p. 6).

Kang et al. (2015. p. 68-69) highlight the importance of competitive tendering to the research topic, labeling the process as “the start point of this unpleasant conflict between clients and contractors.” In practice, the competitive tendering reduces risks to the client, with the possibility of overpriced bids being weeded out early in the game. However, the competitive tendering exercise effectively isolates the consultants and takes negotiation and discussion out the bidding process, making the bid itself the “only means of communication between the client and the contractors.” Table 2 shows the key differences between competitive tendering and the conventional negotiating processes.

The increase in interest in competitive bidding, particularly on commercial projects in Malaysia, is critical to understanding the client’s interest in the evaluation of alternatives to “produce the lowest commercially viable tender price in the current market condition” while seeking to transfer a sizeable amount of risk and responsibility to the contractor, while reducing the consultants participation in the bidding process (Oyeyipo et al., 2016. p. 2).

2.2.4. The application of the consumer decision-making theory to contractors
While the consumer decision-making processes often apply to the client as the purchaser, the contractor intentions and interests of the client have implications to the contractor when deciding to participate in the project as a bidder.

The objectives of the contractor in the evaluation of alternatives place several pressures on the contractor, which the contractor evaluates and weighs in the decision to participate in bidding process. Oyeyipo et al. (2016. p. 2) identify a number of factors, the reputation of the client, physical resources necessary, present state of the workload, ability of the client to pay, margin of profit involved, availability of work, financial resources, identity of consultants, time available to tender, project size, owner promoter, contract conditions, number of competitors tendering, and experience in projects. All

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<thead>
<tr>
<th>Consumer decision-making process phase</th>
<th>Construction project phase</th>
<th>Consultants’ involvement</th>
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<tbody>
<tr>
<td>Information search</td>
<td>Planning</td>
<td>Feasibility studies, cost, and scheduling exercises</td>
</tr>
<tr>
<td>Evaluation of alternatives</td>
<td>Pre-tender</td>
<td>Design, pre-qualification, recommendation of contractors, invitation to tender, preparation of tender documents</td>
</tr>
<tr>
<td>Purchase decision</td>
<td>Tender and post-tender</td>
<td>Evaluation of tender submissions, recommendations for awarding</td>
</tr>
<tr>
<td>Post-purchase behavior</td>
<td>Construction and close-out</td>
<td>Review of contractor’s performance, progress evaluations including valuations, variations, extensions of time, compliance, and final account</td>
</tr>
</tbody>
</table>

Source: Developed for this research

<table>
<thead>
<tr>
<th>Competitive tendering</th>
<th>Negotiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No discussion and deviation is allowed</td>
<td>Discussion is permissible as well as deviations</td>
</tr>
<tr>
<td>Less period of time is given for the contractors to study the project</td>
<td>Wide period of time is given for the contractors to study the project</td>
</tr>
<tr>
<td>Reduces risks to the client, i.e., less cover priced bids</td>
<td>Promotes the use of cover prices</td>
</tr>
<tr>
<td>Expensive</td>
<td>Cheaper</td>
</tr>
<tr>
<td>Time consuming</td>
<td>Save time</td>
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Source: Kang et al. (2015. p. 69)
of these considerations spring from the contractors understanding of the client’s intention and interest to transfer risk and minimize cost, while the contractor themselves seeks to minimize risk exposure and rationalize the financial investment required to complete the project.

The consumer behavior theory here explains not only the interest and intentions of the client but also the counter measures of the contractor in assessing internal resources and the desirability of the project against the acceptance of the risk and responsibilities.

3. Research Methodology

In the reviewed literature relevant to the research topic, there is an evident gap in the research to “paint a detailed picture” of the research problem, which is particularly needed to understand in the underlying issues connected to the research problem. As a result, the researcher has chosen to a descriptive approach to tackling the research problem and produced a detailed picture of the subject as part of the research outcomes.

Data collection for this descriptive and exploratory research will be in the form of personal interviews with a prepared set of questions for discussion in the form of a semi-structured interview. As cautioned by Myers (2012. p. 122), although the semi-structured interview method has several advantages over structured interviews as it makes the best of the structured and the unstructured method and is, especially, useful in qualitative and descriptive research, some pitfalls to the aware are the dependence of the quality of the interview on the mood of the interviewee and the potential for interview data to be inconsistent across respondents which may complicate analysis and interpretation at the following stages.

4. Conclusion

This addresses the fundamental objective of the construction contract, which is the apportionment of risk and responsibility between the client and the contractor. The use of standard form contracts is advantageous in this regard, since the clauses have been “tried and tested over the years, so their interpretation becomes easier and there is less need to become involved in costly litigation” (Miles, 1996. p. 1-2).

In essence, the implementation of a construction contract is in effect an attempt for the client as the project owner to share or transfer risk to the contractor. This is, especially, the case in projects that use the PWD203A and the PAM 2006 standard form contract and even more pronounced in the design and build contracting scenario.

The consumer behavior theory here explains not only actions and intent of employers but also reasons behind the contractor’s behavior during the operational stages of the project. The contractor continues these counter measures and defense mechanisms against the client and consultants throughout the project by calling the drawings, specifications, design, and choice of materials into question during project implementation for the purpose of credibility and economic advantage (Kadefors, 1999. p. 238).

References

Gyulay, J. (2012), How to Reduce Conflicts on Construction Projects?


