Introduction

Improving customer satisfaction is recognized as a critical success factor to all companies. In this context, the Malaysian housing industry has had to address the major sources of house-buyers’ dissatisfaction in the wake of alarming incidences of abandoned projects, delays, defective houses and shoddy workmanship (Khalid, 2010). In the housing industry, delivery system form one of the cornerstones of customer satisfaction. Researchers argue that the prevalent Sell-Then-Build (STB) delivery system is a major source of late delivery and defects caused by shoddy workmanship besides inferior-quality building materials (Ministry of Housing and Local Government, 1999). In view of the persistent occurrence of unfavourable housing projects, the Build-Then-Sell (BTS) system was implemented to mitigate the problem. As the immediate aim of developers is to sell their houses, choosing effective delivery systems to impact sales and address customer satisfaction and others issues are of utmost importance.

History

Public and private developers and co-operative societies constitute the three parties that are responsible for developing housing projects in Malaysia. Housing development by these groups is based on economic planning established by the government through the Five-Year Malaysian Plans which began in the 1950’s. With nine economic plans being implemented to date, housing development in the country has gone through various stages with each stage focusing on different priorities. Apart from enhancing quality of life, these housing projects also create economic generating processes (Nor’Aini, 2007).

Housing development, which is subdivided into landed and non-landed property, constitutes a major sector of the construction industry (Yong, 2006). The growth of housing development in Malaysia has been progressive and impressive despite various constraints and weaknesses (Agus, 1997). Existing literature provides evidence that the housing industry has progressed tremendously with time, particularly in the private sector which has been given the mandate to spearhead housing development in the country. In essence, the housing sector is characterized by two-pronged objectives: (i) to construct buildings and (ii) to construct related infrastructure. The types of buildings constructed may be further divided into three categories as illustrated in Figure 1.1.

Table 1.1 Property Sector: Significant Contributor GDP

<table>
<thead>
<tr>
<th>Property Sector: Significant Contributor GDP</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (RM Mil)</td>
<td>49,250</td>
<td>475,192</td>
<td>505,353</td>
<td>528,804</td>
<td>528,860</td>
</tr>
<tr>
<td>Value of Transaction (RM Mil)</td>
<td>8,407</td>
<td>28,697</td>
<td>36,490</td>
<td>41,307</td>
<td>41,841</td>
</tr>
<tr>
<td>Property Transactions / GDP</td>
<td>6.32%</td>
<td>6.04%</td>
<td>7.22%</td>
<td>7.81%</td>
<td>7.91%</td>
</tr>
</tbody>
</table>

Table 1.1 Property Sector: Significant Contributor GDP

Source: Key Economic Indicators, Economic Planning Unit: Property Market Report 2009, NAPIC

The growth of housing development in Malaysia has been progressive and impressive despite various constraints and weaknesses (Agus, 1997). Existing literature provides evidence that the housing industry has progressed tremendously with time, particularly in the private sector which has been given the mandate to spearhead housing development in the country. In essence, the housing sector is characterized by two-pronged objectives: (i) to construct buildings and (ii) to construct related infrastructure. The types of buildings constructed may be further divided into three categories as illustrated in Figure 1.1.

Figure 1.1: Classification of Construction Industry (Housing)

Housing development, which is subdivided into landed and non-landed property, constitutes a major sector of the construction industry (Yong, 2006). Landed properties involve the construction of single-storey and double-storey terrace
houses; 2½ storey terrace houses; semi-detached houses; bungalows and house types which are constructed on individual, independent plots. Conversely, non-landed properties constitute high rise buildings such as flats, apartments, condominiums and townhouses where each individual owner obtains a strata title as joint owner of the land on which the construction is built.

**Housing Delivery Systems in Malaysia**

Two types of delivery systems currently prevail in Malaysia, the Sell-Then-Build (STB) and Build-Then-Sell (BTS). The STB is a more popular concept in many Asian countries such as Hong Kong, Singapore and Taiwan. Literature about STB reveals its existence in Malaysia for more than four decades (Yusof et al., 2007). Even though the STB system has successfully supplied houses in Malaysia, the increasing problems faced by STB house buyers have urged the government to identify a solution and initiate a more effective housing delivery system such as the novel Build-Then-Sell (BTS) approach.

**Sell-then-Build**

A critical feature of the Sell-Then-Build (STB) system is that it allows developers to sell the housing units and collect progress payments once they obtain advertisement permits from the Ministry of Housing and Local Government (MHLG) (Yusof et al., 2010a). These uncompleted houses might be sold at the planning or construction stage (Leung et al., 2007c). An un-built house is promoted and sold when the potential buyer is shown a plan, an attractive brochure or a model house. Yet, the design and workmanship may not necessarily be the same as the actual house that is going to be completed in the future.

Interested buyers are required to pay 10 percent of the price of the house as a deposit to the developers after signing the Sales and Purchase Agreement (SPA). This is followed by periodic payments in accordance with the construction progress (Leung et al., 2007b; Yusof & Shafiei, 2011). The SPA, which is the agreement between a buyer and a developer, states the buyer’s agreement to buy the house and the undertaking to make progress payments (Leung et al., 2007c; MHLG, 2007; Yusof et al., 2007). Progress payments are released directly by banks to the projects’ Housing Development Account when it is certified that the house has reached specific stages of completion (Yusof & Shafiei, 2011). House buyers will be given the title to the property after all the payments are made and after the application to obtain the Certificate of Completion and Compliance (CCC) has been referred to the local authorities (MHLG, 2007; Yusof et al., 2007).

In Malaysia, the STB system has been successful in meeting the housing needs for all income groups for over 40 years (Yusof et al., 2010a). In particular, this system is advantageous to the developer as it improves the cash flow of the housing development and the payments obtained in the presales can be used for reinvestment in other construction projects (Leung et al., 2007b; Ong, 1997). To the buyers, the system is believed to offer differing choices in terms of the desired location, size and facilities (ibid).

Despite its merits, the STB system also has intrinsic risks such as the risk that is passed on to the buyers by the developers in terms of the capital required for the uncompleted houses (Leung et al., 2007a). House-buyers are heavily impacted financially if they borrow from banks to defray progress payments. They need to meet the monthly payments and also the interest for the two or three years which is the minimum period for the project to be completed. Meanwhile, they have to pay rent for their existing accommodation, which adds to their expenses if developers fail to complete the project on time (Yusof et al., 2010a). Therefore, based on a purely rational perspective, the STB system can be burdensome to house-buyers.

Moreover, developers are inclined to take advantage of the STB system (Yusof et al., 2010a). Complaints from the house buyers range from shoddy workmanship, delayed completion and abandoned projects (Fen, 2007; Chau et al., 2007; Leung et al., 2007a; Yusof et al., 2007; 2010a; b; 2011). The practice of the STB system that allows just about anyone to be developers may result in some serious consequences, such as the possibility that a project is abandoned or cannot be resumed (Yusof & Shafiei, 2011). This rampant problem is evidenced by statistics from MHLG which shows that in 2001 alone, 80070 house-buyers faced abandonment of the projects of their purchased homes (HBA, 2004). The house buyers are the hardest hit when developers run away without completing the project due to financial problems (Yusof et al., 2010a).

Much has also been said about the quality of STB houses. Ong (1997) suggests a strong causal link exist among early down payment, the inability to observe the developers at work in the construction stage and the developer’s poor quality workmanship. Leung et al. (2007c) argues that prospective buyers are often given inaccurate, insufficient or even misleading information in the presale brochures and show-house. This is augmented by HBA (2005) which suggests that the widely promoted model house is not a fair indicator of the quality of the actual unit. Yusof and Shafiei (2011) conclude that the agreement signed between developers and house buyers upon the purchase of the house requires certain standards, however this agreement has little impact on the quality of the constructed house.

Due to these problems in the STB system and in a bid to protect the rights of house-buyers, many stakeholders in the housing industry have challenged the implementation of the STB as an effective housing delivery system in Malaysia (Yusof et al., 2010a).

**Build-then-Sell**

Since STB receives many critics from customers, it was incumbent upon practitioners in the housing and construction industry to scale up provisions of the housing delivery systems. Consequently, the idea of implementing the BTS system was heavily debated over two decades (Yusof et al., 2010a) until the government announced that the new BTS system would run in parallel with the conventional STB system for a two-year trial period (ibid) in April 2007. This was an attempt to solve the problem of abandoned housing projects, improve the quality of housing and provide greater protection to house buyers (Yusof & Shafiei, 2011). In essence, the BTS system requires developers to sell the house only after it is completely built in the completed property market with the CCC readily issued (Yusof et al., 2010a; b; Leung et al., 2007c).

In Malaysia, there are two types of BTS, namely which are 100 percent BTS and Partial BTS (Yusof et al., 2007; 2010a). In 100 percent BTS, house-buyers are not required to pay any down payment or any progress payments. Developers can sell the house only after the house is completely built with the CCC issued. This system is advantageous to house-buyers who have the opportunity to evaluate the house before agreeing to buy it (Yusof et al., 2007). The 100 percent BTS differs slightly from Partial BTS whereby in Partial BTS, developers may sell the
house with a certain sum charged as down payment and the rest to be paid when the house is completed. The government has approved the Partial BTS incorporating the 10:90 BTS model. The model stipulates that after the signing of SPA, house-buyers have to pay 10 percent of the contract price as a deposit which is placed in a stakeholder account to be released to developers once they have completed the houses (Yusof et al., 2007). The remaining 90 percent is to be paid after the house is completed with the CCC released to the house-buyers (MHLG, 2007; Yusof et al., 2007). The 10:90 BTS model is a combination of the STB and the BTS model, with the 10 percent deposit functioning as the purchaser’s bond to the contract.

As exemplified by the preceding discussion, contrary to STB which employs the periodic instalment payment method, the BTS system requires developers to find an alternative source of project financing. In this case, developers have to be financially sound before starting a project (Yusof et al., 2010b) to avoid the abandonment of projects. Moreover, in this new system developers have to be more organized, in that they must be more cautious about completion time and the quality of the houses they build (ibid). This system may overcome the problems in STB, hence simultaneously give more protection to the house-buyers (Yusof & Shafiei, 2011).

There are thus significant and meaningful differences between the BTS and STB systems. Fundamentally in BTS, house-buyers have the opportunity to examine and evaluate the house as the first step towards house-purchasing. The house-buyers may consider to purchase if the house meets their expectations and fulfil their level of satisfaction. Whether it is pure BTS or partial BTS, the risk is not burdensome to house buyers.

The need for alternative delivery systems that foster effective housing construction practices has been recognised worldwide. For example, the BTS system and its six variants have also been launched to work towards this goal in various countries, specifically the UK, USA, Australia, Singapore, Thailand, Hong Long and China. The BTS model and its variants as practised internationally can be categorised under three groups i.e. 100 percent BTS, variant BTS and lastly, Build and Sell (BAS).

**Customer Satisfaction**

Two perennial questions remain in the bid to escalate the provision of housing systems; Are house buyers really satisfied? And do the private developers build to satisfy their house buyers? As more companies are starting to realize the importance of customer satisfaction, the impact of customer satisfaction on a company’s operations has become a widely discussed topic (Matzler et al., 1996) and customer satisfaction is being highly prioritised (Johnson & Fornell, 1991).

Yet, reports on abandoned housing projects, late delivery and poor quality are frequently highlighted in the local newspapers (House Buyer Association Malaysia, 2002). This may be attributed to several reasons such as unskilled construction workers, inexperienced site supervisors, sub-standard materials, disorganized and labour intensive construction works, rushed construction job and huge demand for the properties (Elias, 2003). Technical and non-technical problems related to the housing industry in Malaysia are depicted in Table 1.2.

<table>
<thead>
<tr>
<th>TYPES OF COMPLAINTS</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breach of acts and regulation</td>
<td>70</td>
<td>275</td>
<td>67</td>
<td>2352</td>
<td>1593</td>
</tr>
<tr>
<td>Defective works</td>
<td>331</td>
<td>334</td>
<td>356</td>
<td>238</td>
<td>192</td>
</tr>
<tr>
<td>Liquidated and ascertain damage</td>
<td>306</td>
<td>392</td>
<td>119</td>
<td>31</td>
<td>75</td>
</tr>
<tr>
<td>Payment (Service charge)</td>
<td>54</td>
<td>120</td>
<td>140</td>
<td>147</td>
<td>190</td>
</tr>
<tr>
<td>Certificate of Completion and</td>
<td>109</td>
<td>169</td>
<td>80</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late handing over possession/delivery</td>
<td>959</td>
<td>770</td>
<td>698</td>
<td>826</td>
<td>917</td>
</tr>
<tr>
<td>Interest on late payment</td>
<td>427</td>
<td>397</td>
<td>170</td>
<td>210</td>
<td>173</td>
</tr>
<tr>
<td>Building maintenance service</td>
<td>193</td>
<td>204</td>
<td>107</td>
<td>110</td>
<td>108</td>
</tr>
<tr>
<td>Mortgage/document of title</td>
<td>63</td>
<td>62</td>
<td>93</td>
<td>119</td>
<td>154</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>4</td>
<td>4</td>
<td>30</td>
<td>35</td>
<td>26</td>
</tr>
<tr>
<td>Others</td>
<td>686</td>
<td>703</td>
<td>548</td>
<td>394</td>
<td>491</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2842</td>
<td>3430</td>
<td>2408</td>
<td>4542</td>
<td>3973</td>
</tr>
</tbody>
</table>

Source: Ministry of Housing & Local Government, 2008

The findings illustrate house buyers’ dissatisfaction as registered with the MHLG in Malaysia. The number of complaints remains very high despite the reductions in defective works. There is also a significant increase in breach of acts and regulations (i.e. non compliance of materials used) and late handing over of possession.

Additionally, Ozaki (2002) reports that poor communication between buyers and developers prevent the flow of necessary information on services and products; and this leaves the customers dissatisfied. Weidemann et al. (1982) add that many public housing projects fail to meet house buyers’ needs due to lack of knowledge about the physical aspects of housing quality and design criteria.

**Major Sources of House Buyers’ Dissatisfaction**

As posited by researchers, the concept of housing is a combination of the overall physical and social components that make up the housing system. Morris and Winter (1978) explain housing satisfaction as "a state of the level of pleasure with current housing conditions" (p.80). From the perspective of the actual-aspirational gap approach, housing satisfaction can be a standard for evaluating the quality of the residential environment, by measuring the effect of perceptions and assessments of the objective environment (Weidemann & Anderson, 1985). Most individuals evaluate their homes not only by their actual conditions, but also according to their desires for the future (Varady & Preiser, 1998).

Building features are strongly related to housing satisfaction or dissatisfaction (Kaitilla, 1993). The number of bedrooms, privacy, and the location of the kitchen contribute to the level of dissatisfaction among residents of the core housing program in Nigeria (Ozo, 1990). Moreover, poor housing conditions are generated by problems posed by inadequacy of internal facilities (Ozo, 1986). This was verified by various studies related to housing quality condition and services (Chee & Peng, 1996; Ha, 1989; Kerber, 2000; Torbica, 1997; Torbica & Stroh, 2001; Varady & Preiser, 1998; Varady & Carrozza, 2000).

Neighbourhood dissatisfaction occurs with regard to distances to school, to employment and medical centers and the geographical location of housing estates (Awotona, 1991). Also, accessibility of public transportation, community and shopping...
facilities and physical environment variables had been identified as predictors of neighbourhood satisfaction (Ozo, 1990). Satisfaction with neighbourhood has been noted as an important factor of dwelling satisfaction (Vrbka & Combs, 1991) to the extent that residents may ignore inadequacies in the dwelling when they are satisfied with the neighbourhood.

Earlier studies have noted the importance of management in predicting satisfaction with the residential environment (Weidemann et al., 1982). Services (enforcement of rules, and handling of complaints) provided by the housing management also have been predictors of satisfaction with housing (Burby & Rohe, 1989). Other factors that have also been found related to housing satisfaction include: (i) community/social factors (Ha, 1989), (ii) environmental factors (Chee & Peng, 1996; Ha, 1989), (iii) ability to fulfill buyers’ needs, responsiveness, assistance to buyers on purchase, industry knowledge and after sales (Chee & Peng, 1996); (iv) age (Varady & Preiser, 1998; Varady & Carrozza, 2000) and (v) length of residency (Varady & Preiser, 1998).

To conclude, while product and service quality are the main factors that contribute to customer satisfaction in the housing market, residential environments and neighbourhoods are sometimes not perfect and may influence customer dissatisfaction. As such, it is extremely difficult to predict customer satisfaction as product and service quality alone may not always guarantee it.

Conclusion

The establishment of the BTS system serves as a warning bell to developers – it emphasizes competence in providing quality houses with minimum defects and more control over the completion time to prevent the house buyers from changing their minds and cancelling the purchase (Yusof & Shafiei, 2011; Yusof et al., 2010b). A common belief is that the BTS system may create a more positive image for the housing industry as only qualified developers with strong financial backgrounds have the capacity to put up with this challenge. Besides, the BTS process may help to prevent the recurrence of abandoned projects. There is great potential that the implementation of BTS will be more profitable for the housing industry as it may help boost the housing industry whilst minimizing the problems within (Yusof et al., 2010a). Crucially, further research on the impact of delivery systems on overall satisfaction and behavioural intention will simultaneously drive forward the ultimate objective of improving customer satisfaction and impacting sales.

References


basis for change in multifamily housing. *Environment and Behavior* 14(6), 695-724.


