PRACTICE BRIEFING

Exploiting town planning factors in land development

Case study of urban housing in Kuala Lumpur, Malaysia

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Abstract

Purpose – The purpose of this paper is to examine how planning factors affect urban housing development in the capital city of Kuala Lumpur. The paper encompasses planning approval process, legislative provisions, and planning decisions.

Design/methodology/approach – The paper analyses published literatures on land-use planning to unveil diverse negative effects on property development, particularly on urban housing supply. Primary data are gathered through questionnaire surveys to 137 private housing developers and in-depth interviews with seven local planning authorities to obtain feedback on the issues affecting urban housing development.

Findings – The paper establishes that some components of the town planning control can be exploited towards achieving the housing aspiration of a nation.

Research limitations/implications – The findings of this paper are based on planning controls on urban housing development in Kuala Lumpur, Malaysia.

Practical implications – The paper attempts to encourage public policy makers and local authorities to undertake a more active role in providing better quality of urban housing through utilisation of town planning tools such as development plans, development control, and planning decision.

Originality/value – The paper provides information on how the government can utilise town planning controls to achieve urban housing policy in Kuala Lumpur, Malaysia.

Keywords Town planning, Land, Housing, Urban regions, Malaysia

Paper type Research paper

Introduction

Studies in developed countries such as in the UK and the USA reveal that the practices of town planning affected land development in various ways, and partly contributed to the increase of land prices and housing prices and quantity (Hall, 1973; Barlow, 1993; Bramley, 1993; Healey, 1991; Harvey, 2000; Evans, 2004; Chiu, 2007; Murie and Rowlands, 2008). Acknowledging these effects, town planners and decision makers should consider the possible impact of planning on housing development, and adapt town planning practices towards achieving desired outcomes.
Initially, town planning was mainly intended to guide the development of towns and cities through the use of simple land-use maps; later, these maps developed into comprehensive town plans illustrating infrastructures, intensity of uses, and land-use zoning (Taylor, 2006). Differences in the site conditions and local topography, the timing of the development, government policies, and a unique mix of decision making by individuals, firms, and political groups within each urban area affect the way in which macro social and economic forces are translated into specific urban patterns (Harvey, 1985).

With respect to land development, local authorities are required to have regard to the development plans and also public rights and objections in deciding whether to approve or disapprove development proposals. However, development plans do not always cater for the changes in taste, habit and preference of urban habitants (Ratcliffe and Stubbs, 2003). Consequently, planning decisions are usually left to highly skilled professionals (town planners) and decision makers of local planning authorities and politicians; referred to as the top-down planning approach (Blowers et al., 1982; Guy and Henneberry, 2002; Taylor, 2006). These practices, then, clearly constitute an important subject for further investigations.

Malaysian town planning system consists of development plans and development control procedures that comprise interrelated matters for planning considerations (Lee et al., 1990; Bruton, 2007). Few studies have been carried out which provide empirical evidence of the effects of land-use planning on housing development in Malaysia. However, those empirical evidences did not sufficiently identify the causes of town planning effects. It is imperative for the causes of these effects to be identified so as to enable town planners and decision makers to make the right choice to avoid undesired outcomes (Tiesdel and Allmendinger, 2005). Therefore, the purpose of this paper is to demonstrate how town planning control affected urban housing development in Kuala Lumpur, Malaysia.

An overview of land-use planning and housing development

The implementation of planning system relating to housing development encompasses various planning activities, starting from site acquisition to disposal of the products (Ratcliffe and Stubbs, 2003). The role of town planning control can be examined at each step of this development process. As Adams and Watkins (2002) suggested, the actual market outcomes in terms of price, output or housing density should be first observed and then followed by investigations of the ways in which the town planning control or policies are being implemented.

Literature on this subject examines discussions from studies that have adopted several distinct approaches and views such as classical economy and political economy. Among others, a study by Hall (1973) shows that the ratio of land prices to house prices (for a constant density unit) had risen steadily and the land prices per acre increased between 1939 and 1959, but the ratio of plot price to land price remained constant because of the reduction in house size. Thus, as price per acre increased, houses were constructed on smaller lots and at higher densities (Adams and Watkins, 2002).

Generally, the above studies sought to provide a partial analysis of the distributional effects of planning intervention in the housing market. Although estimates of the magnitude and distribution of the effects differ, it is agreed that planning controls had led to higher prices and densities of new housing. Land-use planning also caused
restriction in the quantity of homes supplied and convergence in the type and design of new homes (Adams and Watkins, 2002; Bramley and Power, 2009).

**Land-use planning in Malaysia**

Town and country planning was introduced in Malaysia in early 1920s, when the country was known as Malaya (Peninsular Malaysia) under the British Colonial administration. Town planning legislation had undergone several exercises to include necessary changes to attain the present Town and Country Planning Act 1976 (Act 172). The first amendment was made in 1995 to include provisions for environmental considerations that should be considered by planning authorities in forward planning and development control activities. The latest amendment to Act 172 was in 2001; referred to as Act 1129, and introduced a three-tier planning system (National Physical Plan, State Structure Plan, and Local Plan (for local planning authority area). Through the new Town and Country Planning Act, the housing policies can be more easily interpreted and adapted for the local circumstances, through the adoption of the local plan).

In Malaysia, town planning appears on the concurrence list of the Federal Constitution and is structured parallel to the Malaysian system of government. The administration system is divided into three levels: federal, state, and local levels (Figure 1). Each level possesses its own town planning authorities. At the federal level, the Federal Town and Country Planning Department of the Ministry of Housing and Local Government formulates and administers policies pertaining to town and country planning nationally. At the state level, all states have their own state town and country planning.

![Figure 1. Institutional framework of land-use planning system in Malaysia](source: Bruton (2007))
planning departments which serve as an advisory body of the state government. At the local level, the local planning authorities execute town planning functions. Town and Country Planning Act 1976 defines a local authority as the local planning authority of a particular district or area.

In the context of housing development, the planning system in Malaysia affected housing provision through land development planning and control. The housing policies set-up by the government in various five-year plans are incorporated into the long-term planning, that is, the development plan system which comprise of structure and local plans. Structure plan usually plans for 15-20 years ahead. Local authorities may face problems when matters within the structure plan are misinterpreted by local plan study groups, or when certain concerns may have not been able to be addressed. The structure plan preparation took a long time to be adopted and therefore changes in the market and economy (such as economic booms and recessions) may affect the implementation of the housing policies outlined by the structure plans. Lack of adequate information and of skilled professionals in the process of formulating policies may raise questions as to the credibility of the structure plan policies; at a practical level, the affected people might dispute these policies.

In addition, the planning approval process also contributes to delays in housing development. Planning approval process requires rigorous assessment on the appropriateness of each application as well as comments from various technical agencies (Yaakup et al., 2002). The effort of planning authorities to expedite the approval process by using a non-statutory local plan, local plans in drafted forms, as a guide engenders uncertainties to developers. The non-statutory plan is not legally binding and is subject to change without public notification.

Another main legislative provision related to land development is the National Land Code (NLC) (1965). All land transactions, changes in usage, alienations, subdivisions, and partitions in Peninsular Malaysia must be in accordance to the NLC, 1965. Under the NLC 1965, land matters falls within the jurisdiction of the state authority. Inevitably, this cause further delays and may result in problems such as increased production cost, prolonged housing problems, and disruptions in the supply of housing land. The supply of housing land is affected due to some restrictions placed on the land ownership which may then lead to the unwillingness of the land owners to release their land for residential development until such time as the property market becomes attractive to the land owner and housing developers (Harvey, 2000).

The effect of town planning control on housing development in Kuala Lumpur, Malaysia

Consideration of planning authorities in evaluating planning applications and the factors affecting housing development in this study are analysed based on primary data obtained through questionnaire survey using face-to-face interview technique. Private housing developers are selected based on the cluster sampling (Nachmias and Nachmias, 2000; Leedy, 2007). This method of sampling enables a researcher to work within its constraint because the sample drawn from all housing developers in Peninsular Malaysia can meet the minimum requirement of samples for satisfactory statistical analysis, which should be more than ten samples for each variable. On this basis, the sample size determined for this research is 160 drawn from 1,009 registered housing developers in Real Estate Housing Developers Association Annual Report 2004.
The survey was conducted within eight months in year 2005 and 2006 using semi-structured questionnaires. All information from the questionnaires was then processed using Statistical Package for Social Science (SPSS). The method of descriptive analyses that include the mean and the median was used to identify the private housing developers’ problems relating to town planning components. The spearman rho’ correlation was employed to identify the interrelated components within the town planning factors. The factor analysis as a form of multivariate analysis used for analytical descriptive was explored to identify the dimensions of town planning factors to indicate the dominant factor.

**Planning factors**

The respondents for the study comprised of representatives from housing developer with experiences in housing development. Based on the sample size of 137 the estimated errors in this study are likely to be below 10 percent. The study divides planning system into three major factors, namely development plans, development control, and planning decisions.

Since this study measures the attitude of problems faced by private housing developers using Likert scale, the data are of ordinal scale and best displayed by bar charts and table of mean and median. Based on the descriptive analysis, majority of the investigated components reveal that town planning system does affect private housing development. Out of 30 components (variables), only four components, namely residential area, existing infrastructure, land size, and extra conditions, are found to be in the “least and lesser problem” levels.

With respect to development plan factor, seven components are found to affect private housing development (Figure 2). The components are: land ownership, need new infrastructure, infrastructure improvement, land-use zone, density zone, and development guidelines. Therefore, these evidences reflect the way of the development plan was prepared which lack of consideration given to land ownership constraints within the identified area for housing development, the obstructions of new and proposed improvement to infrastructures, limitations related to land use and density zoning and restrictions of the development guidelines.

Under the development control factor, fourteen components are found to affect private housing development (Figure 3). The components are: application procedure for planning permission, correspondence of planning departments or local planning
authorities, consultation and discussions with planning officers, planning standards, proposed housing layout design, duration of approval process (time consuming), planning requirements, traffic engineering requirement, landscaping requirements, water supply, electricity (power) supply and sewerage system, building designs, and environmental control. Of all the components that affect private housing development, three sub-factors can be identified based on the values of the mean that are: planning administration, planning evaluation process, and requirements of external technical agencies. Therefore, the occurrence of planning delays, as raised by several researchers, especially from submission planning application until getting approvals are undeniable based on the information given by respondents. Moreover, additional costs have been indirectly imposed in housing development through various technical requirements.

With regard to the planning decision factor, six components are found to affect private housing development (Figure 4). The components are: amendment to the proposal; improvement to the lay out plan; asking to reduce the proposed density;
imposed additional land-use component; extra-technical requirement; and appeal. Except for the appeal, the components have indirectly imposed additional costs to housing development over and above the requirements that have been determined at the technical department level. This also reflects the implications of planning authority’s prerogative powers in the land-use planning system.

This descriptive analysis illustrates that three planning factors affected private housing development, however, the dominant factor cannot be identified by this level of analysis. Therefore, further analyses are required to demonstrate the dominant planning factors affecting private housing development.

**Dominant planning factors**

This section focuses on the analysis of the relationship between components to extract the dominant town planning factor. This analysis is carried out by employing the factor analysis technique provided in SPSS for Windows. Nachmias and Nachmias (2000) and Ahmad Mahzan (2002) argue that the most important work for non-statistician is to interpret the outputs of the factor analysis rather than to worry about its formula. In this study, the factor analysis reveals the relationship between all 30 independent variables and demonstrates the dominant factors.

The technique assumes that items representing a single dimension will be highly correlated with that dimension. Thus, the correlation between an item and a factor is represented by a “factor loading” that is similar to correlation coefficient and can be interpreted the same way (Ahmad Mahzan Ayob, 2002; Nachmias and Nachmias, 2000). Consequently, the results from the factor analysis are further analyzed to examine the interrelated components (variables) based on the occurrence of similarity views among respondents by employing the Spearman \( \rho \) correlation technique. The differences of views among respondents to the identified factors are analysed by employing the one-way ANOVA technique.

The variables comprise town planning components and other components that have Cronbach’s alpha values of more than 0.7 are used as the data input into the process. Output from the principal factor analysis (PFA) as shown by Table I is the result from the rotation of initial component factors. The PFA output shown in Table I can be interpreted in various ways. Owing to the purpose of the method used to identify the dominant factors, the coefficient or “loading” less than 0.3 is considered weak as indicator to the factor and thus excluded (Nachmias and Nachmias, 2000; Ahmad Mahzan Ayob, 2002; Jackson and Watkins, 2005). The italics figures show the high-factor loading where the relationship between the item and the factors is considered strong. The rest of item loadings are weak to be considered as good indicators of the factor. Most importantly, “the factors with the highest percentage of explained variance provide the most parsimonious representation of the items” (Nachmias and Nachmias, 2000, p. 472). Based on this interpretation, the most parsimonious factor is Factor 1 because the percentage of explained variance is 46 percent compared to other factors. Thus, Factor 1 is the dominant factor. In addition, 23 items of having high-factor loading have strong relation with Factor 1. These items constitute the assigned factors: development plan (structure and local plan), development control, planning administration, technical requirements, and other planning factors.

The sign to each item helps to identify the items under which factor such “dp” depicts development plan, “dc” for development control, “pd” for planning decisions
and “of” for other planning factors. As shown in Table I, private housing developers are faced with problems related to policies and development concepts outlined by the respective development plans. Development plan emerges as the dominant factor in housing development in line with its main function to guide development control, and planning decisions.

Findings
In the context of Kuala Lumpur, City Hall of Kuala Lumpur is the local planning authority which is treated as an agent of the public institution and the developer is an agent of the market institution. The interaction of both agents is influenced by the

<table>
<thead>
<tr>
<th>Planning items or components</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land holding – dp</td>
<td>0.888</td>
<td>0.177</td>
<td>0.126</td>
<td>0.129</td>
<td>-0.037</td>
<td>0.079</td>
</tr>
<tr>
<td>Application procedure – dc</td>
<td>0.885</td>
<td>0.204</td>
<td>0.151</td>
<td>0.057</td>
<td>-0.129</td>
<td>-0.017</td>
</tr>
<tr>
<td>Appeals for planning decisions – pd</td>
<td>0.863</td>
<td>0.047</td>
<td>0.015</td>
<td>0.072</td>
<td>-0.093</td>
<td>0.016</td>
</tr>
<tr>
<td>Specific conditions – pd</td>
<td>0.859</td>
<td>0.147</td>
<td>0.131</td>
<td>0.074</td>
<td>-0.180</td>
<td>0.049</td>
</tr>
<tr>
<td>Impose new component – pd</td>
<td>0.840</td>
<td>0.195</td>
<td>0.008</td>
<td>0.045</td>
<td>0.074</td>
<td>0.082</td>
</tr>
<tr>
<td>Correspondences – dc</td>
<td>0.839</td>
<td>0.192</td>
<td>0.142</td>
<td>0.017</td>
<td>0.095</td>
<td>0.003</td>
</tr>
<tr>
<td>Planning standard compliance – dc</td>
<td>0.830</td>
<td>0.064</td>
<td>0.010</td>
<td>-0.050</td>
<td>0.032</td>
<td>-0.069</td>
</tr>
<tr>
<td>Traffic requirement – dc</td>
<td>0.824</td>
<td>0.051</td>
<td>0.249</td>
<td>-0.031</td>
<td>0.092</td>
<td>-0.016</td>
</tr>
<tr>
<td>Amendments during evaluation – dc</td>
<td>0.822</td>
<td>0.129</td>
<td>0.081</td>
<td>0.005</td>
<td>0.147</td>
<td>-0.027</td>
</tr>
<tr>
<td>Duration of approval – pd</td>
<td>0.815</td>
<td>0.191</td>
<td>0.103</td>
<td>0.088</td>
<td>0.046</td>
<td>0.077</td>
</tr>
<tr>
<td>Planning guidelines – dc</td>
<td>0.810</td>
<td>0.158</td>
<td>0.032</td>
<td>0.247</td>
<td>-0.064</td>
<td>0.142</td>
</tr>
<tr>
<td>Extra planning requirements – pd</td>
<td>0.800</td>
<td>0.196</td>
<td>0.152</td>
<td>0.014</td>
<td>-0.227</td>
<td>-0.028</td>
</tr>
<tr>
<td>Electricity supply requirement – dc</td>
<td>0.782</td>
<td>0.102</td>
<td>0.096</td>
<td>-0.130</td>
<td>0.039</td>
<td>-0.172</td>
</tr>
<tr>
<td>Layout design – dc</td>
<td>0.773</td>
<td>0.190</td>
<td>0.302</td>
<td>-0.120</td>
<td>0.063</td>
<td>-0.007</td>
</tr>
<tr>
<td>Discussions with LPA – dc</td>
<td>0.698</td>
<td>0.099</td>
<td>0.389</td>
<td>-0.048</td>
<td>0.161</td>
<td>0.068</td>
</tr>
<tr>
<td>Planning requirement – pd</td>
<td>0.692</td>
<td>0.081</td>
<td>0.335</td>
<td>-0.049</td>
<td>0.196</td>
<td>-0.007</td>
</tr>
<tr>
<td>Infrastructure improvement – dp</td>
<td>0.681</td>
<td>0.017</td>
<td>-0.046</td>
<td>0.294</td>
<td>-0.121</td>
<td>-0.296</td>
</tr>
<tr>
<td>Density zone – dp</td>
<td>0.674</td>
<td>0.107</td>
<td>0.162</td>
<td>0.331</td>
<td>-0.151</td>
<td>-0.245</td>
</tr>
<tr>
<td>Amendment to proposed layout plan – dc</td>
<td>0.658</td>
<td>-0.115</td>
<td>-0.204</td>
<td>0.024</td>
<td>0.359</td>
<td>0.074</td>
</tr>
<tr>
<td>Land-use zone – dp</td>
<td>0.630</td>
<td>-0.174</td>
<td>-0.142</td>
<td>0.331</td>
<td>0.089</td>
<td>0.341</td>
</tr>
<tr>
<td>Density reduction – pd</td>
<td>0.633</td>
<td>-0.015</td>
<td>0.326</td>
<td>0.009</td>
<td>-0.072</td>
<td>0.134</td>
</tr>
<tr>
<td>New infrastructure – dp</td>
<td>0.610</td>
<td>-0.072</td>
<td>-0.104</td>
<td>0.326</td>
<td>-0.116</td>
<td>0.170</td>
</tr>
<tr>
<td>Environment control requirements – dc</td>
<td>0.610</td>
<td>-0.086</td>
<td>0.025</td>
<td>-0.098</td>
<td>-0.092</td>
<td>-0.141</td>
</tr>
<tr>
<td>Physical characteristic – dp</td>
<td>0.147</td>
<td>0.878</td>
<td>-0.051</td>
<td>0.025</td>
<td>-0.050</td>
<td>0.045</td>
</tr>
<tr>
<td>Landscaping requirement – of</td>
<td>0.426</td>
<td>0.467</td>
<td>0.112</td>
<td>0.162</td>
<td>0.035</td>
<td>-0.037</td>
</tr>
<tr>
<td>Water supply and Indah water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requirements – dc</td>
<td>0.236</td>
<td>-0.022</td>
<td>0.818</td>
<td>0.126</td>
<td>0.017</td>
<td>-0.010</td>
</tr>
<tr>
<td>Extra conditions – pd</td>
<td>-0.139</td>
<td>-0.138</td>
<td>0.119</td>
<td>0.238</td>
<td>0.686</td>
<td>0.066</td>
</tr>
<tr>
<td>Existing infrastructure – dc</td>
<td>0.120</td>
<td>0.193</td>
<td>-0.083</td>
<td>-0.195</td>
<td>0.637</td>
<td>-0.398</td>
</tr>
<tr>
<td>Land subdivision – of</td>
<td>0.028</td>
<td>0.060</td>
<td>0.008</td>
<td>-0.038</td>
<td>-0.075</td>
<td>0.857</td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>14.58</td>
<td>1.56</td>
<td>1.32</td>
<td>1.21</td>
<td>1.13</td>
<td>1.04</td>
</tr>
<tr>
<td>Percentage of explained variance</td>
<td>46.19</td>
<td>4.95</td>
<td>4.89</td>
<td>4.72</td>
<td>4.42</td>
<td>4.40</td>
</tr>
<tr>
<td>Cumulative percentage</td>
<td>46.19</td>
<td>51.14</td>
<td>56.03</td>
<td>60.75</td>
<td>65.17</td>
<td>69.57</td>
</tr>
</tbody>
</table>

Table I.
PFA rotated components

Notes: F – factor loading; Factor 1 – development plan (structure and local plans); Factor 2 – environmental control under other planning factors; Factor 3 – technical requirements; Factor 4 – planning evaluation under development control; Factor 5 – planning guidelines; Factor 6 – land administration (Land Law)
higher institutions namely the country constitution, economy, and legislative provisions. The key players are the town planners, architects, financiers, land owners and other technical man-powers who work either in the public institution or in the market institution.

The housing developers who are performing under the market institution must take into accounts the decisions and controls by the government agencies and decision makers. Thus, developers have to play their roles within the legislative frameworks and to take their own risks in dealing with land development. They are entrusted to provide decent housing for all Malaysians and to commit their social obligations which include contributions towards sustainable and healthy environment. In addition to their responsibilities to deliver completed houses to house buyers under the Developers Licensing Act 1966, housing developers are also affected by the country economic performance. During economic recession, some housing developers abandoned their project. Thus, the changes in housing demand necessitate the housing developers to be more cautious in their attempts to maximize the profit. Moreover, the town planning control is claimed to have partly contributed to housing development costs and products because the town planning control is one of the government tools in intervening the housing market. Owing to the assertions of unintended outcomes of planning system, this research has ascertained the town planning factors that had affected housing land development during the period of 1976-2005.

Town planning factors are divided into three main factors namely development plan, development control, and planning decision. Each factor comprises several components, and 30 components were identified for investigations. The primary data were gathered through face-to-face interview technique. From the descriptive analysis method, 26 out of 30 investigated components indicate the occurrence of private housing developers’ problems in relation with the way state and local planning authorities implemented the planning system. All the above three main factors are associated with the problems.

By using the factor analysis technique, the results show the existence of correlations among town planning items in six dimensions. The first dimension comprises a group of components that are associated with the development plan that indicates the influences of the development plan on those components. Therefore, the problems faced by private housing developers in the identified planning components are associated with the way the development plan (structure and local plans) are prepared and interpreted in development control, and in planning decision. The planning authorities have caused the private developers to embrace problems with housing location, designs, intensity, and quality. Obviously, this finding supports the theory that the implementation of town planning system affects housing development in terms of housing location, quantity, house types, and prices as highlighted by Evans (2004), Harvey (2000), Cheshire and Sheppard (2005), Monk et al. (1996) and Bramley (1993).

However, the implementation of planning system was incorporated with non-town planning matters such as administration, engineering, political ideology, and legal and social issues. Based on the significant components derived from the analysis, the results can be classified as planning administration, technical requirements, and land laws. Under the planning administrations, delays in planning approval process confirm the claims made by Sen (1991), Mohd Razali (1992, 2002) and Goh (1997).
Under the land laws, the problems of land ownerships highlighted the ownership constraints in land development which support claims made by Salleh Buang (1997), Goodchild and Munton (1985) and Masey and Catalano (1978). The private developers’ problems with technical requirements are related to the increase in production costs and the delays in housing development. This particular finding support the claims made by Goh (1997), Sen (1991) and Lee et al. (1990).

Land holding is identified as the main components affecting the land-use planning of which will affect the developers choices to develop the identified housing location, to determine the size of the projects and house prices. The unwillingness of land owners to release their land causes developers to change their location or to reduce their project sizes. Thus, the size and shape of the projects affect development costs, thus developers have to find other solutions from technical and social aspects such as by reducing streets and drains construction costs. In addition, the freehold land and the leasehold land titles prevented developers from amalgamating the land plot with the housing scheme because different land holding status requires different land administrative procedures and land values (Marbeck, 1997; Salleh Buang, 1997).

Conclusion
This study demonstrates that the products of land development particularly the urban housing in Peninsular Malaysia are partly affected by the practice of planning authorities in implementing planning control where development plan (structure and local plan) was the dominant factor, associated with other planning components. The results of the analyses reveal that main components affecting housing development comprise of land for housing, approval process, planning guidelines, and technical requirements. Other factors are conditions and limitations imposed under the NLC 1965.

This study concludes that development control activities in local planning authorities are very much tailored to accommodate technical requirements of technical bodies, town planning requirements and guidelines are seen to have ignored changes in taste, demand and technologies, there has been a lack of consideration of the impact of planning decisions on housing development, and finally, additional costs are indirectly imposed on housing developers, subsequently resulting in the increase of the total land development costs. Therefore, public policy makers and local authorities should undertake a more active role in providing better quality of urban housing through utilisation of town planning tools such as development plans, development control, and planning decision.

References


**Further reading**


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