

**THE KNOWLEDGE, PRACTICES AND CHALLENGES OF DEVELOPERS
IN HOUSING DELIVERY SYSTEMS IN MALAYSIA**

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DEDICATION

To my beloved family members

Dad, mom, brothers and sister, for your unwavering care and support

And a special appreciation for my lovely sister

I have a carefree study life because of you all

To my truly great housemates and friends

KokKhong, WenAun, ThiemHee. PooiYong, SiangLi

SockYen, PangSoon, Dess and others

My Master years study life was never been so meaningful

and wonderful without your attendance

Thank you for your moral supports and helps

To my beloved, Chai Kar Hau

For your never absent love and concomitance

Meeting you is the greatest unexpected present in my Master years

The life is perfectly complete since the day we met

Thank you.

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ABSTRACT

There are various types of housing delivery system in Malaysia which are Sell Then Buils (STB), Build Then Sell (BTS), 10:90 System (10:90) and 5/95 Home Loan Package (5/95). It is reported that most of the developers are practising the conventional system which is STB. In this context, it is important to justify developers' circumstance and the rationales of their preferred and practised housing delivery system. The objectives for this study are threefold. First, to determine the knowledge of developers about the different types of housing delivery system in Malaysia. Second, to identify the common types of housing delivery system currently practised by developers and third, to determine the challenges faced by developers in the implementation of different types of the system. The data and information needed in this study were obtained from the questionnaire returned by 20 developers out of 32 in the scope of study, Johor Bahru. Contingency Table Analysis was used to obtain the findings for the first and second objectives; whereas the third objective was studied via the average mean score and ranking method. The findings revealed that most of the developers only knew and practised STB but lacking in the knowledge and information for another three types of housing delivery system. Although they are practising STB, not all of them have good understanding about it, especially regarding the party to bear the risk of abandoned housing project. It was also found that the burden of financial sources and inherent risk of project are among the main challenges faced by developers to not implement BTS, 10:90 and 5/95. This study would serve as supplement information for developers, government agencies, and house buyers to gain better insight on the reasons for developers' reluctance to adopt the proposed housing delivery systems. With that, the existing housing delivery system can be improved further.

ABSTRAK

Terdapat beberapa jenis sistem penyampaian perumahan di Malaysia iaitu Jual dan Bina (STB), Bina dan Jual (BTS), sistem 10:90 (10:90) dan Pakej Pinjaman Rumah 5/95 (5/95). Telah dilaporkan bahawa kebanyakan pemaju perumahan dilaporkan masih mengamalkan sistem tradisional iaitu STB. Oleh itu, adalah penting untuk mengenalpasti keadaan pemaju perumahan dan rasional mereka untuk menggemari dan mengamalkan sesuatu sistem penyampaian perumahan. Terdapat tiga objektif dalam kajian ini. Pertama, untuk mengenalpasti tahap pengetahuan pemaju perumahan tentang sistem-sistem penyampaian perumahan di Malaysia. Kedua, untuk mengenalpasti jenis sistem penyampaian perumahan yang lazim dipraktikkan oleh pemaju perumahan pada masa kini, dan ketiga, untuk mengenalpasti cabaran yang dihadapi oleh pemaju perumahan semasa mempraktikkan sistem-sistem tersebut. Maklumat kajian diperolehi melalui borang soal selidik yang dikembalikan oleh 20 pemaju perumahan dari 32 dalam skop kajian Johor Bahru. Analisis Jadual Kontingensi digunakan untuk memperolehi penemuan bagi objektif pertama dan kedua; manakala objektif ketiga dikaji dengan menggunakan purata skor min dan kaedah kedudukan. Kajian ini mendapati kebanyakan pemaju hanya mengetahui dan mengamalkan STB tetapi kekurangan pengetahuan dan maklumat mengenai tiga sistem yang lain. Walaupun mereka sedang mengamalkan STB, tetapi bukan semuanya memahami sistem ini sepenuhnya, terutamanya tentang pihak yang bertanggungjawab terhadap projek terbengkalai, jika berlaku. Kajian ini juga mendapati masalah kewangan dan tanggungan risiko projek merupakan cabaran utama yang dihadapi oleh pemaju perumahan supaya tidak mengamalkan sistem penyampaian perumahan BTS, 10:90 dan 5/95. Kajian ini boleh dijadikan sebagai maklumat tambahan kepada pemaju, agensi-agensi kerajaan, dan pembeli-pembeli rumah untuk memperolehi pendapat yang lebih mendalam terhadap sebab-sebab pemaju perumahan menolak sistem-sistem penyampaian yang telah diperkenalkan. Dengan itu, sistem penyampaian perumahan sedia ada dapat terus ditambahbaik.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Maslow Theory is one of the basic theories in the field of economics which suggests that each individual is motivated by a series of need (McLaren, 2007). Based on the theory, the most basic requirement for humanity is to have a safe residence. Therefore, it is undeniable that humans need a residence which is a comfortable house. Housing can also symbolize someone luxury and it is an indicator to show the people life in a country (Pollack *et al.*,2004).

Every activity which is related to construction and renovation of building structures and unmoveable facilities is included in construction industry (Nam and Tatum, 1988). Housing is one of the major elements in construction industry and it plays an important role in our country's development. Housing activity, a dynamic industry brings a wide multiplication effect on the growth and development of country economic. The Malaysia construction industry is one of the largest industries in this country. It accounted for 3.3% of Malaysia Gross Domestic Product in (GDP) in year 2010 (Construction Industry Development Board). This clearly shows that construction industry plays an important role in GDP and it can be one of the tools to measure the economic status of a country. For Malaysia to reach developed country status in 2020, construction industry plays a major part in realizing this great aspiration (Zainul, 2010).

Demand for housing will increase parallel to the growth of population. The same scenario can be seen happening in Malaysia. There are 24.5 million population in Malaysia on year 2002 and increased to 28.3 million on year 2010. Likewise, supply for residential units in 2002 was 3,050,421 units and increased to 4,433,310 units in year 2010 (Property Market Report 2003 and Property Market Report 2010). There is a need for government to intervene into housing market due to its imperfectness and competitiveness (Yu & Lee, 2010). Malaysia government had tried to fulfill the social needs in housing by introducing a number of housing programmes within the time period of 5th Malaysian Plan until 10th Malaysian Plan. Such as, allocate RM 20 million for financing preliminary work in 5th-MP, increase accessibility to adequate, affordable and quality houses for all income groups in 8th-MP, and provide Housing Assistance Programmes in 10th-MP (Economic Planning Unit, Prime Minister's Department Malaysia). Unfortunately, there are still a lot of problems in the housing market, one of the major problem is the uncertainty of housing delivery systems.

In Malaysia, Sell Then Built (STB) is the most common housing delivery system practised by developers. Under this system, developers sell the proposed housing units before starting the construction work. With this system, the developers and the projects are secured where majority of the proposed housing units are sold even before the construction phase. However, this system may cause insecurity to the house buyers if the house can not be completed or the housing project is terminated before the completion. Data from Ministry Of Housing And Local Government (MHLG) revealed that there were 34 abandoned housing projects in Malaysia from year 1999 to 31 May 2009. These abandoned projects consist of 6945 units of house and affected 4570 house buyers. Table in Appendix A shows abandoned housing projects in different states from year 1999 to 31 May 2009.

Cases of developers failed to complete housing projects according to schedule had impelled the Ministry of Housing and Local Government to introduce a new system, Built Then Sell (BTS) on 12 April 2007. Developers are encouraged to implement this system since it will solve the housing problems confronted by house buyers. The

present concept (STB) still can be accepted and the transition from STB to BTS will take place in two years time. This newly introduced system is expected to protect the house buyers' right where the house buyers have to pay 10% of the house price as deposit, whereas the remaining 90% to be paid after the house is completely built.

Besides Sell Then Built and Built Then Sell systems, there were also other housing delivery systems being introduced in order to fulfill different situations in property market to achieve a win-win situation between developers and purchasers. These new systems are 10:90 system (10:90) and 5/95 Home Loan Package (5/95). In 10:90, 10% deposit is paid when the purchaser signs the Sale and Purchase Agreement (SPA) whereas the remaining 90% is paid when he gets the Certificate of Completion and Compliance (CCC). In 5/95, deposit needed is only 5% of the house price and another 95% is paid by instalment where it will depend on the stages of the housing construction.

1.2 Problem Statement

Owning a house has become a basic need in human's life. In the case where financial is not a problem to a house buyer, it is still not easy to own a house as it covers various complex factors, e.g. multifarious of processes which has been stipulated by the Government of Malaysia, the length of construction time by the developer which is difficult to be predicted as it depends on the developer's portfolio and its financial status, the ability of the developer to complete the housing development projects while adhere to all the laws and regulations related, and the most important, commitment of the developer to fully complete the housing project on-time.

Zainul (2010) pointed out that construction sector is facing a lot of challenges. This will then affect the supply for an affordable housing. Issues of abandoned housing projects had been mooted in Malaysia housing industry since 1975 and became a serious

issue on the year 1983. This situation had grown from bad to worse since few years ago especially after Malaysia experienced economics slump. Although the Government of Malaysia has put a lot of efforts and strategies to overcome this problem, the units of abandoned housing projects are still abundance.

The effort to patch up or repair an abandoned housing project is challenging. It is not only the complicated process to get approval from each related party to repair the abandoned projects but also the reconstruction work is not easy. It is easier to construct a new housing development project rather than redevelop an abandoned housing project (SPNB, 2008).

There are various types of housing delivery system introduced by the Government of Malaysia due to the different development concepts performed by current developer companies and those in future. Each company will choose the system that is suitable with their development concepts and the current economic condition. However, the society members as well as developers who are the stakeholder in property field are not clear with these various types of housing delivery system. This can be validated in the speech of Minister of Housing and Local Government, Datuk Seri Ong Ka Chuan where he had used an inaccurate term for housing delivery system during a housing launching ceremony (2009, Feb 20, New Straits Times).

Housing delivery system that has been practiced in Malaysia since long time ago is Sell Then Build system (STB). This system is applied where the purchaser will only pay 10% deposit of the house price which he/she wish to buy and the remaining 90% will be paid progressively according to the construction stages of the housing development project. However, there was a lot of problems arisen from STB, and most of it distressed the house buyers. Under this system, house buyers can only have an illusion on what the final product (property) will look like based on the information and show houses provided by developers. Interested buyers have to pay certain amount as deposit payment for the “planned construction” and hope for their expected property

upon completion. Beside that, they have to take a loan from financial association, e.g. bank, where the payment to developer will be made by the financial association progressively until the property is handed over to the borrowers (property buyers). The property buyers only have conceptual basis upon purchase of uncompleted property (Laura and Mary Anne, 2006).

One of the most common situations happened among property buyers is they become unwitting victim of errant developers who absconded or misused the fund meant for their contracted property. Although most of the developers will try their best to fulfill their responsibility as the bargain, there were still some developers who abandoned the development projects and left the projects before the houses were fully completed and handed over to the buyers. In this case, the loans taken from banks still have to be repaid by the house buyers no matter what happened in the real posture (Laura and Mary Anne, 2006).

Besides, the problems faced by house buyers are, they were not satisfied with Sell and Purchase Agreement (SPA), discontented with the housing quality, burden of housing loan cause of uncompleted housing development, etc.. Therefore, the STB housing delivery system has to be modified to protect the house buyers. Besides paying the interest on housing loans for an uncompleted house/property, they have to pay for property rental which they occupied during the period of their house construction. Most of the time, house buyer is the one who get the impact and suffer in this situation but the developers can simply get away despite the case was resulted by them (Hassan, 2004).

To solve the problems arised from STB, the Government has been working over the feasibility to implement Build Then Sell system (BTS) in 2007 where the developers will only sell the developed units when the project is fully completed. The Predecessor Prime Minister, Datuk Seri Abdullah Ahmad Badawi also agreed with this new concept where it has been implemented in Taiwan. The developers have to in possession of adequate fundings before they started a development project so that they will not rely on

financial resources from property buyers (2004, May 21, Bernama). However, most of the housing developers and housing association strongly oppose the proposed system. However, this system is essential to buyers since a lot of problems occurred when the house buyers are left with uncompleted housing projects.

This substituted housing delivery system may bring different impacts on different parties. Firstly, financial institution will only be able to finance those developers having an amount of capital which is stable to continue with BTS. Besides, some financial institutions will think twice in offering loans for developers who carry out this system. This is due to the case where the only tangible mortgage from the developers for the loan is merely the land which the project is built. If only this system being implemented in our country, there is a possibility that it will end up with only a few housing developers exist in the housing market. This will then reduce construction projects and affect the country's economy and at the same time increases the prices of housing property (Bhag, 2004).

On the other hand, from the view of house buyers, BTS is more favourable. House buyers are protected when they purchase a property which is completed as compared to STB. House buyers are now not much different with others purchasers where they can access and value the product before making any decision. With this approach, house buyer's name will be registered once payment for the property unit purchased was done (Bhag, 2004). However, during Third Meeting of First Term 12th Parliamentary Setting, there were perceptions that housing project by Build Then Sell system is more expensive and will then burden the people.

Housing developers may have varied opinions toward funding of development construction works. Developers who wish to implement BTS housing delivery system must have strong financial resources in order to get a land and start a development project which is ready to be sold to potential house buyer once the construction is completed. Otherwise, developers will need to get loans from financial institution which

the funding amount will definitely greater than the amount they borrowed in the STB (Bhag, 2004).

In common, developers are not so contentment and not yearn for BTS except for those who have implemented this previously. They found that this is unfair for small developers or beginner in this sector where they need financial support from house buyers to fund their initial construction costs. With BTS, they have to get a huge amount of loans from banks as their bridging finance. Comparing with STB, the risk accessed by the financial institution in approving loan to the developer will be greater. Hence, developers will be burdened with higher interest rate and these costs will then be transferred to buyers in the form of higher house prices (Laura and Mary Anne, 2006).

There are some roadblocks with the BTS system. Among others is, how if the constructed houses cannot be sold? Only a few developers who have strong financial resources will able to undertake the holding cost, and for those who are willing to try in this newly launched system, only a small amount will be invested. This may result in decrease of housing supply in the market. Likewise, who is the one going to be charged with the holding cost of the unsold units? (Laura and Mary Anne, 2006).

Most of the developers are not clear enough and still confused with BTS (Laura and Mary Anne, 2006). They do not really know how this system works and are not clear about its implementation process. Some of the main issues faced by developers under this newly introduced system are; they have to take into account the risks involved and the holding cost of a development project although there are some incentives given by government; anyhow, they are still lack of information about it.

It is quite difficult for the developers to totally change the current practiced STB to BTS notably for those developers who are unwilling to do any graveness innovation on their companies. With that, the National House Buyers Association suggests to use the Build Then Sell 10:90 system (10:90). Under this system, property buyers who are

interested in any housing units have to pay 10% deposit before the units is constructed and the remaining 90% to be paid after the project is completed. If developer failed to complete the project according to the Sell and Purchase Agreement's regulations, the buyers have the right to refund the 10% deposit together with the interest (Hassan, 2004).

Under 10:90 housing delivery system, developers are allowed to collect 10% deposit of the house price from interested buyers upon obtaining all relevant approvals and the remaining 90% to be paid upon completion of the property with a Certificate of Completion and Compliance (CCC) being issued. Banks had expressed that if developers are able to show and prove that their project is viable, then financial supports will be provided. However, it is difficult for a developer to assure that their project is viable without guaranteed financial resources. Only a developer who has strong financial resources is able to cover the 90% of the construction works cost. There are some developers raise their concern that 10:90 will eventually become the only system for them to deliver the property units to buyers (Royce, 2006).

Besides, a new system has been suggested on 19 January 2009 to entice housing purchasers. The new scheme, known as the '5/95 Home Loan Package' (5/95), allows buyers to pay down payment of 5% whereas the balance 95% to be billed progressively based on percentage of completion as certified by an architect. As part of the package, interest during construction period will be borne by the developer. Thus, 0% interest for property buyers before the housing is constructed. However, the risk of abandoned projects, if any, is fully borne by house buyers (2009, Feb 20, New Straits Times). Some of the Malaysia developers had already practicing this new system in their sales marketing strategy. The 5/95 significantly cuts down the deposit payment of house purchasers and in addition prevents buyers of any further cash outflow until vacant possession. This system has been proven to be able to generate good sales in housing market today (Interim Financial Report of S P Setia Bhd., 2009).

Therefore, there are advantages and disadvantages in each system. We can foresee that system where payment for the housing being made progressively will continue in the market while developers who practice Build Then Sell system will provide more alternative for home buyers and will have more opportunities in their business (Bhag, 2004).

With that, there are various types of housing delivery systems introduced and practiced in Malaysia. National House Buyers Association (2006) stated that there are still a lot of people confused with the delivery systems especially BTS and 10:90; they may think that the two systems are the same. For the four different types of housing delivery system, including STB, BTS, 10:90 and 5/95, the research questions arise are: Whether the developers understand about each type of the housing delivery system? Which types of the system preferred by developers and what is their current practice system? What are the challenges or difficulties faced by them in implementing different types of housing delivery system in Malaysia?

Hence, this study focus on developers' knowledge level towards housing delivery systems as discussed above. Then, it will determine the current practise of housing delivery system among developers in the study area. And finally figure out the challenges or difficulties confronted by the developers in implementation housing delivery system which is not preferred by them. There are some studies similar to knowledge, practices and challenges had been carried out. Obeng-Odoom (2012) had done a study entitled, Land reforms in Africa: Theory, practice, and outcome. The study analyses the experiences of 4 African countries whose land reform programmes have been influenced by either the theory of social capital or individualised tenurial system. Besides, Maiello *et al.* (2011) had carried out a research on urban sustainability and knowledge. Their research aims to acquire the challenges of global sustainable development's issues, and seeking new integrated responses to implement the principle of sustainability at urban scale. The study explored the conceptual relationship between knowledge and knowledge literature, doing analysis based on questionnaire survey and then suggests a new approach to manage knowledge in urban governance. Other than

that, there are also research regarding knowledge and practice in other fields. Li, Scott, & Li (2008) had done a survey regarding knowledge, attitudes and practice towards HIV/AIDS among nurses. The knowledge level for the respondents towards HIV/AIDS was identified by scoring method. Respondents were required to answer the listed knowledge items and score will be given according to the items answered correctly. Besides, Li, Scott, & Li (2008) used mean score from a 5-point Likert scale to examine the willingness of respondents to provide cares. Other than that, a study to analyse the trends in knowledge, attitude and practices of travel risk groups towards prevention of Hepatitis A was carried out by Van, *et al.* in 2012.

1.3 Research Objectives

First,

To determine the knowledge of developers toward different types of housing delivery system in Malaysia.

Second,

To determine the common types of housing delivery system practised by developers at present.

Third,

To determine the challenges faced by developers in implementation of different types of housing delivery system in Malaysia.

1.4 Significance of Study

In Malaysia, the housing development is under the Ministry Of Housing And Local Government (MHLG). Its vision is to provide a quality living environmental for

the society members. To achieve this, missions of MHLG include plan, coordinate, and implement social agenda and human settlement through housing programme, planning and development control, city council services and so forth. The information regarding developers' perspective towards housing delivery systems will serve as a useful datum to achieve the missions. MHLG can also work over the strategies and plans for housing development based on the findings from this research. Also, the findings from this research will assist the Government in implementing a better housing strategy which is more suitable for both parties; housing developers and buyers.

Developers are the one who implement housing delivery system in their marketing or sales strategies. Hence, it is important to know their understanding level towards housing delivery systems in Malaysia. Till now, there is no research has been done to investigate this issue. With the findings, developers may know their understanding level towards housing delivery systems in Malaysia. This will then help to raise their awareness towards variety of housing delivery system as well as other housing strategies and policies announced by the Government.

House Buyer is the pillar of the housing market, and they invested a large amount of money on their house. It will be unfair for them when they are lacking knowledge and information towards the housing delivery system; involving payment procedure, interest cost as well as risk of abandoned project if happened. This study will serve as a supplement information for potential housing buyers to gain a better understanding about the housing delivery systems implemented in Malaysia. They will then be able to make a better decision when plan to buy or invest in a property, as well as able to manage their funding more effectively.

1.5 The Scope of Study

This study focused on the four types of housing delivery systems which are Sell Then Build (STB), Build Then Sell (BTS), 10:90 concept (10:90) and 5/95 Home Loan Package (5/95). Besides, this research only focused on housing market in the district of Johor Bahru, Malaysia. Johor Bahru is the capital city of the state of Johor which is the second largest city after Kuala Lumpur in southern Malaysia. Anyhow, Property Market Report 2010 showed that the number of residential transaction in Kuala Lumpur for the year 2010 is 21, 262 whereas Johor is 26, 863 units. 222 Johor remains one of the property regions in Malaysia, apart from the Klang Valley (Central) and Penang (Northern). Although it is a manufacturing and transportation hub, Johor's residential property market is perceived to be still suffering from an overhang of units unsold. The unsold property units in Johor comprised mainly units from the secondary market and abandoned development. Besides, Johor is ranked in the 3rd place for the units of abandoned houses during year 1999 until 31 May 2009 (as shown in Appendix A). Furthermore, Property Market Status Report showed Johor ranked the first place for the total number of overhang in residential units for Q4 year 2010 (as shown in Appendix B). In *Syarahana Perdana 2011* entitled *The Different Scenarios of Housing Problem in Malaysia*, stated that one of the major urban areas confronted with the problems of housing overhang or unsold residential units of housing projects is Johor Bahru. Bujang, Zarin, and Jumadi (2010) also revealed that the total residential properties in Johor Bahru are more than the current housing needs based on the number of households. Consequently, it has led to the property overhang due to the unsold and exceeding number of housing in the market (Bujang, Zarin, and Jumadi, 2010). Hence, the study area for this research focused on the district of Johor Bahru and all the Johor Bahru housing developers are involved in giving their views towards various types of housing delivery systems in this study.

For a better understanding towards these four systems, the study will review the theoretical framework of each of the systems, how it works, their pros and cons to

developers as well as to purchasers, and also the differences among these housing delivery systems.

1.6 Methodology of Study

The research methodology of this study was divided into 5 stages which include identification of problem statements, theoretical study, empirical study, data analysis, conclusion and recommendation. A research operation chart in Figure 1.1 showed the 5 stages of this research. In the early stage of the research, research questions were obtained from the problem statements, followed by research objectives. The significance, scope and limitation of the study had been identified.

After notaris the objectives and scope of the study, theoretical study was carried out to obtain the secondary data for this research through literature review. The study was carried out by gleaning the theoretical information related to the research topic. It was done by referencing materials such as journals, books, research reports, newspapers' articles, government reports and other academic and formal publications. This may assist in preparing questionnaires in order to achieve the research objectives on the coming stage.

Empirical study was conducted by using questionnaire to obtain the primary data to achieve the objectives of the study. Both the quantitative and qualitative data are required in the questionnaire. The questionnaire contains three major parts; each of them will accomplish one of the objectives of the study. The questionnaire was then distributed to all the housing developers in the district of Johor Bahru.

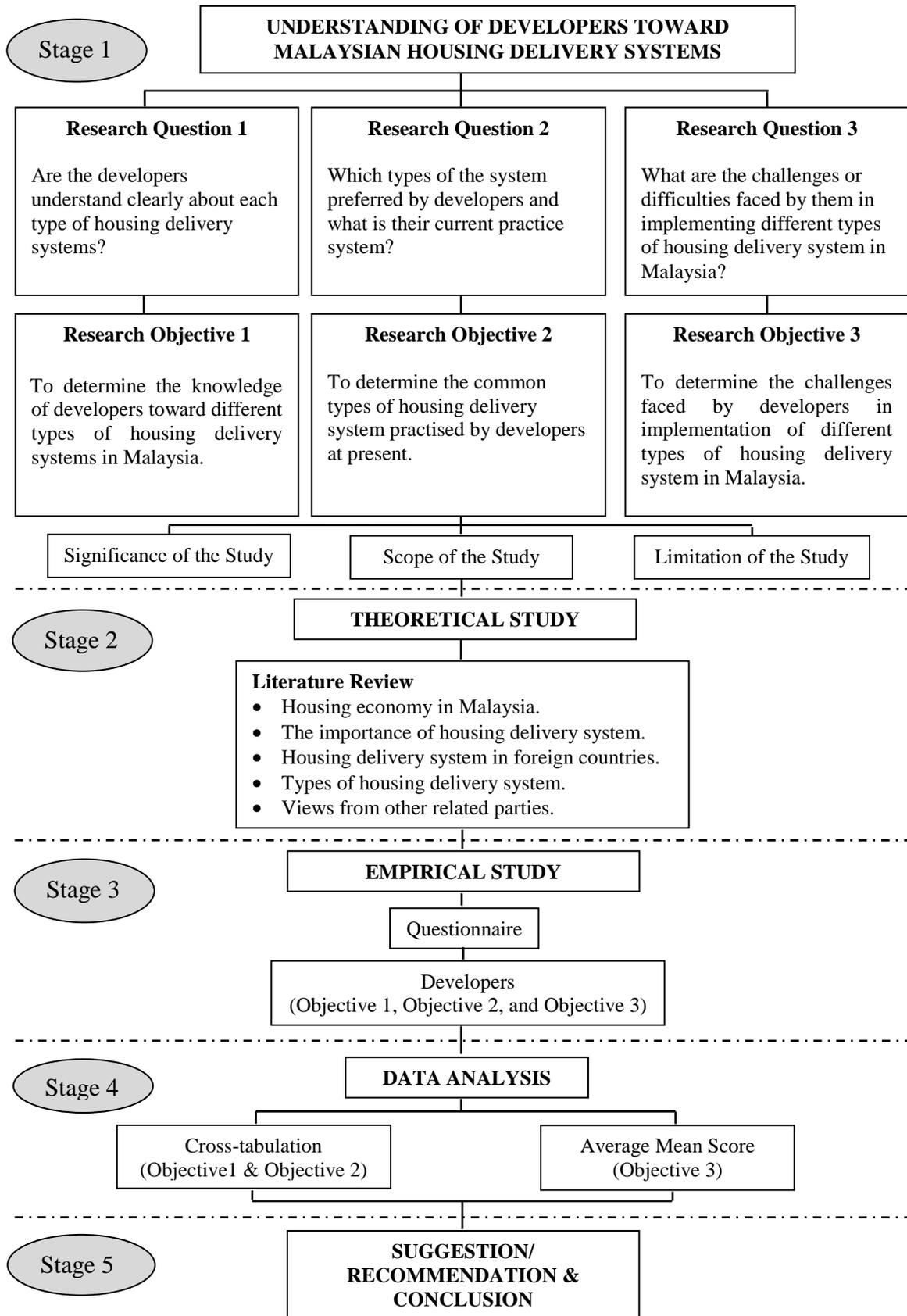


Figure 1.1 Research Operation Chart

The research will then proceed to the stage of data analysis. The quantitative data collected from questionnaires distributed to developers was analysed using Cross-Tabulation Analysis and Average Mean Score to notarise relationship among the data collected, the causative basis and also inter-related among the survey items. The analysis results will show the knowledge of developers towards different types of housing delivery systems, the system practiced by the developers, as well as the reasons of developers unwilling to try some of the housing delivery systems.

Finally, conclusion of this research was made by referring to the findings from the analysis. Problems statements and research objectives stated in the early part of the study will be revisited. The achievement of research objectives and the major findings of the study were discussed. Other than that, suggestions and recommendations for future research is included, limitations during the research was carried out are listed as references for intending researchers.

1.7 Chapter Layout

The study of this research is presented in five Chapters and every each Chapter represents different part of the study. The Chapter layout of this study is as follows:

Chapter 1: Introduction

First Chapter will give a general outline on the topic discussed in this research. It includes problem statement, objectives, significant of the study, scope of the study, methodology and also the chapter layout of the study.

Chapter 2: Literature Review

All the related key words of this research will be defined and discussed in this chapter as well as related key issues. In this Chapter, definition, concept and theories of different types of housing delivery system in Malaysia, the housing delivery system implemented in foreign countries and views from stakeholders were discussed.

Chapter 3: Research Methodology

The details on the research methodology were discussed in this Chapter including research design, research scope, data collection methods and questionnaire technique. Furthermore, analysis methods in getting final results for this study were also illustrated.

Chapter 4: Analysis and Discussion

All the data and information collected in study were analysed and discussed in this Chapter according to the research objectives. Analysed results were presented in the form of table, bar chart, histogram, line chart, for ease of reference and comparison. This chapter is divided into few sections, including respondents' background, developers' response towards knowledge of housing delivery system, common practise of housing delivery system among developers, and the challenges faced by developers in implementing housing delivery systems. Besides, the major findings of the study were discussed at the last section of this Chapter.

Chapter 5: Conclusion and Recommendation

The final Chapter explicated the findings and results obtained from previous chapters which had achieved the objectives of the study and a conclusion was made. Limitation and recommendations for further study were also put forward.

REFERENCES

- 8th Annual Demographia International Housing Affordability Survey: 2012.* Performance Urban Planning, Christchurch, New Zealand.
- Ab Rahman, R. (1991). *The Malaysian Property Market: A Viewpoint.* Universiti Teknologi Malaysia.
- Abdul-Aziz, A.-R., & Jahn, K. P. S. (2011). Objectives, success and failure factors of housing public-private partnerships in Malaysia. *Habitat International.* 35(1), 150-157.
- Agus, M. R. (2002). The role of state and market in the Malaysian housing sector. *Journal of Housing and the Built Environment.* 17(1), 49-67.
- Ahadzie, D. K., Proverbs, D. G., & Olomolaiye, P. O. (2008). Critical success criteria for mass house building projects in developing countries. *International Journal of Project Management.* 26(6), 675-687.
- Ahlbrandt, R. S. (1974). Delivery System for Federally-Assisted Housing Services: Constraints, Locational Decisions and Policy Implications. *Land Economics.* 50(3), 242-250.
- Alan, T. K. M. (1992). Implekasi konsep "Build Then Sell" kepada pembangunan Negara. *Build Then Sell: Housing Development Approach Towards 2020.* 14-16 April 1992, The Crown Princess Kuala Lumpur.
- Altinay, L., & Paraskevas, A. (2008). *Planning research in hospitality and tourism.* Amsterdam: Elsevier.

- Andrew, W. (2006, July 15). Give'em more, says HBA. *New Straits Times*.
- Awil, A. U. (2007). *Internationalisation Of The Housing Development Sector: A Study Of The Malaysian Scenario*. Universiti Sains Malaysia.
- Balben Property Transfers (2003). *Off the plan property purchase - things to consider*.
- Bank Loans For 10:90 Concept Likely On Case-by-case Basis. (2007, May 12). *The Star*.
- Beerten, R., Lynn, P., Laiho, J., & Martin, J. (2001). *Response Rates as a Measure of Survey Quality*. Eurostat.
- Beli Rumah: Cadangan Agensi Penarafan Akan Dipertimbang. (2004, August 31). *Utusan Malaysia*.
- Belinda, Y. (2005). Land Policy: Public Sector Interventions and Policies. *Third Urban Research Symposium: Land Development, Urban Policy and Poverty Reduction*. 4-6 April. Brazilia, Brazil.
- Bhag, S. (2004, September 07). Build-and-sell projects. *The Star Articles of Law*.
- Bourassa, S. C., & Yin, M. (2006). Housing Tenure Choice in Australia and the United States: Impacts of Alternative Subsidy Policies. *Real Estate Economics*. 34(2), 303-328.
- Buang, S. (2007). *Build And Sell System And 10:90 Concept*. SAGA Business Services.
- Build and Sell or Sell and Build? (2004, May 30). *New Straits Times*.
- Bujang, A. A. & Abu Zarin, H. (2008). *Urban Housing Ownership: Factors Influenced The Problems Faced By The Bumiputera In The District Of Johor Bahru, Johor, Malaysia*. Universiti Teknologi Malaysia.

- Bujang, A. A., Zarin, H. A., Jumadi, N. (2010). The Relationship Between Demographic factors And Housing Affordability. *Malaysian Journal of Real Estate*. 5(1), 49-58.
- Chomeya, . (2010). Quality of Psychology Test Between Likert Scale 5 and 6 Points. *Journal of Social Sciences*, 6, 3, 399-403.
- Construction Industry Development Board Malaysia (CIDB). Retrieved January 26, 2010, from <http://www.cidb.gov.my/v6/?q=en/content/std-dev-role> and <http://www.cidb.gov.my/v6/files/pub/ConstructionSectorGrowth&MalaysianEconomicTrend.pdf>
- De, V. D. A. (2001). *Research design in social research*. London: SAGE.
- Denscombe, M. (2007). *The good research guide: For small-scale social research projects*. Milton Keynes: Open University Press.
- Department of Consumer and Employment Protection. Government of Western Australia. (2007). *Buying land or property off-the-plan*. Retrieved January 26, 2011, from http://www.commerce.wa.gov.au/consumerprotection/PDF/Publications/buying_land_off_the_plan.pdf
- Dijkstra, L (Lieuwe). (1991). *The Likert attitude scale : theory and practice*. Technische Universiteit Eindhoven.
- Economic Planning Unit, Prime Minister's Department Malaysia.
- Elton, H. D., & Yamane, T. (1968). Review of Elementary Sampling Theory. *The Statistician*. 18(2), 165-166.

- Equity Beat (2010). Property Sector Johor Residential Property. MIDF Research. KDN:PP 10744/04/2010. Retrieved January 26, 2011, from <http://www.midf.com.my/project/midf/media/2010/02/18/105546-659.pdf>
- Esha, Z. & Sarip, A. G. (2004). Built Then Sell: An Alternative to overcome Housing Problems In Malaysia. *The Surveyor*. 39(1), 67-74.
- Fauzi, S. N. F. M., Yusof, N., Osmadi, A. (2011). Comparing the Level of Housing Defects in Sell-Then-Build (STB) and Build-Then-Sell (BTS) Housing. *World Applied Sciences Journal*. 12(4), 559-567.
- Fellows, R. (2002). *Construction management in practice*. Oxford [England: Blackwell Science.
- Ferguson, B., & Smets, P. (July 01, 2010). Finance for incremental housing; current status and prospects for expansion. *Habitat International*. 34(3), 288-298.
- Fernandez, C. (2005, October 01). Government moves on build-then--sell. *New Straits Times*.
- FITCH IBCA The International Rating Agency (1998). *Hong Kong Mortgage Default Model*. Retrieved November 11, 2010, from <http://www.securitization.net/pdf/HongKongMort.pdf>
- Fung, K. K., & Forrest, R. (2002). Institutional Mediation, The Hong Kong Residential Housing Market and the Asian Financial Crisis. *Housing Studies*. 17(2), 189–207.
- Ghazali, M. Z. (1992). Implementing the "Build Then Sell" concept - view from a developer. *Build Then Sell: Housing Development Approach Towards 2020*. 14-16 April 1992, The Crown Princess Kuala Lumpur.

- Gillham, B. (2007). *Developing a questionnaire*. London: Continuum.
- Goh, B. L. (1997). The Secondary Mortgage Market in *Housing The Nation: A Definite Study (Cagamas Berhad)*. Kuala Lumpur: Cagamas Berhad.
- Govt Studying "Build First, Sell Later" Concept For Housing Developers (2004, May 21). *Bernamea.com*.
- GUEST, R. O. S. S. S. (2005). A Life Cycle Analysis of Housing Affordability Options for First Home Owner-Occupiers in Australia. *The Economic Record*. 81(254), 237-248.
- Hamzah, M. Z. (2007). *Kajian Pelaksanaan Win Win Dalam Transaksi Jual Beli Rumah Di Malaysia*. Bachelor of Civil Engineering, Universiti Teknologi Malaysia, Skudai.
- Hager, M. A., Wilson, S., Pollak, T. H., & Rooney, P. M. (2003). Response Rates for Mail Surveys of Nonprofit Organizations: A Review and Empirical Test. *Nonprofit and Voluntary Sector Quarterly*. 32(2), 252-267.
- Hassan, H. (2004, January 20). Pembeli terdedah risiko beli rumah belum siap. *Berita Harian*.
- HBA (2004). "Having a Say in the Way We Pay – to Build or Not to Build. That is the Question." in "Malaysian Business – Housing and Property." Berita Publishing Sdn. Bhd.. 1 September 2004.
- HBA (2006, May 27). Pushing for change. *Property in New Straits Times*.
- HBA (2009, October 16). Financing under the STB and 10:90 way. *Property in New Straits Times*. P8.

- Hillebrandt, P. M. (2000). *Economic theory and the construction industry*. Basingstoke: Macmillan.
- Ho, W. C., and Jimmy, K. (2010). Country Analyst. *UOB Economic – Treasury Research*.
- Hong Kong Local Reference Information. *Buying & Selling a Property in Hong Kong*. Retrieved November 11, 2010, from <http://hongkong.angloinfo.com/countries/china/hongkong/housebuy.asp>
- Housing Development (Control And Licensing) Act 1966 (Act 118) & Regulation (As At 1st December 2011). International Law Book Services.
- Housing Minister Appears Misinformed. (2009, February 20). *New Straits Times*. p. 4.
- Innovation: Key to sustainable urban development in Singapore (2009, 1 August). *Communist Party of Vietnam Online Newspaper*. Retrieved November 11, 2010, from http://www.cpv.org.vn/cpv/Modules/News_English/News_Detail_E.aspx?CN_ID=353268&CO_ID=30696
- Interim Financial Report of S P Setia Bhd. (2009). Retrieved January 26, 2010, from <http://www.spsetia.com.my/corporate/interim/2009qrep03.pdf>
- Jackson, S. L. (2008). *Research methods: A modular approach*. Belmont, CA: Thomson Wadsworth.
- Johnstone, M. (1980). Conventional housing provision in Peninsular Malaysia: Spatial distortions in a developing economy. *Habitat International*. 5(3/4), 337-359.

- Kasi, P. (1992). 'Pros dan Cons' terhadap konsep "Build Then Sell". *Build Then Sell: Housing Development Approach Towards 2020*. 14-16 April 1992, The Crown Princess Kuala Lumpur.
- Kathy, F. (2007, April 14). Big Take off Of Build-Sell Idea May Take Time. *The Star*.
- Konsep Bina Dan Jual Beri Kepuasan. (2004, September 24). *Utusan Malaysia*.
- Konsep Bina Dan Jual Naikkan Harga Rumah. (2005, September 24). *Utusan Malaysia*.
- Ku-Mahamud, K.R., Abu-Bakar, A. and Norwawi, N.M. (1999). Multi Layer Perceptron Modelling in the Housing Market. *Malaysian Management Journal*. 3(1), 61-69.
- Kumar, R. (2005). *Research methodology: A step-by-step guide for beginners*. London: SAGE.
- Laura, L. and Marry Anne, T. (2006). Getting "REAL" With Build & Sell. *Home Finder*, September 2006, 04.
- Lee, K. C., & Ng, K. P. (1996). Customer Orientation and Buyer Satisfaction: The Malaysian Housing Market. *Asia Pacific Journal of Management*. 13(1), 101-116.
- Li, Y., Scott, C. S., & Li, L. (2008). Chinese nursing students' HIV/AIDS knowledge, attitudes, and practice intentions. *Applied Nursing Research*. 21(3), 147-152.
- Lilian, C. (2005). A Brief Guide to Buying Property in Hong Kong. *Deacons*.
- Lizarralde, G. (2011). Stakeholder participation and incremental housing in subsidized housing projects in Colombia and South Africa. *Habitat International*. 35(2), 175-187.

- Maiello, A., Battaglia, M., Daddi, T., Frey, M., & Special Issue: Energy Futures. (2011). Urban sustainability and knowledge: Theoretical heterogeneity and the need of a transdisciplinary framework. A tale of four towns. *Futures*. 43(10), 1164-1174.
- Mclaren, C. B. (2007). *Utility Comparison And Hiererchical Needs: Bringing Maslow Into The World of Economics*. University of California, Riverside.
- Mercer, P. (2011). Fears Mount Over Health of Australia's Housing market. *BBC News, Sydney*.
- Ministry of Housing and Local Government (MHLG). Retrieved January 26, 2010, from http://www.kpkt.gov.my/kpkt/fileupload/terbengkalai/Senarai_34_Projek_Terbengkalai_300509.pdf
- Mohd Hanipah, B., Abd Rahman, M. Y. & Ishak, Z. (2005). The Role of Financial Support and Strength in Ensuring the Completion of Housing Development Projects in Malaysia. *Paper presented at the Inaugural Meeting & Seminar 2005, Kuala Lumpur*.
- Nachmias, D., & Frankfort-Nachmias, C. (1981). *Research methods in the social sciences*. New York: St. Martin's Press.
- Nam, C. H., and Tatum, C. B. (1988). *Major Characteristics of Constructed Products and Resulting Limitations of Construction Technology*. *Construction Management and Economics*. 6, 133-148.
- National Housing Buyers Association Malaysia (HBA)
- Ng, L. F. (2007). *Determinant Factors of Implementing Build Then Sell in Malaysia: Housing Developers Point of View*. Master of Project Management, Universiti Sains Malaysia.

- Obeng-Odoom, F. (2012). Land reforms in Africa: Theory, practice, and outcome. *Habitat International*. 36(1), 161-170.
- O'Leary, Z. (2004). *The essential guide to doing research*. London: SAGE.
- Ong, B. S. (2004, September 01). Working Together for Changes - to Build or Not to Build. That is the Question - in "*Malaysian Business - Housing & Property*". Kuala Lumpur, Berita Publishing Sdn. Bhd.
- Oon, S. M. (2006). *Konsep Bina Dan Jual 10:90 Dalam Sektor Perumahan*. Bachelor of Science In Construction. Universiti Teknologi Malaysia.
- Othman, K. (2007). *Feasibility Study on Build Then Sell Concept in House Buying Transaction in Malaysia*. Bachelor of Civil Engineering, Universiti Teknologi Malaysia, Skudai.
- Palanisamy, Saravanan and Ramamoorthy (2007). *Housing Finance System in India and China - An Exploratory Investigation*. Nagarajan Goa Institute of Management, Ribandar, Goa, INDIA.
- Persatuan Sambut Baik Syarat Baru Jual Rumah. (2004, May 24). *Utusan Malaysia*.
- Pollack, C. E., von, . K. O., & Siegrist, J. (2004). Housing and Health in Germany. *Journal of Epidemiology and Community Health* (1979-). 58(3), 216-222.
- Property Market Report (2003). Valuation and Property Services Department, Ministry Of Finance Malaysia.
- Property Market Report (2010). Valuation and Property Services Department, Ministry Of Finance Malaysia.

- Property Market Status Report (Q4 2010). Valuation and Property Services Department, Ministry Of Finance Malaysia.
- Property Stock Report (2008). Valuation and Property Services Department, Ministry Of Finance Malaysia.
- Rachagan, S. (1992) Federation Of Malaysian Consumers Associations (FOMCA) Build-Then-Sell: Its Effect on Consumers. *Build Then Sell: Housing Development Towards 2020*.
- Ramli, H. (2004, August 30). Formula baru beli rumah -- RAM syor bayar dulu 10% dan 90% selepas kediaman siap dibina. *Utusan Online*.
- Raymond, Y. C. T. (1996). Relationship between Hong Kong house prices and mortgage flows under deposit-rate ceiling and linked exchange rate. *Journal of Property Finance*. 7(4), 54-63.
- Reese, L. (2004, August 13) Rehda: 'Build and sell' needs closer look. *theedgedaily.com*. Retrieved January 26, 2010, from <http://www.hba.org.my/news/2004/804/rehda.htm>
- Roger, T. (2005, September 25). To Sell and Build or Build and Sell? *The Star*.
- Rosli, S. M. & Ibrahim, R. (2004, September 01). Syarikat pemaju perumahan tolak syor Formula 10:90 RAM. *Utusan Online*. Retrieved January 26, 2010, from http://www.utusan.com.my/utusan/info.asp?y=2004&dt=0901&pub=Utusan_Malaysia&sec=Ekonomi&pg=ek_01.htm
- Roth, P. L., & BeVier, C. A. (1998). Response Rates in HRM/OB Survey Research: Norms and Correlates, 1990-1994. *Journal of Management*. 24(1), 97.

Royce, C. (2006, September 13). Banks must play role, if build-then-sell is to succeed. *The Star*.

Sands, R. D. & Asiala, M. E. (2003) A Simple And Efficient Approach To The Cross-Tabulation Of Large Sas® Data Sets. *Sixteenth Annual Conference of NESUG 2003*. Retrieved January 26, 2010, from <http://www.nesug.org/proceedings/nesug03/cc/cc003.pdf>

Sapsford, R., & Jupp, V. (1996). *Data collection and analysis*. London: Sage in association with Open University.

Shelter NSW. (2011). *Housing Australia Factsheet: A quick guide to housing facts and figures*. Prepared for National Shelter .

Sidi, N. S. S. (2011). *Syarahannya perdana 2011: The Different Scenarios of Housing Problem in Malaysia*. Penerbit UTHM, First Edition 2011.

Somerville, C. T. (1999). The Industrial Organization of Housing Supply: Market Activity, Land Supply and the Size of Homebuilder Firms. *Real Estate Economics*. 27(4), 669-694.

SP Setia Berhad Interim Financial Report-30 April 2009

SPNB (2008). Buletin SPNB Edisi Apr-Jun 2008.

Tan, T. H. (2010). Base Lending Rate And Housing Prices: Their Impacts On Residential Housing Activities In Malaysia. *International Conference on Business and Economic Research (ICBER 2010)*. 15 - 16 March. Hilton Hotel - Kuching Sarawak, Malaysia.

- Thakur, D. (2008). *Research methodology in social sciences*. New Delhi: Deep & Deep Publications.
- The Family & community Services, Housing NSW. (2010). *Guide to Purchasing Your Home*. NSW Government, Australia.
- The Real Estate and Housing Developers Association (REHDA)
- Tomlinson, M. R. (2011). Managing the risk in housing delivery: Local government in South Africa. *Habitat International*. 35(3), 419-425.
- Tony, A. S. S. (2006). *Payment Issues – The Present Dilemmas of Malaysian Construction Industry*. Master of Science in Construction Contract Management, Universiti Teknologi Malaysia, Skudai.
- Umakanthan, G. (2004, May 29). A great idea - but not now. *Property in New Straits Time*.
- Urban Development Authority, Singapore
- Usilappan, M. (1993). Property Risk Analysis in Bank Lending. *The Surveyor*. 28(4), 30-37.
- van, G. P. J., van, T. P. P., Mulder, P. G., Overbosch, D., & Dutch Schiphol Airport Study Group. (2012). Trends in knowledge, attitudes, and practices of travel risk groups toward prevention of hepatitis a: results from the Dutch Schiphol Airport survey 2002 to 2009. *Journal of Travel Medicine*. 19(1), 35-43.
- Wattenberg, M., & Kriss, J. (2006). Designing for social data analysis. *Ieee Transactions on Visualization and Computer Graphics*. 12(4).

- Wellington, J. J., & Szczerbiński, M. (2007). *Research methods for the social sciences*. London: Continuum International Pub. Group.
- White, D. & Korotayev, A. (2003) Chapter 5 Statistical Analysis of Cross-Tabs Retrieved January 26, 2010, from http://eclectic.ss.uci.edu/~drwhite/xc/Advice4Contingency_Tables.pdf
- Williamson, R. (2005). The Real Estate Market in Hong Kong Today. *Ezin Articles*. Retrieved January 26, 2010, from <http://ezinearticles.com/?The-Real-Estate-Market-in-Hong-Kong-Today&id=129638>
- Yahya, S., Yusof, N. A., & Mohd Shafiei, M. W. (2007). Exploring The Models Of Build Then sell In Housing Industry. *World Housing Congress*. 1-7 July. Terengganu, Malaysia.
- Yean, P. L. (2002). *Determinants of Singapore Residential Land Value*. Master of Science in the Real Estate Development. Massachusetts Institute of Technology.
- Yin, E. K. (2005, September 29). Yes, it will be good for buyers. *New Straits Times*.
- Yu, H. J., & Lee, S. (April 01, 2010). Government housing policies and housing market instability in Korea. *Habitat International*. 34(2), 145-153.
- Yusof, N., Abu-Jarad, I. Y., & Badree, M. H. (2012). The effectiveness of government incentives to facilitate an innovative housing delivery system: The perspective of housing developers. *Theoretical and Empirical Researches in Urban Management*. 7(1), 55-68.
- Yusof, N., Mohd, S. M. W., Yahya, S., & Ridzuan, M. (2010). Strategies to implement the "build then sell" housing delivery system in Malaysia. *Habitat International*. 34(1), 53-58.

Yusof, N., Mohd Shafiei, M. W., Yahya, S., Alias, B. and said, R. (2010). Readiness of housing developers and financial institutions to the Build Then Sell system. Unpublished Research Report to NAPREC.

Yusof, N., & Shafiei, M. W. M. (2011). Factors affecting housing developers' readiness to adopt innovative systems. *Housing Studies*. 26(3), 369-384.

Zainul, A. N. N. (2010). Investigating the awareness and application of sustainable construction concept by Malaysian developers. *Habitat International*. 34(4), 421-426.

<http://www.homebiznez.com/articles/cashpayment.html>