

FACTORS INFLUENCING HOME OWNERSHIP AMONG PUBLIC SERVANTS  
IN PENANG

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## **DEDICATION**

This thesis is dedicated to my wife, who taught me that the best kind of knowledge to have is that which is learned for its own sake and always being there for me. It is also dedicated to my mother, who taught me that even the largest task can be accomplished if it is done one step at a time.

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## **ABSTRACT**

Housing is a basic human need as explained in the Maslow hierarchy needs. Having a house is a very important entity in ensuring a sense of security for each individual and a family. House is also a symbol of achievement and social acceptance of an individual in a society. Deciding to own a house is a crucial decision since housing expenses involved a large amount of cost in individual monthly expenses. Nearly 60% or 960,000 public servants were unable to own a house based on CUEPECS in year 2019. Furthermore, the home ownership rate in Malaysia as reported by the Department of Statistics Malaysia (DOSM) in 2019 didn't increase significantly compared to 2016. The increment of home ownership in Malaysia was only 0.6% from 2016 to 2019. Thus, the government and house developers need to identify the important factors that influence the house buying decision-making to increase the home ownership rate in Malaysia. This study identifies the important factors that influence home ownership among public servants in Penang. This study measures the internal factors and external factors influencing home ownership decisions. The internal factors measure the income, stage of life-cycle, employment and education subfactors. The external factors measure the financial and economic condition, house price, location, neighbourhood, house type and design and also government housing incentives. A mixed-method was applied in this study by interviewing real estate experts and also a survey to 392 respondents in the case study area. Using transcribe method and analysing the survey data with descriptive and inferential analyses to study the influencing factors. In this investigation, every internal and external factors influencing a person's decision to buy a home was examined on the group of people with all income levels. The results of the study showed that respondents from public servants in Penang really depending on the government housing incentives to own a house which is parallel with the demographic background of our respondents which are majorities are from lower income. The real estate expert and respondents agreed all of the factors were influencing house buying decisions except for education. It is important to identify and evaluate which incentives that is the most significant and strengthen the incentives to increase the home ownership rate among public servants in Malaysia.

## ABSTRAK

Perumahan adalah keperluan asas manusia seperti yang dijelaskan dalam keperluan hierarki Maslow. Mempunyai rumah adalah entiti yang sangat penting dalam memastikan rasa selamat bagi setiap individu dan keluarga. Rumah juga merupakan simbol pencapaian dan penerimaan sosial individu dalam masyarakat. Memutuskan untuk memiliki rumah adalah keputusan penting kerana perbelanjaan perumahan melibatkan sejumlah besar kos dalam perbelanjaan bulanan individu. Hampir 60% atau 960,000 penjawat awam tidak dapat memiliki rumah merujuk kepada CUEPECS pada tahun 2019. Tambahan pula, kadar pemilikan rumah di Malaysia seperti yang dilaporkan oleh Jabatan Perangkaan Malaysia (DOSM) pada tahun 2019 tidak meningkat dengan ketara berbanding tahun 2016. Peningkatan pemilikan rumah di Malaysia hanya 0.6% dari 2016 hingga 2019. Oleh itu, kerajaan dan pemaju rumah perlu mengenal pasti faktor-faktor penting yang mempengaruhi pembelian rumah untuk meningkatkan kadar pemilikan rumah di Malaysia. Kajian ini mengenal pasti faktor-faktor penting yang mempengaruhi pemilikan rumah di kalangan penjawat awam di Pulau Pinang. Kajian ini mengukur faktor dalaman dan faktor luaran yang mempengaruhi keputusan pemilikan rumah. Faktor dalaman mengukur pendapatan, peringkat kitaran hayat, pekerjaan dan subfaktor pendidikan. Faktor luaran mengukur keadaan kewangan dan ekonomi, harga rumah, lokasi, kawasan kejiranan, jenis dan reka bentuk rumah dan juga insentif perumahan kerajaan. Kaedah campuran digunakan dalam kajian ini dengan menemubual pakar harta tanah dan juga tinjauan kepada 392 responden di kawasan kajian kes. Menggunakan kaedah transcribe dan menganalisis data tinjauan dengan analisis deskriptif dan inferensi untuk mengkaji faktor-faktor yang mempengaruhi. Dalam siasatan ini, setiap faktor dalaman dan luaran yang mempengaruhi keputusan seseorang untuk membeli rumah telah diperiksa pada kumpulan orang yang mempunyai semua peringkat pendapatan. Hasil kajian menunjukkan bahawa responden daripada penjawat awam di Pulau Pinang benar-benar bergantung kepada insentif perumahan kerajaan untuk memiliki rumah yang selari dengan latar belakang demografi responden kami yang majoritinya adalah daripada golongan berpendapatan rendah. Pakar hartanah dan responden bersetuju semua faktor mempengaruhi keputusan pembelian rumah kecuali untuk pendidikan. Adalah penting untuk mengenal pasti dan menilai insentif mana yang paling penting dan mengukuhkan insentif untuk meningkatkan kadar pemilikan rumah di kalangan penjawat awam di Malaysia.

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## **LIST OF ABBREVIATIONS**

CIDB	-	Construction Industry Development Board
DOSM	-	Department of Statistic Malaysia
KPKT	-	Ministry of Housing and Local Government
KRI	-	Khazanah Research Institute
NAPIC	-	National Property Information Centre
JPN	-	National Housing Department
UiTM	-	Universiti Teknologi MARA

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# CHAPTER 1

## INTRODUCTION

### 1.1 Research Background

Housing is a basic need that retains us from the elements keeping us safe as a shelter, with privacy for personal ease. Owning a house is one of the main goals for most Malaysian (Tan, 2008). Nowadays, home ownership is beneficial not only to individuals but also towards the societies and especially the public servants in Malaysia. In recent times, it has been a struggle for the average Malaysian to purchase a house.

Housing is a basic human need as explained in the Maslow hierarchy needs. Maslow's theory proposes a five-tier model of human needs, comprising physiological needs, safety needs, belongingness and love needs, esteem needs and finally, self actualization. To satisfy the highest need, one must fulfil their lowest need and a house is categorized as one of the safety needs. Malaysian government through the National Housing Agenda also stated that house is a basic need for every human together with food, cloth, education and healthcare. Having a house is a very important entity in ensuring a sense of security for each individual and a family. House is also a symbol of achievement and social acceptance of an individual in a society. The need for housing is not only one of the basic human basic but also the indicator of the living standard of the population (Henilane, 2016). Home ownership has significant effects on the physical and social well-being of the occupants and the economic features of the household. A perfect house can meet the needs of the individual, provide well-being to the households and drive to a better quality of life. Individuals who purchase homes for a shelter as well as trying to communicate their qualities and desires

Housing is also an essential element of a nation's economy. Housing is closely related to the demand and supply process of people's needs, the supply of land,

materials, technology, labor and financing. These linkages allow housing to act as an important engine for sustainable development and poverty reduction in both society and the economy (Acioly & Horwood, 2010). Housing in Malaysia is generally provided by two sectors which are the government sector and private sector (Ezeanya, 2004). The government sector through the Ministry of Housing and Local Government (KPKT) specifically National Housing Department (JPN) is responsible to plan and direct the housing sector in Malaysia. As for the private developer, their involvement in housing started by providing houses for those with middle and higher income while the government concentrated to build houses for the lower-income group (Zainon et al., 2017). However, the delivery performance for affordable houses was quite poor which was always affected by various problems. So as a solution, the government cooperates with the private sector in building affordable houses for the needed group.

However, Malaysia has experienced rapid growth economic since the independence in 1957. As part of the economy improvement, Malaysia's housing reform overwhelmingly that affects people's housing conditions where home ownership rate has remained more than 80% since the 1980's (Kim, 2012). The rapid growth of the housing sector in Malaysia over the past 30 years is supported by population growth, extensive urbanization and rapid economic growth (Mohamed et al., 2020). As the urban population grows, land scarcity has caused the price of the property to soar making housing less and less affordable for many urban dwellers (CIDB Malaysia, 2019). The price of houses offered in urban areas is very expensive in comparison. Houses demand are increasing yearly especially in the Klang Valley area.

Purchasing a house is the biggest spending in most family financial plans. It's one of the customer consumptions which is significant to the national economy and also to serves the psychology and social need (Abdullah, 2012). A person may have to consider many factors when deciding to purchase a house since it is the most expensive spending for a household. It is a development that involves a life commitment starting from the down payment to the monthly payment. According to Abidoye et al., (2021), factors influencing purchase decisions its divided into two main factors which are an internal and external factor. Internal factor is related to the person's ability and



preference. Whilst external factor is the outside aspect that the purchaser may not control. Example of internal factors is income, family, or education. Characteristics of the house and economy are an example of external factors. According to the consumer behaviour model introduced by Howard and Seth, (1969), rational buyer behaviour is based on a decision-making process that involves certain rules that are appropriate to the purchase and satisfaction motive. In line with this, consumer behaviour factors are also seen as among the factors considered in deciding to purchase residential property. The factors may also differ among different incomes or age groups.

This study is undertaken is to examine in why the public servants were unable to own a home and what are the factors that can influence home ownership among them. The contribution of owning a house will contributes to increase the economy in Malaysia especially in Penang. Besides that, it is not only involved in generates our economy in property sector but it also involved in decreasing the housing ownership issues in Malaysia.

## **1.2 Problem Background**

House is one of the basic needs of a human. House provides shelter, safety, security and for some individuals as a symbol of achievement. Every individual wants to have a comfortable and affordable home to produce a quality good life. House is considered as the most expensive spending in a household. According to the Department of Statistics Malaysia, in 2019 it was reported 24% of Malaysian household spending is for housing, water, electricity and fuel. Owning a house involves a life commitment starting from the down payment to the monthly payment. Since a house is the largest expenditure in a household, a person may have to consider many factors when deciding to purchase a house. According to Rachmawati et al. (2019), nowadays people are not only looking at the house price but also other factors such as location, building and environmental perspective.

Moreover, according to Tan (2008), buyers nowadays are no longer satisfied with basic needs alone but tend to seek added values following their lifestyle. The parties involved especially the developers should focus on the group to be able to deal with the currents of change and identify lifestyle trends new and identify their behaviour in making property purchase decisions. Based on the situation it is important to assess the factors that may influence home ownership decisions to assure the satisfaction of the buyers.

According to the Department of Statistics Malaysia, the house ownership rate in Malaysia as reported in 2019 was 76.9% while the rest are renting or living in government quarters. The increment of house ownership did not increase so significantly compared to the 2016 house ownership rate which was 76.3%. It means there is only 0.6% increment from 2016. This indicates there are 23.1% of Malaysian households don't own a house in 2019. From this statement, it is important to know what is the factors that influence people in the home ownership decision and the importance to ensure increment of home ownership among Malaysians.

According to the report done by the Congress of Unions of Employees in the Public and Civil Services Malaysia (CUEPACS) in June 2019, around 960,000 out of 1.6 million public servants or 60% were unable to own a home. Out of this number, 75% of them are aged below than 40 years old, meanwhile 95% of them are aged below than 30 years old (CUEPACS, 2019). The Malaysian government has taken a lot of initiatives to increase home ownerships in Malaysia among public servants by introducing affordable housing.

However, statement by CUEPACS in 2019 there are still a lot public servants which is nearly 60% from total of Public Service in Malaysia who were unable to own a house. Most of them are still staying in government quarters till they are retired from the service. This is sad to know that public servants who are serve for their country are unable to own a house. This is due to housing problems and issues that arise from the urbanization and industrialization process (Osman, 2004).

On top of that, the increasing number of housing ownership problems also caused by the situation where the developers in the urban areas, have less interested to build medium and low-cost housing. This is because the margin and profit earned is small. Private housing developers controlled most of the land in major towns and cities are interested to develop high cost or luxury housing for bigger margin or profit . As private developers are involved in the housing provision, the price of houses is relatively high in Malaysia and some houses are beyond reachable for certain groups specifically for public servants (Abdul, 2022).

Housing price has always been an issue in the housing industry in Malaysia especially in Penang. Housing prices are beyond the reach of many Malaysians including to civil servants. More research needs to be undertaken by our intellectuals to control prices (*Putting the cart before the horse, Land & Property, Starbizweek, March 29, 2014*).

Thus, in response to this problem, the purpose of this study aims to examine the factors that influencing home ownership among Public Servants in Penang and the relationship between home ownership and factors influencing the home ownership decision. Therefore, there must be a mechanism from the government and as well as the property industry will support the home ownership for public servants in Malaysia particularly in Penang.

### **1.3 Research Goal**

The main objective of this research is to identify the factors that influencing home ownership among Public Servants in Penang. This research will identify the core dimensions influencing home ownership and the respective dimensions could be as a guide towards new housing policy for public sector in Malaysia. This study aims to provide an in-depth of the factors influencing house buyer decision-making in Malaysia among government servants in Penang.

### **1.3.1 Research Questions**

The research questions are as follows :

- (a) What are the important factors that influence home ownership among Public Servants in Penang?
- (b) What are the relationships among factors that influence home ownership among Public Servants in Penang?

### **1.3.2 Research Objectives**

The objective of the research are as follows:

- (a) To identify the important factors that influence home ownership among public servants in Penang.
- (b) To examine relationships among factors that influence home ownership among public servants in Penang.

## **1.4 Scope and Limitation**

The study is to investigate the factors influencing public servants decision on the home ownership decision. The sample of the respondent is public servants which will be the house buyers and potential house buyers in the Penang area.

The target population is the public servants in Penang. It estimated that around 1.9 million public servants in Malaysia (DOSM, 2022). Specifically, the target populations are the public servants from all the government departments in Penang. There are estimated around 120,000 public servants in Penang. (SUKPP, 2022) They are selected to represents the population of public servants located in Penang. The

sampling techniques will be used in this study is simple random sampling technique for both primary data and pilot study.

According to Sekaran (2000) and Roscoe (1975) that for the most studies, the sample size of 30 to 500 questionnaires is considered sufficient for research survey. A study on determinants of home ownership in Malaysia has collected 400 questionnaires (Tan, 2008). Therefore, 450 questionnaires seem reasonable and will be distributed among public servants in Penang.

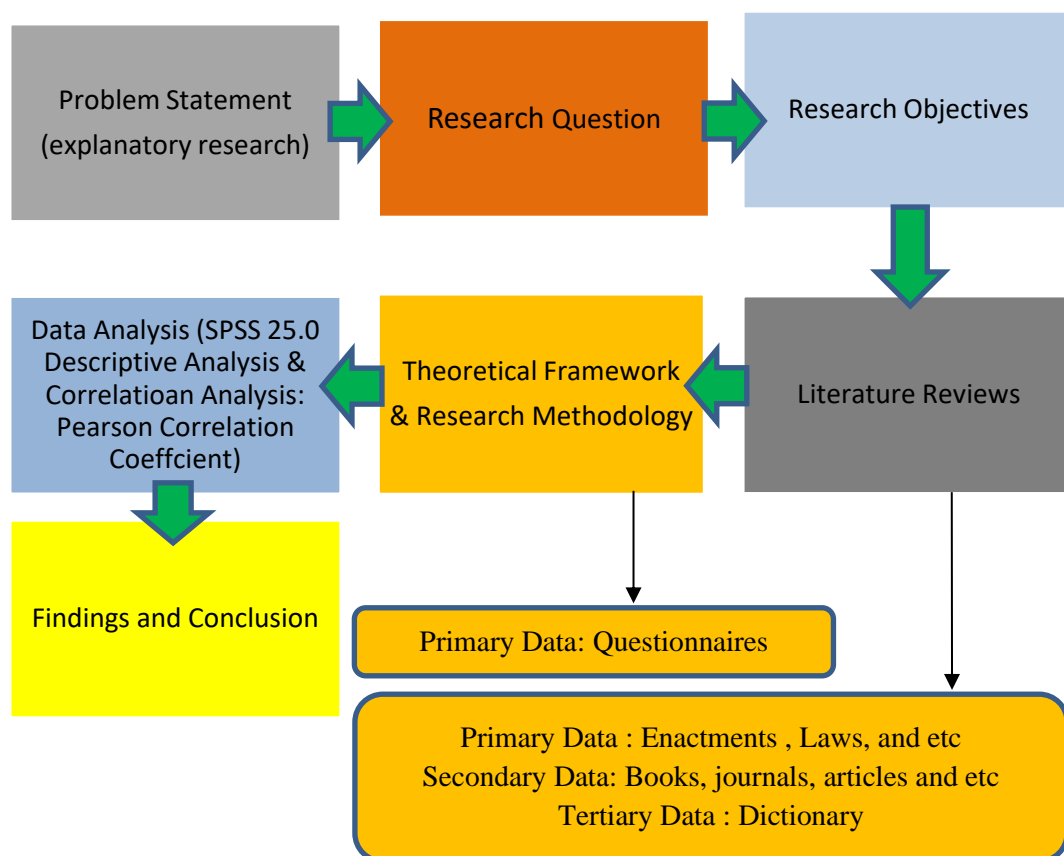
The study area is in Penang, with many new housing developments since year 2000. Penang is divided into five District which are Northeast Penang Island, Southwest Penang Island, North Seberang Perai, Centre Seberang Perai and South Seberang Perai..

Besides that, this study also focuses on a different group of income to study the factors influencing the home ownership decision. In this study, the respondent is from three-level groups which are the lower-income, middle income and higher income group.

## **1.5 Research Methodology**

Research methodology is a process of design and planning on how to solve or answer the research problem in a scientific manner (Kumar, 2012). Research methodology explains and justifies the technique and tools used in research. Through it, we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them (Kothari, 2004). From research methodology, a researcher will understand each of the techniques and methods used in the research and also the reason behind using the methods.

The research methodology of this study is using a mixed approach method. Both quantitative and qualitative methods are used to achieve the two objectives of the study. To achieve objectives 1, the data will be extracted using secondary data and a structured interview with real estate experts or senior government servants in Malaysia. The secondary data are from readings of government reports, real estate bodies or institutional reports, articles and journal. The structured interview involved real estate experts to seek their opinion on the factors influencing Malaysian home ownership decisions. Objective 1 is to identify the important factors that influence home ownership among Public Servants in Penang. that can be achieved by studying information and data from a secondary source and also interviewing real estate experts. Objective 2 will be achieved using primary data collected via questionnaire. The respondent for the study is government servants which are homeowners and potential house buyers in Penang. The data received from the questionnaire will be validated and analysed accordingly.



Sources: Abdul, 2022

Figure 1.1 Research Diagram

## **1.6 Significant Of The Study**

This research is pictured to be beneficial to the public as well as the government and the property industry including the financial institutions in enhancing their understanding on the needs of housing especially for public servants, who were unable to own a home.

This study could help the government agencies, especially the National Housing Department (JPN) under the Ministry of Housing and Local Government (KPKT) to identify the factors that may influence each income group's home ownership decision. By identifying the factors, it can help to evaluate and strengthen the housing policy, regulation, or incentives to increase the home ownership rate among government servants in Malaysia.

This study could also give input and information to the housing developer on the Malaysian preference in home ownership decisions. With the input, developers could strategies their marketing and sales to help each income-group to purchase a house. The factors that influence buyers in decision making are also important because it can help to determine the design, the location, the price and also the facilities that are needed in the development.

Lastly, for the house buyer group, they can purchase a house according to their needs and preference because developers know what is the important factors influencing the home ownership decision. The developer could fulfil the house buyer's needs by understanding the factors influencing the home ownership decision

Besides that, there will be information to understand the criteria and affordability of our government servants in becoming a home owner. This will support in facilitating the government and property industry to become knowledgeable in this important matter and help them to understand how to help the public servants in owning a house at least before they retire.

## **1.7 Proposed Chapters**

This thesis is structured in 5 chapter and is outlined as follows:

### **i) Chapter 1: Introduction**

The first chapter will contain the background of the study, problem statement, research aim, objectives, research question, scope and limitation of study, significance of study.

### **ii) Chapter 2: Literature Review**

This chapter discuss in-depth review of the literature related to the topic which is the housing and home ownership in Malaysia, housing affordability, type of income group in Malaysia, consumer behaviour and factors influencing home ownership decision. This includes a discussion on keywords definition and housing scenario in Malaysia including the issues related. Discussion on types of income group level in Malaysia and exploring the factors influencing home ownership decision making.

### **iii) Chapter 3: Research Methodology**

Chapter 3 will contain the research design, research methodology and selected approaches in order to achieve all the research objectives. At the end of the chapter, a discussion on suitable analysis and technique to analyse the collected data.

This chapter also will explain in detail the information on the study area, Penang. It will provide general information on Penang.

### **iv) Chapter 4: Analysis and Finding**

Chapter 4 will discuss the findings on the factors influencing home ownership among government servants in Malaysia. This chapter will also discuss the finding from questionnaire survey on the relationship among the factors



influencing home ownership. This chapter is aim to achieved all the objectives of this study.

**v) Chapter 5: Conclusion and Recommendation**

Chapter 5 will summarise the results gained from the study and discussed the limitation and future suggestion regarding this study.

## REFERENCES

- Yongzhou, H. (2009). Housing price bubbles in Beijing and Shanghai. *International Journal of Housing Markets and Analysis*, 3(1), 17-37.
- Aaron, O. (2021). Malaysia: Urbanization from 2010 to 2020. Statista. <https://www.statista.com/statistics/455880/urbanization-in-malaysia/>
- Abdullah, L., Mohd Nor, I. B., Jumadi, N., & Arshad, H. (2012). First-time home buyers: Factors influencing decision making. *1st International Conference on Innovation and Technology for Sustainable Built Environment 2012 (ICITSBE 2012)*
- Abidoye, R. B., Puspitasari, G., Sunindijo, R., & Adabre, M. (2021). Young adults and homeownership in Jakarta, Indonesia. *International Journal of Housing Markets and Analysis*, 14(2), 333–350. <https://doi.org/10.1108/IJHMA-03-2020-0030>
- Abdullah, Y. A., Jamaluddin, N. B., Yakob, H., Marzukhi, M. A., & Zaki, Z. A. (2021). Affordable housing for the middle-income group in Malaysia. *IOP Conference Series: Earth and Environmental Science*, 685(1). <https://doi.org/10.1088/17551315/685/1/012019>
- Acioly, C., & Horwood, C. (2010). A practical guide for conducting : Housing profiles. in UN Habitat Nations Human Settlements Programme. UNON, Publishing Services Section.
- Adair, A., Berry, J., & McGreal, S. (1996). Valuation of residential property: Analysis of participant behaviour. *Journal of Property Valuation & Investment*, 14(1), 20-35.
- Anirban M, Francis, K.W. Wong. & Eddie, C. M. Hui (2006). Relationship between Housing Affordability and Economic Development in Main China: Case of Shanghai. *Journal of Urban Planning and Development*. 132(1), 62-70.
- Administrator (Mac, 2015). *History of Sepang*. Pejabat Daerah/Tanah Sepang website. <https://www.selangor.gov.my/sepang.php/pages/view/76?mid=43>
- Ahmad, S., Wasim, S., Irfan, S., Gogoi, S., Srivastava, A., & Farheen, Z. (2019). Qualitative vs. Quantitative Research. *population*, 1, 2.

- Akinyode, B. F., Khan, T. H., & Ahmad, A. S. B. H. (2015). Consumer decision making process model for housing demand. *Jurnal Teknologi*, 77(14).
- Aliyu. A., Kasim. R., Martin. D., Diah. M., and Ali. M. (2015). Implication of intangible location attributes on residential segregation in Jos, Nigeria. *Journal of Sustainable Development*, 5(11), 1913-9013.
- Azhar, (2014). Age of Home ownership amongst Generation-Y in Malaysia. University of Malaya.
- Baqutayan M. S. (2014). The affordable housing stress among middle-income group. *IOSR Journal of Humanities and Social Science*, 19(7), 82–90. <https://doi.org/10.9790/0837-19748290>
- Barlow, J.; Ozaki, R. (2003). Achieving ‘customer focus’ in private house building: current practice and lessons from other industries. *Housing Studies*. Volume 18 Number 1 (Jan). Pp. 87-101
- Bertaud, A. (2018), Order without Design. How Markets Shape Cities, Cambridge, MA, MIT Press.
- Besar, J. A., Razali, S. N. I. M., & Rose, R. A. C. (2020). Faktor yang mempengaruhi pemilikan rumah dalam kalangan isi rumah berpendapatan sederhana (Factors affecting of house ownership among middle-income households). *Akademika*, 90(1).
- Blackwell, R. D., Miniard, P. W. and Engel, J. F. (2006). *Consumer Behavior*. 10th Edition. Canada, Thompson: South-Western
- Bujang, A. A., Jiram, W. A., Zarin, H. A., & Anuar, F. M. (2015). Measuring the Gen Y housing affordability problem. *International Journal of Trade, Economics and Finance*, 6(1),
- CIDB Malaysia. (2019). Rethinking Affordable Housing in Malaysia - Issues and Challenges. In *Construction Industry Development Board Malaysia (CIDB)*. [http://search.proquest.com/docview/878721034?pq-origsite=summon%5Cnhttp://search.proquest.com/docview/878721034/fulltext?a\\_ccountid=14244](http://search.proquest.com/docview/878721034?pq-origsite=summon%5Cnhttp://search.proquest.com/docview/878721034/fulltext?a_ccountid=14244)
- Cheah. S. L, Almeida. S.J & Ho S.W (2017). Affordable housing: Challenges and the way forward. *Quarterly Bulletin*, 19 – 26
- Chin, K. S. (2016). Attributes influencing home buyers’ purchase decision: A study of residential property in Setia Alam (Doctoral dissertation, UTAR).

- Chiu, R. L. H.; Ho, M. H. C. (2006). Estimation of elderly housing demand in an Asian city: Methodological issues and policy implications. *Habitat International*. Volume 30 Issue 4 (Dec). Pp. 965-980.
- Chua Y.P. (2006). Kaedah dan statistik penyelidikan: Kaedah penyelidikan. McGraw-Hill (Malaysia).
- Chua, Y. P. (2013). *Mastering Research Statistics*. McGraw Hill (Malaysia) Sdn Bhd. Department of Statistics Malaysia. (July, 2020). Household income and basic amenities survey report by state and administrative district, Selangor 2019. Department of Statistics Malaysia.
- CUEPACS, Congress of Unions of Employees in the Public and Civil Services Malaysia (2019).
- Daly, J., Gronow, S., Jenkins, D., & Plimmer, F. (2003). Consumer behaviour in the valuation of residential property: A comparative study in the UK, Ireland and Australia. *Property Management*, 21(5), 295-314
- Department of Statistics Malaysia. (2021). Press release household income estimates and incidence of poverty report, Malaysia, 2020 (Issue August 2021).
- Denzin, N. K., & Lincoln, Y. S. (Eds.) (2011). *The SAGE Handbook of Qualitative Research (5th Ed.)*. Thousand Oaks, CA: SAGE Publications.
- Doling, J., & Elsinga, M. (2006). Home ownership: Getting in, getting from, getting out. Part II. In *Housing and Urban Policy Studies*. IOS Press BV. <http://www.en.sbi.dk/research/town-housing-and-property/single-familydetached-housing-in-attractive-suburban-areas>
- Elsinga, M., & Hoekstra, J. (2005). Homeownership and housing satisfaction. *Journal of Housing and the Built Environment*, 20(4), 401–424. <https://doi.org/10.1007/s10901-005-9023-4>
- Engel, J. F., Miniard, P. W., & Blackwell, R. D. (2006). Consumer behavior 10th Edition. *Thomson South-Western. Mason. USA*
- Ezeanya, A. C. (2004). Malaysian housing policy: Prospects and obstacles of National Vision 2020. *International Conference on Adequate & Affordable Housing for All*, 12. [http://www.urbancentre.utoronto.ca/pdfs/housingconference/Ezeanya\\_Malaysian\\_Housing\\_P.pdf](http://www.urbancentre.utoronto.ca/pdfs/housingconference/Ezeanya_Malaysian_Housing_P.pdf)
- Filandri, M. and Bertolini, S. (2016). Young people and home ownership in Europe. *International Journal of Housing Policy*, Vol. 16 No. 2, pp. 144-164

- Fraenkel, J. R., & Wallen, N., E. (2010). *How to design and evaluate research in education*. (7th ed.). McGraw-Hill, New York
- Glaeser, E. L. & Sacerdote, B. (2000). The social consequences of housing. *Journal of Housing Economics*, 9, 1 – 23.
- Glenn, D. I. (1992). Determining sample size. A series of the Program Evaluation and Organizational Development. University of Florida, Publication date: November.
- Government of Malaysia. (2019). National Affordable Housing Policy. In *National Housing Department, Ministry of Housing and Local Government*.
- Haddad, M., Judeh, M., & Haddad, S. (2011). Factors affecting buying behavior of an apartment and empirical investigation in Amman, Jordan. *Applied Sciences, Engineering and Technology*, 3(3), 234-239.
- Hair, J. F., Page, M., & Brunsveld, N. (2019). *Essentials of business research methods*. Oxfordshire, England. Routledge.
- Hamza B. (2019). The importance of literature review in APA-style papers. University of Algiers 2. Algeria
- Hashim Z.A. (2010). House price and affordability in housing in malaysia. *Akademik* 78(Jan-April)2010:37-46, 78, 870–875.
- Heath, S. (2008). Housing choices and issues for young people in the UK.
- Helderman, A. C., & Mulder, C. H. (2007). Intergenerational transmission of home ownership: the role of gifts and continuities in housing market characteristics. *Urban Studies*, 44, 231 – 247.
- Heywood, Andrew. (2011). The end of the affair: implication of declining home ownership. The Smith Institute.
- Hirayama, Y. (2012). ‘Reshaping the housing system: home ownership as a catalyst for social transformation’, in Hirayama, Y. and Ronald, R. (eds.), *Housing and Social Transition in Japan*, London: Routledge, 15-46.
- Henilane, I. (2016). Housing concept and analysis of housing classification. *Baltic Journal of Real Estate Economics and Construction Management*, 4(1), 168-179.
- Herbert, C., Hermann, A., & McCue, D. (2018). Measuring housing affordability: Assessing the 30-percent of income standard. *Joint Center for Housing Studies of Harvard University: Cambridge, MA, USA*.

- Hogg, M., Askegaard, S., Bamossy, G., & Solomon, M. (2006). *Consumer behaviour: a European perspective*. London. Prentice Hall
- Howard, J.A. and Sheth, J.N. 1969. *The Theory of Buyer Behaviour*. New York, London, Sydney, Toronto: John Wiley and Sons
- Hurtubia, B., Gally, O., & Bielaire, M. (2010). Attributes of household, locations and real estate for land use modeling. *Sustain City Working Paper, 2.7*. Lausanne: EPFL
- In J. (2017). Introduction of a pilot study. *Korean journal of anesthesiology, 70*(6), 601–605. <https://doi.org/10.4097/kjae.2017.70.6.601>
- Jain D., Mandot N. (2012) Impact of demographic factors in investment decision of investors in Rajasthan. *Journal of Arts, Science & Commerce*. Vol. III, Issues 2 (3).
- Jayachandran, S. (2004). *Marketing Management*. Excel Books. India.
- Jisana, T. K. (2014). Consumer behaviour models: an overview. *Sai Om Journal of Commerce & Management, 1*(5), 34-43.
- Ju, S.-R., & Omar, S. Bin. (2010). A Typology of Modern Housing in Malaysia. *International Journal of Human Ecology, 11*(1), 109–119.
- Johanson G.A. & Brooks G.P. (2010). Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement 70*(3) 394–400.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology, 7*(4), 396.
- Kabir, Syed Muhammad. (2016). *Basic Guidelines for Research: An Introductory Approach for All Disciplines* (pp.1-22). Book Zone Publication, Chittagong-4203, Bangladesh
- Kaynak, E., & Stevenson, L. (2007). Comparative Study of Home Buying Behaviour of Atlantic Canadians. *Home Buying Behaviour, 3*-11.
- Khan, P. A. M., Azmi, A., Juhari, N. H., Khair, N., & Daud, S. Z. (2017), Housing preference for first time home buyer. *Journal of Design and Built Environment, Special Issue 2017*
- Kim, K. H. (2012). Real estate volatility and macroeconomic stability: An East Asian perspective. Paper presented at 6<sup>th</sup> International Real Estate Research Symposium, April 24 – 25, INSPEN 2<sup>nd</sup> Campus, Selangor, Malaysia.
- Koul, L. (2009). *Methodology of Educational Research*. (4th Ed.). New Delhi: Vikas Publishing House

- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Krainer J. (2005). *Housing Market and Demographic*. Number 2005-21; August 26, 2005 FRBSF Economic Letter. Federal Reserve Bank of Francisco.
- Kumar R. (2012). *Research Methodology: A Step By Step Guide For Beginners* (3<sup>rd</sup> ed). Sage
- Kurniawati, W. A. C. (2017). *Pengaruh Lokasi Perumahan, Harga Perumahan Dan Citra Merek Terhadap Keputusan Nasabah Mengambil Kredit Kepemilikan Rumah (Kpr) Syariah (Studi Kasus Nasabah Btn Syariah Surakarta)*. Institut Agama Islam Negeri Surakarta.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Lăzărescu, L.M., Diacon, D. L., Efros, V., & Horodnic, V.D. (2020). Housing affordability in the context of covid-19 pandemic – new challenges for romania. *LUMEN Proceedings*, 14, 294-311. <https://doi.org/10.18662/lumproc/ibmage2020/22>
- Lebar O. (2018). *Penyelidikan Kualitatif :Pengenalan Kepada Teori dan Metode*. Edisi Ke-2. Universiti Pendidikan Sultan Idris
- Lee, M. (2016). *Getting Serious about Affordable Housing*. Canadian Centre for Policy Alternatives. BC Office.
- Lutfi (2010) Relationship between demographic factors and Investment Decision in Surabaya. *Journal of Economics, Business and Accountancy Venture Volume 13, No. 3. December 2010, Pages 213-224 Accreditation No 110/DIKTI/Lep/2009*.
- Li, and Chiang. (2014). Property prices and housing affordability in China: a regional comparison. *Journal of Comparative Asian Development*, 13(3), 405-435
- Majid.R.A., (2010). *Faktor-faktor yang mempengaruhi permintaan harta tanah kediaman di Malaysia*. (Unpublished manuscript thesis). University of Malaya, Kuala Lumpur
- Malhotra, N. K. (2010). *Marketing Research: An Applied Orientation Global Edition*, 6th Edition. New Jersey: Pearson Education.
- Mariadas, P. A., Abdullah, H., & Abdullah, N. (2019). Factors influencing the first home purchase decision of middle-income earners (M40) in Selangor, Malaysia. *eBangi*, 16(1).

- Marshall, C. & Rossman, G. G., (1999). *Designing Qualitative Research*. 3<sup>rd</sup> Edition. Thousand Oaks: Sage.
- McDonald, P. and Baxter, J. (2005) “Home ownership among young people in Australia: in decline or just delayed?”, *Australian Journal of Social Issues*, 40 (4): 471-487
- McLeod, S. (2018). Questionnaires: Definition, Examples, Designs and Types. <https://www.simplypsychology.org/questionnaires.html>
- Miller P. (2002). Trent Focus for Research and Development in Primary Health Care.
- Mohamed, R., Ramli, Z. , Sum, M. S. (2020). Kemampuan pemilikan rumah dalam kalangan m40 di malaysia (Home ownership affordability among m40 in malaysia). *Akademika 90(Isu Khas 1/Special Issue)*, 90 (1), 63–74.
- Mohd Taib Osman (2004). *Globalisasi, Patriotisme dan Isu-Isu Kemasyarakatan*. Penerbit Universiti Malaya, Kuala Lumpur.
- Morvaridi, B., *Data Collection Skills and Techniques*, 2005/2006 Graduate School Module 2 Study Guide, University of Bradford, UK, 2005.
- Muzaffar P.M.M. and Kunasekaran T. (2021). Median Multiple Affordability: Use and Considerations. *Khazanah Research Institute Views* 11/21
- National Property Information Centre (2021). *Property Market Report 2020*. Valuation and Property Services Department. Ministry of Finance Malaysia.
- Nasar, K. K., & Manoj, P. K. (2015). Purchase decision for apartments: a closer look into the major influencing factors. *International Journal of Research in Applied, Natural and Social Sciences*, 3(5), 11-38
- Nwuba, C. C., & Kalu, I. U. (2018). Housing Affordability: A Review of the Diversities of Definitions and Concepts. *Environmental Technology & Science Journal*. Vol. 9 Issue 1
- Opoku, R. A., & Abdul-Muhmin, A. G. (2010). Housing preferences and attribute importance among low-income consumers in Saudi Arabia. *Habitat International*, 34, 219-227.
- Pallant J. (2020). *SPSS Survival Manual: Step by Step Guide to Data Analysis Using IBM SPSS*. 7<sup>th</sup> Edition. McGraw-Hill Education
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and policy in mental health*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>



- Razak, I., Ibrahim, R., Hoo, J., Osman, I., & Alias, Z. (2013). Purchasing Intention towards Real Estate Development in Setia Alam, Shah Alam: Evidence from Malaysia. *International Journal of Business, Humanities and Technology*, 3(6), 66-75.
- Roscoe, J. T. (1975). *Fundamental Research Statistics for the Behavioral Sciences* (2nd Ed.). New York: Holt Rinehart & Winston.
- Rosenfeld, O. (2017). Analysis of interpretations of the term affordable housing in the EU Urban Agenda Partnership for Housing. DG REGIO and the EU Urban Agenda Partnership for Housing, European Commission, DG REGIO, Brussels.
- Rachmawati, D., Shukri, S., Azam, S., & Khatibi, A. (2019). Factors influencing customers' purchase decision of residential property in Selangor, Malaysia. *Management Science Letters*, 9(9), 1341-1348.
- Rakhmanita, A., & Vidada, I. A. (2017). Faktor-Faktor yang mempengaruhi keputusan pembelian properti di Kota Tangerang. *Seminar Nasional Multi Disiplin Ilmu* (Vol. 1).
- Ranjit Kumar. (2012). *Research methodology: a step by step guide for beginners* (3rd Editio). Sage Publications Ltd.
- Reid, C. (2013). To buy or not to buy? Understanding tenure preferences and the decision-making processes of lower-income households. *Cambridge, MA: Joint Center for Housing Studies of Harvard University*.
- Rohe, W. M., & Stewart, L. S. (1996). Homeownership and neighborhood stability. *Housing Policy Debate*, 7(1), 37–81
- Said. T (2018). *Statistical Analysis: Internal-Consistency Reliability And Construct Validity*. European Centre for Research Training and Development UK. 6(1), 2738.
- Salfarina, A. G., Nor Malna M. & Azrina, H. (2011). Trends, problems and needs of urban housing in Malaysia. *International Scholarly and Scientific Research & Innovation*, 5(2): 227-231.
- Salmon L.(March, 2017).The importance of case studies in social research. Changeworks. <https://www.changeworks.org.uk/news-and-events/blog/the-importance-of-casestudies-in-social-research>

- Sean, S. L., & Hong, T. T. (2014). Factors affecting the purchase decision of investors in the residential property market in Malaysia. *Journal of Surveying, Construction and Property*, 5(2), 1-13.
- Sekaran, U. and Bougie, R. (2013), *Research Methods for Business: A Skill-Building Approach*, 6th ed., John Wiley & Sons, New York.
- Straub, D., Boudreau, M. C., & Gefen, D. (2004). Validation guidelines for IS positivist research. *Communications of the Association for Information systems*, 13(1), 24.
- Suaid S. (2012). Factor Influence Buyer's Preference In Purchasing A House, (Unpublished manuscript Dissertation). University Of Technology MARA, Shah Alam
- Tan, T. H. (2008). Determinants of homeownership in Malaysia. *Habitat International*, 32(3), 318–335. <https://doi.org/10.1016/j.habitatint.2007.11.006>
- Thaker. H., and Sakaran, K. (2016). Prioritisation of key attributes influencing the decision to purchase a residential property in Malaysia. *International Journal of Housing Markets and Analysis*, 9(4), 446-467.
- The PropEdge (2021). Rediscover Sepang. <https://www.edgeprop.my/areaoutlook/selangor/sepang>
- The World Bank. (2021). Malaysia to achieve high income status between 2024 and 2028, but needs to improve the quality, inclusiveness, and sustainability of economic growth to remain competitive. *The World Bank Group, Washington, DC*(pp.1–3). <https://www.worldbank.org/en/news/pressrelease/2021/03/16/aiminghighmalaysia>
- Visitnitikija, C., & Chonphunnon, A. (2016). Factors effecting consumer behaviour of buying a single housing estate. *International Research Journal of Advanced Engineering and Science*, 2(1), 39-41.
- Wilcox, S. 2003. Can work - can't buy: Local measures of the ability of working households to become home owners. Joseph Rowntree Foundation (United Kingdom).
- Wong, K. C. (2020). T20, M40 And B40 Income Classifications in Malaysia. In *Compare Hero* (p. 1). <https://www.comparehero.my/budgets-tax/articles/t20m40-b40-malaysia%0Ahttps://www.comparehero.my/budgets-tax/articles/t20m40-b40-malaysia>

- Yap, J. B. H., & Ng, X. H. (2018). Housing affordability in Malaysia: perception, price range, influencing factors and policies. *International Journal of Housing Markets and Analysis*, 11(3), 476–497. <https://doi.org/10.1108/IJHMA-08-2017-0069>
- Yassin, A. M., & Bakri, S. N. (2017). Strategi pemilikan harta tanah kediaman oleh generasi kedua Felda (Residential property ownership strategy by Felda second generation). *Asian Journal Of Environment, History And Heritage*, 1(2).
- Yates, J., & Gabriel, M. (2006). Housing affordability in Australia. National researchventure 3: Housing affordability for lower income Australians (Research Paper 3).
- Yongzhou, H. (2009). Housing price bubbles in Beijing and Shanghai. *International Journal of Housing Markets and Analysis*, 3(1), 17-37.
- Zainon, N., Mohd-Rahim, F. A., Sulaiman, S., Abd-Karim, S. B., & Hamzah, A. (2017). Factors affecting the demand of affordable housing among the middle-income groups in Klang Valley Malaysia. *Journal of Design and Built Environment*, 1-10.
- Zamri A. M., (2019). Homeownership gaps among the middle-income group in Malaysia. *Journal of Science, Technology and Innovation Policy*, 5(2), 50–62.
- Zrobek. S., Trojanek. M., Sokolnik. A., and Trojanek. R. (2015). The influence of environmental factors on property buyers' choice of residential location in Poland. *Journal of International Studies*, 8(3), 164-174.
- Zulkifli, F. (2022). *Factors influencing house buyer's decision in Malaysia. Case study: Sepang, Selangor*. (Unpublished Master Dissertation). Universiti Teknologi MARA, Shah Alam.