HOMEBUYERS' BUYING BEHAVIOUR FOR HIGH RISE PROPERTY IN IPOH

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I/We* hereby declare that I/We* have checked this thesis/project* and in my/our* opinion, this thesis/project* is adequate in terms of scope and quality for the award of B. Eng (Hons.) Civil Engineering

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I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

Ipoh adalah ibu negeri Perak dalam Malaysia. Ia terletak di Sungai Kinta, sekitar 180 km utara ibu negara Malaysia, Kuala Lumpur dan 123 km tenggara negeri Pulau Pinang. Sehingga tahun 2010, Ipoh mempunyai penduduk seramai 657,892 orang. Ini menjadikan Ipoh sebagai Malaysia sebagai bandar terbesar ketiga mengikut penduduk. Malaysia mempunyai tempoh pertumbuhan yang kukuh dalam pasaran perumahan kediaman. Untuk mengekalkan pertumbuhan yang pesat ini, pemasar memerlukan pemahaman yang mendalam dalam pembelian tingkah laku pembeli. Ia membantu pembekal hartanah mencapai kelebihan daya saing yang mampan. Ia amat penting untuk mengetahui bahawa pembeli benar-benar mahu kerana mereka lebih berhati-hati sebelum mendapatkan rumah mereka untuk mengurangkan ketidakpadanan dalam perumahan. Pemaju perumahan perlu mempunyai pengetahuan terperinci bagaimana pembeli Malaysia berbeza dalam persepsi, keutamaan dan pilihan dalam pilihan rumah mereka. Umumnya, Malaysia memilih kawasan lanskap berpagar lindung tetapi ada akses terhad kepada nilai yang disediakan di Ipoh, Malaysia. Dan kerana masalah ini, penekanan utama kertas ini adalah untuk menentukan sama ada responden sanggup membayar kepada perubahan dalam jenis kejiranan dan apakah pilihan mereka dalam memilih satu. Tujuan kajian ini adalah untuk menentukan ciri-ciri kritikal terhadap keputusan pembeli dalam memilih sebuah rumah di Ipoh, Malaysia dan untuk menentukan ciri-ciri individu pembeli mempengaruhi penilaian mereka tentang sifat-sifat perumahan dan pilihan mereka di Ipoh, Malaysia. Kajian dilakukan di Ipoh dan data akan dianalisis melalui analisis deskriptif, ukuran skala, ujian kebolehpercayaan, analisis inferensial, analisis koefisien korelasi Pearson, ujian T independen, dan juga analisis regresi berganda. Adalah didapati bahawa komuniti Ipoh ingin memiliki rumah baru tetapi masih tidak dapat menerima harta bertingkat tinggi dan sifat kritikal yang mempengaruhi keputusan pembeli adalah harga hartanah.

ABSTRACT

Ipoh is the capital of one of the Malaysia states Perak. It is located by the Kinta River, around 180 km north of Malaysia's national capital, Kuala Lumpur and 123 km southeast of Penang state. As of 2010, Ipoh has a population of 657,892 people. This makes Ipoh as Malaysia third largest city according to population. Malaysia's is having a strong growth period in residential housing market. To maintain this flourishing growth, marketers require an in-depth understanding in purchasing behaviours of the buyer. It helps properties suppliers achieving a sustainable competitive advantage. It is crucial to know that the purchaser really wants as buyers are becoming more cautious before getting their houses in order to reduce mismatch in housing provision. Housing developer needs to have detail knowledge on how is Malaysian purchaser differ in perception, preference and option in their choice of houses. Generally, Malaysian prefer gated-guarded landscape compound but there are limited access to the value provided in Ipoh, Malaysia. And because of this problem, the main emphasis of this paper is to determine whether the respondent is willing to pay to changes in neighbourhood types and what are their preferences in selecting one. The purpose of this research is to determine the critical attributes on buyer's decision in selecting a house in Ipoh, Malaysia and to determine which individual buyers' characteristics affects their evaluation of housing attributes and their choice in Ipoh, Malaysia. Survey is done in Ipoh and the data will be analyse through descriptive analysis, scale measurement, reliability test, inferential analysis, Pearson correlation coefficient analysis, independent T-test, and also multiple regression analysis. It is found that Ipoh community wanted to own new properties but still not able to accept high rise property and the critical attributes that affect buyer decision is property price.

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LIST OF SYMBOLS

%	Percentage
>	More than
<	Less than

LIST OF ABBREVIATIONS

PD	Property Design
PF	Property Financial
PFc	Property Facility
PL	Property Location
PN	Property Neighbourhood
PO	Other Property Attributes
RM	Ringgit Malaysia
UMP	University Malaysia Pahang

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Bank Negara had recently announced that Malaysia's household debt-to-gross domestic product (GDP) ratio increased to 89.1% as of 2015 from 86.8% (The Star, 2016). In fact, we have one of the highest household debts in South East Asia. Our household debt has doubled between 2008 to 2015. This event shows that Malaysian invests a large sum of money in houses and by saying that this will only increase over time because every human being needs a home. In Malaysia, one of the ways to own a house is through loan. For the first two properties, the maximum for house loan is 90% and for third house and above subsequently 70%. In normal circumstances, Malaysia property value appreciates and not depreciates.

China, Singapore, and private Malaysian customers purchasing housing dealers are the major investors in housing market in Malaysia. China groups have invested $2.1 billion in Malaysia real estate for the past three years compare to Singapore $985 million (Jeeven, 2017) and this shows that the future of Malaysia real estate is promising. The last group of investor are focused in this study.

Ipoh is the capital of one of the Malaysia states Perak. It is located by the Kinta River, around 180 km north of Malaysia's national capital, Kuala Lumpur and 123 km southeast of Penang state. As of 2010, Ipoh has a population of 657,892 people. This makes Ipoh as Malaysia third largest city according to population. (Department of Statistics, 2010) Malaysia's is having a strong growth period in residential housing market. As mentioned above, Ipoh is one of the top cities in Malaysia. To maintain this flourishing growth, marketers require an in-depth understanding in purchasing behaviors of the buyer. Home buyers' perception of providers and their choice criteria are numerous (Choudhury, 2015). This includes aspect such as the insight of overall condition of the properties, environment and also level of satisfaction after-sales by the suppliers. Besides that, learning buyers' need and what induce home buyers' satisfaction level and using these as targets. It helps properties suppliers achieving a sustainable competitive advantage.

1.2 Problem Statement

There has been a limited study conducted in Malaysia to investigate homebuyers' buying behaviour for high rise property in Ipoh. This study is done to identify the criteria influencing home buyers' decision in buying their high rise properties. Ipoh is the third biggest city in Malaysia and the population is this area is increasing from time to time and high rise properties is one of the alternative to solve the problem. However there are a lot to take into consideration when one is to purchase a house as it involves a large sum of money and tens of years of commitment. There are a lot of developers in Ipoh including Sunway City, Mansion Builder, Total Investment and many others. Due to this, the supply of housing properties increases dramatically. These developers are competing with each other's in terms of sales, marketing, branding and shares (Tan, 2011). Therefore these developers have to find some alternatives and answer on what are the attributes the purchaser are looking in to when they buy a high rise properties.

For example, in Klang Valley, too many developers are offering a wide range of housing properties and because of this, purchases have a lot of choices which makes the market growing slow because of competition (Tan, 2011). There is an over construction by Malaysian developers and this created a problem which is property overhang. This means that the houses that have been certified of fitness for occupation remain unsold for over nine months (Ministry of Finance's Valuation and Property Service Department, 2006) . As days go on, there will be a gradual increase in supply and the market competition will be more intense. There are a many choices available, purchaser will have more to look into, including design, price, location, facilities and other aspects (Tan, 2011).

Ministry of Finance's Valuation and Property Service Department 2009 reported that the overhang units rose from 23,866 units (RM3.82billion) in 2007 to 26,866 units (RM4.476 billion) in 2008. These houses are mostly below RM150,000. These overhang units do not attract the targeted market because they are located in poor locations with low employment opportunities and no adequate amenities. (Tan, 2011).

Developers in Malaysia are blooming and there are a wide choice offered. Saying that, purchaser are going to consider on a lot of aspect such as location, design, facilities, neighbourhood and other attribute. Price of properties in Malaysia is increasing especially in big cities such as Kuala Lumpur, Johor Bahru and Penang. Because of this, there are more reputable developer such as Eco World Development Group Berhad, LBS Bina Group Berhad, Sime Darby Property Berhad and many others. Besides all these big players, there are also more small developer emerge to venture into the market. Therefore, the numbers of residential properties are to increase too and as the supply increases, demand decreases. This paper is going to look into criteria such as financial, location, proximity and connection, neighbourhood, property design and layout, facilities and few other property attribute has an impact if they want to buy a house in Ipoh.

Finally, it is crucial to know that the purchaser really wants as they care becoming more cautious before getting their houses in order to reduce mismatch in

housing provision. Housing developer needs to have a detail knowledge on how are Malaysian purchaser differ in perception, preference and option in their choice of houses. Generally, Malaysian prefer gated-guarded landscape compound but there are limited access to the value provided in Ipoh, Malaysia. And because of this problem, the main emphasis of this paper is to determine whether the respondent is willing to pay to changes in neighbourhood types and what are their preferences in selecting one.

1.3 Objectives

The purpose of this research is to identify to identify the attributes house buyer look into when buying a housing property in Ipoh, Malaysia that had been discussed in problem statement by having a general objective and then scope down more to a specific objective. This research is to find out and analyse the factors influencing buyer's intention when they are to get a house in Ipoh, Malaysia. This study will also help in identifying the features that buyers prefer when they buy a housing property in Ipoh, Malaysia:

a. To determine the critical attributes on buyer's decision in selecting a house in Ipoh, Malaysia.
b. To investigate which individual buyers' characteristics affects their evaluation of housing attributes and their choice in Ipoh, Malaysia.

1.4 Scope of Study

In this study, the experiments will be conducted in small scale survey basis. This survey will be distributed to as the respondent in Ipoh, Perak. The survey is divided into two sections which is demographic and also factors that affect the buying behaviour of high rise property in Ipoh.

To obtain purchasing behaviour of the respondent, these attribute will be asked:

a. Background characteristics of respondent
b. Features of house currently lived in
c. Financial
d. Location, Proximity & Connectivity
e. Neighbourhood
f. Property Design & Layout
g. Property Financial
h. Property Location
i. Property Neighbourhood

REFERENCES

Aaker, Kumar and Day, (2007). Marketing Research, 9th edition Education California:Wiley

Adair, A., Berry, J., & McGreal, S. (1996). Valuation Of Residential Property: Analysis of participant behaviour. *Journal of Property Valuation & Investment*, *14*(1), 20-35.

Almatarneh, R.T. (2013). Choices And Changes In The Housing Market And Community Preferences: Reasons for the Emergence Of Gated Communities In Egypt: A Case Study of the Greater Cairo Region, Egypt. Ain Shams Engineering Journal, 4(3), 563-583.

Al-Momani, A. H. (2000). Structuring Information On Residential Building: a model of preference. Engineering, Construction and Architectural Management, 7(2), 179-190. doi:10.1108/eb021143

Ariffin N. R.; Zahari R. K.; Nadarajah S. (2010). Residential Satisfaction In Private Low-Cost Housing In The Urban Area: A Case Study Of The Klang Valley, Malaysia. Urban Dynamic & Housing Change-Crossing into the 2rd Decade of the 3rd Millennium.22rd International Housing Research Conference, 4-7 July Istanbul.

Ariyawansa R. G. (2007). An Empirical Study Of Consumer Behaviour In Housing Market In Colombo.Built Environment-Sri Lanka. Vol 08, Issue 01.

Azmi, Karim and Ahmad (2013). Comparative Study Of Neighbourhood Walkability To Community Facilities Between Two Precincts In Putrajaya. *Journal Social and Behavioral*. 105, pp 513-524.

Bajari, P.; Kahn, M. E. (2005).Estimating Housing Demand with an Application to Explaining Racial Segregation in Cities.Journal of Business and Economic Statistics.Volume 23 Issue 1 (Jan). Pp. 20-33.

Barlow, J.; Childerhouse, P.; Gann, D.; Hong-Minh, S.; Naim, M.; Ozaki, R. (2003). Choice And Delivery In Housebuilding: Lessons From Japan for UK Housebuilders. Building Research and Information.Volume 31 Issue 2 (Mar/Apr). Pp. 134-145.

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.

Barua, S., Mridha, A. H. A., & Khan, R. H. (2010). Housing Real Estate Sector In Bangladesh: present status and policies implications. *ASA University Review*, 4 (1), 240-253.

Berk, M. G. (2005). The Concept Of Neighbourhood In Contemporary Residential Environments: An investigation of occupants' perception. MPRA Paper (22481) : Delft University of Technology. 5May 2010. Pp1-12.

Berkoz, Lale, Turk, S. Sence, & Kellekci, Omer. (2009). Environmental Quality And User Satisfaction In Mass Housing Areas: The Case of Istanbul *European Planning Studies, 17*(1), 161-174.

Bhatti, Mark, & Church, Andrew. (2004). Home, The Culture Of Nature And Meanings Of Gardens In Late Modernity, Housing Studies. *Housing studies, 19*(1), 37-51.

Blackwell, Roger, Souza, Clare D', Taghian, Mehdi, Miniard, Paul, & Engel, james. (2006). *Consumer Behavior: An Asia Pacific Approach* (1st ed.). South Melbourne: Cengage Learning Australia Pty Limited

Brown, J. D. (2011, March). Likert Items And Scales Of Measurement? Shiken: Jalt Testing and Evaluation SIG Newsletter, 15(1) 10-14.

Bujang A. A.; Zarin H. A.; Jumadi N. (2010) The Relationship Between Demographic Factors And Housing Affordability. Malaysia Journal of Real Estate. Volume 5, Number 1.

Cambridge Advanced Learner's Dictionary (2006). 1st Ed. University Press.

Cantarero, R. & James, P. (2012).Stress and the Contextual Proximity of Residential Factors. Procedia - Social and Behavioral Sciences, 36(0), 137-146

Chapman, D. W., & Lombard, J. R. (2006).Determinants Of Neighborhood Satisfaction On Fee-Based Gated And Non-Gated Communities. Urban Affair Review, 41, 769-799.

Cheah Y. Y., & Tan, T. H. (2012).*Locational, Neighborhood, Structural And Socio-Cultural Attributes Of Housing In Homeownership Decisions*. Proceeding for 6th International Real estate ResearchSymposium (IRERS) 2012, Globalization of Real Estate: Transformation and Opportunities,National Institute of Valuation (INSPEN). Selangor, Malaysia: Ministry of Finance.

Cheng, Many M., Peter F. Luckett, and Axel K. Schulz. (2003). The Effects of Cognitive Style Diversity on Decision-Making Dyads: An Empirical Analysis in the Context of a Complex Task. *Behavioural Research in Accounting*, 15, 39-62.

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.

Choguill, C.L. (2008). Developing Sustainable Neighborhoods. Habitat International, 32, 41-8.

Choudhury, A. H. (2015). Regional Differential Wealth Effect On Home Value : A Cross-Sectional Analysis, *16*(1), 273–290.

Clark, W., Deurloo, M., & Dieleman, F. (2006). Residential Mobility And Neighborhood Outcomes, *Housing Studies, 21*, 323 – 342.

Cupchik, G. C., & Gignac, A. (2003).Finding Meaning And Expressing Emotion In Response To Property. Visual Arts Research, 33(1), 56–71

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.

Dawson, Catherine, 2002, Practical Research Methods, New Delhi, UBS Publishers'Distributors de Vaus, D. A.: Surveys in Social Research, 5th edition, Allen & Unwin, Crows Nest, Australia, 379 pp., 2002.

Department of Statistics, M. (2010). Population Distribution by Local Authority Areas and Mukims. *Population and Housing Census of Malaysia*

El-Nachar, E. (2011). Design Quality In The Real Estate Market: clients' preferences versus developers' interests. *International Journal of Architectural Research, 5*(2), 77-90.

Evans, J. (2004). Wealthy Investor Attitudes, Expectations, And Behaviors Toward Risk And Property", Journal of Wealth Management, Summer: 12 -18.

Fierro, K., Fullerton, T., & Donuan-Callejo, K. (2009). Housing Attributes Preference In A Northern Mexico Metropolitan Economy. Atlantic Economic Journal, 37, 159 – 172.

Fierro, Karen P., Fullerton, Thomas M., & Donjuan-Callejo, K. Erika. (2009). Housing Attribute Preferences in a Northern Mexico Metropolitan Economy. *International Atlantic Economic Society, 37*(2), 159-172. doi: 10.1007/s11293-009-9174-x

Fontenla, M.; Gonzalez, F. (2009).Housing Demand in Mexico.*Journal of Housing Economics*.Volume 18 Issue 1. Pp. 1-12.

Gabriel, S. A.; Painter, G. (2003). Pathways To Homeownership: An Analysis Of The Residential Location And Homeownership Choices Of Black Households In Los Angeles. Journal of Real Estate Finance and Economics.Volume 21 Issue 1. Pp. 87-109.

Garcia, J. A. B.; Hernandez, J. E. R. (2008). Housing Demand In Spain According To Dwelling Type: Microeconometric Evidence. Regional Science and Urban Economics.Volume 38 Issue 4 (Jul). Pp. 363-377.

George, D., & Mallery, P. (2003). SPSS For Windows Step By Step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.

Gliem.R&R. Gliem (2003), Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales.

Greene, Margarita, & Ortuzar, Juan De Dios. (2002). Willingness to Pay for Social Housing Attributes: A Case Study from Chile. *International Planning Studies*, *7*(1), 55-87.

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., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate Data Analysis (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Hong, T. T. (2011). Neighborhood Preferences Of House Buyers: The Case Of Klang Valley, Malaysia. International Journal of Housing Markets and Analysis, 58 – 69

Hurtubia, B., Gallay, O., & Bielaire, M. (2010).Attributes Of Household, Locations And Real Estate For Land Use Modeling. Sustain City Working Paper, 2.7. Lausanne: EPFL.

Idrus, N. and Ho C. S. (2008). *Affordable And Quality Housing Through The Lowcost Housing Provision In Malaysia*. Johor: Department of Town & Regional Planning, Faculty of Built Environment, Universiti Teknologi Malaysia.

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).

Jansen, S. J., Coolen, H. C., & Goetgeluk, R. W. (2011). Housing Preferences.The Measurement and Analysis of Housing 1.

Karim (2008). The Satisfaction Of Residents On Community Facilities In Shah Alam, Malaysia. *Journal Asian Social Science*. 4 (11), pp131-137.

Kasim, R., Ahmad, A. R., and Eni, S,. (2007). The Neighbourhood Facilities And The Sustainable Communities Agenda: An Overview. University Tun Hussein Onn Malaysia

Kaynak, E., & Stevenson, L. (2007). Comparative Study of Home Buying Behaviour of Atlantic Canadians. *Home Buying Behaviour*, 3-11.

Khaled, M. C., Sultana, T., Biswas, S. K., & Karan, R. (2012). Real Estate Industry In Chittagong (Bangladesh): A survey on customer perception and expectation. *Developing country studies*, 2 (2), 38-45.

Kline, R. B. (2005). Principles And Practice Of Structural Equation Modeling. New York: Guilford.

Koklic, M. K., & Vida, I. (2006). An Examination Of A Strategic Household Purchase: Consumer Home Buying Behavior. *Advances in Consumer Research*, *33*, 288–289. https://doi.org/10.1111/j.1470-6431.2010.00953.x

Kotler P. and Keller K. (2011) *"Marketing Management"(*14th edition), London: Pearson Education.

Krainer J. (2005). Housing Market and Demographic. Number 2005-21; August 26, 2005 FRBSF Economic Letter.Federal Reserve Bank of Francisco.

Kranz, D. F.; Hon, M. T. (2006). A Cross-Section Analysis of the Income Elasticity of Housing Demand in Spain: Is There a Real Estate Bubble? Journal of Real Estate Finance Economic.Volume 32 Issue 4 (Jun). Pp. 449-470.

Kumar, Abdul Talib and Ramayah,Business Research Methods, (2013).

Lauridsen, J.; Nannerup, N.; Skak, M. (2009).Geographic And Dynamic Heterogeneity Of Home Ownership.Journal of Housing and Build Environment.Volume 24 Issue 1 (April). Pp. 1-17.

Leppel, K. (2007). Married And Unmarried, Opposite-And Same-Sex Couples: A Decomposition of Homeownership Differences. Journal of Housing Research.Volume 16 Issue 1. Pp. 61-81.

Linneman, P. and I.F. Megbolugbe, (1992). "Housing Affordability: Myth or Reality?" Urban Studies, 1(29), 369-392.

Livette, M. (2007). The Importance Of Tenure To Retirement Housing Purchasers And The Impact Of Culture Upon Their Attitudes To Tenure. *Property Management*, 24(5), 464–478.

Lowry, I.S. (1974). *A Model of Metropo*lis. Santa Monica, California: RAND Corporation

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.

Majid R. A., (2009) Product Factor Influence Buyer Behaviour. Proceedings of the 1st Regional Symposium on Sustainable Construction Materials & Building Systems (SUCOMBS), Boulevard Hotel, Midvalley, Kuala Lumpur, 12 October 2009.

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., & Peterson, M (2006). Basic Marketing Research: A Decision-Making Approach (2nd ed.). New Jersey: Prentice Hall

Mar Iman (2002). *Introduction to Property Marketing*, Johor: Penerbit Universiti Teknologi Malaysia.

Megbolugbe, I. F. (1996). Racial and Ethnic Differences in Housing Demand: An Econometric Investigation. Journal of Real Estate Finance and Economics.Volume 12. Pp. 295-318.

Ministry of Finance's Valuation and Property Service Department, (2006). Chapter 5: Greater Kuala Lumpur /Klang Valley, Retrieved from: http://www.kpkk.gov.my/pdf/tahukah_anda/ETP_bia64/chapter5.pdf

Miron, J. R. (2004). Housing Demand, Coping Strategy and Selection Bias.Growth and Change. Volume 35 Issue 2 (Spring). Pp. 220-261.

Mohd. Zain. Z. (1989), Arah Industri Perumahan Negara Didalam Tahun 1990 Hingga 2000. *The Surveyor*. Vol. 24 (2) 2nd. Quarterly. Institut Juruukur Malaysia

Mohit, M. A., Ibrahim, M. and Rashid, Y. R. (2010). *Journal of Habitat International*, 34, pp 18-27.

Mok, H. M. K., Chan, P. P. K., & Cho, Y. S. (1995). Hedonic Price Model For Private Properties In Hong Kong. *Journal of Real Estate Finance and Economics*, *10*(1), 37-48.

Morel, J. C., Mesbah, A., Oggero, M., & Walker, P. (2001). Building Houses With Local Materials: Means to drastically reduce the environmental impact of constructions. *BuildingEnvironment*, *36*, 1119-1126.

Morrel, J. (2001). How To Forecast- A Guide For Business. England: Gower Publishing Limited.

Mossel, Henk-Jan van, & Valk, Wendy van der. (2008). Securing Customer Satisfaction Through Component Service Specifications: Purchasing maintenance services for social rented housing. *Journal of Purchasing and Supply Management*, *14*(4), 241-252.

Musa, U. And Yusoff, W. Z. W. (2015). Impact Of Neighbourhood Characteristic On Residential Property Values: A Critical Review of Literature. *International Review of Social Sciences*, 3 (4), pp 147-155.

Myers, D. (1990), Housing Demography – Linking Demographic Structure and Housing Markets, the University of Wisconsin Press, Wisconsin.

Nayyab H. H., Sehr A., Adnan M., Ali Z. (2011), Impact Of Customer Demographic On Property Selection Criteria: A study of property sector of Okara, Punjab (Pakistan), Interdisciplinary Journal of contemporary Research In Business, Vol. 3, No. 2.

Noor Yasmin, Z.; Muhd Zaimi, A. M. (2012).Automated Low Cost House Demand Forecasting For Urban Area.Proceeding of The 4th Annual Seminar of National Science Fellowship.Pp. 521- 526.Penang. Disember 20-21.

Okunola, S. & Amole, D. (2012).Perception Of Safety, Social Participation And Vulnerability In An Urban Neighbourhood, Lagos, Nigeria. Procedia - Social and Behavioral Sciences, 35(0), 505-513.

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.doi:10.1016/j.habitatint.2009.09.006

Orcher, L. T. (2005). Conducting Research: Social And Behavioral Science Methods. Glendale, CA: Pyrczak Publishing.

Pasha, Hafiz A., & Butt, Mohammad S. (1996). Demand For Housing Attributes In Developing Countries: A Study Of Pakistan. *Urban Studies*, *33*(2), 1141–1154. doi: 10.1080/00420989650011555

Population Distribution by Local Authority Areas and Mukims, (2010). Department Of Statistics, Malaysia. Retrieved on 19 October 2017, from https://www.dosm.gov.my/v1/index.php?r=column/cpublication&menu_id=S2E5Zklhckxmejl VSaFFJb2988acXZvUT09.pdf

Quester, Pascale, Pettigrew, Simone, & Hawkins, Del I. (2011). *Consumer Behavior: Implications for Marketing Strategy* (6th ed.). Sydney: McGraw-Hill Australia Pty Limited. Jeffery Bray, Nick Johns, & Kilburn, David. (2011). An Exploratory Study into the Factors Impeding Ethical Consumption. *Journal of Business Ethics*, *98*(4), 597-608.

Rosen, Sherwin (1974). "Hedonic Prices and Implicit Market: Product Differential in Pure Competition". *Journal of Political Economy.* Vol. 82. page 34-55.

Rossi, P.H. (1955*). Why Families Move*. London: Sage Publications.

Saari, Arto, & Tanskanen, Hanna. (2011). Quality Level Assessment Model For Senior Housing. *Property Management, 29*(1), 34-49.

Sakip, S. R. M., Johari,N& Salleh, M. N. M. (2013). Perception Of Safety In Gated And Non-Gated Neighborhoods. Procedia - Social and Behavioral Sciences, 85(0), 383-391.

Salleh (2012). Sustainable Urban Neighbourhoods : The Need To Consider Residents' Satisfaction. Journal of sustainable development, 3 (10), pp 103-108.

Saunders, M.N.K. and Lewis, P. (2009) 'Great Ideas And Blind Alleys? A Review Of The Literature On Starting Research', Management Learning, Vol. 28, No. 3, pp. 283–99

Schiffman, L.G., Hansen, H., & Kanuk, L.L. (2012). *Consumer Behaviour: A European Outlook*. USA: Financial Times/Prentice Hall.

Schuler, A.; Adair, C. (2003). Demographics, The Housing Market and Demand for Building Materials. Forest Product Journal. Volume 53 Issue 5 (May). Pp. 8-17.

Sengul, H., Yasemin, O., & Eda, P. (2010). The Assessment Of The Housing In The Theory Of Maslow's Hierarchy Of Needs. *European Journal of Social Sciences*, *16*(2), 214-219.

Sirat, M., Said, K., & Oma, M. (1999). *Low Cost Housing in Urban Industrial Centers of Malaysia*, Universiti Sains Malaysia Publications.

Stone, M. (2006). What Is Housing Affordability? The Case for Residual Income Approach. *Housing Policy Debate 17(1).* 151 – 184.

Suaid S. (2012). Factor Influence Buyer's Preference In Purchasing A House, unpublished manuscript Dissertation. University Of Technology MARA, Shah Alam.

Tan, T. H. (2010a). The Effect Of Housing Characteristics On Neighborhood Stability Of Homeownership. International Journal of Business and Emerging Market, 2(3), 286 – 304.

Tan, T. H. (2011). Neighborhood Preferences Of House Buyers: The case of Klang Valley, Malaysia. *Social Indicators Research.*

Tan, T. H. (2011a). Measuring The Willingness To Pay For Houses In A Sustainable Neighborhood. The International Journal of Environmental, Cultural, Economic & Social Sustainability, 7, 1 – 12.

Tan, T. H. (2011b). Neighborhood Preferences Of House Buyers: The case of Klang Valley, Malaysia. International Journal of Housing Markets and Analysis, 4(1), 58-69.

Tan, T. H. (2012b). Meeting First-Time Buyers' Housing Needs And Preferences In Greater Kuala Lumpur. Cities, 29(6), 389-396.

Tavakol, M., & Dennick, R. (2011).Making Sense Of Cronbach"S Alpha. International Journal Of Medical Education, 2, 53-55.

The Star Online. (2016). Rehda Optimistic of H1 2018 Property Sector Outlook Retrieved from https://www.thestar.com.my/business/business-news/2016/04/02/household-debt-on-the-rise/

Thomas, L.; Malmberg, B. (2008). Demography And Housing Demand- What Can We Learn From Residential Construction Data. *Journal of Population and Economic*.Volume 21 Issue 2 (July). Pp. 521-539.

Torbica, Zeljko, & Stroh, Robert. (2001). Customer Satisfaction In Home Building. *Journal of Construction Engineering and Management, 127*(1), 82–86. doi: 10.1061/(ASCE)0733-9364(2001)127:1(82)

Town And Country Planning Act 1976 (2007), Retrieved on June 19, 2015, from http://www.kpkt.gov.my/kpkt_2013/akta/Act172y1976bi.pdf.

Tse, R.Y.C., & Love, P.E.D. (2000).Measuring Residential Property Values In Hong Kong, Property Management, 18, 366-374.

Tu, Y., & Goldfinch, J. (1996). A Two-Stage Housing Choice Forecasting Model, Urban Studies, 33, 517 – 537.

Turner, T. M.; Lue, H. (2009). Homeownership, Wealth Accumulation And Income Status. Journal of Housing Economics.Volume 18 Issue 2 (Jun). Pp. 104-114.

Velilla, P. and Olympia B. (2002), *Hedonic House Prices without Characteristics: The New Multiunit Housing*, Working Paper no 117, European Central Bank, January 2002.

Woodward, S. E. (1991). Economists' Prejudices: Why The Mankiw Weil Story Is Not Credible. Regional Science and Urban Economics.Volume 21 Issue 4 (December). Pp 531-537.

Xiao, Q., & Tan, G. (2007). Signal Extraction With Kalman Filter: A study of theHong Kong property price bubbles. *Urban Studies*, 44(4), 865-888.

Yakob, H., Yusof, F.& Hamdan, H.(2012). Land Use Regulations Towards A Sustainable Urban Housing: Klang Valley Conurbation. Procedia - Social and Behavioral Science, 68(0),578-589.

Yongzhou, H. (2009). Housing Price Bubbles In Beijing And Shanghai. *International Journal Of Housing Markets And Analysis*, *3*(1), 17-37.

Zawawi, D., Wong, F.Y., Busu, R., Hamzah, Z.L., (2004). The Effects Of Sex Role Orientation On Family Purchase Decision Making In Malaysia . Journal of Consumer Marketing .21 (6), pp.381-390.

Zhang, H.& Lin, S-H. (2012). Sense Of Community In Taiwan And Its Relationships With The Residential Environment. Procedia - Social and Behavioral Sciences, 35(0), 335-343.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). Business Research Methods (8th ed.). Mason, HO: Cengage Learning.