

CHAPTER THREE

3. METHODOLOGY

This chapter describes the methodology used in the study, the selection of measures, data collection procedure and data analysis technique used.

3.1 Selection of measure

The construct to be measured in this study is the affordability of a person to buy a house for shelter.

3.1.1 Measurement of affordability

The scale used to measure the housing affordability was similar to the method applied by Richard K Green (1995). However only three out of his four indexes were employed in this study.

The first has some features in common with the National Association of Realtors Housing Affordability Index (NAR index). It is a payment - to - income ratio (PIR) index. However the PIR index is substantially different from the NAR index.

First, the index calculates the monthly principal and interest payments on a 30- year mortgage with a 90% loan - to -value ratio on a house priced at the 25th percentile. While this percentile is arbitrary, it also more closely resembles the price point at which a first - time - buyer will purchase a house.

Second, the index employs for its income data the median income for all renter households. Renters are the only households that have been potentially denied homeownership opportunities; the incomes of renter households are therefore the only relevant income for discussion of homeownership opportunities.

Finally the PIR index adds property taxes to principal and interest payments to come up with a total monthly payment whilst NAR index looks only at principal and interest.

The second and third indexes attempts to get some sense of the onerousness of the downpayment burden of the renter households. The second index is simply a house priced - to - income ratio (again, based upon median renter income and a house priced at the 25th percentile). Assuming home

buyers must have 10% of the value of a house in cash to purchase a house. This index, when multiplied by 10%, represents the fraction of annual income the median renter household requires to purchase a house at the 25th percentile of the price distribution.

The third index is a rent-to-income index, representing the percentage the median income renter household must spend in gross rent on the median rental unit. This measure differs from looking at the more typical median rent-to-income ratio, because it avoids one important endogeneity problem; that there could be households with strong tastes for housing. If households choose to spend a large fraction of income on rental housing, but have inexpensive housing available to them, their high rent-to-income ratios do not reflect an affordability problem.

The index that was not employed in this study is a service flow cost-to-income ratio which included variables such as user cost, marginal income tax rate, opportunity cost of capital, loan to value ratio, maintenance cost and depreciation, expected house appreciation, property tax and risk premium.

3.1.2 **5-Point Likert Scale**

This study also uses the 5 - point Likert - type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents were asked to indicate their level of agreement on statements / issues relating to house buying. The use of the 5-point scale was to avoid confusing respondents with unnecessary points on the scale. The 'neutral' in the scale was useful for the respondent who do not want to commit themselves and for respondent who did not has the experience in buying a house.

3.2 **Data Collection Procedure**

3.2.1 **Secondary Data**

The relevant data were collected from various Government agencies, the local authority such as Dewan Bandaraya Kuala Lumpur and the Selangor State Economic Development Corporation, Consumer Associations, Employee Provident Fund, published seminar papers and other organisations which involved directly and indirectly in housing matters. The analysis in this study were also based on the published information by financial institutions that are mostly available at the banks' counters.

3.2.2 Primary Data

This study uses primary data which were collected through a survey method over a period of two weeks in the month of January, 1997, with a sample size of 200 respondents.

The sample was confined to residents in the Kuala Lumpur and Petaling Jaya areas. These respondents were to answer three parts of the questionnaire in which the first section attempts to get their opinion on housing issues, the second section pertaining to the financial committed and the final section more on the demographic profile. The sample of the questionnaire is given in Appendix A. The purpose of using the primary data in this study is to obtain some proof and back-up to the analysis.

3.3 Data Analysis

The statistical package for Social Sciences Programme (SPSS) was used to analyse the primary data collected. The analysis was done through frequency distribution, cross tabulation, and the Chi-square analysis.

A reliability test was used for the first section of the questionnaire. This test was to check the internal consistency of the respondents' opinion on a few statements relating to the housing matters normally encountered by a house buyer.

The cross tabulation and Chi-square analysis were applied mostly in the second and third part of the questionnaire to test the significance of the variables in relation to one another; whether dependent or independent.