Head of Households in Terengganu

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Abstract. In the history of construction development, headship rate has been thought of as a key factor in projecting households. By implementing the household formation, the housing demand can be predicted in line with the objectives of the 10th Malaysia Plan (RMK-10) to match the demand and supply of housing in Malaysia. Case study for this paper was in Terengganu, Malaysia. The objective of this study is to identify the headship rate for the year 1980, 2000 and 2010. Data obtained from the Census of Malaysia was analyzed according to their headship rate for the male and female. Then, the graph was plotted according to gender and age group. Results show that at the early group, the headship rate was increased for male while for female headship rate was increased at elderly age group. Therefore, in conclusion, male in Terengganu more likely to own a home at a young age and vice versa for female.

1 Introduction

According to Population and Housing Census of Malaysia 2010, average annual population growth rate from the year 2000 until 2010 increase by 2.17% [1]. The increasing of this population will increased the housing demand as well as in Terengganu district which is the study area. In 2014, the total population at Terengganu was 1.14 million persons, increased to 1.16 million persons in year 2015 and estimated population will increased to 1.18 million persons in the year 2016 [2]. Since the Census was conducted once for 10 years, the headship can classified as stable headship and can be used for 10 years [3]. The previous censuses were conducted in 1970, 1980, 1991, 2000 and 2010. The aim of this paper is to identify the headship rate for the year 1980, 2000 and 2010 in Terengganu. The data later, will used to forecast the household formation in Terengganu but will not discussed in this paper.

The main challenge faced by the government of Terengganu was the issues of property and homes that are affected by supply and demand [4]. If the supply is high but demand is low, the prices will fall. Moreover, National Housing Department reported that 688 units of house was unsold compared 2,236 units that have been built [5]. This imperfection of housing market distorted by external influences such as unethical speculation by housing developers has contribute to the market failure [6].

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2 Headship rate

The headship rate system has now been generalized to produce a system whereby numbers of households are calculated in terms of number of head of households which are identified by age and gender [7]. Thus far, previous studies suggested that headship rate are then the proportion of person in any age, sex and marital status group who head a household, and number of households can simply be produced for a new projected population by multiplying these rates by the numbers in each population group [8]. [9] Reported that, average household size is the inverse of the average household headship rate, which is defined as the number of persons in the population who are heads of households divided by the population, expressed as a rate as defined in Equation (1),

$$\text{Headship rate} = \frac{\text{head}}{\text{population}} \times 100 \quad (1)$$

Since this definition controls for variations in population size, variations in the age specific headship rates reflect changes in the propensity of the population within each category to form households [10]. The growth in households is a manifestation of individuals young adult preferring to form their own household based on their needs [11].

The term housing need indicator refers to the lack of the number of households that do not have accommodation while the demand for housing is market-driven concept associated with the type and number of the house where users choose a house based on the preferences and ability to pay [12]. Moreover, housing demand is also defined as the number of homes needed to be one residence per household [13]. Considering all of these evidence, it seems that housing demand was referring to the housing market with the combination of two concepts which is needs and demands.

Zainun et al. [14] found the method to forecasting the housing demand to fulfil the needs of citizens and to avoid a mismatch of demand and needs. In Terengganu, 583 units of abandoned or sick projects have been built and by 532 units have been sold. According [15], the problem of land, supply, cost and others are among the factors contributing to the problem of abandoned projects.

3 Scope and limitation

This study was conducted primarily for the purpose of identifying the headship rate on the previous year. 2% Census data for the year 1980, 2000 and 2010 was synthesizing, analyzing and interpreting in the table and graph. The age group was limit within the age of 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 60-64, 65-69, 70-74, 75-79 and 80+.

4 Methodology

Headship rate was analysed from the year 1980, 2000 and 2010, the data was obtain from Census of Malaysia [16-18]. Head, population and gender was the most important indicator to be considered in this study [19]. Fig. 1 illustrates the flow of this study. The Census data obtained from the Department of Statistics Malaysia was synthesis by age group. Early group within the age of 15-19 until 80 above was considered based on the marital status [20]. Two group of gender which is male and female were categorised, then the data will be synthesis by head and population within the age group. By using formula that has mention

earlier, the headship rate can be identified. Headship rate for male and female in the year 1980, 2000 and 2010 was interpreted in the Table 1 and Table 2.

Example calculation of the headship rate for the male in the year 1980 which is age group 15-19 was shown below:

$$\text{Headship rate} = \frac{20(\text{male head})}{444(\text{male population})} \text{ x } 100 = 4.5\%$$

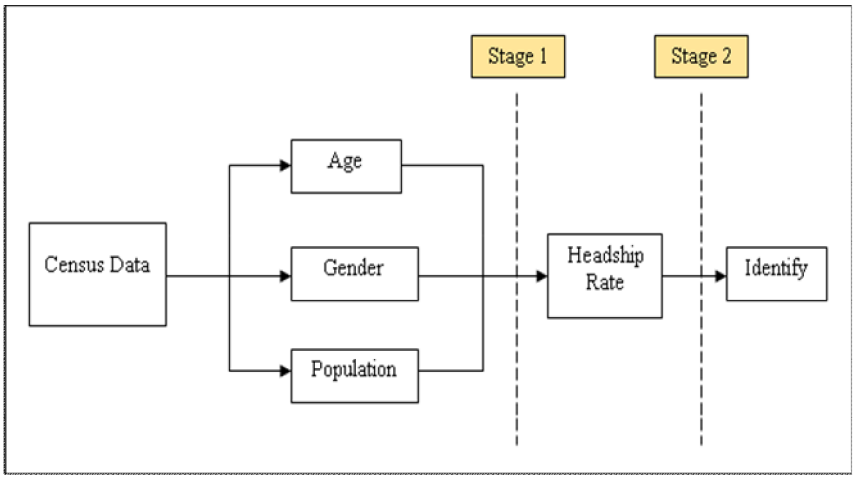

Fig. 1. The flow of this study.

Table 1. Headship rate for male year 1980, 2000 and 2010

Age Group	YEAR								
	1980			2000			2010		
	Male Heads	Male Population	Headship Rate	Male Heads	Male Population	Headship Rate	Male Heads	Male Population	Headship Rate
15-19	20	444	4.50	15	929	1.61	1	1119	0.09
20-24	83	329	25.23	57	582	9.79	69	965	7.15
25-29	154	276	55.80	231	565	40.88	233	814	28.62
30-34	211	263	80.23	377	536	70.34	332	588	56.46
35-39	196	222	88.29	461	550	83.82	398	557	71.45
40-44	193	213	90.61	455	500	91.00	459	549	83.61
45-49	122	129	94.57	396	421	94.06	499	535	93.27
50-54	113	120	94.17	337	351	96.01	449	486	92.39
55-59	104	115	90.43	210	220	95.45	358	375	95.47
60-64	92	98	93.88	173	178	97.19	237	252	94.05
65-69	61	76	80.26	82	91	90.11	182	191	95.29
70-74	44	50	88.00	81	89	91.01	138	158	87.34
75-79	25	32	78.13	57	62	91.94	55	65	84.62
80+	10	16	62.50	43	54	79.63	68	99	68.69

Table 2. Headship rate for female year 1980, 2000 and 2010

Age Group	YEAR								
	1980			2000			2010		
	Female Heads	Female Population	Headship Rate	Female Heads	Female Population	Headship Rate	Female Heads	Female Population	Headship Rate
15-19	10	450	2.22	1	936	0.11	0	990	0.00
20-24	23	395	5.82	22	538	4.09	37	902	4.10
25-29	33	344	9.59	21	548	3.83	36	654	5.50
30-34	21	224	9.38	21	571	3.68	27	572	4.72
35-39	33	235	14.04	26	540	4.81	42	572	7.34
40-44	37	210	17.62	32	489	6.54	43	578	7.44
45-49	36	147	24.49	45	395	11.39	62	568	10.92
50-54	25	116	21.55	58	273	21.25	91	461	19.74
55-59	41	128	32.03	54	212	25.47	87	354	24.58
60-64	29	101	28.71	63	188	33.51	92	277	33.21
65-69	24	58	41.38	31	104	29.81	74	202	36.63
70-74	18	55	32.73	41	99	41.41	85	166	51.20
75-79	8	29	27.59	31	55	56.36	28	61	45.90
80+	13	26	50.00	35	85	41.18	50	113	44.25

5 Results and discussion

The trend of the graph on Fig. 2 shows that the headship rate increasing at the early age group and remain constant at the middle of age group then decrease when come to older age group. The higher of headship rate at early group because of the improved material situation of and propensity to leave the parental home of young people [21]. Moreover, this result will impacted to projecting the household formation in Terengganu. Higher increasing of headship rate from the age group of 25-29 to 30-34 was increased by 27.8% for the year 1980 while the lower decreasing headship rate from 75-79 to 80 and above was decreased by 15.9%. Moreover, headship rate for the year 2000, 31.1% was increased from the age group of 20-24 to 25-29 while 30.6% for the year 2010 from the same age group. The lower decreasing headship rate for the year 2000 and 2010 from the same age group which is 75-79 to 80 and above with the value 12.3% and 15.6% respectively.

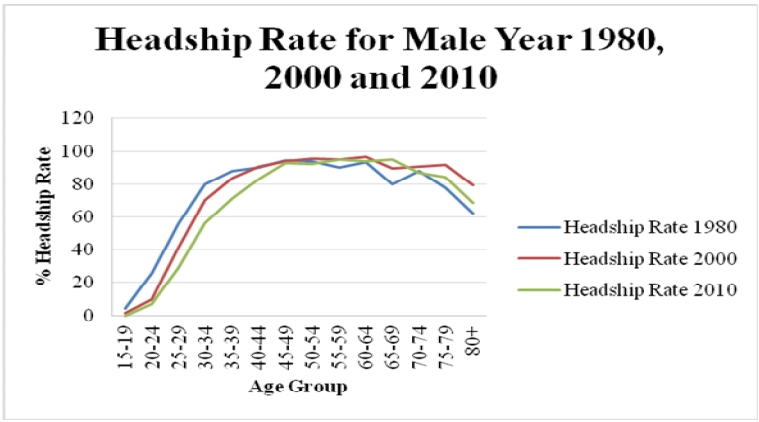

Fig. 2. Headship rate for male year 1980, 2000 and 2010.

Fig. 3 shows the headship rate for female for year 1980, 2000 and 2010 graph was fluctuating. [22] reported that the factor of this fluctuating was income, marriage and education. The higher increasing of headship rate mostly comes from the elderly age group. This results corresponding on the previous research by Moonie (2013) reported that the relatively high headship rate among elderly may be linked in demographic change by transition from high fertility and mortality rate thus possibly a higher number of older person living alone [23]. For the year 1980, age group of 65-69 to 70-74 showed that the highest increasing of headship rate by 14.6% while 5.3% the lowest decreasing from the age group 70-74 to 75-79. Besides that, 14.9% from the age group 70-74 to 75-79 was the highest increasing in headship rate and 15.2% from the age group 75-79 to 80 and above was the lowest decreasing. Last but not least, the higher increasing of headship rate for the year 2010 from the age group of 75-79 to 80 and above was increased by 22.4% while the lower decreasing was 8.6% decrease from the age group of 65-69 to 70-74.

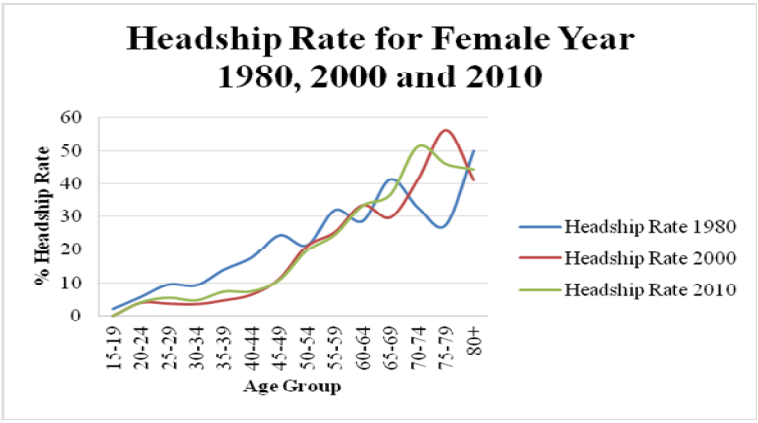

Fig. 3. Headship rate for female year 1980, 2000 and 2010.

6 Conclusion

In a nutshell, headship rate was increased at the early age group for the male while at the elderly age group for the female. This increased because of the factor of marital status and fatality. By considering the headship rate, the household formation can be forecasting accurately based on their demand. This study hoped can be helpful to the government sector and private agencies to construct housing.

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