Predictors of Financial Dependency in Old Age in Peninsular Malaysia: An Ethnicity Comparison

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Abstract

Aging is a global issue affecting countries including Malaysia. From an economic perspective, the government encourages elderly to be financially independent for as long as possible. To what extent the elderly is financially dependent is well documented but only few studies focus on an ethnic disparity perspective. This paper aims to identify the predictors of financial dependency among older Malaysians from the three ethnic groups. Data from an area study in Malaysia involving 806 older persons who participated in face-to-face interviews was used. Results showed that more than half of the respondents are financially independent while 44% depends on their children, sons or daughters in law, friends, neighbors or government financial assistance. Age and employment status were significant predictors of financial independence across all ethnic models. The study showed that there are different predictors of financial dependency by ethnic group and the result calls for different intervention strategies for the various ethnic elderly in achieving financial independence in old age.

Keywords: Older persons, Financial independence

1. Introduction

The United Nations World Population Ageing Report (2002: pg 1) defined population ageing as the process by which older individuals (60 years and older) become a proportionally larger share of the total population, which was one of the most distinctive demographics events in the twentieth century. The same report summarized that about ten percent of today's older person with children who are also elderly. Worldwide elderly population will

comprise of 1.2 billion by 2025 and two billion by 2050 compared to only 600 million people in 2000. Malaysia currently has about 1.6 million older persons aged 60 and above in year 2009 (DOSM, 2006) and is projected to become an aged nation by 2030, the year whereby the older population comprises of 15% of the Malaysia total population.

Looking for the ethnicity differences, Malaysia 2000 census data revealed that the Chinese have the highest proportion of senior citizens with 8.8 per cent. The prevalence of low mortality rates, high life expectancy and low fertility has been the characteristic of the Chinese population over a longer period compared to other ethnic groups. The Malay and Indian elderly have increased at a slower rate and constitute 5.7 per cent and 5.6 per cent of their respective ethnic groups in 2000. The lower rate of increase for the Malay elderly is a result of higher fertility levels in this community; crude birth rate (CBR) in 2000 was 25.6 compared to 32.1 in 1991. In comparison, CBR for the Indians was 25.4 in 1991 and 21.4 in 2000, while the Chinese community has continued with low fertility levels with CBR at 20.8 in 1991 and 20.3 in 2000. The significant decline of the CBR among Indians will result in a faster pace of ageing among them in the coming decades (Pala, 2005)

The projected senior citizen population for the year 2020 reveals that the low fertility levels experienced among the Chinese and Indians in Malaysia can result in a doubling in proportion of the elderly within the two ethnic groups in the 20-year period. Tracing Malaysia's demographic transition record, the first demographic transition happened in 1950 where the average male and female life expectancy at birth was at 55.8 and 58.2 respectively (United Nations Fund Report, 2006). Malaysia is currently in the third stage of demographic transition where the "demographic window" is still opening, implying that more younger generation than older population Malaysia. The "demographic window" will keep open till year 2019 and at that time, there will be about 3.4 million older persons (Pala, 2005) or about seven percent of her total population is 65 years and over (United Nations definition) in Malaysia. Malaysia Chinese population will be the fastest group reaching to the gate of demographic transition, follows by Malay and Indians population.

Once the "demographic window" was closed, it will introduce a reduction in the youth dependency ratio and eventually population aging. At that time, our government might have more pressure than before in providing health care services, pension and provident (PPF) to the older population. The government might also receiving less taxation income from the working population group but in stark contrast paying more social security or pension money to a larger population. Besides, Malaysia financial system is also experiencing greater pressure in synchronizing its marketing strategies in catering the needs of the greying market. Some illiteracy older persons might have saving but do not have ample knowledge in investment, retirement planning and money management might seeks help from financial institutions.

Employment will be another issue in maintaining the employability among the older workers. Many studies report the determinants of work on and barriers to keep working among elderly workers. Most analysts recognize that age (Arrowsmith, 1994), health and income (Andrews, 1992) are the important factors in the decision to retire. However, less information on the determinants to continue working or stop working among Malaysian elderly. Chan (2006) in his paper found that poor health and compulsory retirement were noted as the main reason to stop working among Malaysia older workers. Further analysis showed that more male than female mentioned compulsory retirement as reason for stop work. As expected, more female than male mentioned family responsibilities as main reason for not working. Similar reason was given by women not in the labor force.

Living longer will increase the chances of experiencing poverty and outliving available income. Older persons with different employment history, health status, support networks as well as difference cultural setting might have a different financial dependency in old age. Among examples of plural societies, Malaysia shows an unusually balanced ethnic structure of three dominant groups, the Malays who make up 53.4 per cent and the Chinese who make up 26 per cent and 7.7 per cent for Indian ethnic group (Pala, 2005) and each of the ethnic group has distinct demographic features and cultural. Due to the cultural differences that exist in the origins of different communities, there is a noticeable absence of homogeneity in the behavior of the older population when entering into retirement age as well as their financial dependency in old age. Such unique characteristic provides a particularly appropriate context for this study from which a sample representing diverse ethnic groups can be drawn from its population. This study aims to identify the predictor(s) of financial dependency among older Malaysians from three main ethnic groups (Malay, Chinese, and Indian) and it Malaysia government to design different intervention strategies for the various ethnic elderly in achieving financial independence in old age.

2. Methodology

The data was part of a bigger dataset drawn from Institute of Gerontology, Malaysia under the collaboration with United Nation Population Fund. The primary aim of the data was to identify the possessed skills among the matured workers as well as the types of training they need for productive ageing in future. For sampling frame purposes, Kajang Municipality from Selangor state of Malaysia was chosen. A listing was carried out in the district of Kajang before the sample selection to assess the total number of older persons within the Kajang Municipality. A total of 13,345 houses were enumerated and 2,231 households were identified with at least one elderly aged 50 years or above. Noted that some households consist of more than one elderly and this study has decided to choose the respondent unit rather than household unit so that every elderly 50 or above might has an equal chance to be selected. Initially, 1,000 respondents were selected using proportionate sampling (controlling for three age groups and gender) for rural and urban area. Face-to-face interview approach was started in Jan 2007 and ended in July 2007. Enumerators would only interview the older persons based on the selected list. Of the 1,000 potential respondents, the final sample consisted of 806 older persons age 50 and above. The ethnic breakdown is as follows: Malay, n = 367 (46 per cent); Chinese, n = 192 (23.8 per cent) and Indian, n = 247 (30.6 per cent).

The data were analyzed using Statistical Package for Social Science Software V.13, which involved the analysis of descriptive statistics like frequencies and mean. Pearson Moment Correlation, Independent Sample T-Test and Chi-Square analysis were employed to identify the correlation and different between the variables. At last, binary logic regression was used to identify the predictor of financial dependency across the three main ethnic groups among older persons in Malaysia.

3. Research Finding

A total of 806 respondents participated in this study which comprises 401 (49.8%) female and 405 (50.2%) male. Majority of the respondents (74.1%) were married and 21.7% were widow/widower. Pearson Chi Square analysis found that there was a significant different in marital status by ethnicity. ($\chi2$ =20.598, df= 6, p≤0.05) where the highest proportion in widow/widower were Indian respondents while Malays the had lowest widowers. In contrast, the Chinese were recorded with highest proportion in never married category compared with other ethics groups.

The older persons in this study were born before Malaysia gains her independence in 1957. They have less opportunity in receiving formal education and thus, the education level attained by these respondents was relatively low. Four out of every ten respondents have no formal education and the highest education attainments were up to the secondary school. With lower level of educational attainment older persons in Malaysia have limited economic opportunities and this eventually affect their ability to continue work, incomes and to some degree, savings and wealth (Jariah & Sharifah , 2008)

Home ownership is important in explaining the financial independence among older Malaysians (Chan et.al. 2010). In this study, home ownership status was differs among the three ethnic groups ($\chi2$ =47.293, df= 2, p≤0.01). Higher proportion of Malays (66.4%) owned their house other ethnic groups. In terms of gender differences, more older male than older female within Malay group afford to own house (t= 6.646; p≤0.01) but this trend was not applied for Chinese and Indian groups. It could be explained that the house was an inheritance asset due to the intergeneration transfer matter among the Malay population.

Self-rated health was obtained using a four-point ordinal scale and the result indicated that health status was also associated with their ethnicity. Malay respondents tend to perceive lower health status than other groups while Chinese respondents perceived that they are in good-health-condition.

Financial dependency of the respondents was measured using a single-measure item, "Sir/Madam, currently who is the main financial provider to you? Possible answer could be "myself", "my spouse", "son and daughters", "relatives" and "others". All these possible answers were then regroup into two main categories (independent and dependent). About 56% of the respondents were financially independent while the remaining was depended on their children, son/daughter in law, friends, neighbor or government aids.

Table 1 showed the respondent's characteristics by three ethnicity groups. Looking at the proportion, most of the Malay respondents were male, married, with primary school education level, afford to own house, not working and perceived a good health status during the study period. Similar trend could be observed among the Chinese respondents except for the home ownership where 63.4 per cent of do not afford to own home. For Indian respondents, Table 1 showed that there were more female than male Indian respondents in this study. Besides, there was also no divorce or separated cases been recorded among the Indian respondents. The Indian

respondents were also occupied the highest proportion of "Not working" category across three ethnic group. These two factors will eventually lead to certain implications for the logic regression among the Indian group. Further explanation will be discussed in discussion section.

Table 2 showed the financial dependency level by their socio-demographic profile. Chinese in study were reported most financial independent than Malays and Indian groups. The financial dependency of the respondent was also significantly associated by the sex of respondent ($\chi 2$ =7.18, df= 1, p≤0.01), marital status ($\chi 2$ =48.96, df= 1, p≤0.01), employment ($\chi 2$ =178.36, df= 1, p≤0.01), education attainment ($\chi 2$ =33.08, df= 2, p≤0.01) and health status ($\chi 2$ =55.04, df= 1, p≤0.01) where male, married, those with higher education attainment and good in health status were associated with financial independent in old age. Financial dependency level was also significantly differentiated by their age (t=13.97, p≤0.01) monthly household income (t=9.54, p≤0.01) and monthly household expenses (t=6.18, p≤0.01) [not shown in the table].

3.1 Regression Model for Financial Dependency by Three Main Ethnic Groups

A total of eleven predictors were regressed into each models and when looking for the logistics model for the Malay group, the model was fit at Nagelkerke R square = .276 at significant of P ≤ 0.05. Of the 11 predictors, only three predictors (marital status, employment status and age factor) emerged to be the significant predictors for this model. This implies that those younger married Malays who are currently working were more independent than the other groups in financial matter.

The second model explained 68.3 per cent variance of the financial independence (Nagelkerke R square = .276 at significant of P ≤ 0.05) among the Chinese respondents with four significant predictors (employment status, home ownership, education and age). The odds ratio did explain that those Chinese respondents who are currently working was about six times more likely be financial independent compared to not working group. Besides, those Chinese respondents who own a house were seven times more likely be financial independent in old age compared to those who do not own a house. The age factor in Chinese model has the same direction to Malay model but with bigger covariance effects.

The third model was fit at Nagelkerke R square = .713 at significant of P ≤ 0.05. Of the 11 predictors, three significant predictors (marital status, employment status and age) emerged to be the significant predictors for this model. Again, the age factor has the same negative direction across the three models, indicating that the younger older persons might have a better financial security than the older group in this study. However, the Indian group shows a relatively high odd for both employment and marital status variables. Those Indian who are married was seventeen times more likely be financial independence compared to not married group. Besides, those who keep working were 24 times more likely be financial independence in old age compared to those who do not work.

4. Discussions and Conclusions

Age and employment variable appear to be the constant predictors of financial dependency in old age across all three ethnic groups. For ethnicity differences, Indians in this study were mostly tightening the financial independence with their social economic background (marital status and employment). Based on Table 1, Indian respondents have the highest proportion in widow/widower category and the household income gap was big between those Indians who currently working and not working (not shown in the table). This helps to explain why the odds for married (17X) and working group (24X) was relatively high compared to other ethnicity groups. Other variables like education, number of children and health status were significantly related to financial independence at bi-variate level but not in the logistic models due to inter-correlation between the factors-employment status. Home ownership was a significant predictor in Chinese model where we can conceptualize that the older Chinese group might have different views about the important of having own-house in old age. Besides, marital status seems to be an important factor in securing financial independent among the older Indian group. As mentioned earlier, there was no divorce or separated cases were recorded among the older Indian in this study. This matched with data drawn by Malaysia Department of Statistics indicated that the majority of the divorce cases happen to be amongst the Muslims, followed by Chinese and Indians. This study did prove that not all three ethnic groups share same predictors of financial dependency in old age. Due to the different trajectories in life experience and socioeconomic status, older Malaysians of various ethnic descents have varying levels of financial independence.

One of the limitations of this study was the clarification for the employment status. This study only explored whether the respondents were working or not working during the study period. However, this study did not explore in details for the employment aspects of the older persons such likes their payment scheme, number of working hours, benefits, types of industry and others. This information was vital and could be a better predictor in explaining financial dependency level among older persons. To conclude, keep occupying, home ownership,

and married were the three main predictors among Malaysia elderly. Elderly was part of the society and thus, government and NGO should work at hand-in-hand to improve the financial independence of these population by monitoring home settlement issues, older workers issues and family related issues among the older households in Malaysia. Allocation should be reached to the non-married, old-oldest group and with no settlement from time to times in concerning this matter. For older workers issues, instead of instilling a positive image of elderly workers, improving the employability of the elderly workers is indeed important. Skills upgrading training, improving working conditions, facilitating access to part-time jobs and developing flexible work arrangements need to be addressed to minimize the work accessibility gap of this older population.

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Table 1. Profile of the respondents

Variable		Malay		Chinese		Indian		Total	
		N	%	N	%	N	%	N	%
Gender	Male	186	50.7	110	57.3	109	44.1	405	50.2
	Female	181	49.3	82	42.7	138	55.9	401	49.8
Marital	Never married	8	2.2	5	2.6	2	0.8	138	1.9
Status	Currently married	279	76.0	145	75.5	173	70.0	19	2.4
	Divorced/Sp.	13	3.5	6	3.1	0	0.0	175	21.7
	Widowed	67	18.3	36	18.8	72	29.1	597	74.1
Education	No Formal Sch.	116	31.6	59	30.7	123	49.8	298	37.0
Attainment	Primary L.	154	42.0	106	55.2	72	29.1	332	41.2
	Secondary L.	91	24.8	27	14.1	50	20.2	168	20.8
	Missing data	*6*	*1.6*	*0*	*0.0*	*2*	*0.8*	8	1.0
Home	No	120	33.6	121	63.4	124	50.6	365	53.1
Ownership	Yes	237	66.4	70	36.6	121	49.4	428	54.0
Employment	Not Working	212	57.8	103	53.6	157	63.6	472	58.6
Status	Working	155	42.2	89	46.4	90	36.4	334	41.4
Self Rated	Very Good	50	13.6	39	20.3	49	19.8	138	17.1
Health	Good	200	54.5	115	59.9	126	51.0	441	54.7
	Bad	102	27.8	30	15.6	60	24.3	192	23.8
	Very Bad	2	0.5	5	2.6	9	3.6	16	2.0
	Missing data	*13*	*3.5*	*3*	*1.6*	*3*	*1.2*	19	2.4

Table 2. Financial Dependency Level by Selected Variables

Variable		Financial Dependent		Financial Independent		Total	
		N	%	N	%	N	%
Gender	Male	159	44.9	246	54.4	405	50.2
	Female	195	55.1	206	45.6	401	49.8
Ethnicity	Chinese	148	41.8	219	48.5	367	45.5
	Malay	91	25.7	101	22.3	192	23.8
	Indian	115	32.5	132	29.2	247	30.6
Marital	Never married	5	1.4	10	2.2	15	1.9
Status	Currently married	219	61.9	378	83.6	597	74.1
	Divorced/Sp.	7	2.0	12	2.7	19	2.4
	Widowed	123	34.7	52	11.5	175	21.7
Education	No Formal Sch.	164	47.0	134	29.8	298	37.3
Attainment	Primary L.	137	39.3	195	43.4	332	41.6
	Secondary L.	48	13.8	120	26.7	168	21.1
	Missing data						
Home	No	192	54.9	173	39.1	365	46.0
Ownership	Yes	158	45.1	270	60.9	428	54.0
Employment	Not Working	300	84.7	172	38.1	472	58.6
Status	Working	54	15.3	280	61.9	334	41.4
Self Rated	Very Good	46	13.3	92	20.9	138	17.5
Health	Good	163	47.1	278	63.00	441	56.0
	Bad	123	35.5	69	15.6	172	24.4
	Very Bad	14	4.0	2	0.5	16	2.0

Table 3. Chi-square Analysis and Independence Sample T-Test with Financial Dependence

No	Variable	Financial Dependence		
		df	χ^2	t
1	Gender	1	7.181**	
2	Marriage Status	1	48.96**	
3	Employment	1	178.36**	
4	Level of Education	2	33.08**	
5	Self rated Health	1	55.04**	
6	Age	-		13.97**
7	No of Children staying together	-		2.50**
8	Monthly HH Income	-		9.54**
9	Monthly HH Expenses	-		6.18**

Note: n = 806. Chi-square test used for categorical and ordinal variables;

t-test for Age, Monthly HH income, Monthly expenses,   * p < 0.05 .   ** p < 0.01

Table 4. Summary of Logistic Regression: Malay

Variable	B	SE	Odds Ratio	95 % CI
Gender (male =1)	0.486	0.277	1.625	0.945-2.796
Marriage Status (married = 1)	.572	.329	1.773	0.929-3.381
Employment (working =1)	****1.301**	**.296**	**3.672**	**2.057-6.555**
Home Ownership (own =1)	0.194	0.278	1.215	0.704-2.096
Self rated Health (Good =1)	.345	.283	1.412	0.811-2.458
Education : No formal Schooling)	-0.207	.393	0.813	0.377-1.756
Education : At Least Primary Level	-0.067	.340	0.935	0.481-1.820
Age	***-0.040**	**0.018**	**0.961**	**0.928-0.995**
No. Children staying together (1= >3)	.261	0.306	1.298	0.713-2.364
Monthly HH Income	0.001	0.000	1.000	1.000-1.001
Monthly HH Expenses	0.001	0.000	1.000	1.000-1.001

Note: Nagelkerke R Square =   .276;   Percentage Correct: 75%; * p < 0.05 .   ** p < 0.01

Table 5. Summary of Logistic Regression: Chinese

Variable	B	SE	Odds Ratio	95 % CI
Gender (male =1)	-0.027	0.584	0.973	0.310-3.059
Marriage Status (married = 1)	0.558	0.645	1.748	0.494-6.185
Employment (working =1)	****1.739**	**0.535**	**5.691**	**1.993-16.254**
Home Ownership (own =1)	****1.937**	**0.618**	**6.936**	**2.064-23.310**
Self rated Health (Good =1)	1.295	0.807	3.652	.751-17.769
Education : No formal Schooling)	***-2.248**	**0.950**	**0.106**	**0.016-0.679**
Education : At Least Primary Level	-1.141	0.860	0.319	0.059-1.724
Age	****-0.180**	**0.047**	**0.835**	**0.761-0.917**
No. Children staying together (1= >3)	0.374	0.585	1.454	0.462-4.576
Monthly HH Income	0.000	0.000	1.000	0.999-1.000
Monthly HH Expenses	0.000	0.001	1.001	1.000-1.002

Note: Nagelkerke R Square =   .683;   Percentage Correct : 83.5%; * p < 0.05 .   ** p < 0.01

Table 6. Summary of Logistic Regression: Indian

Variable	B	SE	Odds Ratio	95 % CI
Gender (male =1)	1.058	0.546	2.880	0.987-8.40
Marriage Status (married = 1)	****2.845**	**0.655**	**17.204**	**4.766-62.105**
Employment (working =1)	****3.204**	**0.741**	**24.632**	**5.769-105.168**
Home Ownership (own =1)	0.878	0.494	2.407	0.915-6.333
Self rated Health (Good =1)	0.148	0.464	1.159	0.467-2.876
Education : No formal Schooling)	-0.066	0.568	0.936	0.307-2.851
Education : At Least Primary Level	0.505	0.661	1.657	0.454-6.047
Age	****-0.097**	**0.030**	**0.908**	**0.856-0.962**
No. Children staying together (1= >3)	-0.431	0.525	0.650	.232-.10821
Monthly HH Income	0.002	0.001	1.002	1.001-1.002
Monthly HH Expenses	0.001	0.001	1.001	1.000-1.002

Note: Nagelkerke R Square =   .713;   Percentage Correct : 85.4%; * p < 0.05 .   ** p < 0.01