Kajian Malaysia, Vol. 33, Supp.1, 2015, 53–67

PROVIDENT FUND FOR THE INFORMAL SECTOR: A CASE STUDY OF THE INFORMAL SECTOR WORKERS IN KUALA LUMPUR, MALAYSIA

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Workers in the informal sector are known not to have a formal social security retirement scheme to protect them from the loss of income at old age. One of the reasons for this is the difficulty to regulate a common scheme for both the informal and the formal sectors in terms of contributions and benefits. As a result, most informal sector workers depend on informal schemes such as family support, personal savings and loans after their retirement which leaves them vulnerable to poverty. However, through the Employees Provident Fund (EPF) 1Malaysia Retirement Scheme, workers in the informal sector in Malaysia can now save for the future. This paper investigates the acceptance of 400 informal sector workers in Kuala Lumpur towards this scheme; covering three main kinds of workers i.e. service workers, shop and market sales workers; craft and related trade workers; and those in elementary occupations. Acceptance is measured under two situations: (1) perception on the role of old age protection and provident fund; and (2) willingness to contribute to the fund. A variety of contribution values ranging from a low RM10 to a high RM70 together with their expected returns were presented to the respondents. A logit model is employed to estimate the informal sectors workers willingness to contribute to the EPF. The mean value on the perception of old age program estimated by the study is above average. The study found that amount of contribution and savings behaviour of respondents statistically influenced their willingness to contribute in the EPF.

Keywords: provident fund, informal sector, acceptance to provident fund, logit model

INTRODUCTION

Social protection includes a wide range of programs that include social safety nets, social services, labour policies and insurance coverage. Regardless of the kind of programs implemented in a country, social protection plays a role to reduce poverty and social exclusion, in addition to being a guarantor for social justice and social cohesion[1] (Frota, 2008). In fact, the main goal of social protection programs is to protect individuals from a fall from their current

standard of living (Jutting, n.d.). Nevertheless, the problem that is faced in many developing countries is the low social protection coverage of its population (Frota, 2008). In Malaysia, a 2005 study indicates that approximately 30% of the working population was not covered by any social protection schemes (Ragayah, 2005). It was further estimated that the Employees Provident Fund (EPF)[2] actively covers only 52% of the Malaysian labour force (Ramesh, 2005), leaving approximately 48% of the labour force unprotected by any formal social protection schemes.

The informal sector can include a wide range of workers outside the formal sector who can belong to a number of categories: those employed in small enterprises run by family members, owners of own businesses (self-employed), workers affected by the informalisation of labour relations with their employers, self-employed and those engaged in the primary sector (agriculture and fishery). The number of workers in the informal sector in 2012 was approximately 1.0 million people or approximately 8.2% of the total number of those under employment in 2012 (Department of Statistics, 2013).

One effective way to protect workers in the informal sector at old age is to require them to contribute to the current EPF. The running and operating of the fund for the informal sector workers should not be any different from that of the formal sector. The only difference would be the amount of contribution that is allocated by informal sector workers, as they seldom receive regular monthly incomes. The government has encouraged workers in the informal sector to voluntarily contribute to the EPF with a minimum contribution of RM50 per month. Nevertheless, this move did not receive the anticipated response and the government subsequently announced a new mechanism in 2010 labelled as the EPF's 1Malaysia Retirement Scheme. The incentive includes government's contribution of an equivalent of 5% of the total contribution and up to a maximum of RM60 per year. This incentive has been improved beginning 2014 with the government's contribution raised to a maximum of RM120 per year until 2017. However, participation has been marginal with only 60,158 (6%) people participating in the scheme in 2013, (*Borneo Post Online*, 2013), leaving 94% of workers in the informal sector unprotected.

In relation to the above scenario, this paper investigates the acceptance of informal sector workers in Kuala Lumpur towards voluntary contribution to the EPF. Acceptance is measured under two situations: (1) perception on the role of old age protection and provident fund; and (2) factors influencing an individual's willingness to contribute to the fund. It is important to understand the factors that influence a person's willingness to contribute to the provident fund as it will provide information on whether such contributions can be sustained. Sustainability is important because accumulated benefits will only be adequate to finance retirement expenses if contributions are continuous. Moreover, understanding the factors affecting workers' willingness to contribute to the provident fund can help policy makers formulate appropriate guidelines and

policies to improve the livelihood and wellbeing of the workers in the informal sector.

A REVIEW ON THE OLD AGE PROTECTION SCHEMES FOR THE RURAL INFORMAL SECTOR

Designing a social security retirement program for the informal sector workers is not an easy task. Jenkins (1993) as cited in Van Ginneken (1999) asserts that the social security administration in most developing countries is unable to deal with the special circumstances of the self-employed and casual wage workers. For instance, it is difficult to facilitate collection of their contributions and maintain up-to-date and correct records as these groups of people often work intermittently and irregularly with no fixed income. Besides, casual wage workers also work with many different employers and as a result, it is very difficult to determine a replacement rate of income for them.

Some governments have attempted to integrate self-employed workers into the formal pension insurance programs but these efforts have met with limited success (Bailey and Van Ginneken, 1998). This is mainly due to the fact that many of the self-employed workers are not able or are not willing to contribute a significant percentage of their income to formal sector social insurance benefits that do not meet their immediate needs. In addition, the same scheme for both formal and informal sector can create problems if there is non-compliance by the informal sector workers. For example, in Malaysia, people who are self-employed are encouraged to contribute to the EPF, but have generally been unwilling to save for retirement through this channel. In Philippines, the government has made it compulsory for their self-employed workers to contribute to a pension scheme but the compliance rate is also very low.

While it is difficult to propose a general policy decision, Van Ginneken (1999) suggests that the priorities and contributory capacities of this group should range from a basic core of social protection obligatory for all persons to a more comprehensive provisions which would be optional but subject to certain tests of membership. China, for example, draws a clear distinction between mandatory pension schemes for urban workers and pension scheme for rural workers, which is supported by government and provides for voluntary participation for the workers in the informal sector. In addition, the contributions and pension benefits also vary between the two groups. Full implementation of the scheme is yet to go into full gear. South Korea makes an attempt to provide protection to self-employed people and low-wage workers in small businesses. Self-employed with fewer than 50 employees can choose to contribute to the fund of unemployment benefits for themselves while the government has subsidised social insurance

premiums of the low-wage workers in small businesses (Ministry of Employment and Labor, 2012).

The Kerala state in India has been running the Welfare Fund Model of social security for informal sector workers since 1969. The scheme requires sustained collective action on the part of the workers and active participation of the state and is partially funded by the government, employers and employees (Kannan, 2002). Different funds were set up to suit different group of workers. For example, the Kerala Fishermen Welfare Fund (KFMWMF) covers all fishermen who are employed for wages in a fishing vessel or self-employed fishermen who are registered as members of Fishermen's Welfare Society. The government provides a grant, which is twice the amount contributed by the workers. Employers provide 1% of the turnover, cooperative societies provide Rs.1[3] per month and employees contribute Rs.1 per month. Employees who contribute to the KFMWMF receives Rs.100 pension per month upon retirement at 58 years old.

Similarly, the Kerala Auto Rickshaw Workers Welfare Fund (KAURWWF) was set up for auto rickshaw workers, employed directly or indirectly by himself through self-employment. The scheme is a voluntary scheme and specifically targets rickshaw workers who are in the 28–58 years age group. Although there is no pension provision for members of KAURWWF a contributor can expect Rs.125,000 in gratuity if he/she has completed 40 years of service upon retirement.

In addition to formal schemes introduced by the government, many informal sector workers have also set up their own schemes that requires the pooling of resources based on the principles of insurance (Van Ginneken, 1999). Help is extended to those in need within the overall framework of certain basic regulatory conditions. The group or the community itself decides on the size and the source of members' contributions and benefits. In addition, it is likely that local and community organisations such as local mutual organisations, grassroots non-governmental agencies and micro-credit organisations are the informal providers of social protection in the informal sector (Pellissery and Walker, 2007). In 2006, a micro pension scheme initiated by the micro finance bank, Self Employed Women Association (SEWA), was established in India to protect women working in the informal sectors. Minimum contribution rates range from Rs.50 per month to Rs.500 per year. Collections are facilitated by SEWA bank branches, extension counters and fieldworkers.

METHODOLOGY

Contingent Valuation Method

This study utilises the contingent valuation method (CVM) to estimate the willingness-to-contribute (WTC) of the informal sector's workers in a provident fund, namely the EPF. CVM is known to be a standard approach in measuring the economic values of non-market goods. The use of CVM has been extensively used to value recreation resources, wildlife and environmentally-friendly goods. Its use has received a favourable response in valuing non-market public goods such as health insurance (see Asenso-Okyere et al., 1997; Dong et al., 2003; Binam, Onana and Nkelzok, 2004; Bärnighausen et al., 2007) and crop insurance (see Fraser, 1992; Akter et al., 2009; Kwadzo, Kuwarnu and Amadu, 2013).

Lee and Mjelde (2007: 513) state that "CVM basically ascertains from respondents what they would be willing-to-pay under hypothetical market scenarios". In this study, we use the dichotomous choice contingent valuation method (DCCVM) to assess the informal sector's workers' attitude towards contributing to the EPF. It is vital to understand the amount of contribution that the workers in the informal sector are willing to pay because this has been cited as one of the reasons for the difficulty in designing an old age protection scheme for workers in the informal sector (see Jenkins, 1993; Van Ginneken, 1999). Single-bounded DCCVM is adopted, in which respondents are presented with a value of contribution or payment that they are allowed to accept or reject. It is commonly known that the single-bounded DCCVM is considered as free from bias with incentive compatibility although it provides less information as it is only one bound. The values of bid that are considered range between RM10 to RM70[4] and respondents are randomly presented with the contribution values.

The work of Asenso-Okyere et al. (1997) on the Willingness-to-Pay (WTP) on health insurance in Ghana identified that the demand for health insurance (of the informal sector) is a function of many variables; premium, other available premiums, income of participants, services offered, benefits available, current levels of health expenditures and socio-cultural factors. Based on this, we conclude that the decision to contribute to a provident fund (for the informal sector) is also a function of many variables; contribution rates, income of contributors, perception on the adequacy of benefits, enrolment in any old age program and some socio demographic variables. In addition, we also included two extra variables that are perception on the role of old age programs and savings for old age.

Survey and Questionnaire

This study was conducted in Kuala Lumpur covering three main categories of informal sector activities that are service workers, shop and market sales workers,

craft and related trade workers and elementary occupations. The study interviewed 400 respondents covering the three major races in Malaysia (Malay, Chinese and Indian) face-to-face. A structured questionnaire divided into several parts was used for the study. Part A gathers information on the socio demographic profile of the respondents, Part B seeks information about savings, wealth, income and old age, Part C elicits information on contributions to the provident fund and Part D measures the perception of the respondents in regard to old age protection programs.

Prior to asking the respondents to decide on their preferred contribution in a provident fund, they were first briefed on the nature and operation of the fund. For every contribution rate presented, the respondents were informed about the expected return of the fund after one year of contribution with interest rate equals to 6%.

Perception on the Role of Old Age Program

Perception on the role of the old age program is measured based on 5-point Likert scale ranging from 1 for strongly disagree to 5 for strongly agree. The questions posed to the respondents to measure their perception on the role of old age program relates to the following issues:

1. Old age program is a safety net for old age.
2. Employees should contribute part of their salary (income) into an old age program.
3. Monthly contribution into an old age program is not a burden.
4. Return on investment from old age program is protected and guaranteed compared to returns from other investment schemes.

The perception is measured on two scales, one is based on mean values and the other is based on score. The mean value of each measurement should be more than 2.5 to ensure that the perception on the role of old age program is above average. Point rated by respondents for each question is added up to measure the score on the perception on the role of old age programs. The total point ranges from a minimum 4 to a maximum of 20. The score is a proxy for respondents' acceptance level on the need or importance of an old age program. The higher the score, the higher is the respondents' acceptance level.

Estimation

The analysis of the WTC into the EPF is estimated using a logistic probability model, taking the form as follows:

$$P_i = F(Z_i) = 1 + \frac{1}{1 + e^{-(\alpha + \sum \beta_i X_i)}}$$

where P_i is the probability that an informal sector worker is WTC in the EPF, given X_i (the explanatory variables) are the parameters to be estimated. The log of the odds of the probability that an informal sector worker is WTC is given by:

$$Log\left(\frac{P_i}{1-P_i}\right) = Z_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_k X_k$$

The dependent variable is a binary variable taking the value of 1 if respondent is WTC in the EPF and taking the value of 0 if respondent is not WTC in the EPF.

RESEARCH FINDINGS

Socio Demographic Profile of Respondents

Table 1 shows the socio demographic profile of the respondents. The number of male respondents is almost equal to the number of female respondents (49.3% and 50.7% respectively). The respondents between the age of 20 to 30 years old cover 60.5% of the total sample. Some of them have their own business while others are doing part time jobs to finance their educational expenses. Respondents between 31 and 50 years are less than 20% and the remaining three groups are less than 5%. Malay, Chinese and Indian respondents are at 49.3%, 39.8% and 10.8% respectively according to the population size. Married respondents are 45% while 55% are single. Respondents who have attended secondary school stand at 83.3%, while 12.8% had higher education and the remaining 3.5% had only attended primary school. A big majority of the respondents are currently not enrolled in any old age protection scheme. Only a small 28.2% is enrolled in the EPF. This is because they had worked in the private sector in the past. More than 76.5% of the respondents said that they were saving for their retirement. However, the study did not inquire on the amount of savings and where the money is saved. Therefore it could not be concluded whether the savings is adequate to fully or partially finance old age expenditure. Sadly, the mean value on the adequacy of benefits provided by the EPF is only 2.84 (out of 5), which is slightly above the average value of 2.5. This could be an indication that even if they contribute to the EPF, the benefits provided by the provident fund could still be inadequate to fully finance old age expenditure. Information on the respondents' income was difficult to gather; about 239 of them did not report their average three months income. Out of the 161 who reported their income, the minimum income reported is RM350 and the

maximum income reported is RM50,000 with an average 3-month income amounting to RM2,987.89.

Table 1: Socio demographic profile of respondents (in percentage)

Characteristics	Sample size = 400
Gender	
Male	49.3
Female	50.7
Age (Years)	
Less than 20	4.0
20–30	60.5
31–40	17.8
41–50	12.3
51–60	4.8
More than 60	0.8
Race	
Malay	49.3
Chinese	39.8
Indian	10.8
Marital Status	
Married	45.0
Single	55.0
Education	
Primary education and informal education	4.0
Secondary education	83.3
Tertiary education	12.8
Current enrolment in any old age program	
Yes	28.2
No	71.5
Savings for old age	
Yes	76.5
No	23.5
Adequacy of benefits from the EPF	
Mean value (out of 5)	2.84

(continued on next page)

Table 1: *(continued)*

Characteristics	Sample size = 400
Average income for three months	
Minimum	RM350.00
Maximum	RM50,000.00
Mean	RM2,987.89

Probability of "YES" to Contributions Amount Offered

The respondents were asked to comment on a total of seven contribution amounts. The number of "YES" and "NO" answers for each contribution amounts are as shown in Table 2. Table 2 indicates that the probability of answering "YES" to the contribution amounts increases as the contribution amounts increases. This situation is observed because respondents were informed of the accumulated savings at retirement given certain contributory age and contribution rates subject to certain rate of return declared. As this is a provident fund, in which savings are accumulated from the day contribution is received until it is withdrawn at retirement, higher contributions would mean higher returns (with a positive rate of return).

Table 2: Bid values and probability of a "YES" answer

Bid values	WTC		Probability of "YES"
	Yes	No	
10	6	74	0.08
20	6	74	0.08
30	42	38	0.53
40	46	34	0.58
50	36	44	0.45
60	25	55	0.31
70	36	44	0.45

Perception on the Role of Old Age Program

Figure 1 shows the mean values on the score of the perception on the role of old age program. All the mean values of the perception are above average, an indicator of a good level of acceptance on each measured perception on the roles of old age program, particularly the provident fund. The mean value ranges from a minimum 3.65 (out of 5) for "Monthly contribution into an old age program is not a burden" to a maximum of 4.48 (out of 5) for "Old age program is a safety net for old age".

In general, there is a high acceptance among the respondents that old age programs such as the provident fund is essential to ensure certain level of non-labour income and to smooth consumption during retirement. At the same time, there is a general consensus that old age programs should be a joint contribution between the employees and employer. This is a good indicator that the provident fund such as the EPF's 1Malaysia Retirement Scheme is a good scheme for old age protection. Nevertheless, as many informal sector workers have no employers, the employer's contribution essentially comes from the government. With almost 10% of the informal sector workers to the total employed workers in Malaysia, this could eventually hike up the financial burden of the government. Hence, informal sector workers need to be further informed that the responsibility of protecting their future in regard to securing retirement income eventually falls on the workers themselves. Results from this survey indicate that informal sector workers have almost a good acceptance level towards monthly contribution to old age programs. As the EPF's 1Malaysia Retirement Scheme is under the administration of the EPF, it is well known to many, especially to the informal sector workers that the fund is protected and returns are guaranteed. With all the Acts in place and investment activities monitored by regulatory bodies and agencies, contributors are convinced of the safety of their contribution to the fund.

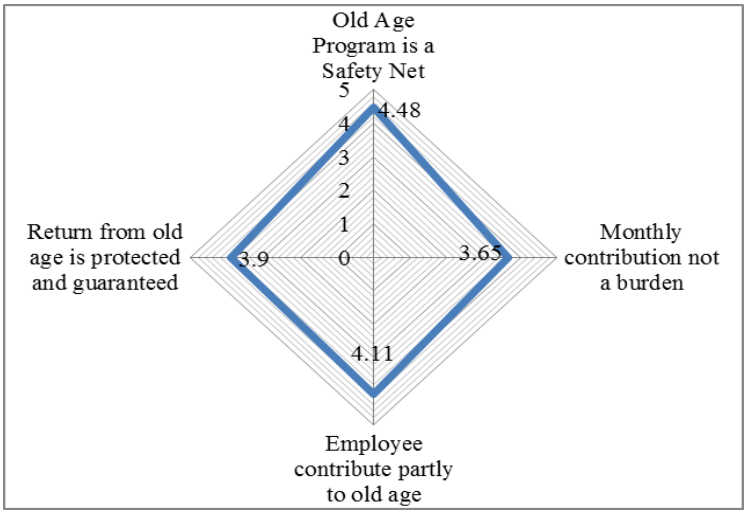

Figure 1: Mean values on the score of the perception on the role of old age program.

When the total score is calculated, the score ranges from a minimum 8 point to a maximum of 20 points. The mean value of the score is 16.13 (out of 20), which is above average. This score is also an indication of good acceptance level on old age program.

Logistic Regression Estimation

Initially, logistic regression is tested with a complete model incorporating many variables such as contribution amounts, income, education level, perception on adequacy of EPF, gender, age, availability of personal savings and marital status. It was found that all the variables except contribution amounts are statistically insignificant in influencing informal sector workers to contribute in the EPF[5]. The model, however, passes the diagnostic test with significant likelihood ratio statistics. It could be concluded that socio demographic variables such as age, marital status, gender and education do not influence one's decision to contribute to the EPF. Hence, the study only focused on the variables that are statistically significant in influencing the contributions to the EPF and found two statistically significant variables which are: contribution amounts and availability of personal savings and the following result as shown in Table 3 are obtained. The chi-square goodness of fit test of the model suggests a good fit of the model.

It can be concluded that what matters most is how much the informal sector workers have to contribute. Results in Table 3 indicate that the higher the contribution amounts the higher is the probability of contributing into the EPF. It is worth to reiterate that respondents are aware of the higher returns associated with higher contribution rates. Nevertheless, these results should be interpreted with caution. As the study limits the contribution amounts a maximum RM70, it is least likely that a contribution amount that is higher than RM70 would be preferred. Notably, the income from informal sectors is considerably small; hence, a large contribution amount would not be feasible to ensure continuous sustainability to the provident fund.

Results in Table 3 also indicate that if informal sector workers already have been saving for old age, the probability of contributing to the EPF is lower. In this regard, savings for old age is personal savings, put aside every month for future use, especially for retirement. Such results are common for a typical individual in such that one would reduce one's own protection if one already knows that there is some form of protection available, regardless of how small that available protection is. What the study does not investigate is the amount of money put away each month. Given the nature of the informal sector, it is doubtful that the money that is kept aside is high. Hence, it is important that these personal savings are supplemented by a more formal scheme to guarantee old age protection.

Table 3: Results of logistic regression estimation

Variable	Coefficient	Odds ratio	Std. error	*z*	*P* > |*z*|
CONTR	0.3968296	1.487103	.1058253	5.58	0.000
SAV	–2.323434	.0979367	.1177416	–1.93	0.053
Constant	–3.376887	.0341536	.0223834	–5.15	0.000
			Number of obs = 400		
			LR chi2(2) = 519.84		
			Prob > chi2 = 0.0000		
Log likelihood = –17.260408			Pseudo R2 = 0.9377		

CONTR = contribution amounts.
SAV = availability of savings for old age, taking dummy variables of 1 if workers have personal savings for old age and 0 of workers have no personal savings for old age.

CONCLUSION AND POLICY RECOMMENDATIONS

This paper has investigated the acceptance of the informal sector workers in Kuala Lumpur towards contribution to the EPF to protect them against loss of income at old age. It is commonly known all over the world that the informal sector workers are hardly protected by a formal old age schemes that provide them with a guaranteed income at old age. This is an alarming situation as informal sector workers do not have a fixed income. Hence, Malaysia encourages the informal sector workers, including the self-employed workers to voluntarily contribute to the EPF on a monthly basis at a contribution rate of RM50 per month.

Based on a 400 informal sector workers from a variety of sectors including service workers, shop and market sales workers; craft and related trade workers; elementary occupations, it was found that there is generally a positive response towards old age programs and provident funds. The study estimated a mean score (out of 5) of 3.65, 3.9, 4.11 and 4.48 for questions on "Monthly contribution into an old age program is not a burden", "Return on investment from old age program is protected and guaranteed compared to returns from other investment schemes", "Employees should contribute part of their salary (income) into an old age program" and "Old age program is a safety net for old age".

Our logit estimation indicated that socio demographic elements such as age, gender, marital status and education level are not statistically significant in influencing the informal sector workers WTC in the EPF. The two variables found to be statistically significant were amount of contribution and saving behaviour. It was found that the higher the amount of contribution, the higher is the probability of WTC in the EPF and that if informal sector workers have some savings for old age, this will decrease the probability of WTC in the EPF.

The study provides a brief indicator that there is demand for provident fund for informal sector workers and that the probability of contributing to the EPF is highly influenced by the contribution rates. Hence, an ideal amount of contribution that could provide a generous amount of return needs to be presented to the informal sector workers. Although the study found a positive relationship between contribution amount and WTC in the EPF, the contribution amount must not be set at a very high rate because it may become unaffordable. Neither should the contribution rate be too low because the returns will be sufficient to finance old age expenditure.

At the same time, the performance and services of the EPF have to be reviewed to give a better impression not only to the informal sector workers but also to the general public. The study found that the mean value (out of total 5) of informal sector workers perception on adequacy of benefits from old age program (EPF) is just slightly above average, which is 2.84. These results could also be associated with the fact that the informal sector workers are not fully aware on the actual role of the EPF. More road shows must be organised and more communication channels should be set up to provide information on the role of the EPF and the importance of contributing to the EPF for old age protection to informal sector workers.

ACKNOWLEDGEMENT

This paper benefits from the Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education. Grant number: 203.PSOSIAL.6711167.

NOTES

1. Roles of social security reaffirmed at the International Labor Conference on Social Security in 2001 and the International Labor Conference on Informal Economy in 2002.
2. Employees Provident Fund is a private workers retirement scheme program where employee and employer contribute to the fund, to be accumulated and withdrawn at retirement.
3. 100 Indian Rupee = 8.09 Malaysian Ringgit.
4. The highest value of RM70 was decided based on the findings from the pilot study conducted earlier.
5. Full estimation result of the initial model can be obtained from the authors.

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