

## Determinants of Saving Behavior and Financial Problem among Employees in Malaysia

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**Abstract:** This study analyzes the relationship of savings behavior and financial problems to financial literacy, financial stress and financial management practice in a sample of 2246 Malaysia workers. The findings revealed that (1) Financial management practices and financial stress significantly predicted financial problems; (2) Financial management practices and financial literacy significantly predicted saving behavior; (3) There was no significant relationship between financial literacy and financial problems; and (4) There was no significant relationship between financial stress and saving behavior. These findings highlight the need for financial education programs for workers to be directed at facilitating changes in financial management practices and reduce financial stress and improving financial knowledge. Researcher has recommended that workplace financial education programs could improve workers' financial problem by reducing financial stress. Workers who attended financial education seminars and workshops reported less financial stress, and lower financial problem than those who did not.

**Key words:** Savings behavior; financial problems; financial literacy; financial stress; financial management practice

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### INTRODUCTION

Individuals are responsible for their own financial security after retirement. Today, workers' debt is increasing faster than inflation. With the declining employment opportunities, income instability and eroded purchasing power of Malaysian households, workers have to decide not only how much to save for retirement but also how to allocate their pension wealth. Saving is extensively regarded as a key factor for promoting long-run economic growth (Aghion *et al.*, 2006). As stated by Prawitz *et al.* (2006), millions people struggle financially, and many of those near retirement lack the funds needed for a comfortable life. Nowadays economically life is tougher, workers face higher food prices, energy costs, and health care expenses. Deficient emergency savings increased anxiety among moderate and low-income households (Cho, 2009). The personal saving rate has declined over time, and consumers expressed concerned about the adequacy of their savings. The Pew Research Center (2007) reported that 77% of Americans always try to save; however, 63% responded they do not save enough. In another study, Hurd and Zissimopoulos (2000) reported that 73% of respondents saved too little within the past 20 to 30 years. Sixty-eight percent of workers evaluated their saving rate as too low (Cho, 2009). Low saving leads to health problems, such as lack of sleep, especially among low-income households. Low financial literacy and lack of financial information affect the ability to save and to secure a comfortable retirement. Furthermore ignorance about basic financial concepts can be linked to lack of retirement planning and lack of wealth.

The number of filings for personal bankruptcy in 2003 was 12,351 and this was up to 32% from the previous year. In 2004, 16,251 consumer bankruptcies were filed (Malaysian Central Bank, 2005). Overuse of credit, overspending, lack of budgeting, too many debts, inadequate shopping and spending skills, low salary and lack of knowledge about money are the main causes of employee financial problems. Personal financial problems are frequently cited in the press as a cause of workplace troubles. Sporkowski (1979) argued that financial problems cause stress and crisis. Financial problems are not just the concerns of the poor, but also among the better off.

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However there has been limited research on saving behavior and financial problems among Malaysians, especially employees. This study explores the relationship of savings behavior and financial problems to financial literacy, financial stress and financial management practice among employees in Malaysia. Understanding whether, and how financial literacy, financial stress and financial behavior may influence savings and financial problems will be useful in designing more effective financial education programs to Malaysians. Hence they will become effective personal financial managers when they enter the job market and start their own families.

Workplace financial education commonly includes the programs such as retirement planning, benefit of education, financial management, credit management, college planning, investments, estate planning, insurance, major purchases (vehicle or house), and tax planning (Joo & Garman, 1998).

#### ***Literature Review:***

##### ***Effect of Financial Literacy on Saving Behavior and Financial Problem:***

Lack of information and low financial literacy provide fertile ground for financial mistakes. Low financial literacy and lack of information affect the ability to save and to secure a comfortable retirement. Financial literacy will boost the ability to handle day to day financial problem and will reduce the negative consequences of poor financial decisions that otherwise might take years to overcome (Delafrooz & Laily, 2011). A number of individuals rely on the help of financial counselors previous research indicated that many households are not preparing adequately for retirement and will have to cut back spending when they stop working. This situation is troublesome because, individuals are in charge of their own financial security after retirement.

Financial literacy is main cause of personal financial problems. Financial literacy is defined as sufficient knowledge of personal finance facts and terms for successful personal financial management (Garman & Fogue, 1997). As stated by Garman and Fogue, lack of knowledge in personal finance, the complexities of financial life, a feeling of being over-burdened with so many choices in financial decision making, and a lack of time to learn about personal finance as obstacles to financial literacy.

##### ***Effect of Financial Stress on Saving Behavior and Financial Problem:***

Researchers refer financial stress as economic stress, economic hardship, economic strain, and economic pressure. Stress creates pressure on individuals and families (Boss, 1988). While stress is not necessarily a negative thing, it can be problematic when there exists a number of uncontrollable stressors such as having too many debts. Stressors also can be cumulative in nature. Continuing stressful events could build up particularly when one event is being handled while another is already being experienced (Boss, 1988). Financial stressors could be additive when one continues to experience unpaid bills, late notices, and calls from creditors and collection agencies. Further, financial stress could affect other aspects of individual's life beyond personal finance.

Sporakowski (1979) noted the significant relationship between financial problems and stress-related illnesses. Also, he said that financial problems influence a person's daily life functions. Related to this, Joo & Garman, (1998) identified financial problems as the number one source of stress. Further, another reason for personal financial problems is financial literacy.

##### ***Effect of Financial Management on Saving Behavior and Financial Problem:***

Financial management generally refers to a set of behaviors related to cash management, credit management, financial planning, investments, insurance, and retirement and estate planning (Parotta & Johnson, 1998). According to Garman *et al.* (1997) financial management is the process of managing financial resources to achieve financial success which include retirement strategy, financial plans, and credit and money management. However financial management definition as the process of developing and fulfilling long time plans to achieve financial objectives (Garman and Fogue, 1997). Lee *et al* (2000) examined the effect of financial management practices on Status of household debt. They found that there a significant relationship between financial management practices and household solvency status. Hira (1987) studied components of financial management in explaining financial short-term plans. She has considered financial management as the distribution of responsibility for financial decision-making, the frequency of evaluation of spending habits, total financial evaluation, financial objectives, the number of credit cards held, the frequency of financial charges, and the amount of debt the household felt comfortable accumulating on credit cards. Bae, Hanna, and Lindamood (1993) pointed out that some families may wrongly overspend, hence if they followed recommended financial practices, they would avoid overspending.

In fact, previous studies have found that individual positive financial management practices have been the single most influential determinant of household solvency status (defined as inability to make payments to a payee) and financial satisfaction (Joo & Grable, 2004; Parotta & Johnson, 1998). In terms of previous literature, financial management practices were the most significant determinant of financial problems. Specifically, better financial management practices were related to lower levels of financial problems and higher levels of financial satisfaction.

Financial management practices comprise financial planning horizon, saving goals, credit card balance, and the amount of long-term and short-term debts (Davis & Carr, 1992; Davis & Weber 1990). Lee, Park, and Montalto, 2000 analyzed characteristics associated with household saving behavior focusing specifically on financial management practices. The results of the logit analysis suggest that saving is related to financial planning horizon, saving goals, low credit card debt. Analyzing saving in the concept of household financial management practices produces direct and practical implications for financial management education of families and financial industry personnel. Although financial management is an important component of saving behavior, while previous research has not examined household savings in relation to household financial management practices.

Based on the above arguments, we set the following hypotheses:

H<sub>1</sub>: Financial literacy will affect (a) saving behavior and (b) financial problem.

H<sub>2</sub>: Financial stress will affect (a) saving behavior and (b) financial problem.

H<sub>3</sub>: Financial management practice will affect (a) saving behavior and (b) financial problem.

**Method:**

**Participants:**

The sample comprised of 2246 employees in public and private sectors, in which 1122 from public sectors and 1124 from private sectors participated in the study.. The mean age of the sample was 32 years (SD = 8.92, median age = 30 years). Of this sample, 50.0% were male and 50.0% were female. The majority (93%) were Malay. The majority of the sample had their own home (39.2%). The mean monthly income of the respondents was MYR 2,400.00 (US\$727.00). Regarding marital status, 56% of employees reported that they were married.

**Measures:**

Participants completed a brief self-administered questionnaire that consisted of a series of questions assessing demographic information (sex, age, relationship status, monthly income, ethnic and home ownership status), financial problems, saving behavior, financial management practices, financial stress, and financial literacy. Two dependent variables were used to answer the research questions related to savings behavior and financial problems. Predictors of particular interest included financial literacy, financial management practices, and financial stress.

**Financial problem:**

The frequency of financial problem scale (Joo and Garman, 1998) was employed to measure the frequency of problems related to lack of money for essential expenses, uncertain about where money is spent; owe friend(s) money; spend more than can afford; borrow money to buy food; skip meals to save money; take money without permission from parents/others; upset when cannot buy things; shopping to relieve tension/stress; impulsive shopping, and lending money to friends. This scale comprised fifteen items scored from (1) *never* to (5) *everyday*.

**Saving behavior:**

The saving behavior of respondents in the current study was measured using nineteen items focus on plan on traveling, reduce eating, reduce frequency of going to the shop, buy during promotion, reduce expenses, buy low cost food, recycle product, saving on water and electricity. This scale is measured on a 3-point scale scored from (1) *never* to (2) *always*.

**Financial Management:**

Financial management practices of participants were examined using a modified version of measure employed by Joo and Garman (1998). This modified scale comprised eight 3 point questions scored from one to three (1 = *have*, 2 = *not have*, and 3 = *not sure*) concerning financial planning domain (family's saving and spending), saving goals, saved for emergency (education, insurance, and retirement), credit card balance, and short-term debt.

**Financial Stress:**

The overall level of respondents' financial stress was measured with a 3-point Likert-type items scored from (1) *never to (3) always*. Items asked included i worry over delay in payment, bill payment, financial condition, medical cost, ability to provide food and care for sickness, stress and suffering depression over financial condition (Joo and Garman, 1998).

**Financial literacy:**

Financial literacy was measured with "True" and "False" choices on 16 items concerning time value for money, financial records, credit, savings, investment, insurance, retirement, wills, and general knowledge on personal finance (Joo and Garman, 1998).

**Analysis:**

The Cronbach's alphas (Table 1) are all greater than 0.7 (Bagozzi and Yi 1988). Cronbach's coefficient alpha, which is the most commonly used indicator of internal consistency, was chosen in this study to assess the reliability of the variables. The reliability tests for all the dimensions except for lighting recorded excellent reliability with coefficient alphas of above .6, which is a cut-off point of reliability score recommended by Nunnally (1967). Confirmatory factor analysis (CFA) is used to analyse convergent and discriminant validity. This was done by assessing the measurement model developed for testing each of the main variables in this study. The squared multiple correlation cut-off point is 0.7, and the average variance extracted cut off-point is 0.5 or higher (Bagozzi 1994; Byrne 2001; Hair *et al.* 2006) (Table 2). This study thus confirms the convergent reliability and discriminant validity.

**Table 1:** Scale Properties and Correlations

Model Construct	Mean	Std.Dev	Cronbach's alpha	FL	FM	FS	FP	SB
FL	10.66	2.62	.710	1				
FM	7.65	2.89	.782	.046*	1			
FS	8.85	6.91	.700	.075**	.077**	1		
FP	33.69	4.82	.930	-.606**	-.707**	.618**	1	
SB	14.01	5.35	.714	.003**	.515**	.526*	.619**	1

**Table 2:** Measurement Model

Construct/Indicator	S.Factor Loading	S.E	C.R	AVE	SMC
<b>Financial Literacy</b>					
FL1	0.762	0.119	9.47	0.58	0.602
FL2	0.786	0.079	8.87		0.635
FL3	0.768	0.084	8.41		0.636
FL4	0.731	0.07	8.2		0.613
<b>Financial Management</b>					
FM1	0.784	0.055	12.58	0.572	0.69
FM2	0.62	0.054	17.45		0.601
FM3	0.748	0.054	17.96		0.685
FM4	0.739	0.061	17.3		0.63
<b>Financial Stress</b>					
FS1	0.645	0.082	17.29	0.526	0.673
FS2	0.798	0.087	16.91		0.662
FS3	0.602	0.11	16.95		0.657
FS4	0.722	0.075	16.45		0.616
<b>Financial Problem</b>					
FP1	0.798	0.032	26.23	0.503	0.679
FP2	0.729	0.043	22.29		0.741
FP3	0.778	0.038	26.14		0.613
FP4	0.727	0.044	24.65		0.642
FP5	0.665	0.039	23.66		.7.28
FP6	0.643	0.042	22.84		0.634
FP7	0.603	0.04	26.43		0.632
<b>Saving Behavior</b>					
SB1	0.719	0.157	12.84	0.503	0.633
SB2	0.699	0.153	12.92		0.674
SB3	0.758	0.155	12.71		0.689
SB4	0.658	0.151	12.4		0.602

**Assessment of the Structural Model:**

The structural model showed acceptable fit as measured by the goodness-of-fit indices,  $X^2 (2042) = 957.30$ ,  $p < 0.001$ ;  $X^2/df = 1.92$ ;  $GFI = 0.91$ ;  $NFI = 0.94$ ;  $CFI = 0.97$ ;  $RMSR = 0.086$ ;  $RMSEA = 0.041$ .

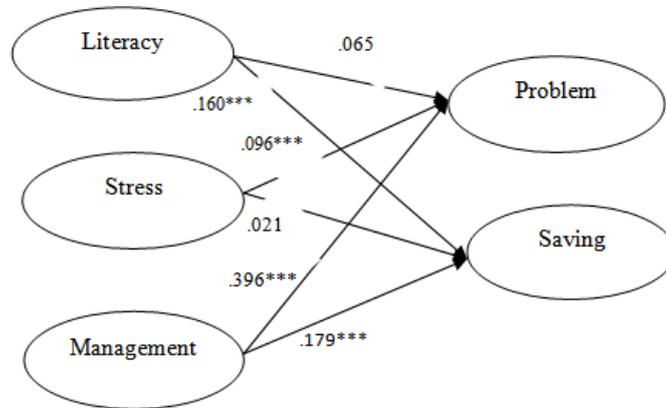
**RESULTS AND DISCUSSION**

**Prediction of Saving Behavior:**

Figure 1 shows saving behavior was jointly predicted by financial literacy ( $\beta = 0.160$ ), and financial management practice ( $\beta = 0.179$ ). Financial literacy and financial management practice significantly influenced saving behavior; together, these variables explained 19% of the variance in saving behavior. Thus,  $H_1$ , and  $H_3$  were supported. While the second hypothesis ( $H_2$ ) was not significant.

**Prediction of Financial Problems:**

Figure 1 shows the structural relationships among the variables and the standardized path coefficients. In short financial problem was predicted by financial stress ( $\beta= 0.096$ ), and financial management practice ( $\beta=-0.396$ ). Thereby the second ( $H_2$ ) and third ( $H_3$ ) hypothesized paths were significant. While the first hypothesis ( $H_1$ ) was not significant. Thus,  $H_2$  and  $H_3$  were supported. Examination of Figure 1 reveals that both predictor sets significantly predict financial problems, with the final model accounting for 25% of the variance.



**Fig. 1:** Standardized solution of the structural model. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

**Discussion and Implication:**

The main objective of this study was to gain a better understanding of the determinants of saving behavior and financial problems among Malaysia private and public sectors’ workers. The study employed structural equation model to examine the degree to which financial literacy, financial management practices and financial stress influenced financial problems and saving behavior.

The results indicated that financial literacy and financial management practices contributed significantly to the prediction of savings behavior. Findings of this study also revealed that both predictors were found to play a significant role in explaining saving behavior. Thus considering the three indicators of financial literacy, financial management practices, and financial stress clearly financial management practices had the most positive influence for savings behavior because it had the desired effects for both savings and financial problems. In fact, financial management practices were the most influential determinant of savings behavior. Specifically, better financial management practices were related to lower levels of financial problems and higher levels of savings behavior. This is consistent with previous literature (Joo & Grable, 2004; Kim *et al.*, 2003; Dowling, Corney, & Hoiles, 2009; Sabri & MacDonald, 2010).

These findings imply that financial education and counseling directed at facilitating changes in financial management practices will have a significant and positive impact on reducing financial problem and improving financial satisfaction. Workplace financial education programs have been found to increase the participants’ confidence in their investment decisions, change their attitudes in positive directions (Fletcher, Beebout & Mendenhall, 1997), and improve their financial management, such as saving more money (Bernheim & Garrett, 1997).

Particularly, the findings recommend that financial education programs or financial counseling programs for workers should include education in basic personal financial management, such as cash management, credit use and management, budgeting, financial planning, general money management, and consumer decision making (Joo & Grable, 2004; Parotta & Johnson, 1998). Most programs targeted to young people are directed at improving financial literacy by broadly addressing these personal finance topics (Fox, Bartholomae, & Lee,

2005), and the efficacy of these types of financial education programs are generally supported by the empirical literature (Danes, Huddleston-Casas, & Boyce, 1999; Hira & Loibl, 2005; Kim *et al.*, 2003).

Financial literacy was found to be positively related to savings behavior, whereby those who had greater savings behavior were also most likely to have financial knowledge. Financial literacy may also have an indirect effect on financial problems because it is associated with more savings while savings decreases financial problems. Individuals possess low financial literacy and do not plan for retirement lead to financial mistakes. It may be important to target these groups and devise programs that are better tailored to their needs and barriers to saving. As mentioned by Schreiner & Sherraden, (2007), targeted programs have had some success in increasing saving among the poor (Schreiner & Sherraden, 2007).

The result of this study found that the second most dominant determinant of financial problem, after financial management practices, was an individual's financial stress level. *This finding* was similar to study by Sporakowski (1979) and Cash (1996). Researchers have recommended that workplace financial education programs could improve workers' financial problem by reducing financial stress (Garman, 1997; Garman *et al.*, 1998). Workers who attended financial education seminars and workshops reported less financial stress, and greater financial well-being than those who did not (Garman *et al.*, 1998).

Despite these considerations, this study highlighted several important findings. First, the importance of financial management practice in predicting both financial problems and saving behavior suggests that financial education and counseling should address the workers' attitudes towards saving behavior and financial management practices. Second, the finding that there was significant relationship between saving behavior and financial literacy highlights the need to increase awareness among workers to financial problems and the potential benefits of seeking professional financial assistance. Finally, the finding that there was significant relationship between financial problem and financial stress proof the need to improve workers' financial problem by reducing financial stress.

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