

# The Influence of Financial Literacy, Saving Behaviour, and Financial Management on Retirement Confidence among Women Working in the Malaysian Public Sector

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## Abstract

Awareness of retirement confidence has been found to be low in many people, especially in women. Much of past research has revealed that women consistently perform a poor level of retirement confidence compared to men. This study aims to examine the influence of financial literacy, saving behaviour, and financial management on retirement confidence among women working in the Malaysian public sector. Multi-stage random sampling technique was applied as the sampling technique in this study. 708 respondents participated in this study. This study applied Pearson Correlational analysis to determine the relationship between the variables. The findings reveal that retirement confidence is positively correlated with financial literacy, saving behaviour, and financial management. Furthermore, multiple regression analysis was applied to determine the predictors of retirement confidence. This study concludes that financial literacy, saving behaviour, financial management, and financial status are significant predictors of retirement confidence among working women, with financial management as the major factor contributing towards retirement confidence. The findings of this study have practical implications for financial advisors in helping working women to be more aware of their future retirement life financial needs and to prevent financial crisis in later years.

**Keywords:** financial literacy, saving behaviour, financial management, retirement confidence, working women

## 1. Introduction

Retirement is the stage when an individual permanently leaves the workplace. This means that the income of retirees will stop immediately upon retirement. However, their expenses will continue and they will need to continue their lives depending solely on their accumulated savings. As the main source of retirement income is savings (Russell & Stramoski, 2011), proper planning during the pre-retirement stage is essential for a secure retirement life. Despite the importance of retirement planning, only less than 5% of Malaysians are well prepared for their retirement (Habib, 2007). Given the poor retirement planning among Malaysians, it is important to study how confident Malaysians are of their financial preparedness for their retirement.

Understanding that retirement planning is a protective factor for retirees, Malaysia introduced two types of pension systems for all working Malaysians, which are the Employees Provident Fund (EPF) and the Civil Service Pension. The EPF is a contribution plan for Malaysians working in the private sector, while only Malaysians working in the public sector are eligible for Civil Service Pension. However, a recent study by Park and Estrada (2013) found that the public pension scheme in Malaysia is inadequate for a comfortable retirement, mainly due to the poor replacement rate of the public pension scheme. Inadequate retirement funds can be a disaster for retirees. Thus, this study will focus on civil servants in the Malaysian public sector.

Retirement can be a tough period, especially for women. The Statistics Yearbook Malaysia 2012 published by the Department of Statistics Malaysia states that the life expectancy of women in 2012 was higher than that of men (women = 77.2 years, men = 72.3 years). As the minimum retirement age in Malaysia is 60 years, women can expect to live for 17 years after retirement. These 17 years can be traumatic if women fail to accumulate

sufficient retirement funds. As such, women surely need to have an adequate retirement plan for their retirement life to avoid financial crisis. This study will thus focus on how confident women working in the public sector are regarding their financial preparedness for their retirement years.

“Retirement confidence” can be defined as an individual’s attitude towards retirement and confidence towards preparation for retirement (Kim, Kwon, & Anderson, 2005). The terms “retirement confidence”, “retirement planning behaviour”, and “retirement attitude” have been used interchangeably in past literature (Kim et al., 2005; Moorthy et al., 2012). Past research has identified a number of contributors to retirement confidence. For instance age, gender, income, savings, education level, and financial behaviours are significant contributors to retirement confidence (Joo & Pauwels, 2002; Kim et al., 2005). However, the idea of retirement confidence is relatively new in Malaysia. Not much research has been conducted in Malaysia to identify the factors contributing to retirement confidence (Moorthy et al., 2012).

Empirically, financial status, financial literacy, savings behaviour, and financial management have been found to affect retirement confidence. Thus, this study examines the influence of financial status, financial literacy, financial management, and saving behaviour on retirement confidence in Malaysia, specifically on women working in the public sector.

### 1.1 Research Framework

Figure 1 below displays the research framework for the present study. This study examined the influence of financial literacy, saving behaviour, and financial management on retirement confidence among women working in the public sector. In addition, this study further examined the influence of education background, age, and financial status on retirement confidence.

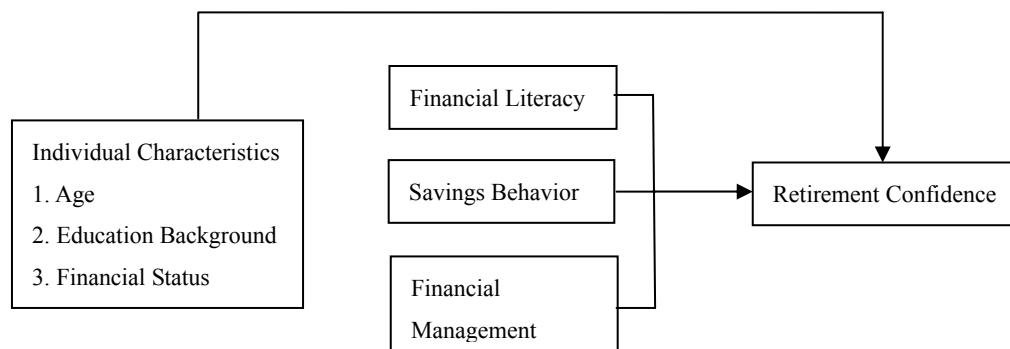


Figure 1. Research framework for the study of relationships between financial literacy, saving behaviour, financial management and retirement confidence among working women

### 1.2 Research Objective

#### 1.2.1 Main Objective

This study aims to determine the relationships between financial literacy, saving behaviour, financial management and retirement confidence among women working in the Malaysian public sector.

#### 1.2.2 Specific Objectives

- 1) To describe financial literacy, saving behaviour, financial management, and retirement confidence among women working in the Malaysian public sector.
- 2) To determine the relationships between financial literacy, saving behaviour, financial management and retirement confidence among the respondents.
- 3) To determine the factors that uniquely predicts retirement confidence among the respondents.

## 2. Review of Previous Studies

### 2.1 Retirement Confidence

Kim et al. (2005) stated that retirement confidence is based on the individual’s attitude and preparations for future retirement. People who are satisfied with their retirement funds will report higher retirement confidence. In the Malaysian context, people with high retirement confidence are those who believe that their accumulated savings and the return provided by the pension scheme are sufficient for a financially secure retirement life.

Based on the findings of the Retirement Confidence Survey 2013, workers in the United States had consistently displayed poor retirement confidence since 2009 (Helman, Greenwald, Adams, Copeland, & VanDerhei, 2013). Only 13% of the workers reported being very confident in 2013, a figure which is slightly lower than the 14% in 2012. Further, only 38% of the workers reported being somewhat confident in 2012 and 2013, which is much lower as compared to 51% during 1995. In addition, more workers reported low retirement confidence in 2013 as compared to 2012. While 28% of the workers reported not being confident at all in 2013, the figure was only 23% in 2012. The researcher concluded that these workers were not confident of having enough money during their retirement age. Therefore, the Retirement Confidence Survey 2013 clearly shows a reducing trend in retirement confidence among workers.

The declining trend of retirement confidence has attracted the attentions of researchers. Various studies have been conducted in unique contexts to identify the root cause of the phenomenon (Joo & Pauwels, 2002; Kim et al., 2005; Malroux & Xiao, 2005; Moorthy et al., 2012). The following sections will review briefly the factors that will affect retirement confidence based on past literature, namely financial status, financial literacy, saving behaviour, and financial management.

### *2.2 Financial Status*

“Financial status” in the present study refers to income, house ownership status, asset-to-debt ratio, and financial adequacy. The World Bank (2013) categorized Malaysia as an upper-middle-income economy. In fact, income can be a factor predicting retirement confidence (Joo & Pauwels, 2002; Moorthy et al., 2012). People need to have a source of income to continue their lives. If income is too low, individuals will merely have sufficient income for saving purposes, which will lead to poor retirement preparations. Another important element of financial status that was tested under this study is home ownership. Helbrecht and Geilenkeuser (2010) suggested that individuals from all age groups view housing assets as an important retirement provision. Based on the findings of Helbrecht and Geilenkeuser (2010), young households (aged 25-35) tend to view house equity as long-term investment, while middle-aged and senior households view house equity as security of emergency during retirement. This clearly shows that home ownership will serve as a source of retirement income for households. Cavanagh and Sharpe (2002) found that debt level is significantly associated with level of discretionary retirement savings. They indicated that debt inhibits people from discretionary retirement savings. Moreover, those with high instalment debt and credit card debt tend to save less for retirement (Cavanagh & Sharpe, 2002). Lastly, many people with low income are not aware that their accumulated retirement wealth is inadequate (Malroux & Xiao, 1995). The poor tend to underestimate future expenses such as housing and medical fees during the retirement stage (Malroux & Xiao, 1995).

### *2.3 Financial Literacy*

According to Huston (2010), financial literacy is a skill that can help people to make financial decisions effectively. Individuals who are financially literate are expected to possess basic understanding of the financial concepts such as interest rate, inflation rate, compound interest, and risk (Huston, 2010). As retirement planning is a complex process which requires a certain level of financial knowledge, there is no doubt that financial literacy and retirement confidence are highly correlated (Lusardi, 2009; Lusardi & Mitchell, 2008; Lusardi & Mitchell, 2011; Mullock & Turcotte, 2012; Van Rooij, Lusardi, & Alessie, 2012). People who are financial literate tend to be more confident of their retirement preparation as compared to those who are financially illiterate (Mullock & Turcotte, 2012). This is as those who are financially literate understand the importance of retirement planning and will hence accumulate wealth as preparation for retirement. In contrast, people who are financially illiterate tend to overestimate their savings and pension income (Alessie, Van Rooij, & Lusardi, 2011). Although their savings and pension income are low, they still believe that they are able to afford their expenses during retirement (Alessie et al., 2011). Despite the importance of financial literacy for retirement preparedness, much past research has indicated that most people are financially illiterate (Lusardi, Mitchell, & Curto, 2010; Samy, Nagar, Huang, & Tawfik, 2008). Furthermore, women tend to report lower financial literacy than men (Lusardi & Mitchell, 2008). This will make women more vulnerable to the negative consequences compared to men. In other words, poor financial literacy among women might put them at a higher risk of suffering from poor retirement confidence than men.

### *2.4 Saving Behaviour*

As mentioned in the previous section, many retirees will rely solely on their accumulated savings after retirement. Thus, the direct relationship between saving and retirement confidence (Helman et al., 2013; Kim et al., 2005) is clear. People with higher savings tend to have higher retirement confidence (Kim et al., 2005). Many people view savings as the major source of retirement funds (Russell & Stramoski, 2011). Those who do not save are

generally expected to be in employment after retirement and depend on social security during their golden years, which may lead to poor retirement satisfaction (Russell & Stramoski, 2011). However, it is important to note that many people do not realise the importance of saving for retirement (Hayes & Parker, 1993). Many people, especially women and single heads of households, do not know that 70% of their income needs to be saved for their retirement use (Hayes & Parker, 1993). Similarly, Levin (1998) stated that most people never plan as to how much money they need to save for their retirement life. Many people will spend their money recklessly without thinking much (Levin, 1998).

### *2.5 Financial Management*

Finally, healthy financial management is expected to promote higher retirement confidence (Kim et al., 2005). Healthy financial management should include various financial practices such as cash management, credit management, retirement planning, and estate planning (Hilgert, Hogarth, & Beverly, 2003; Parrotta & Johnson, 1998). People who implement financial management in daily life tend to display more positive retirement confidence (Kim et al., 2005). For instance, people who practise financial management are more likely to save money as contribution towards their retirement plan. These financial management practices help them to be more prepared for retirement life and lead to higher retirement confidence. Given the positive association between financial management and retirement confidence, some studies have suggested including financial management in various seminars in order to help workers build stronger retirement satisfaction (Kim et al., 2005; Russell & Stramoski, 2011; Taylor-Carter, Cook, & Weinberg, 1997).

## **3. Research Method**

### *3.1 Sampling Technique*

Multi-stage sampling technique was used among women working in government agencies in urban areas in five states in Malaysia. Four states in Peninsular Malaysia i.e. Penang (North), Johor (South), Terengganu (East), Perak (West), and one state in East Malaysia i.e. Sarawak were randomly selected. The target respondents were all women working in the public sector. The aim was to obtain 150 respondents from each state. At the second stage of random sampling, public agencies located in each state were selected from a list of departments on government websites. Then, three departments were selected from the list to obtain 50 respondents from each department. Telephone calls were made to the selected agencies and the study purpose explained. After that, pre-approach letters were sent by post and fax to further explain the study purpose and obtain approval from the selected agencies. After approval had been given, the selected agencies each arranged for a staff member to be in charge and provided the staff member's personal contact numbers and e-mail addresses. Enumerators then went to the selected agencies after making appointments with the persons in charge. The enumerators had instructions to explain further the study objectives, the expected outcome of the study and the target group for the study. The selected agencies each provided a list of participants who met the requirements of the study. The persons in charge were given a few weeks to collect the questionnaires from the respondents and return them. However, 42 questionnaires were returned as undeliverable as some participants had not been able to participate in the survey. As a result, 708 respondents participated in this study. The data was coded and analysed using SPSS.

### *3.2 Instrumentation*

The questionnaire for this study comprised 5 sections. Section A sought information on the individual characteristics of the respondents, which included age, education background and financial status. Section B comprised statements regarding financial literacy and which required either true or false responses. Section C consisted of questions on saving behaviour. Section D was designed to gather information regarding respondents' financial management practices while Section E asked about retirement confidence.

Section A was used to analyse the educational background, age and financial status of the respondents. For age, respondents were given four age ranges to choose from. Respondents were asked about their financial status through three items which were home ownership status, assets-to-debt ratio and current financial adequacy. For home ownership status, 1 point was given to respondents who owned their homes and 0 points were given to responses from the other options. For assets-to-debt ratio, 1 point was given to respondents who responded "assets higher than debt" and 0 points were given to other responses. For financial adequacy, 1 point was given to respondents stating "more than enough and can save money as well" and 0 points were given to those who selected the other options.

Section B was used to measure the respondents' financial literacy level. There were 34 items on this scale. The respondents were required to answer true or false to the statements given concerning their financial knowledge. Respondents who answered correctly were given 1 point, while respondents who answered wrongly were given

0 points. All the scale items were summed up to compute the total score. The total score ranged from 0 to 34. The higher score indicates higher financial literacy. Examples of statements included in this scale were “Credit card owner can spend without limit” and “The interest rate of a regular savings account interest rate (savings account) is higher than the interest rate of a fixed deposit account.”

Section C was used to determine the saving behaviour of respondents. Respondents had to respond “Yes” or “No” to the question on whether they owned a saving account. Respondents who owned a saving account were given 1 point and those who did not own a saving account were given 0 points. The respondents were also asked to state their saving amount from a range of amounts given.

Section D measured the financial management of the respondents. The scale comprised 13 items and two sections. In the first section, the respondents were required to rate how often they applied the stated financial practices in their daily lives. The rate ranged from 0 to 2, where 0 indicated “never”, 1 indicated “sometimes”, and 2 “indicated “often”. In the second section, the respondents had to determine whether they applied the financial practices or not, with 1 indicating “yes” and 2 indicating “no”. All scale items were summed up after recoding and adjusting the reverse scoring items. This resulted in a total score ranging from 0 to 38. The higher score indicates higher financial management. Examples of statements included in this first section are “Plan for expenses or budget” and “Clear all bills in time (utility bills)”. Examples of statements in the second section are “Set financial goals” and “Have made a will.”

Section E determined the retirement confidence of the respondents. There were eight items on this scale. The respondents were required to rate their confidence in response to the statements given on a 4-point Likert scale, where 1 indicates “strongly disagree”, 2 indicates “disagree”, 3 indicates “agree”, and 4 indicates “strongly agree”. The score was summed up to compute the total score. The total score ranged from 8 to 32. The higher score indicates higher retirement confidence. Examples of statements included in this scale are “Have enough money to live comfortably during your retirement years” and “Have confidence that I am well prepared for retirement.”

### 3.3 Reliability Test

Table 1 below displays the results of the reliability test for the present study. The Cronbach’s alpha for Financial Literacy Scale (.845), Financial Management Scale (.620), and Retirement Confidence Scale (.912) were adequate. In conclusion, all of the instruments used were generally reliable.

Table 1. Reliability analysis of scales

Scale	Number of items	Cronbach’s alpha
Financial Literacy	34	.845
Financial Management	13	.620
Retirement Confidence	8	.912

## 4. Results and Discussion

### 4.1 Profile of Respondents

Table 2 below shows the profiles of the respondents in this study. 36.2% of the respondents were aged between 30 to 39 years, with an average age of 35.8 years. Malays comprised 88.4% of the respondents, followed by Others (6.8%), Chinese (2.4%), and Indians (2.4%). The majority (71.9%) of the respondents were married. Almost all of the respondents (99.2%) had at least secondary school education or higher. In addition, the monthly income of a majority of the respondents (77.3%) ranged from RM1000 (USD 311) to RM3000 (USD 933). The average income was RM 2,240.78 (USD 697.63). The results are displayed in Table 2.

Table 2. Profile of respondents

Characteristics	Frequency (n=708)	Percentage (%)
<b>Age</b>		
20-29 years	228	32.2
30-39 years	256	36.2
40-49 years	116	16.4

Characteristics	Frequency (n=708)	Percentage (%)
50-59 years	108	15.3
<b>Ethnicity</b>		
Malay	626	88.4
Chinese	17	2.4
Indian	17	2.4
Others	48	6.8
<b>Educational Background</b>		
Primary School	3	0.4
Secondary School	341	48.2
Diploma	243	34.3
Bachelor's Degree	111	15.7
Master's/Ph.D Degree	7	1.0
<b>Marital Status</b>		
Married	509	71.9
Widowed	15	2.1
Divorced	8	1.1
Single	176	24.9
<b>Monthly Income (RM)</b>		
Below 1000	29	4.1
1000-3000	547	77.3
3001-5000	82	11.6
Above 5001	7	1.0

#### 4.2 Retirement Confidence

Table 3 shows the retirement confidence of the respondents. 73.5% of the respondents answered that they had enough money to live comfortably during their future retirement life. They believed that they would be able to maintain their pre-retirement lifestyle even after retirement. 79.4% of the respondents were confident that they had the ability to pay all the expenses for their basic needs during their retirement life. Moreover, 71.3% of respondents felt that they had enough financial funds for medical expenses during their retirement, while 78.3% indicated that they would be able to settle their debts during retirement life. Slightly more than half (56.1) of the respondents had the confidence that they had money for leisure and entertainment activities, for example travel.

Table 3. Retirement confidence

No.	Statement	SD n (%)	D n (%)	A n (%)	SA n (%)	Mean
1	Have enough money to live comfortably during my retirement years	15 (2.1)	163 (23.0)	462 (65.3)	58 (8.2)	2.81
2	Have enough money to pay for basic expenses during retirement	6 (0.8)	129 (18.2)	500 (70.6)	62 (8.8)	2.89
3	Have enough money to pay for medical expenses in retirement years	12 (1.7)	180 (25.4)	452 (63.8)	53 (7.5)	2.78
4	Have confidence that I am well prepared for retirement	31 (4.4)	209 (29.5)	400 (56.5)	53 (7.5)	2.69
5	Able to resolve debt during retirement	18 (2.5)	124 (17.5)	484 (68.4)	70 (9.9)	2.87
6	Have enough money to pay for long term care, such as nursing care or health care, which is needed to live comfortably during retirement years	18 (2.5)	253 (35.7)	379 (53.5)	47 (6.6)	2.65
7	Know how to determine how much money I need to live comfortably during retirement years	18 (2.5)	266 (37.6)	377 (53.2)	35 (4.9)	2.62
8	Have enough money for activities, for example travel	36 (5.1)	264 (37.3)	353 (49.9)	44 (6.2)	2.58

Note: SD=Strongly Disagree (1), D=Disagree (2), A=Agree (3), SA=Strongly Agree (4)

Table 4 below shows the level of retirement confidence among the respondents. Most of the respondents (77.5%) showed a moderate level of retirement confidence. 10.3% and 9.9% of the respondents reported high and low retirement confidence respectively.

Table 4. Level of retirement confidence

Variable	Frequency (n=708)	Percentage (%)
<b>Retirement Confidence</b>		
Low (8-16)	70	9.9
Moderate (17-24)	549	77.5
High (25-32)	73	10.3
Mean = 21.9, SD. = 3.927		
Min. = 8, Max. = 32		

Note: SD. = Standard deviation, Min. = Minimum, Max. = Maximum

#### 4.3 Financial Status

Table 5 displays the respondents' financial status. Out of the 708 respondents, 54.4% owned their homes. In addition, only 39% respondents reported their assets were more than their debts and 44.4% respondents thought that their income was enough to fulfil only their basic needs. We can conclude from the results that small percentage respondents managed their money wisely. More than half of the respondents had a healthy financial status.

Table 5. Respondents' financial status

Variable	Frequency (n=708)	Percentage (%)
<b>Home Ownership Status</b>		
Owned	385	54.4
Family home	177	25.0
Living in inherited property	19	2.7
Rented	78	11.0
Owned by Employer	27	3.8
Others	13	1.8
<b>Assets-to-Debt Ratio</b>		
Assets < debts	172	24.3
Assets = Debts	240	33.9
Assets > debts	276	39.0
<b>Financial Adequacy</b>		
Not enough	66	9.3
Enough for basic use only	314	44.4
Enough for everything	205	29.0
More than enough and can save money as well	115	16.2

#### 4.4 Financial Literacy

Many respondents had a misperception of credit cards. For example, 66.5% of the respondents believed that owning a credit card would increase the buying power of the card holder. At the same time, 44.6% of the respondents did not agree with the statement that "Purchasing on credit will reduce buying power in the future." This clearly shows that the respondents did not understand the negative consequences of using credit cards. They did not display having the appropriate knowledge concerning purchasing power. 53.4% of the respondents did not know that the requirement for applying for a credit card is having a yearly income of at least RM24000. However, almost half of the respondents (48.9%) believed that the statement "All investment will help to gain profit" is incorrect. Table 6 which shows the level of financial literacy among the respondents reveals that 67.9% of the respondents reported a moderate level of financial literacy.

Table 6. Level of financial literacy

Variable	Frequency (n=708)	Percentage (%)
<b>Financial Literacy</b>		
Low (0-11)	109	15.9
Moderate (12-23)	481	67.9
High (24-34)	97	15.4
Mean = 17.3, SD. = 6.222		
Min. = 0, Max. = 34		

Note: SD. = Standard deviation, Min. = Minimum, Max. = Maximum

#### 4.5 Savings

Figure 2 shows the respondents' savings amount. Most of the respondents (96.3%) had a personal savings account in the bank. 22.6% of the respondents had between RM1000-RM3000 in their savings account; 4.8% had between RM3001-RM5000; and 1.6% of the respondents had between RM5001-RM7000; and 1.6% of the respondents had between RM7001-RM9000 in their savings account. 19.4% of the respondents had above RM9001 in their savings accounts. The average savings amount of the respondents was RM6, 693.33.

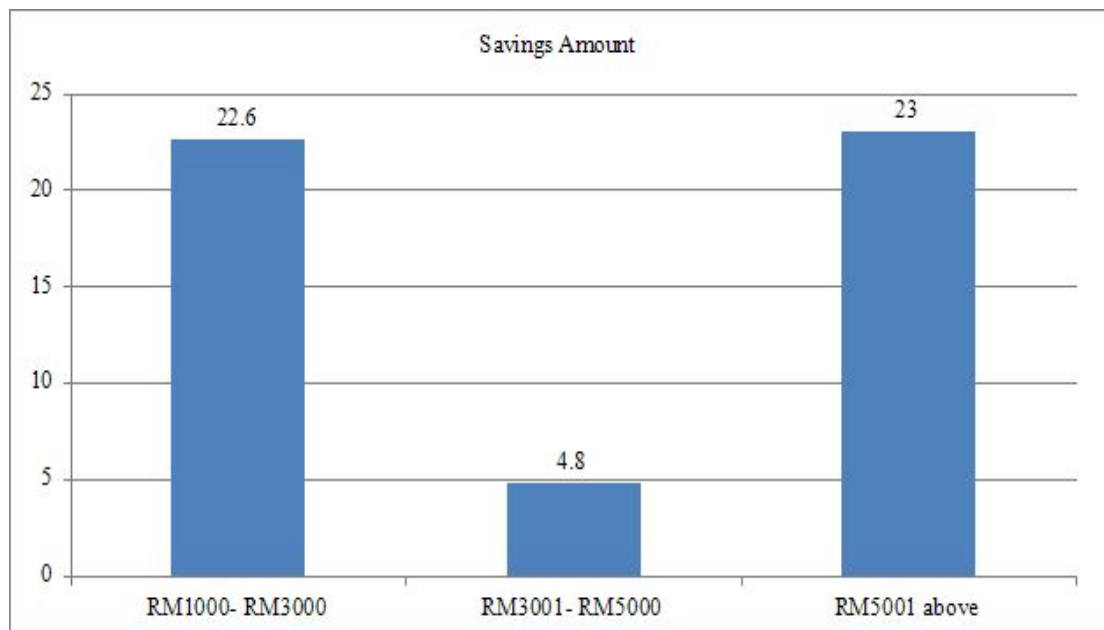


Figure 2. Respondents' savings amount (1RM =0.3113 USD)

#### 4.6 Financial Management

Table 7 illustrates the respondents' level of financial management. The results indicate that 48.2% of the respondents reported high financial management, meaning that the respondents were practising relatively healthy financial management practices. For example, a large proportion of the respondents (85.2%) reported that they kept a record of their daily expenses. Furthermore, almost all of the respondents (95.6%) planned and budgeted for their expenses. This clearly shows that the respondents had a financial plan to enhance their financial well-being. While 93.6% of the respondents responded that they paid their bills such as utility bills on time, not many (28.7%) of the respondents had prepared their will.



Table 7. Level of financial management

Variable	Frequency (n=708)	Percentage (%)
<b>Financial Management</b>		
Low (2-6)	90	12.7
Moderate (7-9)	260	36.7
High (10-13)	341	48.2
Mean = 9.3, SD. = 2.241		
Min. = 2, Max. = 13		

Note: SD. = Standard deviation, Min. = Minimum, Max. = Maximum

#### 4.7 Bivariate Analysis

Pearson correlation analysis was used to determine the relationship between financial literacy, saving behaviour, financial management and retirement confidence. The results of Pearson correlation analysis for the present study are displayed in Table 8.

The Pearson coefficient (r) value for financial literacy and retirement confidence was .141 with the value of significant r (2-tailed),  $p = .000$ . In this case, significant r (2-tailed) was smaller than Alpha. Therefore, there was a significant correlation between financial literacy and retirement confidence. The positive correlation between these two variables indicates that the higher the financial literacy, the higher the retirement confidence. This result supports the findings of past studies (Lusardi, 2009; Lusardi & Mitchell, 2008; Lusardi & Mitchell, 2011; Mullock & Turcotte, 2012; Van Rooij et al., 2012), which concluded that financial literacy can help pre-retirees prepare for retirement and lead to positive retirement confidence.

The Pearson coefficient (r) value for saving amount and retirement confidence was .080 with the value of significant r (2-tailed),  $p = .038$ . In this case, significant r (2-tailed) was smaller than Alpha. Therefore, there was a significant correlation between saving behaviour and retirement confidence. The positive correlation between these two variables shows that there is a positive relationship between amount of saving and retirement confidence. The result is consistent with past research conducted by Kim et al. (2005). In general, people view savings as a preparation for their retirement life. Thus, contributing to savings will help pre-retirees build stronger retirement confidence.

The Pearson coefficient (r) value for financial management and retirement confidence was .165 with the value of significant r (2-tailed),  $p = .000$ . In this case, significant r (2-tailed) was smaller than Alpha. Therefore, there was a significant correlation between financial management and retirement confidence. This shows a positive correlation between these two variables, indicating that the higher the financial management, the higher the retirement confidence. This finding fits with the conclusion of Kim, Garman, and Quach (2005) that those who implement financial management will display higher retirement confidence.

Table 8. Pearson correlation analysis

Variable	Retirement Confidence	
	r	P
Financial Literacy	.141	.000
Saving Behaviour ( <i>Savings amount</i> )	.080	.038
Financial Management	.165	.000

#### 4.8 Multiple Regressions

Multiple regression analysis was used to determine the significant predictors for retirement confidence among women working in the public sector. The individual characteristics (age, educational background, and financial status), financial literacy, saving behaviour, and financial management were inserted into the regression towards retirement confidence. The results of multiple regressions for present study are displayed in Table 9.

The F value was 8.966 while the value of significant F was .000. F value was significant because the value of significant F (p) was smaller than Alpha, where Alpha is set at .05. Therefore, the model is significant. All the variables in this model showed about 7.9% of variance in retirement confidence ( $R^2 = .079$ ). This reveals that

there is a huge potential that other factors explain the retirement confidence of the respondents.

The Beta value shows which variable has the strongest unique contribution in explaining the dependent variable, which in this study is retirement confidence. Financial status, financial literacy, and financial management were significant predictors of retirement confidence. As expected, women with positive financial status tend to be more confident of their financial preparedness for retirement compared with those with poor financial status. Financial literacy will help women to build stronger retirement confidence. Practising financial management is positively related to retirement confidence. On the other hand, age, educational background, and owning a savings account are not statistically associated with retirement confidence.

The results of the study conducted by Malroutu and Xiao (1995) found that saving did not make a unique contribution to retirement confidence. Although owning a savings account indicates that the individual does practise financial planning, this act does not mean the individual is well prepared for future retirement life. The amount of savings and the saving motives should be taken into account. This can be explained by the results of this study.

The results of the present study also reveal that financial management is the most significant predictor of retirement confidence as compared to other variables. Taylor-Carter et al. (1997) suggested that people will have high retirement confidence when they participate actively in financial management, such as retirement planning. Active involvement in such planning will generate stronger confidence towards their retirement (Taylor-Carter et al., 1997).

Table 9. Multiple regression analysis of retirement confidence

Variable	B	SEB	$\beta$
Age	.005	.018	.13
Educational Background	.054	.104	.023
Financial Status	.719	.164	.184***
Financial Literacy	.062	.027	.094*
Saving Behaviour ( <i>Savings account</i> )	.000	.000	.030
Financial Management	.198	.074	.110**
R <sup>2</sup>	.079		
Adjusted R <sup>2</sup>	.070		
F	8.966***		

Note: B = Unstandardized Coefficients B; SEB = Unstandardized Coefficients Standard Error;  $\beta$  = Standardized Coefficients Beta

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## 5. Conclusion

The present study analysed the influences of financial literacy, saving behaviour, and financial management on retirement confidence on women employed in the Malaysian public sector. In addition, the present study also accounted for the effects of individual characteristics, namely age, educational background, and financial status on the retirement confidence of the respondents. As stated by Park and Estrada (2013), the public pension scheme in Malaysia is inadequate and immature. The rationale of this study is to thus identify the factors affecting the retirement confidence of women working in the public sector, where retirement confidence is an indication of the preparedness and perception of pre-retirees towards future retirement.

In general, the women working in the public sector in Malaysia show a moderate level of retirement confidence. The findings show that women with positive financial status, who are financially literate, and practise financial management, are more likely to display high retirement confidence. The findings also reveal that financial management is the strongest factor contributing towards retirement confidence.

The findings of present study have practical implications for financial advisors. Better understanding of the factors affecting retirement confidence will help financial advisors to improve their clients' attitudes towards retirement. Furthermore, as the results indicate that financial management contributes most to retirement confidence, the inclusion of financial management education into retirement planning seminars is relevant (Kim et al., 2005; Russell & Stramoski, 2011; Taylor-Carter et al., 1997). Financial management education can

increase pre-retirees' awareness of retirement planning. Apart from that, the government can also work in cooperation with the Central Bank to introduce a retirement saving plan suitable for the working population. This issue of retirement awareness needs serious attention as previous research has found that women's financial status does affect their future retirement life.

However, it is important to take note that the Beta coefficient for this study is relatively low, which is around 8% in general. This result implies that there are others factors that will contribute to retirement confidence. As mentioned earlier in this study, retirement planning is a complex process which requires the efforts of the pre-retirees themselves. Many factors will influence pre-retirees' perception of retirement, such as number of financial dependents, health, and saving motives. Further studies that include more variables as the potential predicting factors for retirement confidence are suggested.

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