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INFLUENTIAL PREDICTORS FOR FINANCIAL ADEQUACY AMONG MALAYSIAN PUBLIC SECTOR EMPLOYEES

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ABSTRACT
Financially well employees are presumed to be portraying good work attitude and may result in good work performance. This will benefit their employer and organization. Knowing the adequateness level of their finances and what influence it is important as it will also affect the organization. Hence, this study was performed to identify influential factors predicting financial adequacy among public sector employees. A cross sectional study using a multistage random sampling was employed. Self-administered questionnaires were distributed at the work-place of public sector employees in Peninsula Malaysia and were able to obtain 472 usable questionnaires. Logistic regression analysis controlled for socioeconomic characteristics identified savings ratio as the most influential predictor for financial adequacy followed by number of insurance policy and net-worth. The likelihood of an employee to be financially adequate by these predictors was from four to five times as compared to being financially inadequate. Furthermore, financial risk management knowledge was also determined as influential predictor for financial adequacy. The results suggests for a financial education at the work-place to educate the employees on the need to increase savings, purchase various insurance policies and having a positive net-worth to increase employees" financial well-being for the sake of the organization's success.
Keywords: savings ratio, net-worth, financial risk management knowledge, insurance, financial adequacy

INTRODUCTION
Financially well employees are presumed to be portraying good work attitude and may result in good work performance. This will benefit their employer and organization where they work. Knowing the adequateness level of their finances and what influence it is important as it will also affect the organization. Inadequacy in terms of finances among the employees will incur high cost in the long run. These problematic employees may use work time to overcome their financial issues and valuable time work will be reduced. Financial problems faced to the extent leading to bankruptcy if no possible solution or intervention are planned. Bankruptcy cases in Malaysia reported by the Department of Insolvency Malaysia (2011) stated that almost 45,000 young workers aged below 35 years old were declared bankrupt for the previous three years. This is due to inabilities in repaying credit card debt, health bill or vehicle hire-purchase. In daily consumption, according to Utility Theory, individuals make decisions to satisfy their needs and wants. Consequently, unnecessary purchasing or expenses may arise in maximizing the utility. Overspending their income among the young workers resulted in their high debt load by turning to credit sources even in financing daily expenses.
The Counseling and Credit Management Agency (2013) which is under the purview of Bank Negara Malaysia reported that in 2013, men aged more than 40 years old was the most frequent

group seeking counseling service from the agency with a total of 39,220 men. The second highest were those aged 20 to 30 years old which represented 18 percent or 16,336 men. The non-profit agency is set by the Malaysian government for the purpose of educating the community regarding wise financial management and handling counselling series for those in serious debt. Managing finances well need to be practiced by individuals or households to avoid from being in a critical financial situation. Poor job performance may be the result of financial strain or problems faced by employees. Hence, employers should play a role in elevating employees" financial well-being as financially strained employees will affect the performance of the companies or agencies.
The high usage of credit or loan reflected high expenses made by individuals or households and this leads to the question of income inadequacy. In the internet era, many were fascinated with various new and innovative products, be it food, clothing, telecommunication or others. Abundance of supply of products attracted individuals not only those with high purchasing power but also those with low purchasing power. Influence from peer groups or others either in the micro or macro environment of the individuals. The temptation to purchase may be more than the available financial resources. The mismatch between spending and income would lead to inadequacy of their income. Hence, this study was performed to answer research questions such as, "What is the possibility of becoming financially inadequate among them?" and "Who are those potentially facing financial adequacy?" This study also identified influential factors predicting financial adequacy among individuals specifically among public sector employees. The associations of financial adequacy categories with employees" socioeconomic characteristics and financial-related variables were also determined. This article further discussed the implications of the study.

LITERATURE REVIEW

Past research on financial adequacy used different terms in various research. Financial well-being and financial satisfaction are among the most common terms for the financial situation. As described by Goldsmith (2000), financial well-being is the extent to which individuals or families have economic adequacy or security, encompassing the desire to secure or protect themselves against economic risks in one"s life. Others used financial satisfaction or satisfaction with their current financial situation (Hira & Mugenda 2000; Joo & Grable 2004). Socioeconomic characteristics found to be positively related to financial satisfaction or financial adequacy were age, education, marital status, family size and income. Joo and Grable (2004) found that age significantly predicting financial satisfaction with older US consumers feeling more satisfied with their financial situation. They further concluded that possessing higher qualification was significantly influencing financial satisfaction. A later study focusing on Malaysian employees found similar result for age in relation to financial satisfaction (Mohamad Fazli, Jariah, Karen & Laily 2008). Age was positively influencing financial satisfaction among employees. Being married resulted in a positive effect on financial satisfaction (Zurlo 2009). However, by having children in the household, the family size increased and this was negatively related to financial satisfaction (Joo & Grable, 2004). The high financial dependents make them more unsatisfied with their financial situation. Income was also found to be positively related to satisfaction on financial matters. Higher income individual showed a positive relationship with financial satisfaction (Johnson & Krueger 2006; Plagnol 2010). Similarly, other studies across nation found that financially well households were more likely to earn higher income (Baek & DeVaney 2004; Husniyah, Mohd. Fazli & Ahmad Hariza 2005; Mohamad Fazli *et al.* 2008). Hansen, Slagsvold and Moum (2008) found income alone explained fourteen percent and seven percent, respectively, of the variance in financial satisfaction among men and women. Socio-economic characteristics further found to be significant in predicting financial well-being were gender, ethnicity and employment length which were found to be negatively affecting financial well-being (Mohamad Fazli *et al.* 2008). Furthermore, Joo and Grable (2004) found direct effect on financial adequacy by financial stress levels, financial solvency, financial knowledge and financial behavior. Experiencing low financial stress level, higher financial solvency and good financial behavior contributed to better financial well-being. Financial solvency is the ratio of asset to debt with higher ratio reflected a higher financial solvency. Individuals have more asset as compared to debt and thus is capable to settle off the debt to be debt-free. Having a high financial solvency also means that individuals have a high positive net-worth. Hence, positive net-worth was directly affecting financial adequacy. Net-worth positively influenced financial satisfaction were found among Australian household (Headey & Wooden 2004). A value of less than one for solvency ratio has previously been used to identify respondents who were financially strained (Kim & Lyons 2008). The solvency ratio is able to identify respondents who are highly leveraged that have debt far exceeding asset and are close to being insolvent. At the earlier life-cycle, the solvency ratio should be lower because loans may be used to fund current consumption. Through the life-cycle towards retirement, the solvency ratio should be higher. Financial knowledge was also found to have a positive direct effect on financial adequacy with higher financial knowledge leads to a more financially adequate situation. Similarly, displaying good financial behavior affected financial adequacy (Joo & Grable 2004). Tamimi and Kalli (2009) proved that financial literacy had a positive impact on financial wellbeing.

For long-term saving portfolio, households tend to use certain assets and using others to finance current expenditure (Hiebert 2006). Future consumption of households is financed by their savings to smoothen their long-term consumption profile. However, households fall into debt in the long run when savings seems not to be possible (Hiebert 2006). Uncertainty of the income flow requires household to make consumption plan and savings plan to have a stable path of consumption however according to Friedman‟s permanent income hypothesis, permanent income may be regarded as the level of income anticipated over an extended period of time. Hansen, Slagsvold and Moum (2008) who used property assets, financial assets and debt in their regression found that property and financial assets had a positive association with financial satisfaction. Hence savings affected male and female financial satisfaction. Similar result on monthly saving affecting financial satisfaction on preparation for financial emergencies was also found earlier by Sumarwan and Hira (1992). They further revealed that financial management practices such as the managerial behavior index and the number of insurance types had significant positive effects on satisfaction with preparation for financial emergencies (Sumarwan & Hira 1992).

Locus of control was also determined its effect on financial adequacy in past research. Forte (2005) stated that locus of control is the ability to control own action leading to success and failure of a person. Sumarwan and Hira (1993) earlier on examined the relationships between perceived locus of control and satisfaction with financial status among rural households. An indirect effect through perceived income adequacy was found between perceived locus of control and financial satisfaction. Focusing on older adults, sense of control was found to influence the relationship between personal attributes and financial satisfaction (Zurlo, 2009). Economic locus of control developed by Furnham in 1986 was not found to be a significant predictor of credit card debt in a college student sample (Kennedy & Wated, 2011).

RESEARCH METHODOLOGY

This was a cross-sectional study performed on Malaysian public sector employees which focused on their financial adequacy. Multistage sampling was employed targeting at 500 respondents among public sector employees. The first stage of random sampling was the selection based on states where five states were chosen from 12 states. In the second stage of selection, two areas were chosen in each state followed by the selection of one department from each area. This resulted in ten departments being selected altogether. A liason officer was identified in each selected department who assisted in the random sampling of respondents in those departments. Through the liason officer, self-administered questionnaire forms were distributed to the respondents requesting for information on age, gender, marital status, family size, working experience, income, locus of control, financial-related information such as financial risk management knowledge, savings ratio, net-worth, number of insurance policy and financial adequacy. Data gathered however consisted of only 472 usable self-administered questionnaires that were used for data analysis.

Knowledge on financial risk management items were gathered from reference books on risk management and insurance products. Savings ratio is the ratio of monthly savings to monthly income of the respondents and was identified from a question on the percentage of monthly savings from income that had six choices of percentage range including a zero percentage. This ratio was later recoded into two categories by having joint the first and second choices as one category consisting of savings ratio below 20 percent. Net-worth was determined using a question on whether asset value is „less", „equal" or „more" than debt value which represented a „negative", „zero" or „positive" net-worth. Two categories were created by combining the first two groups as a low net-worth and the positive net-worth as a high net-worth. Locus of control was measured using a yes and no responses adapted from Levenson (1973) while financial adequacy measurement was adapted from a study on older people after retirement (Husniyah & Jariah 2002). Locus of control items were factor analysed and resulted in two factors referring to the „internal" and „external" locus of control. However, for further analysis only internal locus of control having seven items was used. The responses to insurance policies purchased by them were counted by SPSS system to give the number of insurance policies purchased by the respondents. Prior to the data collection, a pre-test was conducted among a public university"s employees to check for face validity.

Apart from describing the distribution of the variables measured, t-test analyses were performed to identify the differences in the continuous variable scores between two financial adequacy groups. Chi-square tests were used to determine the associations between financial adequacy groups and categorical variables. For the purpose of using logit regression, the responses for financial adequacy were categorized into two groups. Those who responded to the first two groups of "Not enough for basic needs" and "Enough for basic needs" were in the financially inadequate category while those who responded to the second two groups of "Enough for most needs" and "Enough for needs, wants and able to save" were in the financially adequate category.

ANALYSIS OF RESULTS

Profile of Respondents

Table 1 displays the respondents" profile where slightly more than half of them were among the younger employees and also with working experience for at least 10 years. Two-third of them was male employees while most of them were non-graduates and married. Near to three quarter of the respondents earned a monthly income of less than RM2,500 ($890AUD) and this is in accordance with the education level for most of the respondents. This reflected that majority of the respondents who are working in the public sector departments are at the non-managerial level. The numbers of respondents that have either a small or large family size are almost equal.

TABLE 1: PROFILE OF RESPONDENTS

Socioeconomic Characteristics	n (%) (N = 472)
Age (years)	
19 to 39	248 (53.2)
40 to 59	218 (46.8)
Gender	
Male	310 (66.2)
Female	158 (33.8)
Education	
Non-graduate	389 (82.8)
Graduate	81 (17.2)
Marital status	
Single	82 (17.4)
Married	392 (82.6)
Family size (persons)	
1 to 4	231 (48.9)
5 to 13	241 (51.1)
Working experience (years)	
0 to 9	218 (46.4)
10 to 37	252 (53.6)
Monthly income	
< RM 2,500 ($890AUD)	339 (72.9)
≥ RM2,500 ($890AUD)	126 (27.1)

Descriptive for Financial-related Variables, Locus of Control and Financial Adequacy

Financial Risk Management Knowledge

The responses for financial knowledge are shown in Table 2. Most of the respondents (more than 80%) gave correct answers to five statements regarding the knowledge on financial risk management. Those correct answers are on claimable compensation for losses due to fire, reducing cost of injury using a seat-belt, receiving financial benefit for injury or sickness for health insurance, receiving savings amount when life insurance linked with savings expires and the need to prepare own savings to cover the financial losses. Respondents hardly know (26%) that it is not compulsory for them to purchase fire insurance policy if they own a house. Slightly more than one-third of the respondents (39.7%) said that the cost of avoiding and reducing risk are more expensive than purchasing insurance. In fact, choosing avoidance and reduction methods should be cheaper than transferring the risk to another party such as insurance company. Less than half of the respondents (43.3%) know that a third party insurance do not cover the losses to the vehicle owner due to accident or theft.

TABLE 2. DISTRIBUTION OF FINANCIAL RISK MANAGEMENT KNOWLEDGE

Statement	Yes, n (%) (N = 472)
I can transfer the financial risk to another party by purchasing insurance.	309 (72.0)
Compensation for losses due to fire is claimable if I purchase a fire insurance policy.	418 (93.7)
I am compulsory to purchase fire insurance policy if I own a house.*	328 (74.0)
I can purchase insurance policy to protect household items (furniture, electrical appliances).	220 (52.4)
A third party automobile insurance covers the losses to the vehicle owner due to accident or theft.*	238 (56.7)
I can avoid risk due to the vehicle accident if I don‟t buy the vehicle.	220 (50.8)
Expenses can be reduced by avoiding risk.	327 (76.8)
I can reduce the cost of injury by using a seat-belt.	398 (89.6)
The policy owner of a health insurance will receive financial benefit for injury or sickness.	415 (95.0)
The policy owner of a life insurance linked with savings will receive a saving amount when the policy expires.	379 (90.0)
The beneficiary will not receive any compensation when the life insurance policy owner dies.*	97 (23.4)
I have to prepare enough savings if I don‟t purchase any insurance.	414 (93.0)
The cost to avoid and reduce risk are more expensive than purchasing insurance.*	246 (60.3)

* *Negative statement*

Savings Ratio, Net-worth and Insurance Policy

The descriptive results for savings ratio, net-worth and number of insurance policy of the employees are shown in Table 3. The result shows that only a small number of the respondents (4.7%) saved more than 40 percent of their monthly income. Majority of the respondents (70.1%) saved a small ratio of their monthly income with a savings ratio of less than 20 percent. The ratio suggested by personal finance expert however is lower than 20 percent where the suggested ratio is at least 10 percent of the monthly income (DeVaney 1993).

Only one-third of the respondents stated that their asset value was more than their debt value which is a positive net-worth. The remainder of the respondents experienced a situation whereby their debt either equals to their asset or surpassed their asset value. This reflected that the loans that they took were most probably used to finance assets that are depreciating in value such as vehicle or using the loans to finance other than assets such as for their marriage, vehicle maintenance or daily expenses. As majority of the respondents were young employees, their asset accumulation for appreciating value assets namely properties were low. A substantial amount of money needs to be prepared prior to buying a house which includes the cost of booking, downpayment and legal fees. Further analysis found that only less than one-third (29.7 %) bought fixed assets such as properties for their long-term savings while others have assets in the form of financial assets in pilgrimage fund (54.7%), cooperatives (23.5%), unit trust (33.3%) or life insurance/takaful with a surrender value (22.2%).

TABLE 3. DISTRIBUTION OF SAVINGS RATIO, NET-WORTH AND INSURANCE POLICY

Variables	Categories	n (%) (N = 472)
Saving per income ratio	< 20%	330 (70.1)
	20% - < 40%	119 (25.2)
	≥ 40%	22 (4.7)
Net-worth	Asset < Debt	149 (32.5)
	Asset = Debt	161 (35.2)
	Asset > Debt	148 (32.3)
Number of Insurance Policy	0	134 (28.4)
	1	132 (28.0)
	2-4	178 (37.7)
	5-9	28 (5.9)

Referring to Table 3, slightly less than one-third of the respondents did not purchase any insurance policy and almost half purchased various insurance policies. Furthermore, slightly less than one-third of the respondents were found to have only one insurance policy. The analysis on the type of insurance among these respondents having only one policy revealed that they were the policy owners for automobile insurance (10.6%), health insurance (4.7%), life insurance (4.2%), fire insurance (3.0%) and education plan (1.1%). In addition they also purchased credit insurance to protect the loan balances for personal loan (2.1%), vehicle loan (1.3%) and housing loan (0.4%). Upon the death of the policy owner for credit insurance, the insurance company will make full settlement of the loan balance. Contribution by only one insurance policy would most probably not affecting much on the financial security especially for those policies that have no surrender value.

There were 43.6 percent respondents that purchased either two or more insurance policies. This was distributed among automobile insurance (25.6%), health insurance (21.6%), life insurance (19.1%), fire insurance (11.9%) and education plan (6.8%). For credit insurance, they purchased insurance to protect the loan balances for personal loan (14.8%), housing loan (11.7%), credit card (4.2%), investment (3.0%), vehicle loan (2.1%), hire-purchase electrical item/furniture (1.3%) and education (0.8%). Though 29.7 percent bought properties, only 12.1 percent of them have an insurance covered for their housing loan balance and only 14.9 percent of them have fire insurance to cover the financial losses from burnt house. Various types of insurance policies protecting different type of asset or loan may assist in feeling more financially secured and can avoid huge financial losses. Hence, the allocation for daily expenses will still be intact.

Internal Locus of Control

Table 4 describes the internal locus of control of the selected public employees. The agreeness to the statements showed that the respondents were more internally in terms of locus control. Referring to the responses, all statements were agreed by more than three-quarter (minimum was 75.4%) of the respondents which means that majority of them were more inclined towards internal locus of control. Most of them agreed that they need to strive to implement their plan successfully and they need to be cautious in any activities if they want it to be successful.

Similarly, to be in good well-being, most of them agreed that they should take good care of their financial matters. Ability was presumed as not the main role for the success of an activity with only threequarter of the respondents agreeing on this however, it was mostly agreed as the factor that determines the opportunity to get good jobs. Thus, ability can enable an individual

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to get good jobs but not determining its success. In short, employees with more internal locus of control will most probably guaranteed a good outcome from their reactions such as be succesful and be in good well-being.

TABLE 4. DISTRIBUTION OF INTERNAL LOCUS OF CONTROL

Internal Locus of Control	Yes, n (%) (N = 472)
I can do all the activities that I have set.	331 (75.4)
When I plan, I will strive to implement it successfully.	438 (95.8)
My ability determines the opportunity to get good job.	372 (82.5)
For me, be cautious in any activities is the main factor for success.	429 (95.3)
My ability determines the success of an activity.	337 (76.2)
In the long-term, if I take care of my financial matters well, I will be in good well-being.	406 (89.8)
My hard work makes it possible to get what I want.	416 (91.2)

Financial Adequacy

The descriptive results for the selected public employees‟ financial adequacy are displayed in Table 5. More than two-third of the respondents reported that their income was not even enough for most needs and were not able to save. These were considered as financially inadequate. Specifically, majority of the respondents reported that their income were enough for basic needs only while only a small number of the respondents who responded that their income were not enough even for their basic needs.

Referring to the low income among majority of the respondents, this may be experienced by those with very low income and having large family. Furthermore, as not many make large regular savings, financially adequate employees was only slightly less than one third of the respondents. Those perceived that their income would be enough for most needs or would be enough not only for their needs, but also for their wants and were able to save is considered as financially adequate.

TABLE 5. DISTRIBUTION OF FINANCIAL ADEQUACY

Financial Adequacy	Yes, n (%) (N = 472)
Not enough for basic needs	46 (9.8)
Enough for basic needs	279 (59.5)
Enough for most needs	105 (22.4)
Enough for needs, wants and able to save	39 (8.3)

Associations between Socioeconomic Characteristics and Financial Adequacy

The associations between socioeconomic characteristics and financial adequacy of the respondents are shown in Table 6. Gender and income were found to be significantly associated with financial adequacy whereas age, marital status and family size were found to be not significantly associated with financial adequacy. In comparison based on gender for financial inadequacy, more male employees (74.0%) were found to be experiencing financial inadequacy as compared to female employees (59.5%). Contradictly, female (40.5%) was revealed to report themselves as financially adequate as compared to male employees (29.0%). Thus, more female employees were found to experience financial adequacy.
Employee earning a monthly income of at least RM2,500 ($890AUD) was also found to be significantly associated with financial adequacy. Among the financially adequate, there were more high salaried employees (52.4%) as compared to low salaried employees (23.1%). Whilst among the financially inadequate, there were more low earning employees (76.9%) as compared to high earning employees (46.6%). Hence, the financially adequate employees were among the high salaried.

TABLE 6. ASSOCIATIONS BETWEEN SOCIOECONOMIC CHARACTERISTICS AND FINANCIAL ADEQUACY

Socioeconomic Characteristics	Financial Adequacy Inadequate n (%)	Adequate n (%)	χ^2 (p)
Age (years)			
19 to 39	177 (72.2)	68 (27.8)	1.789 (0.181)
40 to 59	145 (66.5)	73 (33.5)	
Gender			
Male	228 (74.0)	80 (26.0)	10.329** (0.001)
Female	94 (59.5)	64 (40.5)	
Marital status			
Single	63 (77.8)	18 (22.2)	3.310 (0.069)
Married	262 (67.5)	126 (32.5)	
Family size (persons)			
1 to 4	99 (71.2)	40 (28.8)	0.345 (0.557)
5 to 13	226 (68.5)	104 (31.5)	
Monthly income			
< RM2,500 (AUS890)	259 (76.9)	78 (23.1)	36.581** (0.0001)
≥ RM2,500 (AUS890)	60 (47.6)	66 (52.4)	

* Significant at p ≤ 0.05
** Significant at p ≤ 0.01

Associations between Savings Ratio, Net-worth and Financial Adequacy

The significant associations between savings ratio and net-worth with financial adequacy are displayed in Table 7. Among the financially adequate employees, they make high savings out of their monthly income (46.8%) as compared to only less than one-third who saves less than 20 percent of income. In concurrent with this, among the financially inadequate employees, three-quarter of the employees saved less than 20 percent of income and only half of the respondents had a high savings ratio of more than 20 percent. Hence, those who were financially adequate were among those with high regular savings or in contrast, those who were financially inadequate were among those with low regular savings.

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Positive net-worth such that asset value is more than debt value was experienced by more financially adequate respondents (51.4%) as compared to financially inadequate (48.6%). On the other hand, zero and negative net-worths which are situations whereby debt value is equal or more than asset value, were found to be more among those financially inadequate (78.8%) as compared to those financially adequate (21.2%). Hence, from the result, net-worth and savings ratio were positively and significantly associated with financial adequacy. This result is comparable with the findings by Hansen, Slagsvold and Moum (2008) who found that property and financial assets had a positive association with financial satisfaction.

TABLE 7. ASSOCIATIONS BETWEEN SAVINGS RATIO, NET-WORTH AND FINANCIAL ADEQUACY

	Financial Adequacy		
	Inadequate n (%)	Adequate n (%)	χ^2 (p)
Savings per income ratio			
< 20%	249 (76.1)	78 (23.9)	24.371** (0.0001)
$\geq$ 20%	75 (53.2)	66 (46.8)	
Net-worth			
Asset $\leq$ Debt	253 (78.8)	68 (21.2)	43.329** (0.0001)
Asset > Debt	72 (48.6)	76 (51.4)	

** Significant at $p \leq 0.01$

Differences Based on Financial Adequacy

Table 8 displays the differences in mean scores based on two groups of financial adequacy for the continuous variables. For the financially adequate employees, it was revealed that they had apparently longer duration of formal education (mean = 12.2 years), gained more working experience (mean = 16.0 years) and purchased more insurance policies (mean = 2.0 policies) as compared to financially inadequate employees (mean = 10.7 years of education, 12.6 years of working experience and 1.5 policies). However, the differences in mean scores for financial risk management knowledge and internal locus of control were not obviously different. The mean scores for financially adequate employees were only slightly higher than the financially inadequate for both variables as in Table 8.

Using independent sample t-test, the significance of the differences in mean scores was identified. The results for education, working experience and number of insurance policy were highly significant while for financial risk management knowledge and internal locus control, they were significant at a confidence level of 90 percent. These reflected that those with higher education back-ground, more working experience and purchased more insurance policies were found to be significantly financially adequate as compared to those employees with lower education, less working experience or purchased less insurance policies. The results also showed that employees with higher knowledge in financial risk management and were more internally controlled were significantly financially adequate.

TABLE 8. DIFFERENCES BASED ON FINANCIAL ADEQUACY

	Financial Adequacy		
	Inadequate Mean	Adequate Mean	t (p)
Education (years)	10.7337	12.1816	-5.978** (0.0001)

Working experience (years)	12.63	16.01	-2.987** (0.003)
Financial risk management knowledge	9.0610	9.4495	-2.001* (0.046)
Internal locus control	5.9863	6.269	-2.342* (0.020)
Number of insurance policy	1.4831	2.0486	-3.858** (0.0001)

* Significant at $p \leq 0.05$
** Significant at $p \leq 0.01$

Vice-versa, employees having lower knowledge in financial risk management and less internally controlled were grouped into financially inadequate. It can be explained that highly educated employees have the advantage of securing good jobs with high income and may be able to purchase various insurance policies to protect against financial risks. Furthermore, with longer working experience, the income would be higher and they would be able to fulfill their financial needs, buy assets, make loan repayment and even saves more. Higher knowledge in financial risk management reflected that they understand the necessary financial management that would minimise financial losses which will later affect their financial well-being. Compared with past studies on general financial literacy, the result of this analysis is parallel to Joo and Grable (2004) and Tamimi and Kalli (2009) where financial literacy had a positive impact on financial wellbeing.

Predictors for Financial Adequacy

A binomial logistic regression was performed to determine the influential predictors for financial adequacy among Malaysian employees. The results proved that the financial adequacy model is a fit model with a significant Omnibus test ($\chi^2 = 85.405$; $p = 0.0001$) and a non-significant Hosmer and Lemeshow test ($\chi^2 = 4.911$; $p = 0.767$). Additionally, 40.0 percent (Nagelkerke R Square = 0.400) of the variance in financial adequacy can be explained by the model. In terms of classifying the outcome of financial adequacy, overall it can 77.8 percent correctly classify the outcome. The financially inadequate group can be correctly classified by 88.2 percent while the financially adequate group can be correctly classified by 56.6 percent.

The output of the logistic regression in Table 9 shows that socioeconomic characteristics namely education was the only socioeconomic characteristic found to be significantly predicting financial adequacy of the respondents. Higher education will more likely predict an individual to be 1.4 times (Exp(B) = 1.371) financially adequate as compared to financially inadequate. Meanwhile, the effect of gender, work experience and income of the respondents were not significant on financial adequacy. These are in contrast with the results from past research where gender (Mohamad Fazli *et al.* 2008), employment length (Mohamad Fazli *et al.* 2008) and income (Baek & DeVaney 2004; Husniyah *et al.* 2005; Johnson & Krueger 2006; Mohamad Fazli *et al.* 2008; Plagnol 2010) were found to be significantly affecting satisfaction with financial situation. Mohamad Fazli *et al.* (2008) found that female and higher income worker had higher financial satisfaction. However, the predicting ability by education was in line with past research (Joo & Grable 2004).

Financial-related variables namely financial risk management knowledge, savings ratio, net-worth and number of insurance policy were found to be positively and significantly predicting financial adequacy. Savings ratio was the most influential predictor followed by number of insurance policy and net-worth based on the expected(B). Financial risk management knowledge was the least influential predictor for financial adequacy and even being less influential as compared to education. Savings ratio predicts an employee to be more likely financially adequate 4.8 times (Exp(B) = 4.833) than financially inadequate. By making savings, an employee experience financial adequacy almost five times more than not experiencing financial adequacy. This is in line with a study by Hansen, Slagsvold and Moum

(2008) who regressed savings and debt with financial satisfaction and found that property and financial assets had a positive association with financial satisfaction.
In comparison, the likelihood for number of insurance policy in predicting financial adequacy was less than for savings ratio with only 4.1 times. Sumarwan and Hira (1992) supported the result on the effect of number of insurance type on financial satisfaction. Net-worth was slightly less in predicting the outcome with only 3.9 times (Exp(B) = 3.886) more likely to predict financial adequacy as compared to financial inadequacy. Significant predictor by net-worth is concurrent with past research by Joo and Grable (2004), and Headey and Wooden (2004).

TABLE 9: BINOMIAL LOGISTIC REGRESSION FOR FINANCIAL ADEQUACY

	B	S.E.	Wald	Sig.	Exp(B)
Gender (male)	-0.631	0.338	3.484	0.062	0.532
Education (years)	0.316	0.089	12.537**	0.000	1.371
Work experience (years)	0.818	0.485	2.844	0.092	2.266
Monthly income (≥RM2,500; $890AUD)	0.086	0.410	0.044	0.834	1.090
Financial risk management knowledge	0.201	0.096	4.343*	0.037	1.223
Savings/income (≥ 20%)	1.576	0.360	19.121**	0.000	4.833
Net-worth (asset > debt)	1.357	0.352	14.859**	0.000	3.886
Number of insurance policy	1.404	0.636	4.867*	0.027	4.069
Internal locus of control	0.118	0.128	0.859	0.354	1.126
Constant	-9.000	1.864	23.305	0.000	0.000

Reference group: gender = male, income = ≥ RM2,500; savings ratio = ≥ 20%; net-worth = asset > debt * Significant at $p \leq 0.05$
** Significant at $p \leq 0.01$

Financial risk management knowledge was merely 1.2 times (Exp(B) = 1.223) in predicting financial adequacy or only 20 percent more likely to predict the outcome of financial satisfaction. Past research on financial risk management knowledge affecting financial satisfaction was not available. However when compared with the general financial knowledge, it is parallel to a study by Joo and Grable (2004) who found that financial knowledge was significantly influencing financial satisfaction and a study by Tamimi and Kalli (2009) who concluded that financial literacy had a positive impact on financial wellbeing.
The analysis also revealed that internal locus control was found to be not significantly predicting financial adequacy. The result is not concurrent with past studies by Sumarwan and Hira (1993), and Zurlo (2009), but it is in line with a study using economic locus of control which was not found to be a significant predictor of credit card debt in a college student sample by Kennedy and Wated (2011). However the analysis of difference in Table 8 shows a higher mean score (mean = 6.3) for internal locus of control among financially adequate employees as compared to financially inadequate (mean = 6.0) employees. Individual with more internal locus of control should have been able to control themselves in following plans related to financial matters.
Hence, apart from education, logistic regression was able to identify savings per income ratio, number of insurance policy, net-worth and financial risk management knowledge to be significant predictors predicting the probability of the repondents‟ financial adequacy. A minimum savings per income ratio of 20 percent, a high number of insurance policies

purchased, a positive net-worth together with high knowledge in financial risk management among the employees would more likely predict the individual to be financially adequate as compared to inadequate. Savings ratio was revealed as the most influential predictors for financial adequacy.

CONCLUSION AND IMPLICATION

The study found that financially adequate employees were among highly educated, regular high savers, high involvement in insurance, positive networth and knowledgeable in financial risk management. Financial adequacy was found from past research (Joo 1998) to be associated with better job performance as showed by higher performance ratings, less absenteeism and less work time loss. Meanwhile, facing financial problems was stated as the second most important source of employee stress (Cash 1996). Hence, involved in more financial problems would result in low job productivity. In addition, this may affect on potential turnover of workers. In conjuction to this, there is a need for employer to make intervention program for their employees to reduce financial strain or financial problem. The results then suggests for a financial education at the work-place to educate the employees on the need to increase savings, purchased various insurance policies and having a positive net-worth to increase employees‟ financial well-being for the sake of the organization‟s success. Financial education is able to reduce absences in organization and keeping valuable employees (Champoin 2001) since high financial literacy decreases emotional stress and anxiety in the workplace (Kim 2007). Organisations will be able to strengthen their human resource management and promote the private and work life of their employees by increasing their employee‟s knowledge in the personal finance. This will assists in increasing the efficiency of the organisation.

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