

Effects of Financial Wellness on the Relationship Between Financial Problem and Workplace Productivity

¹Narges Delafrooz, ²Laily Hj Paim, ³Mohd Fazli Sabri and ⁴Jariah Masud

¹ Department of Resource Management and Consumer Studies,
Faculty of Human Ecology, Universiti Putra Malaysia, Malaysia

² Faculty of Human Ecology, University Putra Malaysia

³ Institute Gerontology, Universiti Putra Malaysia, Malaysia

⁴ Graduate Student, Department of Human Development and Family Studies,
College of Human Sciences, Iowa State, US University

Abstract: This study explored the relationship between financial problems and productivity of employees and the mediation effect of financial well-being. The financial problems studied include financial behavior and financial stress. Data were collected from a sample of 2000 employees of public and private sectors in Malaysia. The results of structural equation modeling showed that the hypothesized model fit the data very well. In this model, financial wellness has a full mediation role in the relationship between financial stress and job productivity. This study confirmed that financial stress and financial wellness would affect job productivity but financial behavior has no significant effect ($\geq \pm 1.96$, $p < .05$) on the job productivity. Hence, financial behavior also had indirect effect on job productivity. Further, this study confirmed that the financial behavior and financial stress would have an effect on the financial wellness.

Key word: Financial wellness • Financial problem • Workplace productivity

INTRODUCTION

An increase in the cost of living without an increase in income requires consumers to manage their financial resources effectively. Unplanned spending may lead to financial problems and financial distress that can influence outcome. As previous research found that a worker's life financial problems may affect job productivity [1]. The declining financial health of employees has serious bottom-line implications for employers. Employees who do not manage their personal finances typically are less productive [2].

Financial problems are not just the concerns of the poor. Today the declining employment opportunities, income instability and eroded purchasing power of Malaysian households are important issues faced by families, policy makers and educators [1]. As stated by Prawitz and Garman [3], millions 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. Besides, inflation reduces home values, and retirement savings balances. Therefore in the following years, financial concern of households continues. Consumer debt is increasing faster than inflation. Studies of the general population indicated that those with debt problems often report that their health is influenced by financial problems [4, 5, 6, 7].

Consumer financing has expanded considerably from 2000 onwards; the average annual growth rate for the period of 2001 to 2007 was 14.8% [8]. After six years of rapid growth, household debt grew at the more moderate pace of 7.9% in 2007 [8]. As at the end of 2007, household credit accounted for 56% of the total outstanding bank loans [8, 9]. Studies proved that there was a relationship between workers' problems and workplace productivity. As stated by Garman *et al.* [9], the main causes of employee financial problems are overuse of credit, over spending, lack of budgeting, too many debts, lack of shopping and spending skills, low salary and lack of knowledge about money. According to Joo and Garman [10], employee financial problems are one of the four major

problems in the workplace. As mentioned by Masemola [11], prevailing financial problems in employees' life do not only lead to performance problems but also cause many other personal problems such as marital problems, family problems, drug abuse, and divorce. Moreover workers with financial problems and challenges cannot save, or cannot save enough for retirement. The emphasis on financial education today is still on saving and investing for retirement. However, smart employers are taking a more comprehensive approach to introduce financial education at the workplace. Thus, the main focus of this study is to explore the impact of financial problems on productivity of employees and the mediation effect of financial wellness among the private and public sectors in Malaysia.

LITERATURE REVIEW

Many employees are not making smart financial decisions which affect their financial wellness, and affect employers' profitability. This study identifies the factors contributing to financial problem including financial stress and poor financial behavior. Personal financial problems are frequently cited in the literature as a cause of workplace troubles. Employee financial problems and challenges are expensive for employers in part, because less attention is given on the work due to being too focused on financial concerns reduces job productivity. For example, at the U.S. Department of Defense the estimated loss is \$1 billion annually [12]. Employees who are not financially well cause expensive productivity costs for their employers [13].

One of the reasons of personal financial problems is financial stress. As mentioned by Joo and Garman [10], financial problems cause stress and crisis. They revealed the significant relationship between financial problems and financial stress. Employers are affected by their employees' poor spending decisions and financial behaviors, for the outcomes are manifested as financial stress [14]. Financial stress has been explained as the negative feeling about and reactions to one's own financial situation. Such financial stress matters are contributing to irritability, anger, fatigue, and sickness for over 52% of Americans. According to Bailey *et al.* [15], they indicated that the financial stress level is negatively related to financial wellness. For example, in a study among health care professionals [15], it was revealed that financial stress explained 30% of the variance in participant financial wellness scores. Prior studies indicated that financial stress affect the overall personal satisfaction as well as work satisfaction [16, 17].

A number of studies have examined relationships between financial stress and workplace outcomes. Financial stress was found to contribute in the increase of personal finance-work conflict; a situation described as personal financial issues interfering with one's job [7]. Examples of personal financial-work conflict include arriving at work on time and completing daily tasks. Clearly, such occurrences can decrease job productivity, a condition of special interest to employers.

Researchers have examined the relationships among financial behaviors, financial stress, and health [4, 5, 18, 19, 20]. Financial stress has been defined as one's feelings about and reactions to one's personal financial condition [3]. Bagwell and Kim [4] indicated that employees with more financial stress were absent from workplace more often. Kim and Garman [21] found that financial stress had a direct effect on absenteeism, with those experiencing more financial stress also reported that they were absent from work more often. Obviously, employees who are absent from the workplace are not able to contribute productively to the organization during the time they are absent. Changes in financial behaviors influence the level of financial stress for consumers. In 2006, O'Neill *et al.* [20] determined that a decrease in negative financial events (e.g., delay paying bills, receiving calls from creditors) resulted, in lower financial stress.

The second reason for personal financial problems is poor financial behavior. Previous research studied the relationship between financial problems and workplace productivity [13]. It is often accompanied with personal financial problems. Poor financial behavior is referred to personal and family money management practices that have consequential, detrimental and negative impacts on one's life at home and/or work [13]. Financial problem can damage the workplace morale and diminish productivity. Employees with money problem are cost to the employers. Employees who fail to manage their personal finances create financial concerns to employers as well as workers [10]. With financial education, absentee problems can be solved and employees will focus more in doing their work.

Financial wellness can be conceptualized as a level of financial health. It includes satisfaction with material and non-material aspects of one's financial situation, perception (or subjective assessment) of financial stability including adequacy of financial resources, and the objective amount of material and non-material financial resources that each individual possesses. Financial wellness affects absenteeism and work time used for personal financial matters. Because financial behaviors of workers were related to absenteeism and work time

used for personal financial matters, behavior change in a positive direction, perhaps stimulated by workplace financial education, may leads to lowered absenteeism and a reduction in work time used for personal matters.

Productivity has been categorized as an organizational consequence. It is influenced by determinants, financial stress, financial wellness and financial behavior. In this study job productivity can be measured by frequency of absences and work time lost [21].

Based on the above Arguments, We Set the Following Three Hypotheses:

- H₁:** (a) Financial stress and (b) financial behavior will affect financial wellness.
- H₂:** (a) Financial stress and (b) financial behavior will affect job productivity.
- H₃:** Financial wellness has a mediation role on the relationship between (a) financial stress and (b) financial behavior and job productivity.

Methodology: Samples of the study comprise of employees in public and private sectors which directly deal with customers and clients (service provider). According to Labor Force Survey Report, they were 9,986,600 employed people in year 2005, which consist 12.1% technicians and professional workers, followed by clerical workers (9.3%) and service workers (14.8%). A total of 2000 employed people were selected as the sample of this study. Samples were selected using multi-stage sampling technique. For the public sector, a total of 10 government departments at the state level under various ministries were selected randomly for this study. For the private sector, the samples were selected from the list provided by Malaysia Employer Federation (MEF). A total of 10 agencies from each state were selected to participate and 10 workers (employees) from each agency were invited to participate in this study. The criteria for the respondents include employees in mid level categories and age below 40 years old Samples were invited to participate in a day workshop on the pre-determined date. The data were collected using a set of questionnaire

distributed during the workshop. A workshop was held in each state which involves 100 employees from the public and 100 employees from the private sector. A set of questionnaires were distributed to the employees at the beginning of the workshop. The workshop held is on financial wellness. The workshop was conducted by the team member of the research.

The instruments for the study was adopted from instruments developed by Joo and Garman [10]. Data were coded and analyzed using SPSS. This study used data obtained from a random sample of white-collar clerical workers (N = 2000). A total of 2000 questionnaires were analyzed using path analysis method to identify direct, as well as indirect, effects on financial wellness.

Analysis: Two types of analysis, i.e., descriptive analysis and inferential analysis were used in this study. Descriptive statistics such as means, standard deviations, frequency, percentage, reliability coefficients, zero-order correlations and ranges were computed for all the items in th questionnaire. SPSS was used to run the frequency distribution and correlation matrix. The reliability of the questionnaire and internal consistency of the data will be measured by calculating Cronbach alpha for each scale.

Structural equation modeling (SEM) is a state-of-the-art and powerful statistic model [22] to assess direct and indirect relationships among variables. Then Amos 16.0 was used to perform these analyses and show a series of symbolic structural equation. Structural equation models integrate a measurement model and a structural model [22].

RESULTS

Description of Study Variables: Table 1 shows the means, standard deviations, and Cronbach alpha values of the variables in the model and provides correlation coefficients between these variables. The Cronbach's alpha value for each construct were all greater than 0.6, which means the adaptation of the measurement for the constructs were appropriate. Cronbach's alpha values for job productivity, financial well-being, financial behavior, and financial stress were determined 0.89, 0.92, 0.75, and

Table 1: Means, Standard Deviations, Reliability and Correlations

Variable	M	SD	Job productivity	Financial Wellness	Financial stress	Financial behavior
Job productivity	14.85	4.78	.89			
Financial Wellness	73.72	16.46	.398**	.92		
Financial stress	11.79	3.19	-.508**	-.557**	.75	
Financial behavior	16.76	3.59	.138	.317**	-.115**	.75

Note: N=2000 **. Correlation is significant at the 0.01 level; *. Correlation is significant at the 0.05 level; Cronbach alpha reliabilities are shown in bold

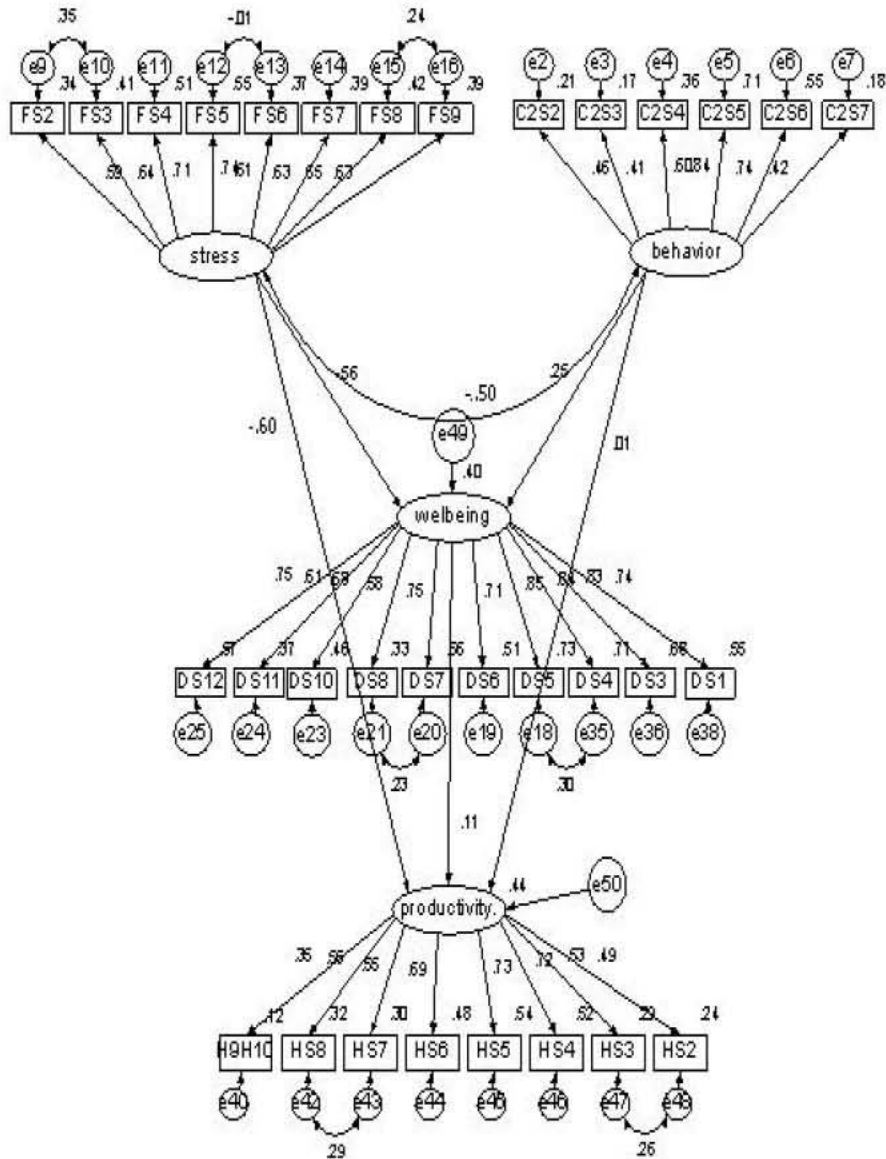


Fig. 1: Full Structural Model

0.75 respectively. Also the result of the bivariate correlation analyses show that all correlation coefficient are significant at $\alpha = 0.05$.

Confirmatory Factor Analysis (CFA): Before evaluating the fit of the path model (Figure 1), it was necessary to define a measurement model to verify that the measurement items written to reflect the 4 unobserved constructs (financial behavior, financial stress, financial wellness and job productivity) do so in a reliable manner. The overall fit of the measurement model was determined by a CFA. CFA was carried out to determine the degree of model fit, the explained variances and standardized

residual for the measurement variables and the adequacy of the factor loading. After CFA it was confirmed that financial wellness has two factors and job productivity has three factors. Also based on the results of the CFA for each latent variable, items that have low factor loadings were dropped.

Full Structure Model: Structural Equation Models (SEM) are usually used in model evaluation situations, such as alternative models, model generating and strictly confirmatory [23]. This section demonstrates a path analysis with latent constructs to investigate

Table 2: Parameters of the Models

Model	CMIN	DF	P	CMIN/DF	RMSEA	CFI	IFI	TLI
Mediation	1664.098	451	.000	3.690	.052	.913	.914	.905
Indirect	1857.025	453	.000	4.099	.056	.900	.900	.890

Table 3: Nested Model Comparisons (Assuming Mediation model to be correct)

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
Indirect Model	2	192.927	.000	.013	.014	.014	.015

the mediation, direct and indirect structural relationship between variables. This model assesses the relationship between 3 predictor variables, (1) financial behavior, (2) financial stress, (3) financial wellness and the dependent variable of job productivity (Figure 1). The model hypothesizes that the determinants of job productivity can be fully understood by taking into account these direct and indirect effects and being mediated by financial wellness as well. The 32 items written are to represent the four factors of financial behavior, financial stress, financial wellness and job productivity. These items were presented after examination of the modification in the confirmatory factor analysis.

The Mediation Path Model vs the Indirect Path Model:

After the modified measurement model has been confirmed, the fit of the structural path model can be evaluated [24]. The factor structure confirmed in the measurement model is used as the foundation for the path model. The posited model presented in Figure 1 contains two models (1) the mediation model, which incorporates all identified path linking the two factors and (2) the indirect model, in which the two direct paths linking financial behavior and financial stress to job productivity are not estimated. As both these models are nested and possessed in different degrees of freedom, their goodness-of-fit are directly compared via multi model analysis. Table 2 presents the chi-square goodness-of-fit statistics, baseline comparisons fit indices and model comparison statistics for the mediation and indirect path models. Although the chi-square values for both path model are statistically significant, the baseline comparison fit indices of IFI, TLI and CFI for both models are closed to or above 0.90 (range 0.890-0.914). Then these values show the improvement in fit of both models relative to the null model [24].

The root mean square error of approximation (RMSEA) fit index for mediation and indirect path models of 0.052 and 0.056 respectively. Values ranging from 0.05 to 0.08 are deemed acceptable [24]. Thus, the RMSEA

values for the mediation and indirect path models suggest that the fit of these two models is adequate.

As shown in Table 2 both models fitted the data well and according to the Nested Model Comparisons (Table 3), although both models fitted the data relatively well, the mediation model represents a significantly better fit than the indirect model. The mediation model was preferred because it was proved to be the superior model.

The unidirectional arrows pointing to the latent factors of financial wellness and job productivity (Figure 1) represent unexplained (residual) variance for these two factors. According to the squared multiple correlations for this hypothesized model, 60% of the variation in financial wellness is unexplained; alternatively, 40% of the variance is accounted for by the joint of the financial stress and financial behavior predictors. Similarly, 56% of the variation in the job productivity is unexplained; alternatively, 44% of the variance is accounted by the joint influences of the predictors of financial stress, financial behavior and financial wellness.

Testing Hypothesis: The hypothesized research model was tested with maximum likelihood estimation. The regression weights of the mediation, indirect and direct Model is presented in Table 4.

Since the mediation model was to be preferred, the path coefficients in this model indicate that financial behavior is positively linked to financial wellness and only financial stress is negatively linked to and financial wellness and job productivity. These results provide support for H_{1a} , H_{1b} and H_{2a} .

The results of the mediation effect can be interpreted as follow. In mediation model financial stress and financial behavior have a significant relationship with financial wellness ($\beta=-0.56$ and $\beta=0.24$, respectively) and financial wellness has a significant relationship with job productivity ($\beta=0.11$). Then financial stress and financial behavior are related indirectly to the job productivity, being mediated by financial wellness.

Table 4: Regression Weights in the Models

DV		IV	MediationModel	IndirectModel	DirectModel
Wellness	<---	Financial stress	-.561***	-.577***	
Wellness	<---	Financial behavior	.245***	.242***	
Productivity	<---	Wellness	.109*	.478***	
Productivity	<---	Financial stress	-.596***		.561***
productivity	<---	Financial behavior	.009	.	.245

Notes: *P < 0.05; **P < 0.01, ***P < .001

Table 5: Standardized Effects in mediation Model

Effects		Financial Stress	Financialbehavior	Financial Wellness
Direct	Job productivity	-.596	.009	.109
Indirect	Job productivity	-.240	.165	.000
Total	Job productivity	-.836	.174	.109

According Mathieu and Taylor [25], in the relationship X, M and Y, “a hypothesis of full mediation is predicted on a significant total X and Y relationship” (p. 1041). Since in direct model financial stress has a significant relationship with job productivity ($\beta = 0.56$), we can have a hypothesis of full mediation role for financial wellness in our research. As shown in Table 5, financial wellness has all the condition for full mediation role in the relationship between financial stress and job productivity. Taken together, the results from these steps indicate full mediation and therefore, H_3 is supported for financial stress but not for financial behavior. Then we can report the direct, indirect and total effects of financial stress and financial behavior and financial wellness on job productivity in mediation model (Table 5).

In sum, the study findings indicate that financial wellness fully mediates the effects of financial stress on job productivity and financial stress influences job productivity.

DISCUSSION AND CONCLUSION

This study confirmed that financial stress and financial wellness would effect job productivity but financial behavior has no significant effect ($> \pm 1.96$, $p < .05$) on the job productivity. Hence, financial behavior also had indirect effect on job productivity. Further, this study confirmed that the financial behavior and financial stress would have an effect on the financial wellness.

As argued by Kim *et al.* [7]. Financial stress was found to contribute to increased personal finance-work conflict; a situation described as personal financial issues interfering with one's job. Obviously, employees who dealing with financial concerns during working hours is not able to contribute productively to the organization during the time they are not present. It was determined

that those who experienced higher levels of self-reported financial stress tend to be less satisfied with their personal financial situation as compared to others. Financial stress was also shown to have a negative indirect effect on financial wellness. Therefore this study found strong evidence that a reduction in financial stress results in a better financial wellness for employees. This was interpreted to mean that the more financially stressful events experienced by a respondent, the lower the financial wellness level.

This study does not confirm that financial wellness would have a mediating effect on financial behavior and job productivity. Specifically, individuals who exhibit better financial behaviors don't tend to have higher level of financial wellness, and therefore, higher level of job productivity. Thus, it is reasonable to assume that financial education directed at improving financial behaviors will have a significant and positive impact on financial wellness and increase job productivity. Financial education is the best method available to be used by researchers, practitioners, educators, and policy makers when taking intervening steps to improve the financial satisfaction, and overall consumer wellness, of individuals and families [26, 27, 28].

In addition, Garman *et al.* [13] illustrated in their empirical research that poor financial behavior have consequential, detrimental and negative impacts on one's life at home and/or work. Financial problem can damage workplace morale and diminish productivity. Employees with financial problem cost employers. When employees have failed to manage their personal finances, it creates financial concerns for employers as well as for workers [10]. In 2006, O'Neill *et al.* [20] determined that a decrease in negative financial events (e.g., paying bills late, receiving calls from creditors) resulted, in lower financial stress.

Extensive research on broader population and different workplace is needed to generalize the results of this study. Findings from this research have important implications with respect to the need for workplace financial education. Further research could focus on the components of financial literacy and determine which are the most and least critical aspects for financial success and sustainability.

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