

Financial Stress Predictors for Civil Service Sector Employees

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Abstract

The service provided for the public may be affected by financial stress employees. This study aims at identifying financial stress predictors among 470 Malaysian civil servants via a multi-stage random sampling through a cross-sectional survey. Financial problem was revealed to be the most influencing on financial stress followed by financial adequacy and work-life balance. Investment and health status also contribute to financial stress. The results will assist employers to develop financial education or coping with stress programs in enhancing the quality of services. Time can thus be used efficiently and productively by both parties enabling the growth in the economy.

Keywords - Financial adequacy, financial problem, financial stress, investment, work-life balance

Introduction

Service sector employees' functions are crucial in determining the performance of an organization. As a developing country, Malaysia is advancing towards a higher economic growth to achieve high-income status by 2020 and inclusive nation (Malaysian Productivity Corporation, 2018). In preparing itself for the Fourth Industrial Revolution, Malaysia has increased its investment in the previous two years in 2016 and 2017. The services sector registered a high productivity growth of 5.0% surpassing the 11th Malaysian Plan target of 4.1% growth and also has the largest contribution to total GDP at 54.5%. Improving the service sector by focusing on the productivity of employees has always been the target for Malaysia. Furthermore, the Public Complaints Bureau also has a target to reduce complaint on the civil service sector. The move towards achieving a high-income nation in 2020 will promise the ability to reduce the development gap with other newly industrialized economies such as South Korea (Economic Review, 2010). As retrenchment is not possible for the low-performance employees due to the permanent status of employment of the civil service sector employees, it is important to ensure the workers to display high performance. Thus any factors that may contribute to lowering the performance of workers should be identified and given critical attention.

Problem Statement

The concerned issue among employees is regarding financially stressful employees which can hinder them from delivering a good quality of service. This may, in turn, affect the service they provided for the public and the reputation of the government service sector. Due to the growing burden of consumptions, stress originating from financial difficulties is worth exploring. International Foundation of Employee Benefit Plans (2016) reported that responses from organizations in the U.S.A. and Canada revealed workers were struggling and stressed over their financial matters such as on debt (66%), retirement's saving (60%), financing children's education (51%), living expenses (48%) and medical expenses (36%). The stress over these financial issues may spill-out on their work causing low job productivity. Financially stress employees may experience low motivation in their work and will divert their attention from work. The effect on employee productivity due to this was revealed in an earlier study by Joo (1998). Measured by absenteeism and work time use, productivity was found to be significantly influenced by financial wellness. The state of financially unwell would more likely cause employees to use work time in settling personal financial matters and losing job productivity. This is a cost for employers especially for civil services as salary is not a function of productivity.

An increment in the average monthly income of Malaysian households to RM5,228 in 2016 as in the report of the Household Income and Basic Amenities Survey in 2016 from RM4,585 in 2014 have an annual growth rate of 6.6 per cent (Department of Statistics Malaysia, 2017). Despite the income increment, households are shown to experience low financial well-being and are in high debt. The latest data of mean monthly household consumption expenditure for Malaysia which is RM4,033 in 2016 is escalating from RM3,578 in 2014 as reported in the Household Expenditure Survey (Department of Statistic, 2016). This is an increase of 6.0 per cent per annum in household expenditure at the national level and is close to the rate of income which is 6.6 per cent. Whilst the inflation rate was 3.14 in the year 2014 and reaching up to 3.8 in the year 2017. This reflects that the cost of living is at the rise during that time and the increase in income is not contributing much to the wealth of households. With this scenario, the financial well-being of households is at stake. As such, their expenditure for basic needs may increase and will jeopardize the expenses for other commitment such as loan or credit, utility, medical

and others, leading to a stressful situation. Default payment of the loans, for example, may arise due to the unmanageable finances among the households. This may to the extent of being declared as a bankrupt. A total of 3.72 per cent bankruptcies were among civil service employees as compared to the total bankruptcy from 2012 to 2016 (Malaysian Department of Insolvency, 2016). In general, a total of 4,875 consumers were declared bankrupt due to credit card debt equivalent to 4.18 per cent out of the total bankrupt from 2007 to 2013 (Malaysian Department of Insolvency, 2014). These statistics proved the existence of a high level of indebtedness among civil service employees which may develop financial stress. Though the bankrupt proportion of civil service employees is small, employers should give high attention to matters regarding the financial stability of employees as it will be a long term impact, especially on job productivity. Financial stress which may be understood as the inability to meet individual's financial obligations (Northern et al., 2010) was found to be among the determinants for individual financial well-being (Delafrooz & Paim, 2011; Mokhtar & Husniyah, 2017). Halkos and Bousinakis (2010) found that increased stress and reduced satisfaction of employee leads to reduced productivity. Where workers' personal lives interfere with work, this implies a negative effect on productivity. High management cost for organizations may be incurred in the long run by ignoring the factors that contribute to better job performance.

Hence, this study aims at identifying predictors of financial stress among employees in the civil service sector. The focus on the service sector is due to its main contribution to Malaysia gross domestic product (GDP). Services dominated the diversified economy of Malaysia (55% contribution on the GDP) as compared to manufacturing (25%) followed by other sectors such as mining (8%) and agriculture (7%) (IMF, 2015). Civil servants are chosen as they are involved in delivering services to the public. This is due to the intention of this study in understanding the financial stress that may impact the delivery of services. The study is in line with the 11th Malaysian Plan that is to transform public service for productivity where the government outlined a focus area on enhancing service delivery to the citizens. This paper is organized by having a review of relevant past studies following the introduction section. Then there are the description of the research methodology, the presentation of results and the conclusion of the study.

Literature Review

Financial stress is perceived to be among the most important sources of psychosocial stress as daily lives interface with personal financial resources and managing the resources (Peirce, Frone, Russel, & Cooper, 1996). This is in line with Bailey, Woodiel, Turner, and Young (1998) who stated that financial stress scores score predicted almost 50 per cent of the total stress scores. Most of the workers in the USA reported that they are stressed over their financial situation. Furthermore, half of them stated that their stress levels are reaching moderate levels and this is an increase from the previous year (Raleigh, 2016). In identifying coping behaviour, Brougham et al. (2009) examining various stress sources consisting of financial, academics, social, family and daily hassles, revealed that college women were more likely to report financial stress than college men. Anticipated debt also shows as a strong contributor of financial stress among medical students (Morra, Regehr, & Ginsburg, 2008). Also, Archuleta, Dale, and Spann (2013) concluded that higher levels of financial satisfaction have negative relationships with financial anxiety among college students.

Financial stress can also be seen as a part of financial mental health. Thus, studies on financial mental health are associated with stress and financial stress. The income of worker has been found to highly associated with mental health problems (Sareen, Afifi, & McMillan, 2011). Due to the different tasks in the family, it has also been suggested that women's health is influenced more than men's health by the family situation (Patton & Johns, 2007). Sick leave has been associated with the greater responsibilities women play in the family and illness was found to increase after the second child is born in Sweden (Angelov, Johansson, & Lindahl, 2013). Considering Sweden as one of the most gender equality countries in the world (Hausmann, Tyson, & Zahidi, 2013) however, the gender equality scenario is not displayed in the family. The gender roles reported among women related to "concern for others" and "workload" was more strongly than men. Whilst the roles reported among women related to "capacity" and "money" was less strong than men. These differences are likely due to gender stereotyping and responsibilities. Women are more likely than men to report that stress impact strongly on health (National Institutes of Mental Health, 2009). As financial stress is related to stress, these situations might reflect the high financial stress among women. Also, past studies found that college women are significantly and more likely to report high financial

stress (Brougham, Zail, Mendoza, and Miller, 2009; Heckman, Lim, & Montalto, 2014).

Sources of stress among college students are often due to financial difficulties (Northern, O'Brien, & Goetz, 2010; Ross, Niebling, & Heckert, 1999). Furthermore, a non-profit financial education advocate revealed that personal finance problems are among the top five stressors of college students in the study (Trombitas, 2012). As for low financial well-being which is reflected by financial problems, it was concluded as an important source of stress among employees (Cash, 1996). Williams et al. (1996) contended that financial problems and productivity were negatively and directly related. Increasing financial problems faced by individuals would lead to low job productivity and there is an indirect effect of personal finance on the turnover of employees. Employees were experiencing financial stress that gave an impact on their productivity. These statistics were supported by past studies revealing the positive relationships between personal and household debt with financial stress (French & McKillop, 2017; Sweet, Nandi, Adam, & McDade, 2013; Worthington, 2006). A study has identified financial stressors to contribute highly to the reporting of financial stress. Most of the students who are unable to participate in the same activities as their friends due to insufficient monetary resources would report a feeling of financial stress. Insufficient monetary resources had been concluded as the highest positive effect on financial stress (Heckman, Lim, & Montalto, 2014).

Work-life balance is the balanced combination between different aspects of life with the concept of both the work-life and the personal life compliments each other (Abendroth & Dulk, 2011). Similarly, Daipura and Kakar (2013) defined work-life balance as the state of achieving a balance between work and life requiring pleasant feelings with both commitments. Nevertheless, a majority of work-life studies have defined work-life balance as work-life conflict faced by individuals (Carlson, Grzywacz, & Zivnuska, 2009). Australians employees in a cross-sectional survey showed significant relationships between job demands such as work-family conflict apart from resources (leadership and social support), burnout, work engagement and presenteeism (McGregor, Magee, Caputi, & Iverson, 2016). Higher job demands (work-family conflict) and lower job resources are found to be indirectly associated with job performance through increased burnout. Due to competitiveness and globalization, organizations have considered work-life balance (Ghalawat and Sukhija, 2012) while McShane and Glinov (2010) found work-life balance affecting

the conflicts between workplace and non-work activities of employees. According to a study by Wrosch, Heckhausen, and Lachman (2000), health contributes to stress in older individuals and financial stress being experienced often by young adults and middle-aged. Health is related to job productivity in such a way that unhealthy employees would result in lowered job productivity.

Methodology

A cross-sectional design was employed to obtain information regarding factors and socioeconomic characteristics using survey method. The study was focused on civil service sector employees working in Malaysia to reveal the financial stress level among service sector employees. The population of the civil service is 1.4 million employed in 28 schemes of Malaysian service under the Public Services Department including the federal public service, joint public services, state public services, education service, police, armed forces, judiciary, and legal service. As suggested by Dillman (2007) at the 95 per cent confidence level and margin error of ± 5 per cent, a sample of 384 is adequate for this population however a higher number is decided that is 500 respondents. Utilizing a multi-stage random sampling, in the first stage, five states were randomly selected from five zones in Malaysia targeting a total of 100 respondents in each state. Based on a list of the departments from the government agency websites, service sector departments were selected at the second stage of random sampling. Assisted by liaison officers from the selected departments, respondents were chosen from a list of employee names and their consents were sought before distributing the questionnaires.

A pilot study on 30 samples was conducted before distributing the questionnaires to ensure face validity and reliability of the instruments. Apart from the reliability tests, the measurements of each variable were validated for content validities. Content validity was assessed through reviews of items from past studies. Published research was referred to in obtaining established measurements for the variables and to ascertain content validities. Information on socioeconomic characteristics, financial stress, and factors such as health, financial factors like a financial problem, financial adequacy, savings and investment, and job-related factor that was work-life balance were collected using the questionnaire form. Adapting items from Patel, Kruger, Cupal, and Zimmerman (2016), and Delafrooz and Laily

(2013) for financial stress having six statements with five scales from never to most often resulted in high reliability of 0.899.

The financial problem scale consists of five statements of financial problems with a reliability of 0.869 which was adapted from Fitzsimmons, Hira, Bauer, and Hafstrom (1993). Financial adequacy is a categorical variable with four responses which had been regrouped into two groups. The high group of financial adequacy is those that can save while the low group consists of those that can spend on wants apart from the necessities and those that have not enough money to spend for necessities. The scale by Netemeyer, Boles, and McMurrian (1996) was used for work-life balance having nine items with five scales from strongly disagree to strongly agree to result in high reliability of 0.829 for this adopted scale. Savings construct had an alpha of 0.852 with four items while investment items had high reliability of 0.833 having four items where both were adapted from Hilgert and Hogarth (2003). Health condition was measured with four items which required a response to a five-scale question regarding the extent of their feeling related to body pain in the last 4 weeks. Higher scores reflect better health condition. Distributions of the data for the continuous variables were confirmed to be normal through EDA, thus assumptions for parametric analysis specifically for the use of multiple regression were fulfilled.

Results and Discussion

Profile of Respondents

Table 1 displays the profile of respondents which shows the background information of the employees in the civil service sector in this study. More than half of the respondents (60.2%) were female and about three quarter were Malay ethnicity (82.1%) and being single (71.3%). In terms of the education level, there are about the same proportion of non-graduate and graduates among these employees. Slightly more than two-thirds of them (68.8%) were young workers with half (49.2%) of them had been working for less than 10 years. Though there may be quite some non-Malays in the civil service sector, as random sampling was imposed for the study where respondents were selected based on the lists of employees in each of the selected department, this may result in the possibility of selecting a majority of Malay civil servants.

Table 1: Profile of Respondents

	Background of Respondent	n (%) (n = 470)
Gender	Male	187 (39.8)
	Female	283 (60.2)
Race	Malay	386 (82.1)
	Chinese/Indian/Bumiputra	84 (7.9)
	Sabah, Sarawak	
Marital Status	Single	335 (71.3)
	Married	117 (24.9)
Education	Non-graduate	236 (50.2)
	Graduate	234 (49.8)
Age (year)	21 - 40	319 (68.8)
	41 - 60	145 (31.2)
Work Tenure (year)	≤ 10	216 (49.2)
	11 - 20	133 (30.3)
	≥ 20	90 (20.5)
Respondent's Income	< RM750	33 (7.2)
	RM750 - < RM3,000	246 (57.8)
	RM3,000 - < RM6,000	147 (32.2)
	RM6,000 - < RM12,000	31 (6.8)

In terms of respondent's income, those earning less than RM3,000 a month was 65.0 per cent of the respondents while those earning more than RM3,000 a month were only one-third of them (35.0%). Respondents earning more than RM3,000 may include graduates who are half of the respondents and those with working tenure of more than 20 years (20.5%). The median income in this study was in the range of between RM750 to less than RM3,000 monthly. An income of less than RM3,000 a month is considered as urban poor. This may reflect the low financial situation among these employees and may contribute to financial stress. Only a total of 20.2 per cent (only one-fifth) of the respondents obtained at least RM6,000 a month and maybe among those who are married (24.9%), graduates (49.8%) or those with longer work tenure (20.5% working more than 20 years). The median household income of the respondents laid in the range of RM3,000 to

RM6,000 monthly. This is by the median monthly household income for Malaysian population which was RM5,228, and RM5,860 for the urban area in 2016 (Department of Statistic, 2017). This reflects the sample representativeness of the population.

Predictors for Financial Stress of Employees

The validity and fitness of the model were determined before explaining the results of the multiple regression analysis for the financial stress model. The regression model was found to be a valid model justified by a significant F-statistic based on the ANOVA table output. Furthermore, there was no issue of multicollinearity for the independent variables by referring to the tolerance and VIF values of the variables that are far from the border of more than 0.1 for tolerance and less than 10 for VIF. The model was able to explain 38.6 per cent of the variation in financial stress based on the coefficient analysis of determination (R squared).

The regression results in Table 2 show that only respondent's income ($b = -1.193^*$; $p = 0.014$) is significant in affecting financial stress among the background factors of the respondents used as control variables. A lower income would more likely result in higher financial stress among the employees and vice-versa. The limited monetary resource may contribute to the feeling of less incapable of fulfilling financial commitments resulting in a stressful situation regarding finances. The financial problem, financial adequacy, and work-life balance had high significant influences on financial stress while investment and health factors were found to be only significant at 95 per cent confidence level in influencing financial stress. Savings were found to be not significantly affecting financial stress and this reflects that savings are not as important as other factors in influencing financial stress. Financial problem was found to be positively influencing financial stress ($b = 0.480^{**}$; $p = .000$). Facing financial problem among the employees would lead to financial stress as problems experienced by them regarding financial matters affect them emotionally. This result is parallel with the results regarding the influence of personal and household debt on financial stress (French & McKillop, 2017; Sweet et al., 2013; Worthington, 2006).

In contrast, financial adequacy ($b = -2.792^{**}$; $p = 0.000$) and work-life balance ($b = -.109^{**}$; $p = 0.006$) were found to be negatively influencing financial stress. These results are as expected due to those that are financially adequate can spend

on everything that they want and also have extra money to save. Hence, financially adequate employees will be experiencing less financial stress as they have enough money for their current and future expenses. The result is in line with a past study regarding the positive effect of insufficient monetary resources on financial stress by Heckman et al. (2014). In explaining the negative effect of work-life balance on the financial stress of employees, employees who experience some kind of balance between their work and their life would be feeling emotionally stable. This may make them in control of their work and life activities. In dealing with their life activities, many of these may involve the use of money such as spending for necessities, purchasing non-durable and durable items, paying for transportation, maintenance bills, and fees, and committed with loan payments. Thus, the ability to control their life activities apart from their work activities may lead them to be feeling less financially stressed. However, this result cannot be supported by empirical studies as none were found regarding the effect of work-life balance on financial stress. The opposite effect of poor work-life balance would result in a financially stress employees. Employees dealing much with their non-work activities especially their financial matters may contribute to higher financial stress.

Table 2: Multiple Regression Analysis for Financial Stress Model

	B	Std. Error	Beta	t	p
(Constant)	16.922	2.143		7.896	.000
Work tenure	.194	.176	.049	1.099	.272
Respondent income	-1.193	.483	-.110	-2.468*	.014
Education (graduate)	-.680	.448	-.065	-1.515	.130
Male	.156	.434	.015	.360	.719
Financial problem	.480	.058	.380	8.342**	.000
Work-life balance	-.109	.039	-.124	-2.789**	.006
Financial adequacy	-2.792	.585	-.195	-4.769**	.000
Health	-.150	.067	-.093	-2.247*	.025
Savings	-.084	.072	-.050	-1.168	.244
Investment	.156	.061	.113	2.559*	.011

a. Dependent Variable: Financial stress

b. ** $p \leq 0.01$; * $p \leq 0.05$

Investment ($b = .156^*$; $p = 0.011$) and health factors ($b = -.150^*$; $p = 0.025$), each displayed a different direction of influence on financial stress suggesting more involvement in investment would lead to higher financial stress whilst better health would result in lower financial stress among the employees. Less involvement in investment may lead to less financial stress. Due to the purpose of investing in increasing one's income, the positive direction on financial stress was not as expected. The higher involvement in investment should gain more income and lead to less financial stress. However, the result can be justified by the following argument. An individual may invest in just one investment or to the extent of having a portfolio of investments with various expected risks and returns. In the high involvement investment, individuals may invest not only in low-risk investment such as unit trusts but also in high-risk investment such as stocks which they may not be familiar with. As their investment decision to gain a higher expected return is associated with higher expected risk, in this sense, they may be stressful upon the expected loss. Thus, higher involvement in investment may lead to higher financial stress. As for the negative effect of health factor on financial stress, the healthy employee will more likely be less financially stressed. Unhealthy employees will most probably be experiencing higher financial stress. This may be due to the high cost for medical treatment and is not sufficient with the current income. This is considered to be in tandem with a past study by Wrosch, Heckhausen, and Lachman (2000) on stress. The study showed a negative contribution of health on stress in older individuals and financial stress is one source of stress as stated by Bailey et al. (1998) and Peirce et al. (1996).

Beta coefficients determined the relative strength of the predictors where it was found that financial problem ($\beta = .380$) contribute the most to financial stress followed by financial adequacy ($\beta = -.195$) and work-life balance ($\beta = -.124$). While investment is the fourth influential predictor ($\beta = 0.113$) followed by health ($\beta = -.093$). Facing financial problems among the employees means that in terms of the financial resources to fulfil daily expenses, the money they earn may not be sufficient and the gap between income and their expenditure would result in stress leading to financial stress. Financial adequacy is meant as having enough money for financial needs and also having extra money to spend for their future especially preparing for purchasing bigger items. If this is the case and they can be financially adequate, the degree of financial stress is lower as compared to if they are not financially

adequate. Work-life balance, investment, and health were also found to be important in influencing financial stress. They can be the resources for employees to cope with the unforeseen situation.

Conclusion and Implication

The results revealed the financial problem, financial adequacy and work-life balance of the employees as the leading predictors followed by investment and health on financial stress of these service sector employees. Employers should consider the employees' financial matters that may impede the productivity of their services to the clients. The health condition of employees was revealed as another important factor to consider in management decision. Though it was the least in terms of the strength of contribution to financial stress nevertheless, it should be also considered by the management. The organization should be concerned with employees' health status as it can be a direct effect on productivity and an indirect effect through financial stress. Even for general stress, increased stress was found leading to reduced productivity (Halkos & Bousinakis, 2010). Health was determined as a mediator between stress at work and productivity (Karlsson, Bjoerklund, & Jensen, 2010). Healthy employees would eventually lead to higher productivity and vice-versa.

Intervention programs could, therefore, focus on educating employees on how to better manage personal resources and resources available at work to curb the issue of rising financial stress. The results will enable employers to develop appropriate intervention programs in enhancing the quality of personal and financial factors of the employees. Better services are expected to be offered by civil service agencies to the public later and are beneficial for both parties hence customers and employees. Efficient time use would be the consequence of this action thus enabling the growth in the economy. The outcome of lower financial stress will be better services rendered by the civil service agencies to the public. Individuals or companies as the clients will be able to experience elevated services and reduced time in their interactions with the agencies. Efficient time use may increase the country's productivity thus enabling the growth in the economy. Though this study focuses on the civil service sector, however business organizations may also benefit from the results of this study. Supportive cultures should be the environment in organizations in enhancing the employees' good personal qualities.

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