THE MEDIATION EFFECT OF SELF-COPING MECHANISM BETWEEN FINANCIAL STRAINS AND FINANCIAL SECURITY OF SINGLE MOTHERS IN MALAYSIA

Siti Yuliandi\textsuperscript{1,2}, Mohamad Fazli Sabri\textsuperscript{2}, Husniah Abd Rahim\textsuperscript{2} and Syuhaily Osman\textsuperscript{2}

Abstract
The main objective of this study was to examine the psychological aspect of self-coping mechanisms in influencing the relationship between financial strains and financial security of single mothers. A multistage random sampling was used to gather the data of 600 single mothers from six single mother associations registered under the Ministry of Women, Family and Community Development in Malaysia. The data were statistically analysed using descriptive analysis of Pearson Product Moment Correlation and Structural Equation Modelling. There were positive significant relationships found between self-coping mechanisms, financial strains, and financial security. The structural equation of financial security model showed a relatively good fit to the data obtained in the study. The self-coping mechanisms were distinguished as a mediator in the relationships between financial strains and financial security. The self-coping mechanisms illustrated a moderate relationship ($r = 0.427$) in the financial security model. In testing the mediation effect, the indirect mediation existed in the relationships between financial strains and financial security. The findings of this have implied that single mother required coping strategies such as social support program or financial education. This study seems to support the importance of behavioural finance in line with notable empirical findings and the theoretical reasoning in understanding financial security of single mothers. Thus, government and non-profit organisation play crucial role to provide social support programme and financial education programme for single mothers.

Keywords: financial security, financial strains, self-coping mechanism, single mothers, single mothers

INTRODUCTION
Steady development in Malaysia has also seen an increase in the number of women joining the labour force. In the period from 2010 to 2015, the percentage of participation of working women has increased from 46% to 55% (Economic Development Unit, 2015). However it has also been reported by the Department of Statistic Malaysia, (2012) that almost seven million were out of the labour force in 2012. Of these, 4.87 million (70.7%) were women while men made up 2.02 million (29.3%). Moreover, it was reported that almost half of the total population were outside of the labour force and the main reason women did not participate in the labour force was because they were fulltime housewives (Department of Statistic Malaysia, 2012). It is quite common that, married working women quit their jobs after the first child is born to become fulltime housewives (Fortuijn & Ostendorf, 2004)

In general, financial security is the condition of having regular income or other resources to maintain a standard of living now and in the foreseeable future. The stability of money with the predictability of future cash flow of the individual and work status stability. Financial security often refers to individual and family financial practices. Hayes and Finney, (2013) report on the overall level of relative financial security among households in a European country, with a low score indicating financial vulnerability and a high score indicating financial security. Financial security is crucial to a household as it provides a foundation to the households to make financial and potentially life changing decisions. Meanwhile, financial vulnerability indicates how difficult households are finding to simply meet their existing financial commitments, with equivalent difficulties in planning for the future.

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However, there is little evidence on financial security in developing countries especially in Malaysia context. Previous studies related on financial security focused on social security and poverty among single mothers (Lee, 2002; Rohayu et al., 2010; Siti Yuliandi, Mohamad Fazli, & Husniyah, 2017). Financial security is often linked to the level of savings, the ability of individuals to meet an emergency, the adequacy of financial resources in retirement and the availability of income (Haines, Godley, Hawe, & Shiell, 2009; Lange, Prenzler, & Zuchandke, 2012; Mahal, Seshu, Mane, & Lal, 2012; Suwanrada, 2009; Swami, Tovée, & Furnham, 2008). Financial security is not determined by the level of resource only, but also by the financial literacy, financial practices and the ability of single mothers to maintain a given amount of resources towards different kinds of consumption (Corman, Noonan, & Reichman, 2012; Lusardi, 2008; Mahal et al., 2012). Meanwhile Strömbäck, Lind, Skagerlund, Västfjäll, and Tinghög, (2017) measure perceive financial security with three items related with financial decision making and perception of current and future financial situation. The three items used to measure perceived financial security is when an individual is secure with the current financial situation, confident about financial future and have adequate fund during retirement.

The contradicting situation of financial security is the struggle to meet the current living standard which leads to financial vulnerability (Finney & Jentzsch, 2008). That is, financial strains to fulfil the excess demand especially with scarce financial resources. This study focused on financial security of single mothers as they might face financial challenges concerning financial strains that might lead them to financial vulnerability (Fortuijn & Ostendorf, 2004; Ramaprasad, 2009). Financial strains consist of whole cognitive, emotional and behavioural responses due to difficulty in managing finance (Aldana & Liljenquist, 1998). According to Kapoor, Hughes, and Hart, (2004), the process of developing a sound individual financial planning requires robust knowledge of financial planning that includes steps to plan, adjust, allocate, implement, and control the financial resources to achieve financial goals. Accordingly, mastering knowledge, skills and experience on personal finance will affect single mothers ability to plan, adjust, allocate, implement, and control the scarce financial resources to sustain a given level of consumption over an extended period of time at different levels of financial adversity. Nevertheless, life-changing events that alter the marital status of married women to become heads of households affect the financial planning in life later on.

Problem Statements
Women play a vital role and function in the market as they have their own voice and are being heard more and thus play a very active role in various fields (IPPBM, 2012). Still, women are less confident than men where their financial decisions, knowledge of retirement needs, and on-going financial situations (Hira & Loibl, 2009) are concerned. Furthermore, there is a significant difference of economic well-being and financial behaviors of men and women (Murphy, 2013). Besides, women generally have lower levels of income (Department of Statistic Malaysia, 2013), wealth and in addition spend as much as five more years than men in the retirement period due to their longer life expectancies (Gottschalck, 2008; Siti Yuliandi & Mohamad Fazli, 2015). According to the Department of Statistic Malaysia, (2015) life expectancy for birth at year 2015 for male was 72.5 years and female was 77.4 years. Previous studies reported that women invest their money on conservative assets, are more risk averse than men (Embrey & Fox, 1997; Hira & Loibl, 2009), have lower participation in retirement plans and are more likely to be living in poverty during retirement (Mahal et al., 2012; Siti Yuliandi et al., 2017). This gives rise to an important question on the effect of financial strains, self-coping mechanism and the financial security among women, especially among single mothers in Malaysia.
Financial Strains of Single Mothers

Previous studies reported that women invest their money on conservative assets, are more risk averse than men (Embrey & Fox, 1997; Hira & Loibl, 2009), have lower participation in retirement plans and are more likely to be living in poverty during retirement (Mahal, Seshu, Mane, & Lal, 2012). This gives rise to an important question on the effect of financial strains and the level of financial security among women, especially among single mothers in Malaysia. Moreover, the relationship of self-coping mechanisms, financial strains and financial security requires deeper understanding to explain single mothers ’s current financial situation.

Financial security issues have been discussed by previous researchers (Corman, Noonan, & Reichman, 2012; Hamilton, Shobe, Murphy-Erby, & Christy, 2012; Howell, Kurai, Yin, & Tam, 2013; Lange et al., 2012; Mahal et al., 2012; Neill & Xiao, 2012). However, up to the date this research was conducted, there have not been many researches on this topic by researchers in developing countries (Faizah, 2013; Intan, Azman, & Noraida, 2015; Kotwal & Prabhakar, 2009; Mohd Taib & Noor Baiduri, 2011). Few studies in the Malaysian context, for example from Lee, (2002) which only focused on social security in Malaysia, and Rohayu, N.Sharipah, Yusmarwati, Maziana, and A.Rashid, (2000) focused on poverty among single mothers in Malaysia. Single mothers have become increasingly associated with poverty and higher dependency (Buvinic & Gupta, 1997). Single mothers rely on public support financial aids and sometimes on children to cope with scarce financial resources (Mahal et al., 2012; Povich, Roberts, & Mather, 2014). Thus, lack of financial resources and higher dependency might lead single mothers to the poverty line.

Moreover, with a life-changing event such as separation from the spouse can cause single mothers to lose the financial resources if they are not working and rely on the husband for financial support (Faizah, 2013). Single mothers with a number of children have to sustain their previous level of life consumption and are more likely to fall into poverty (Buvinic & Gupta, 1997). The ability of single mothers to maintain living standards after divorce depends on the self-coping mechanism taken by single mothers (Verick, 2014). It is the strategies established by single mothers to reduce the financial vulnerability (Corman, Noonan, & Reichman, 2012). However, the mediating effect of self-coping mechanism between financial strains and financial security requires additional study. The use of self-coping mechanism as a basis for financial security can be justified as the right strategy taken; such as allocate money in savings, getting financial support (Suwanrada, 2009), tightening the budget or limited acceptance of credit will enable the female-headed household to even out its consumption level over its lifetime (Ingvarson, Haynes, & Dunt, 2007) and thus might increase their financial security.

Self-Coping Mechanisms of Single Mothers

Self-coping mechanism is a natural or established process by which single mothers perform to increase their financial security. Self-coping mechanism involves the changing of behaviour in financial matters such as avoidance of financial problems/crisis, reducing the financial concerns by actively participating in labour market and working longer hours, taking on extra jobs, or delaying retirement and also shifting the financial strains by getting financial products such as mutual funds, insurance and defined-benefit pensions plan (Finney & Jentzsch, 2008; Jalihah, 2004; Miron-shatz, 2009). Self-coping mechanism is the contingency action the single mothers perform to cope with financial strains.

Hamilton et al., (2012) reported that the heads of household had engaged in several short and long-term strategies to help make ends meet. The strategies used, include borrowing money, and thus creating longer term financial burdens; other approaches include taking a second job and tightening their budget that offer fewer long term difficulties. This is contrary to what has been reported by the United Nations, (2001) on the type of coping strategies by single women which involve manipulative informal
sector work, including pushing children into child labour, begging and worse, sex work. Despite the mushrooming of studies on antecedents of financial security (Haines et al., 2009; Lange et al., 2012; Mahal et al., 2012; Miron-shatz, 2009; Suwanrada, 2009). The mediating impact of self-coping mechanisms on the relationship between the financial strains and financial security as the outcome has not been studied before.

Previous studies focused only on the impact of financial strains on the psychological wellbeing and mental health of the respondents (Alamgir, Naheed, & Luby, 2010; Aranda & Lincoln, 2011; Chou & Chi, 2001; Thanakwang, 2010). However, there is a gap in the previous studies as there is no study up to this date that has examined the mediating effect of self-coping mechanisms on the relationship between financial strains and financial security among single mothers in Malaysia (Intan et al., 2015; Kotwal & Prabhakar, 2009; Rafiah, Hamid, & Salleh, 2013). Financial was one of the family’s problem and a main stressor for single mothers (Intan et al., 2015; Kotwal & Prabhakar, 2009; Rafiah et al., 2013). Financial economic that include lack of income to make end meets is the main factor in family issues (Mohd Taib & Noor Baiduri, 2011). Working single mother is also required to work longer hours just to make ends meet (Rafiah et al., 2013). Lack of money that led to poverty and poverty has also caused children juvenile's cases especially among single mothers with lower income and lower education (Mohd Taib & Noor Baiduri, 2011).

Thus, this study investigates the mediating effect of self-coping mechanisms in relation with financial strains and financial security. The study of coping effort as the mediating factor in the relationship between cognitive appraisal and the immediate outcome (Folkman, Lazarus, Schetter, DeLongis, & Gruen, 1986) adds richness to the understanding of the body of knowledge of consumer behaviour and psychological aspects of coping strategies during financial strains among single mothers.

**Financial Security**

The terms financial security, financial insecurity, financial vulnerability, financial position, and financial expectation have been used interchangeable in the previous studies (Corman, Noonan, & Reichman, 2012; Finney & Jentzsch, 2008; Hayes & Finney, 2013; Lusardi & Mitchell, 2008b; Noordin, Zakaria, Zool, Mohamed, & Ngah, 2012; Schofield et al., 2010). At the early stage the term financial security was generally accepted to mean the stability of income and satisfaction with the financial situation. Hacker and Huber, (2012) defined financial security to also include the degree to which individuals are protected against hardship caused by financial losses. In addition, Hayes and Finney, (2013) stated that financial security is not just measured by the individual satisfaction of the level of income and savings while, Suwanrada (2009) refers to financial security as the adequacy of income during retirement, children's social support in old age and having financially adequate insurance coverage in retirement. On the contrary it also included a cognitive evaluation of the general financial position of individuals during financial strains (Miron-shatz, 2009). The beliefs on financial security come with the concept of personal saving, insurance coverage and retirement. Marsh, (2006) reported that the financial security among respondents showed 89% disagreed or strongly disagreed that they would not be financially secure in the future, while 80% agreed or strongly agreed that personal savings would be the main source of their income in retirement. In addition, 84% agreed and strongly agreed in the importance of insurance coverage for one's financial security.

Financial security is greatly influenced by demographic and individual financial practices and it was also found to be almost similar to the findings of most other previous studies (Corman, Noonan, Reichman, & Schultz, 2012; Hamilton et al., 2012; Lusardi & Mitchell, 2008b). Individuals with lower financial security, usually older people, often also have medical problems, and lower income (Mahal et al., 2012; Miron-shatz, 2009). Additionally, individuals with lower financial security are often faced with
financial stress and difficulty to make ends meet. On the contrary, elderly people with higher education and higher income, have ownership of houses, are married and without medical problems are usually associated with higher financial security (Lange et al., 2012; Lusardi, 2008; Lusardi & Mitchell, 2008a)

A number of factors influence financial security such as level of income, ability to meet emergencies, the adequacy of income during retirement and level of savings (Lange et al., 2012; Mahal et al., 2012; Schofield et al., 2010). Additionally, three major concerns among individuals’ financial security are higher cost of living, level of income from work, and job security (Finney & Jentzsch, 2008; Hayes & Finney, 2013). Financial security is measured with several variables such as income, financial assets, insurance protection, job security, and individual expectation on retirement (Finney & Jentzsch, 2008; Haines et al., 2009; Hayes & Finney, 2013; Lange et al., 2012b; Miron-shatz, 2009; Schofield et al., 2010). Likewise, according to Miron-shatz (2009) actual income is one of the indicators of financial security, however the feelings of sense of financial stability have also been demonstrated to be closely related with financial security.

Theoretical Framework
The main theory used to explain the phenomenon being discussed is Life-Cycle Theory by Modigliani and Brumberg, (1954) which explain dependent variables of financial security. The Cognitive of Stress and Coping Theory by Folkman et al., (1986) explains the financial strains and self-coping mechanism of single mothers. The incorporation of theories from consumer behaviour and health and psychology created new perspectives of a financial security model that explained the behavior of finance situation in a different way.

Financial security from the consumer’s context is the condition of having a constant income or other resources to sustain a standard of living now and in the foreseeable future. Xiao, Ford, & Kim, (2011) loosely defined Life-Cycle Theory as a framework to understand the ways individuals maximize utility on allocation of resource related with current and future consumption over time. Individuals manage to obtain the adequate income for making ends meet, and ensure a continued future cash flow and manage the money for consumption and saving. Thus, financial security according to Life-Cycle Theory varies throughout individual life-span as the individual obtains income, manages the income for varies consumption, allocate income for retirement and wealth (Bodie, Treussard, & Willen, 2007; Friedman, 1957). The allocation of income received by individuals for different consumption and savings in life need further exploration (Browning & Crossley, 2001). Financial security is when individual make wise decision on spending, and saving while earning a regular income rather than spending all the income when it is earned (Browning & Crossley, 2001; Miron-shatz, 2009; Yoong, See, & Baronovich, 2012). Individuals who have consistent income, better in managing money and have an expectation of better financial situation will achieve financial security according to the Life-Cycle Theory. The theory also posited people to look at the uncertainty of the income (Deaton, 2005). In view of this study, single mothers with stability of employments may provide them a cushion for income stability, whereas single mothers without occupation might be faced with income constraints in making end meets.
On the other hand, three elements in the Cognitive of Stress and Coping Theory are the cognitive appraisal, coping process, and immediate outcome. Thus, figure 1 above illustrate the research framework of this study. The focus of this study is to examine the self-coping mechanism that single mothers adopt in times of financial strains. The person-environment specific encounters mediate the relationship between stressful events in life and financial security. The coping process consists of three key features that are (1) process oriented, (2) contextual, and (3) is not a matter of whether it is good or bad coping (Folkman et al., 1986). Firstly, the coping as a process is focused on what single mothers actually think and do in the event of financial strains, and what this change in the stressful events reveals. Second, coping in its contextual form is in how single mothers cope with stressful events and the resources available to cope with it. The contextual feature is about how single mothers and the situation variables shape the coping strategy together. Thirdly, there is no prior assumption on what is good or bad coping. It depends on the single mothers effort to manage and survive the challenging demands of the financial strains to achieve an urgent and immediate outcome that hopefully offers some financial security. The coping process is related to individual and environmental stress related events. The life changing events of married women and the challenge of becoming heads of households will cause specific stress in the form of financial strains. Coping is related to the cognitive and behavioural effort made by individuals to reduce, eliminate or tolerate such encountered stress. According to Krohne, (2002) there are a few implications of the coping definition by Folkman et al., (1986) that state coping actions are not categorised by their effects, but by the particular characteristics of the coping process; a process that involves the behavioural and cognitive reactions by individuals. Basically, coping contains sequential episodes and coping is often characterized by the synchronized happenings during different actions of coping episodes.

The use of Cognitive of Stress and Coping Theory is to explain the significance of self-coping mechanism used by single mothers to cope with financial strains, and the outcomes of the study will add to the body of knowledge from the perspective of behavioral finance perspectives.
Aim of The Present Research

The biggest challenge faced by single mothers is to maintain the family consumption with the scarce financial resources, higher debt and with a number of dependents (Brown, Ghosh, & Taylor, 2014; Garrett & James, 2013). Subsequent to instability of work status, higher cost of living, debt burden, low financial literacy, and inefficient financial practices affect the inability of single mothers to achieve financial security (Hacker & Huber, 2012; Kempson, 1996; Schmitz & Bova, 2013). Thus, it is vital to understand the current financial situation among single mothers in Malaysia as the top three concerns for financial security in all of the European countries have been found to be the cost of living, level of income from work and level of savings (Hayes & Finney, 2013). In summary, the current market situations with the change of policy implementation has transformed the consumer financial landscape in the economy. Single mothers are the major concern that leads to the focus of this study, which is to investigate the mediating effect of self-coping mechanisms between financial strains and financial security of single mothers in Malaysia. The hypotheses of this study are as below.

H1: Financial strains and self-coping mechanisms have a significant relationship with financial security of single mothers in Malaysia.

H2: Self-coping mechanisms mediate the relationship between financial strains and financial security of single mothers in Malaysia.

METHOD

Research Design

The quantitative approach is applied in the study of financial security among single mothers in Malaysia. It is used as the study aimed at identifying, measuring and specifying the relationship between the variables financial strains, self-coping mechanism, and financial security of single mothers (Corman et al., 2012; Hayes & Finney, 2013; Mahal et al., 2012a; Miron-shatz, 2009). The focus of the study is to determine the factors that affect the financial security among single mothers in Malaysia. This study was conducted using a cross-sectional design and the survey method was chosen because it could collect direct answers of the research subjects, namely single mothers in Malaysia. An appropriate survey method was used due to the need to obtain personal financial information, such as income, expenses, savings and loans. In addition, the survey methods may also provide an explanation for the phenomenon of financial security (Finney & Jentzsch, 2008; Hayes & Finney, 2013; Lange et al., 2012b).

The main concern of this study is to understand the financial security of single mothers in Malaysia and thus single mother associations were the best avenues to access the single mothers in the current study. More importantly, the number of divorcees is increasing and it is impossible to get the updated number of single women (Faizah, 2013; Nor Aini & Doris Padmini, 2012; United Nation, 2015). Accordingly, the single mother population was based on the statistics provided by the Ministry of Women, Family and Community Development for the development of a sampling frame. Probability sampling was the most appropriate sampling method in the context of this study. Multi-stage random sampling was used to collect 600 datasets of single mothers from six single mother associations divided by zones of East, North, South, West, Sabah and Sarawak of Malaysia.

This study’s population consisted of all single mothers in Malaysia. According to the Ministry of Women, Family and Community Development data from 2010 to June 2015 have shown that there were 235,000 single mothers in Malaysia (Ministry of Women, Family and Community Development, 2015). The sample consisted of all single mothers in Malaysia and the unit of analysis was the single mothers.
who have met three criteria, namely (1) mother who has been divorced but still receives child support; (2) a wife who becomes head of the family to make a living, because the husband is unable to work due to illness and there are dependent children; (3) women who adopt a child or have a child out of wedlock.

Measurements of variables in this study were adapted and adopted from several existing studies. By using the right measurement scale the researcher was able to use appropriate statistical analysis to answer the objectives and hypothesis of the study. The data of this study were drawn primarily from the single mothers response to the questionnaire. In order to do so, the construction of the questionnaire was appropriately developed by conducting an extensive literature review on previous studies related to financial strains, self-coping mechanisms, and financial security of single mothers. A draft of instruments were constructed and compiled based on extensive review of previous studies related to the variables being measured (Osborn, Reeves, & Magee, 2004).

Instruments

Financial Strains
Financial strains is defined as a persistent stressor of a financial situation of an individual that can have a particular impact on the individual's wellbeing (Aranda & Lincoln, 2011). The items used in financial strains was adopted from studies by Fitzsimmons, Hira, Bauer, and Hafstrom, (1993) and Caplan and Schooler, (2007). In this study, the financial strains of respondents was measured by 14 items with three-point Likert-type scale of 1= never, 2=sometimes and 3, always. The minimum value would be 14 and the maximum value would be 42. Respondents were asked questions depicting mismatch of financial resources and demands such as unable to pay for utilities, basic necessities and credit payment defaults.

Self-Coping Mechanism
The self-coping mechanism instrument was obtained from Caplan and Schooler (2007) which measures household coping of financial strains along with their categorisation as problem-focused or emotion-focused coping responses. Self-coping mechanism during financial strains involved various types of strategies to achieve financial security such as individuals altering the labour market supply by working longer hours, taking on extra jobs, or delay retirements (Bodie, 2002). The instrument measures how the respondent reports on each of a number of things when they were short of money or worried about finances. The nine items were measured on a five-point Likert scale, 1 = strongly disagree to 5 = strongly agree, and the minimum value would be 9 and the maximum value would be 45.

Financial Security
The dependent variable in this study is the financial security of single mothers. Financial security is often linked to the level of savings, the ability of the individual to meet an emergency, the adequacy of financial resources in retirement and the availability of income (Haines et al., 2009; Lange, Prenzler, & Zuchandke, 2012a; Mahal et al., 2012; Suwanrada, 2009; Swami, Tovée, & Furnham, 2008). Financial security is a subjective measure according to the way individuals perceive themselves to be financially, and thus the multiple-item instead of single item format in measuring financial security may lead to more accurate measure of financial security (Garrett & James, 2013)

For that reason, financial security items were measured by adapting the instruments used by Hayes and Finney (2013) and Finney and Jentzsch (2008). Permission was obtained through email from the researchers. The scale consists of 9 questions on a five-point Likert scale from 1 to 5 with = strongly disagree to 5 = strongly agree, regarding the individual’s evaluation of current and future financial
positions. The minimum and maximum values for the scale of financial security were between 8 and 40 respectively.

**Pre-test**
Pre-test of the study was conducted in August and the single mothers that participated in the pre-test were not included in the main data collection. Additionally, only the reliability test was used in the study while the response from the pre-test was not used in the actual study (Simon, 2011). Pre-test is a small version of the actual study and conducted in a small sample to test whether the components of the main study would all work together (Arain, Campbell, Cooper, & Lancaster, 2010). A total of 30 single mothers were selected from one of the single mothers associations in Selangor (a state in central West Malaysia). Following the pre-test the main instrument was then improved by refining the wording and instructions. The time that each respondent took to fill in the instrument was estimated according to the pre-test.

The results of the reliability coefficient of the research instrument in the pre-test are shown in Table 1. The reliability coefficients for the five constructs were found to range from 0.684 to 0.912. In the preliminary research, reliability coefficients that extended from 0.5 to 0.6 are still considered acceptable as the minimum requirement (Nunnally, 1978).

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Number of Items</th>
<th>Cronbach's Coefficient Alpha (n = 30)</th>
<th>Number of Items</th>
<th>Cronbach's Coefficient Alpha (n = 521)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial strains</td>
<td>14</td>
<td>.912</td>
<td>14</td>
<td>.920</td>
</tr>
<tr>
<td>Self-coping mechanisms</td>
<td>9</td>
<td>.729</td>
<td>7</td>
<td>.712</td>
</tr>
<tr>
<td>Financial security</td>
<td>8</td>
<td>.876</td>
<td>8</td>
<td>.913</td>
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(Nunnally, 1978) mentioned that a Cronbach’s Alpha of 0.7 and above is better, and the instruments of financial strains (0.912), self-coping mechanisms (0.729) and financial security (0.876) all show Cronbach’s Alpha of more than 0.7. However, after the actual data collection, the Cronbach’s alpha for self-coping mechanisms items was 0.66 and thus two lower items of “Just sit back and wait for things to work out” and “Compare yourself to people who are worse off than you” were dropped in SPSS. The result was an increase in Cronbach’s Alpha to 0.712 and acceptable as a reliable figure (Pallant, 2013).

**Data Collection**
Data collection of the study was completed within a three-month period (September to November). Data collection was passed to a trained enumerator who was also the President of Single Mother Association at the selected association of each zone and collected by the association after the agreed period. Table 2 shows a number of respondents from each respective single mother associations. The returned questionnaires were transferred into SPSS and a careful screening and cleaning of the data was carried out from November to December. The usable data were 521 with a response rate of 87% and the non-useable responses (88 sets) were mainly consisted of unreturned or incomplete questionnaires or those that contained errors in their responses.
Data Analysis
Data were analysed descriptively and inferentially via SPSS and AMOS programmes. Descriptive statistics such as frequency, percentage, mean and standard deviation were used to describe the socio-economic profile of single mothers. Descriptive analysis was also used to describe the level of financial strains, self-coping mechanisms and financial security of single mothers. Moreover, inferential statistics of Pearson Product Moment Correlation and Structural Equation Modelling (SEM) using AMOS software were conducted to meet the objectives of the study.

The mediating effect of self-coping mechanisms on the relationship between financial strains, self-coping mechanism on financial security were tested using the bootstrapping procedure in SEM. A total of 5,000 bootstrap samples were requested, with the replacement from the original set of 521 samples. The procedure yields a 95% of bias-corrected confidence interval. There are two steps involved (1) building the direct structural model without mediation; and (2) inspecting the full direct structural model with mediation. The comparison between the beta value and standardised indirect value was observed to determine the mediation over both of models.

RESULTS
The initial sample involved 521 respondents in this study. In Table 2, with respect to the socio-demographic factor of age, it can be seen that 46.3% are in the group aged 50 years and above while those aged 40 to 49 years make up 26.9%. In the group aged 31 to 39 years group it is 19%, and below 30 years of age, it is 7.9%. The mean age of respondents is 48 years, with standard deviation of 12.9.

Table 2: Socio-demographic distribution of respondents (n = 521)

<table>
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<tr>
<th>Respondent's background</th>
<th>Frequency</th>
<th>Percentage</th>
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<td>Age (years old)</td>
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<tr>
<td>Below 30</td>
<td>41</td>
<td>7.9</td>
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<tr>
<td>31 – 39</td>
<td>99</td>
<td>19</td>
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<td>40 – 49</td>
<td>140</td>
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<tr>
<td>Above 50</td>
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<td>Standard Deviation</td>
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<table>
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<th>Frequency</th>
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</tbody>
</table>
More than half of the respondents are ethnically Malay (58.5%), followed by Indian (20%), Bidayuh (5.6%), Kadazan Dusun (3.3%), Iban (3.1%), Bajau (2.7%) and Chinese (2.1%) and other Bumiputra from Sabah and Sarawak (3.1%). The study’s profile is consistent with the increasing number of single mothers in Malaysia especially from ethnic Malays and above the age of 50 years due to the differences of mortality rate between male and female (Evans, 2011; Faizah, 2013).

Similarly, in terms of religion, more than two thirds of the respondents (68.7%) are Muslims, followed by Hindus (17.1%), and Christians (12.5%). In addition, there are small numbers of 1% and 0.8% from other religions (Baha’i and Punjabi) and Buddhists. Divorcees make up the highest number of female heads of households with 48%, followed by 41.3% of those whose husbands are deceased. Additionally, 9.8% of these single mothers have been abandoned by their husbands; 6% have disabled spouses and 4% are victims of domestic violence.

**Correlation between the independent variables**

Table 3: Pearson product moment correlation of all variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R$</th>
<th>$p$ (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Strains</td>
<td>.098*</td>
<td>.025</td>
</tr>
<tr>
<td>Self-coping mechanism</td>
<td>.495**</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)
A Pearson Product Moment Correlation was conducted to check the relationship between each of the variables. Financial strains revealed a small positive significant relationship ($r = 0.098, p = 0.025$) with financial security. This is followed by self-coping mechanisms which has shown a medium positive significant ($r = 0.495, p = 0.000$) relationship with financial security. Therefore the hypothesis H1 was supported. Hence, with proof of the significant relationship between all the variables and financial security, the same variables are acceptable to be incorporated in the following measurement and structural model analysis.

H1: Financial strains and self-coping mechanisms have a significant relationship with financial security of single mothers in Malaysia.

**Measurement Structural Model of Financial Security**

Figure 2 illustrates measurement model of financial security was found to have good fit indices. The indices consisted of RMSEA = 0.069, CFI = 0.955, NFI = 0.938, TLI = 0.946, and $\chi^2 / df = 3.452$. RMSEA value of 0.069 (below 0.08) was found to have satisfactory model fit. Besides, the chi-square/df value of 3.452 (below 5.0) indicates the model has a satisfactory fit. According to Byrne (2010) the three criteria to determine when to stop fitting a model are (1) the knowledge of the fundamental theory, (2) adequate assessment of statistical requirements of model fit indices and (3) careful evaluation of parsimony value. Therefore, it can be concluded that the model fit was achieved. The model fitted the data at the satisfactory level as one index from each category has achieved the level of indication of model fit.

![Figure 2: Measurement model of financial security](image-url)
Table 4 shows the results of Structural Equation Modelling of the direct structural model in the model. The results include the unstandardised and standardised regression weights of the individual path in the direct hypothesised model. This step is important to answer the second objective of the study. The results in Table 4 shows that one of the coefficient estimate paths between independent variables and dependent variables were found significant, with values of (C.R ≥ ± 1.645, p ≤ 0.05). However, financial strains (CR = 1.004, p = 0.315) was not significant. Furthermore, Figure 3 of the standardised full direct structural equation modelling model of financial security reveals only 19% of the variance in the financial security is explained by the financial strains and self-coping mechanisms on financial security.

![Figure 3: Standardised direct structural model without mediation](image)

Recall from the findings in the correlation estimated (Table 3) reveal that all measured variables in the study have a significant positive relationship with financial security. However, in the standardised full direct structural model of financial security, revealed only one variable which was self-coping mechanisms have a significant positive relationship with financial security.

<table>
<thead>
<tr>
<th>Hypothesized Relationships</th>
<th>Unstandardised Regression Weights Estimate B</th>
<th>S.E.</th>
<th>Standardised Regression Weights Beta</th>
<th>C.R.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Strains</td>
<td>Financial Security</td>
<td>0.053</td>
<td>.053</td>
<td>0.039</td>
<td>1.004</td>
</tr>
<tr>
<td>Self-coping mechanisms</td>
<td>Financial Security</td>
<td>0.175</td>
<td>.038</td>
<td>0.205</td>
<td>4.621</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>= 0.19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

Main Findings

H2a. Self-coping mechanism mediates the relationship between financial strains and financial security among single mothers in Malaysia.

As portrayed in Table 4, it is indicated that the value of direct beta effect without mediation (beta coefficient = 0.066, \( p = 0.97 \)) and direct beta with mediation (beta coefficient = 0.039, \( p = 0.315 \)) are non-significant. However, there is a significant indirect effect (beta coefficient = 0.026, \( p = 0.02 \)). This indicates that self-coping mechanisms mediate the relationship between financial strains and financial security. Additionally, the indirect effect of financial strains on financial security through self-coping mechanisms is not zero by a 95% bias-corrected bootstrap confidence interval based on 5,000 bootstraps samples. Hence, the hypothesis H2a is supported.

H2. Self-coping mechanisms mediate the relationship between financial strains and financial security of single mothers in Malaysia.

Figure 4: Standardised direct structural model with mediation
Table 5: Mediation effect of self-coping mechanisms

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Direct Beta without Mediation</th>
<th>p</th>
<th>Direct Beta with Mediation</th>
<th>p</th>
<th>Indirect Beta</th>
<th>p</th>
<th>Mediation Type Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial strains</td>
<td>0.042</td>
<td>0.346</td>
<td>0.042</td>
<td>0.346</td>
<td>0.074</td>
<td>0.00</td>
<td>Indirect Effect</td>
</tr>
</tbody>
</table>

The findings reveal there is an indirect mediation effect of self-coping mechanisms on the relationship between financial strains and financial security. The use of Life Cycle Theory as a backbone theory that is incorporated with Cognitive Stress and Coping Theory has confirmed the self-coping mechanisms mediated the relationship between financial strains and financial security. The finding supports the idea of Folkman et al. (1986) by recognising the importance of identifying the stress appraisal stage such as financial strains and coping actions such as reducing expenses, increasing income, accepting things as they are, which are taken by single mothers in order to achieve satisfactory outcome of financial security. The individual try to build assets and borrowing at different stage of their life and thus they have to adapt to the consumption according to their needs at different ages (Deaton, 2005). Individual also face the stress encounter (financial strains) that affects the coping process (self-coping mechanisms) that may eventually produce a desirable outcome (financial security) (Folkman et al., 1986).

Prior studies on coping process focused on psychological aspects of individuals (Folkman et al., 1986; Lazarus, 1993; Ozier et al., 2007, 2008; Wei, Ku, Russell, Mallinckrodt, & Liao, 2008). This study highlights how self-coping mechanisms mediate the relationship between financial strains and financial security. Accordingly, single mothers in the current study face challenges to shoulder multiple responsibilities involving household chores, children and working (Brown, Ghosh, & Taylor, 2012). For more than two decades now, common problems faced by lower income earners as discussed by Kempson, (1996) were difficulty in making ends meet, falling into debt, basically due to household bills (rent, mortgage, gas, electricity, water), the poor state of health, difficulty of finding a job, receiving lower income and without satisfactory accommodation.

Similarly, according to Brown et al. (2012) the number of adults in the household does not contribute to the financial strains, however the number of children affects the financial strains related to accommodation, loans repayments, annual holidays, new furniture, new clothes and entertaining friends and family. Similarly, as discussed by Kempson (1996) women play a role in managing the family budget by adopting coping strategies such as minimising food stock by frequent shopping, and shopping without children to avoid the pressure to purchase more. According to Caplan and Schooler (2007) older individuals and those living in urban area tend to choose an emotion-coping strategy rather than problem-coping strategy. On the contrary, problem-coping focus on increasing income and reducing expenses were the main coping strategies used by single mothers in the current study.

DISCUSSION

Self-coping mechanisms are used more in situations that are favoured as changeable (Folkman et al., 1986). Financial strains are perceived as situations that can be changed in time. The desirable satisfactory outcome in the study is when the single mothers achieve financial security. The unsatisfactory outcome is when the single mothers fail to achieve financial security. Additionally, with a number of dependents and being the sole bread winner in the family leads the single mothers to perform the coping strategy such as accepting thing as they are, to work extra hours or else tighten the budget.
The uncertainty in income and unlimited needs and wants influence single mothers's financial practices and self-coping mechanisms that drive the decision making (cognitive) and behaviour of single mothers. The daily financial transactions in financial practices and the contingency action of self-coping mechanisms such as working an extra hour, taking second job or reducing expenses are the characteristics the single mothers choose. In addition, a study by Neill and Xiao, (2012) stated that financial strains caused individuals to change and make positive financial practices, using self-coping mechanisms as the strategy during financial strains.

Perhaps, due to the limited financial resources and lack of financial knowledge among single mothers, the self-coping mechanisms may be the best way to achieve financial security. The contingency actions taken by single mothers during financial strains although not having the high level of financial literacy make it vital for single mothers to do something to survive. Through the coping process, single mothers identify the adaptive ways of coping effort (Ozier et al., 2007). The findings reveal that there is no significant relationship between two variables of financial strains and financial literacy on financial security in the standardised direct model without mediation. However, with the inclusion of self-coping mechanisms as mediator in the structural model proves the indirect mediation effect in the overall financial security model.

CONCLUSIONS
The overall results of the mediating effect of self-coping mechanisms in the relationship between financial strains on financial security has validated the integration of the backbone theory of Life Cycle Theory and Cognitive of Stress and Coping Theory. In addition, this has further explained the interaction between single mothers cognitive and behaviour in the context of consumer studies. Specifically, the mediating effect of self-coping mechanisms has successfully proven the interaction of the relationship between financial strains on financial security of single mothers.

IMPLICATIONS AND RECOMMENDATIONS
The findings of the current study bring crucial implications to the financial institution and financial planner, academic researchers, policy makers, women welfare services agencies, professionals, non-governmental organisations (NGOs), government organisations, and most importantly, to the single mothers in Malaysia.

Academic researchers, policy makers, women welfare services agencies, professionals, non-governmental organisations (NGOs), government organisations.

Academic researchers, policy makers, women welfare services agencies, professionals, non-governmental organisations (NGOs), and government organisations mostly focus on financial perspectives in understanding single mothers. The integration of financial strains, self-coping mechanisms, and financial practices in financial security provides comprehensive understanding on cognitive, financial and behaviour of single mothers. The academic research, especially consumer science research could incorporate these elements into their consumer science education. Money influences individual daily financial decisions and emotions (Klontz, Sullivan, Seay, & Canale, 2015). The financial and psychological aspects could serve as the basis to educate general consumers. Moreover, previous studies focused on poverty among single mothers (Buvinic & Gupta, 1997; Nor Aini & Doris Padmini, 2012) but disregarded their financial and psychological perspectives. The mediation effects of self-coping mechanisms provide a psychological perspective in understanding consumer personal finance. Besides, the current economic volatility with increasing cost of living affects the coping process
among single mothers. The social support received by single mothers during the stressor situations of financial strains plays a role in helping to adapt to the stressor events. It is apparent that the same exact events bring different circumstances to different individuals. Life changing events such as divorce, loss or spouse or abandonment by husband might cause different consequences to different individuals. The coping mechanism that single mothers choose to face difficulties in life, and the likelihood of social support could provide a platform for policy makers, women welfare services agencies, professionals, non-governmental organisations (NGOs), and government organisations in developing specific target programmes to enhance the life of single mothers. Social support programmes for single mothers that may assist in teaching financial literacy, and financial practices, to cope with financial strains and developing self-coping mechanisms may create better outcomes for single mothers.

Recommendations
Firstly, a cross-sectional study would reveal the findings of financial security among single mothers in Malaysia and thus future research should be conducted in a longitudinal study to gather single mothers financial security in the long term. In addition, the current financial situation affects mostly of the households, especially the children of single mothers. A mother as a close agent of socialization might also influence financial socialization of the children (Danes, 1994). In addition, the level of financial strains, self-coping mechanisms, and financial practices with financial security were gathered from the single mothers and it disregarded the financial and psychological aspects of the children. Apart from that, an integration of emotion and perception of children into the future study could bring more understanding of the overall financial and psychological situation of single mothers. The longitudinal study conducted in the future should take into consideration interaction of single mothers and children in achieving financial security in life.

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