**UNIVERSITI PUTRA MALAYSIA**

# ***DETERMINANTS OF FINANCIAL WELL-BEING AMONG YOUNG ADULTS IN PENINSULAR MALAYSIA***

**MERVIN ANTHONY**

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# DETERMINANTS OF FINANCIAL WELL-BEING AMONG YOUNG ADULTS IN PENINSULAR MALAYSIA

By

**MERVIN ANTHONY**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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**Chairman : Professor Mohamad Fazli bin Sabri, PhD**
**Faculty : Human Ecology**

The desirability for young adults (18-29 years old) to achieve personal financial success is linked to determinants such as financial literacy, financial socialization, financial technology and self-control. Troubled by the high cost of living, the effects of covid-19 pandemic and the after effects of the pandemic young adults in Malaysia's financial well-being has become more perilous. Therefore, the major objective of this study was to examine the determinants that affect financial well-being of young adults, the role of financial behaviour as a mediator and the moderating role of gender. A multi stage random sampling method was performed to draw a representative sample of Malaysian young adults, and 360 duly filled responses were received through self-administered questionnaire through smart partnership with Malaysian Youth Council and the Malaysian Ministry of Youth and Sports. Descriptive analysis was conducted in order to summarize the empirical analysis results and factor analysis was done to measure the validity and reliability of the designed survey. This study used SEM-method. The SEM analysis covered the direct, indirect effect, and moderating effect assessment after the inspection of measurement model.

In the context of this study, the System Theory, Unified Theory of Acceptance & Use of Technology (UTAUT), Theory of Self-Control and the Theory of Social Learning, are adapted and incorporated to propose the conceptual framework of young adult's financial well-being. The results showed that there were positive significant relationships and direct effect between financial literacy ($\beta$= 0.12, Z = 2.40, $p$< 0.05), financial socialization ($\beta$= 0.40, Z = 4.97, $p$< 0.05), self-control ($\beta$= 0.19, Z = 2.41, $p$< 0.05), financial technology ($\beta$= 0.29, Z =

4.03, $p < 0.05$), with financial well-being of young adults. Financial behaviour ($\beta = 0.48$, $Z = 3.10$, $p < 0.05$) was the most significant determinant of financial well-being. Rapid developments of fintech in Malaysia are expected to contribute to improvement of young adult's financial well-being. This research found fintech has significant and direct effect on financial behaviour and fintech was found to have significant effect on young adult's financial well-being.

In testing the mediation, the results showed the mediation effect of financial behaviour in the relationships between financial literacy and financial well-being, ($\beta = 0.71$, $p < 0.05$), between financial socialization and financial well-being, ($\beta = 0.19$, $p < 0.05$), between self-control and financial well-being, ($\beta = 0.05$, $p < 0.05$) and between financial technology and financial well-being ($\beta = 0.01$, $p < 0.05$).

Another objective of this study was to analyse how gender of young adults moderates the relationship between financial behaviour and financial well-being. The results indicated that there is an insignificant moderating effect of male in the relationship between financial behaviour and financial well-being ($\beta = 0.26$, $t = 1.388$, $p = 0.16$). The relationship between financial behaviour and financial well-being is stronger when its controlled for gender. In contrast, the results indicated that there is a significant moderating effect of female in the relationship between financial behaviour and financial well-being ($\beta = 0.73$, $t = 2.649$, $p = 0.08$). The study found, the regression slope for male respondents is 0.26 and not significant and the regression slope for female respondents is 0.73 and significant. In other words, the effect of financial behaviour on financial well-being depends on the gender of respondents whereby the effect is not significant for male respondents, while the effect is significant for female respondents.

The findings are in good agreement with relevant theories proposed. Therefore, the current study has both the theoretical and practical contributions, and offers experts with actionable insights regarding the determinants of young adults' financial well-being when designing policies to enable them from moving from a state of lower to higher financial well-being over time.

This research has shown considerable evidence that young adults financial well-being can only happen through positive financial behaviour. As such, this research's public policy recommendation are for young adult's to be made aware of the pitfalls to avoid in using fintech applications, the good aspects of it as well as for female gender specific financial literacy programmes to help them in the attainment of their financial well-being. As financial behaviour developes over time, this study suggests a move away from one-off programmes to a move structured programme as a means of helping young adults develop positive financial behaviours.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PENENTU KESEJAHTERAAN KEWANGAN DALAM KALANGAN BELIA DI SEMENANJUNG MALAYSIA**

Oleh

**MERVIN ANTHONY**

**Januari 2022**

**Pengerusi : Profesor Mohamad Fazli bin Sabri, PhD**
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Keinginan untuk golongan belia (berumur 18-29 tahun) untuk mencapai kejayaan kewangan peribadi dikaitkan dengan faktor penentu seperti literasi kewangan, sosialisasi kewangan, teknologi kewangan dan kawalan diri. Peningkatan kos sara hidup, kesan pandemik covid-19 dan kesan langsung dari pandemik covid-19 menyebabkan kesejahteraan kewangan golongan belia berada dalam keadaan berbahaya. Oleh itu, objektif utama kajian ini adalah untuk mengkaji faktor penentu yang mempengaruhi kesejahteraan kewangan golongan belia, peranan tingkah laku kewangan sebagai pengantara dan peranan jantina sebagai penyederhana. Kaedah persampelan rawak berperingkat dilakukan untuk memilih sampel gologan belia Malaysia, dan sebanyak 360 respons yang lengkap diterima melalui soal selidik yang ditadbir sendiri oleh responden melalui perkongsian pintar dengan Majlis Belia

Malaysia dan Kementerian Belia dan Sukan Malaysia. Analisis deskriptif dan inferensi dilakukan untuk merumuskan hasil analisis empirikal dan analisis faktor dilakukan untuk mengukur kesahan dan kebolehpercayaan tinjauan yang dirancang. Kajian ini menggunakan kaedah SEM. Analisis SEM meliputi penilaian kesan langsung, tidak langsung dan kesan penyederhana selepas pemeriksaan model pengukuran.

Dalam konteks kajian ini, Teori Sistem, Teori Penerimaan dan Penggunaan Teknologi Bersatu (UTAUT), Teori Kawalan Diri dan Teori Pembelajaran Sosial, disesuaikan dan digabungkan sebagai konsep kerangka kajian kesejahteraan kewangan golongan belia. Dapatan kajian menunjukkan bahawa terdapat hubungan signifikan yang positif dan kesan langsung antara literasi kewangan ($\beta = 0.12$, $Z = 2.40$, $p < 0.05$), sosialisasi kewangan ($\beta = 0.40$, $Z = 4.97$, $p < 0.05$), kawalan diri ($\beta = 0.19$, $Z = 2.41$, $p < 0.05$), teknologi kewangan ($\beta = 0.29$, Z =

4.03, p <0.05), dengan kesejahteraan kewangan golongan belia. Tingkah laku kewangan (β = 0.48, Z = 3.10, p <0.05) adalah penentu kesejahteraan kewangan yang paling signifikan.–Perkembangan teknologi kewangan yang pesat di Malaysia diharapkan dapat menyumbang kepada peningkatan kesejahteraan kewangan belia. Penyelidikan ini mendapati teknologi kewangan mempunyai pengaruh yang signifikan dan langsung terhadap tingkah laku kewangan dan teknologi kewangan didapati mempunyai pengaruh yang signifikan terhadap kesejahteraan kewangan belia.

Dalam menguji pengantara, kajian menunjukkan kesan pengantara tingkah laku kewangan dalam hubungan antara literasi kewangan dan kesejahteraan kewangan (β = 0.71, p <0.05), antara sosialisasi kewangan dan kesejahteraan kewangan, (β = 0.19, p <0.05), antara kawalan diri dan kesejahteraan kewangan, (β = 0.05, p <0.05), antara teknologi kewangan dan kesejahteraan kewangan (β = 0.01, p <0.05).

Objektif lain kajian ini adalah untuk menganalisis bagaimana jantina belia menyederhanakan hubungan antara tingkah laku kewangan dan kesejahteraan kewangan. Hasil kajian menunjukkan bahawa terdapat kesan penyederhanaan lelaki yang tidak signifikan dalam hubungan antara tingkah laku kewangan dan kesejahteraan kewangan (β = 0.26, t = 1.388, p=0.16). Hubungan antara tingkah laku kewangan dan kesejahteraan kewangan lebih kuat apabila dikawal untuk jantina. Sebaliknya, hasil menunjukkan bahawa terdapat kesan penyederhanaan wanita yang signifikan dalam hubungan antara tingkah laku kewangan dan kesejahteraan kewangan (β = 0.73, t = 2.649, p=0.08). Kajian mendapati, cerun regresi bagi responden lelaki adalah 0.26 dan tidak signifikan dan cerun regresi bagi responden perempuan adalah 0.73 dan signifikan. Dengan kata lain, kesan tingkah laku kewangan ke atas kesejahteraan kewangan bergantung kepada jantina responden di mana kesannya tidak signifikan untuk responden lelaki, sementara kesannya adalah signifikan bagi responden wanita.

Dapatan kajian ini sesuai dengan teori yang dicadangkan. Kajian ini juga menunjukkan perlunya program khusus mengikut jantina. Oleh itu, kajian ini mempunyai sumbangan teori dan praktikal serta menawarkan pakar dengan pandangan yang dapat diambil tindakan mengenai penentu kesejahteraan kewangan belia ketika merangka polisi untuk membolehkan belia beralih dari keadaan kesejahteraan kewangan yang rendah kepada yang lebih tinggi.

Kajian ini telah menunjukkan bukti bahawa kesejahteraan kewangan belia hanya boleh berlaku melalui tingkah laku kewangan yang positif. Oleh itu, cadangan dasar awam penyelidikan ini adalah untuk belia dimaklumkan tentang perangkap yang perlu dielak dalam menggunakan aplikasi teknologi kewangan. Program celik kewangan khusus untuk belia wanita akan membantu mereka dalam mencapai kesejahteraan kewangan. Oleh kerana tingkah laku kewangan boleh berubah dengan penerapan tingkah laku, kajian ini mencadangkan untuk beralih daripada program literasi sekali sahaja kepada program yang mengambil satu jangka masa sebagai satu cara untuk membantu golongan belia membangunkan tingkah laku kewangan yang positif.

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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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**Declaration by Members of Supervisory Committee**

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

| | |
|---|---|
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## TABLE OF CONTENTS

## LIST OF TABLES

## LIST OF FIGURES

## LIST OF ABBREVIATIONS

| | |
|---|---|
| UPM | Universiti Putra Malaysia |
| AKPK | Credit Counselling and Debt Management Agency |
| BNM | Bank Negara Malaysia |
| B40 | Bottom Income Group |
| CV | Coefficient of Variation COVID-19 2019 Novel Coronavirus |
| EPF | Empolyee Provident Fund |
| GDP | Gross Domestic Product |
| GNI | Gross National Income |
| INFE | International Network for Financial Education |
| MDI | Malaysia Department of Insolvency |
| M40 | Middle Income Group |
| OECD | Organisation for Economic Co-operation and Development |
| SD | Standard Deviation |
| SE | Standard Error |
| SPSS | Software Package for Social Sciences |
| DOS | Department of Statistic |

# CHAPTER 1

# INTRODUCTION

Chapter 1 provides an overview of this research and the definition of the terms as the research operational justification of usage of the terms. The problem statement states and discourses the issue in Malaysia. Further, the research objectives and questions are summarised before the research scope is considered through the research hypothesis. Finally, a brief summary of the potential research contributions is presented. The chapter concludes by outlining the structure of this thesis.

## 1.1 Background of the Study

Young adults in Malaysia are being confronted with an elevated economic risk both due to macroeconomic events and the pandemic aftermath. Many young adults are having financial difficulties with impacts and affects their overall well-being (Serido & Deenanath, 2016).

Given that the world is experiencing one of the worst pandemics in human history since the Spanish flu of 1952, and given that such an event will have negative consequences for young adults' financial well-being, leading to poor personal financial outlook all over the world, it is critical to examine their well-being. As previous study has demonstrated, financial upheavals have a significant impact on the majority of financially vulnerable young adults (Kim et al., 2017), this study is pertinent in light of the current financial crisis due to covid-19-related restrictions. Furthermore, according to research by the Organization for Economic Cooperation and Development (OECD/INFE, 2020), the Covid-19 crisis has made many young adults mentally and financially susceptible, and their financial well-being is worsening, particularly among low-income young adults. In this context, a study in Findland found young adults' betwen the ages of 18-29 years of age were significantly more concerned about the effects on their economic situation than older people and females were more concern about their mental well-being than males (Ranta et al., 2020). As level's of overall well-being has always been on the high side for Finland, this is a sign that young adult's are experiencing decreased psychological financial well-being.

In the year 2021, Malaysia's Gross Domestic Product (GDP) growth has been revised between 3.0- 4.0% from an earlier anticipation of 6.5-7.0% which is bound to affect young adults contribution to the GDP on a macro basis. Based on historical data this GDP growth is the lowest Malaysia will record since the 2008 Global Financial Crisis (GFC) that shackled financial markets including Malaysia's. Correspondingly, Malaysia posted its worst GDP growth in the year

2009. Prior to this, Malaysia's real GDP growth was at an average rate of 6.1% per year over the 1970-2018 period (World Bank,2021). The World Bank Group (2017) categorises countries into high income, upper-middle income, lower-middle-income and lower-income economy. The well-being status of a country is highest for countries that have higher GDP figures. As Malaysia official household debt is at 93.3% of GDP as of December 2020 (Bank Negara Malaysia, 2021) may indicate that its citizens are now in a state whereby they have good financial well-being.Young adults are starting out in the career's and would very often depend on debt to fuel their consumptions particularly initial vehicle purchase or first home purchase (Adzis et al., 2017).For perspective, the Economic Survey of Malaysia indicated the participation rate of all employees in the labour market at 68.3%, including individuals classified as young adults (OECD, 2019).

Further, based on data in 2019, youths in Malaysia constituted 45.8% of the total population of 32.6million, out of which, 7.26 million (52%) are males and 6.62 million (48%) are females (Department of Statistic Malaysia. DOSM, 2020). As such young adult's percentage as per the Malaysian population is significant and their level's of financial well-being will be important determinant for a developing economy like Malaysia's.

Globally there are no universal definition and age brackets of youths, young adults or emerging adults. In Malaysia, in 2019 the definition of the youth age bracket was revised to individuals within the ages of 30 years. According to the Institute for Youth Research Malaysia, in the first quarter of 2020, most of the working population was in the 25 - 34 age group, and they are plunged into youth categories. They continue to define individuals between 15 and 40 years old as youths. Arnett (2000) explained that emerging adults unlike children do not depend on their parents but they are yet to fully embrace full adulthood and the responsibilities that come with it. In addition, Arnett et al., (2014) defined young people at this stage are no longer teenagers, their intellectual, emotional and behavioural ability differs from adults. The transition period for an individual in the young adulthood phase differs according to individual characteristics as they assume full responsibilities of adults.Financial management among young adulthood is an important component towards the attainment of financial well-being yet young adult's are not made aware at the earliest possible age on the significant importance of components that would contribute to their longer term financial well-being.

In realisation that financial well-being of young adults is crucial for the longer term overall development of the country, the Malaysian government responded by launching a five-year National Financial Literacy initiative in the year 2019 with a clear intention to improve the financial well-being of Malaysians of all age groups. Particular emphasis is being provided to the young adults segment. In the lives of young adults, the ever-rising cost of living is a key area of concern and as such the need for this study to determine their financial well-being. The strategies through the National Financial literacy initiative are expected to assist in enhancing financial well-being of all Malaysian households including among young adults. Through this national strategy of the Malaysian government, a forefront agenda is further strengthened to improve young adult's financial well-being, however, what determines this level of financial well-being needs to be investigated.Particularly few studies focussed solely on the 18-29 age group and this research aims to fill this void.

On the global front young adults, financial well-being has been given great importance, in many instances, in the highest governing bodies of respective countries because of the relevance towards the overall stability of the financial system. In the context of this study, young adult's state of financial well-being is explored by the determinants of financial literacy, financial socialization, self-control and financial technology. Young's adults' financial behaviour is the mediating variable in this study and gender is the moderating variable. The issues of financial behaviour are believed to lead to decreased levels of a young adult's financial well-being.

At face value, one of the often-cited reasons for financial well-being is financial literacy (CFPB, 2015).Data from the OECD/INFE (2020) indicates young adults between the ages of 18-29, a similar age group of respondents in this study, to have lower financial knowledge and poor financial behaviours. In the case of Malaysia, the OECD/INFE (2020) International Survey of Adult Financial Literacy indicates that financial knowledge score across individuals of all age groups in the society at 63%.

Financial literacy will correspond with an ability to make financial decisions (Lusardi, 2019) and is a key reason for a young adult's financial well-being. Apart from financial knowledge, awareness, skills, attitude and behaviour constitutes financial literacy according to the OECD/INFE definition. The terms financial wellness and financial well-being is also used interchangeably in the literature. The covid-19 pandemic has reinforced the importance of financial literacy as a life skill. People of all life stages will not be able to manoeuvre life's challenges without financial literacy, a condition more dire in the life of young adults (OECD, 2009). To illustrate, the OECD/INFE High-level Principles on National Strategies for Financial Education was endorsed by the G20 (G20, 2012; OECD/INFE, 2012) in addition to endorsing the OECD/INFE Policy Handbook on National Strategies for Financial Education (OECD, 2015) three years later. One fundamental thought was financial literacy has to start at a young age and is a core competency for young adults (OECD, 2016; OECD/INFE, 2015a).

As for the influence of financial socialization, when such financial practices start with the young adult segment, it would last throughout their lifetime and as it has been evident in numerous studies, the financial well-being of a child would be dependent on what was taught at home with regards to money management

(Bucciol & Veronesi, 2014; Grinstein-Weiss et al., 2011). This is an indication that the family unit has “interdependence” among its members to ensure the financial well-being of all members of the family primarily and for the betterment of society generally.

In terms of self-control, the determinant has often been used on other aspects of well-being and is a critical personality variable. Self-control has been found to be a measure of financial well-being based on money that is accumulated and asset ownership (Moffitt et al., 2011). A higher degree of self-control within a young adult helps them to better manage impulse buying (Faber & Vohs, 2004; Verplanken & Herabadi, 2001) and will reduce their occurrences of money management issues (Moffitt et al., 2011). As such, this determinant which has not been studied in any preceding study among young adults in Malaysia is included in this study.

Malaysia’s desire to become a technology-driven economy will very much hinge on the ability of all segments of the society to adopt technology. In terms of digital technology adoption, fintech is an important element that could help financial well-being. Malaysia’s fintech growth has been promising as Malaysia has 196 fintech companies in the various different segments of financial technology EY (2018), thus indicating that the possibility of young adults adopting such aids could be possible for their financial well-being and the future of fintech in Malaysia.The impact fintech has on young adult’s financial well-being is needed to be explored. In the US, among young adults, a clear finding was those who relied on mobile payments displayed poorer financial behaviours such as utilizing credit (Lusardi et al., 2018).

A mass amount of research supports the hypothesis that better financial behaviour leads to greater financial well-being and less financial concerns. An individual's personal behaviour and everyday financial decisions will determine their financial well-being status. Thus, if young adults have positive financial behaviour, this would lead to a greater possibility of attaining financial well-being, whereby they will have enough resources for present needs, plan for the unexpected as well as project their financial needs for the future (Prendergast et al., 2018). This longer-term outlook of financial resources for the future safeguards one mental state thus deriving a better state of well-being. A key finding in Sabri et al. (2008) was financial behaviour of students will be reflective in their levels of financial well-being.

Young adults of both genders, male and females differ in their behaviour of personal finance matters. Financial decisions are more difficult for young generations today than in the past, according to Lusardi and Mitchell (2014), and are expected to have profound impacts for individuals' life paths, well-being, and wealth. Data in Malaysia indicates that more females pursue tertiary education than males, and as such while they play a supporting role in household finance in Malaysia, their knowledge and financial behaviour could help improve both family finances and to a greater extend societal economic well-being.

Financial well-being can be best attained with proper actions undertaken by an individual when they are young. The time-factor or known as the effect of compounding and avoidance of costly financial mistakes can propel a young adult's financial well-being. Young adults who make poor financial decisions during the early stages of their lives will find such poor financial decisions an hindarance in a later stage of their lives (Lusardi et al., 2010). As a consequence, the predictors deserve attention for young adults so that they could avoid such financial mishaps. Developing positive financial behaviour such as having financial goals, knowing where money is spent and having restraint on spendings will be crucial elements in determining a young adult's financial well-being. Importantly, these positive behavioural finance attitudes must exist in the lives of young adults at the earliest possible age.

In essence, financially incapable young adults would be susceptible to products that they may not need and will make financial product purchase decisions beyond their financial ability (MFPC, 2020). Finance is the science of handling money. As Hira (2016) highlighted, finance is an essential element as all humans spend their time earning money through jobs to meets the needs of life and to have comfort and be free from worries as money provides some assurance that humans will be able to plan individually for their best interest.

## 1.2 Problem Statement

A combination of the ever-rising cost of living, made worse by the covid-19 pandemic and poor financial behaviours leads young adults to financially vulnerable situations. The covid-19 post-crisis world has notably evidenced the need for new individual skills, especially on money management to achieve financial well-being. Empirical evidence shows that high cost of living has a very large adverse impact on family well-being (Zainal et al., 2012).

A core concern in the Malaysian economy currently and post covid-19 would be unemployment numbers among young adults (International Labour Organisation, 2021). Alongside economic growth slowing unemployment is often one casualty during a recession. The unemployment rate recorded in April 2020 was at 5.0 per cent whereas the labour force was at 68.9 per cent of 32.6 million population (DOSM, 2020a). Many young adults therefore may be out of jobs and their financial well-being would be affected in their life-cycle if loss of employment occurs. This would then prevent them from starting families and will cause them to change jobs more often as there is lack of employment opportunities (London, 2014).

In terms of financial literacy and basic understanding of finance concepts evidence from recent OECD/INFE data clearly indicates that young people financial literacy levels are lower and have poor financial management in contrast to their parents which signals more troubling financial futures for young adults. Responsible use and undertaking of credit, poor savings behaviour and living for the moment with little regard of longer-term financial well-being both for themselves or their loved ones are some of the reasons (OECD, 2019). This finding indicates the need for research to determine the influences of financial literacy among young adults as limited recent studies among this specific age group has been conducted. As levels of financial literacy changes a course of time-frame, new studies will be necessary to provide accurate perspective of the current situation.

Financial markets continue to evolve year in, year out and as such financial literacy is essentially important for young adults. Malaysia is among countries where young adults lack financial knowledge rendering it more important for them to make financial decisions such as investing or savings (Garg & Singh, 2018; Lusardi & Mitchell, 2014).

Interestingly, the OECD study also pointed out another determinant being explored in this study, financial socialization. Young adults in Malaysia are facing financial risks, and will be faced with financial products that have become harder and more complex compared to the past. In many instances, at a younger age, they have to make financial decisions. As such what they learnt at home from their parents with regards to money management should hold them in a steadfast position to attain financial well-being. However, as it is common to have both parents working in families, and their reluctance to discuss money matters with their children could be detrimental for young adults as they grow up. When their parents have poor financial behaviours, young adults would generally have the same behaviours Almenberg et al., (2019) found those who have financial knowledge makes better financial decisions for themselves as well as their families which is bound to increase well-being. Young adults' surroundings including people with who they mix around with were found to be an important predictor of financial well-being (Drever et al., 2015; Lanz et al., 2019). Prior research especially in developed countries have found a clear link of parental financial socialization and young adults financial well-being, however such findings in Malaysis remains inconclusive. As the impact of parental financial socialization is important for the well-being of a young adult, this variable is being explored to determine the link with a young adult's financial well-being.

Young adults need to have some degree of self-control to attain financial well-being. As it was found, based on a sample of US young adults many young people tend to have the attitude of You Only Live Once (YOLO) and the Fear of Missing Out (FOMO) and as such do not control their spending and financial decisions or have conscientiousness (Andre, 2020). This is indeed a problem as optimum financial well-being could best occur when important actions are taken during young adulthood. The personality trait of self-control among young people appears not existent according to an Asian Institute of Finance (AIF, 2015) data. Some of the pertinent findings of the study where many young adults were experiencing financial stress early in their lives with 38% taking personal loans and another staggering 47% engaging in poor credit card financial behaviour. The AIF (2015) study highlighted that 75% of young adults have at least one form of long-term debt and had poor repayment habits with 45% reporting to have not paid their debt on time occasionally. The financial well-being of young adults will be impacted with poor repayment capability of credit card debt as found by Nelson et al. (2008), whereby they found credit card debt had a clear link with individuals well-being and could cause negative health risk behaviours among college students. A similar finding was found by Drentea and Reynolds (2012) that individuals who have higher debt levels have poorer well-being state.

The concept of delayed gratification, for instance, has to be part of a young adults' lifestyle to attain financial well-being. There are serious consequences when young adults have no self-control. Birari and Patil (2014) found young people to have no forward financial planning for the longer term and they do not have budgets. As this as the gap of personality trait variables is under researched generally among all age groups and even more sparse among young adults specifically it is included in to be studied in this research. It is clear that some young adults fairs poorly in their ability to manage high debt thus leading to a higher degree of stress and decreased levels of psychological wellbeing (Norvilitis & Santa Maria, 2002) and during young adulthood, it is all more important for them to be able to comprehend the importance of self-control. Very often one of the regrets of older individuals are failure to manage their finances during young adulthood and this is a common issue both in Malaysia and the developed world. In a study by Chatterjee et al. (2019), they found individuals who have a higher degree of self-control reported to have a better composition of financial assets compared to those with poorer levels of self-control.

As even newer, financial technology applications spruce, young adults must be aware of adopting these technologies for their financial well-being. Malaysia is a hotbed for the development of fintech applications (IMF, 2020). Despite this, young adults increase in usage appear spare, thus is a problem for the longer-term development of fintech. Young adults in Malaysia must be able to use these developed technologies in a positive way for their individual financial well-being. Many young adults are not aware of the array of such applications and as such, this is a hindrance to their financial well-being (MoF, 2021). Some of these innovative applications enable young adults to invest in money market funds that currently provides a higher amount than fixed deposit rates in Malaysia which could help to propel their financial well-being. However, there are some fintech applications that could also be detrimental to young adult's financial well-being. These mediums include buy now, pay later (BNPL) using financial technology mediums and community credit loans through financial technology applications, thus the likelihood of young adults falling prey.Personal loans has been the number one cause of bankruptcy since 2016 and continues to be at 53% of all bankruptcy cases (MDI, 2021).With easier mechanisms to purchase products, and young adults being a technologically savvy generation, it is important to study fintech's influence on young adults. There are very limited studies on fintech a young adult's based on a sample from Malaysia.

Financial behaviour is a crucial element for financial well-being. Despite this, accordingly, 28% of AKPK research respondents relied on consumption credit such as credit cards and personal finance loans to buy essentials just to get by (AKPK, 2018). Whilst money management ability among young adults is often a topic of discourse, a large group of young adults are in this position because of their poor ability of managing personal finance and avenues must be made available for them to learn preventive ways rather than curative means of dealing with money management problems. Based on recent data from AKPK, young adults' poor financial management is worrisome as 15% of those enrolled in the AKPK's debt management program are from the age group (AKPK, 2020). In addition, the Malaysian Department of Insolvency (MDI, 2020) indicated that 945 young adults in the 18-35 years old bracket were declared bankrupts in the January to June 2020 period alone, a clear indication that young adults are struggling with their financial behaviours. Rising bankruptcy among young adults is a serious issue. One must bear in mind that in Malaysia the bankruptcy threshold was increased from RM30, 000 to RM50, 000 in the year 2017 and then in the year 2020 under the "Temporary Measure for Reducing the Impact of Coronavirus Disease 2019 (Covid-19) Act 2020", the minimum threshold was raised to RM100, 000 but the total number of bankruptcies cases among young adults continues to be on an upward trend. The current Insolvency Act 1967, which is in use in the year 2022 see the amount of indebtness increased to RM100,000.

In terms of financial behaviour, it was found by Bank Negara Malaysia through the Financial Education Network (2019) that 92% of Malaysians have financial instruments of deposits instead of investment accounts. This is a problem, as optimum financial well-being could best happen when young adults are able to partake in various financial instruments. Financial well-being is improved through optimising financial resources through healthy financial behaviour (Gutter & Copur, 2011; Henager & Mauldin, 2015; Shim et al., 2009).

In terms of an individual's career pathway, young adulthood is a stage whereby most earn the least as they are just starting out in their careers. Many young adults will have different financial burdens (Friedline & West, 2016) and as Xiao et al. (2014) highlighted their vulnerability of signing financial agreements and contracts would be detrimental to their longer-term financial well-being, when performed without the prerequisite experience or knowledge of the financial instrument.

As financial behaviour is significantly important for the attainment of financial well-being, this is explored as a mediating variable in this study. Financial behaviour is considered to be the cornerstone of financial well-being. A state of financial well-being among young adults occurs when they are in control of the the management of finance including having purchase restrains, credit management and savings (Gutter & Copur, 2011; Xiao et al., 2007). Young adults who demonstrate healthy financial behaviours are bound to have lesser financial problems in the future.

However, based on data from the RinggitPlus Malaysian financial literacy survey (2020) which was conducted in collaboration with the Financial Education Network, 60% of youths do not have living expenses need to sustain living should a job loss occurs compared with the total respondents' average of 53% further indicating that young adults are in a more perilous situation. In addition, the survey reveals that 47% of youths spend exactly or more than what they have earned (Financial Education Network, 2019).

Young adults of both genders manage their money differently. Malaysia has a greater number of female young adults completing tertiary education than males. One problem highlighted in the OECD (2019) was the large pool of inactive female labour force representation in Malaysia. The current pandemic, however, has provided perspective for many companies to have Work From Home (WFH) arrangements, and as such young adults of both genders will be able to attain financial well-being. Flexible working practices would be something that will be more mainstream in Malaysian companies and more females will be able to participate in the labour force in the years ahead. In line with this, gender disparities in finances compound women's difficulties in securing their financial well-being.As they are able to participate confidently in economic and financial activities through more changes, thus gender serves as an important moderating variable.

The findings of the analysis in the OECD/INFE (2020) highlighted a clear gender finding whereby women have lower levels of financial knowledge in comparison to men except in Hungary. However, in the case of Malaysia, the OECD reveals than females scores higher in financial literacy 12.6% vs 12.5% for males, financial knowledge for women is lower at 3.6% vs 3.8 for males, financial behaviour was 6.2 % for female vs 6.1% for males. This thus indicates the need for mindset change among many that females have lower levels of financial knowledge especially in the case of Malaysia, whereby the OECD's recent data have indicated an equal finding between both the genders. In light of this, gender as a moderating variable, have further necessitated the need for this study. In this connection, females were found to not relate to general financial behaviour, however in terms of financial well-being it was found there is no positive relationship (Strömbäck et al., 2017). A gender difference was reported by researchers, Kalmi and Ruuskanen (2018) where they find evidence of a positive relationship between financial literacy among women but not among men.

The factors that predict financial well-being are many such as healthcare, education and environment. However, the most important predictor of well-being is often economic well-being as it has a bearing on all other aspects of well-being. There are many factors that predict the financial well-being of young adults that is discussed in the subsequent chapters. The issues highlighted in this problem statement indicates the importance of this research to be conducted. Given the issues discussed in the problem statement the influence of financial literacy, financial socialization, self-control, and financial technology in relation to young adult's financial well-being in Malaysia has further necessitated the need for research in this field. Specifically, this research aims to comprehensively determine the determinants of young adult's financial well-being as the results can contribute in ensuring that young adults could be made aware of pitfalls to avoid in their attainment of financial well-being.

## 1.3 Research Questions

Hence, this study is performed to obtain answers to the following research questions:

1. Does financial literacy, financial socialization, self-control and financial technology influence financial behaviour?
2. Does financial behaviour influence financial well-being?
3. Does financial behaviour mediate the relationship between financial literacy, financial socialization, self-control, financial technology and financial well-being?
4. Does gender moderate the relationship between financial behaviour and financial well-being?

## 1.4 1.4 Main Objective

The main objective of this study is to investigate factors that determine young adult's financial well-being in Peninsular Malaysia.

## 1.5 Research Objectives

Hence this study is carried out to seek answers to the following research objectives:

1. To determine the influences of financial literacy, financial socialization, self-control and financial technology on financial behaviour.
2. To examine the influences of financial behaviour on financial well- being.

3. To investigate the mediating effect of financial behaviour in the relationship between financial literacy, financial socialization, self-control, financial technology on financial well-being.
4. To test the moderating role of gender in the relationship between financial behaviour and financial well-being.

## 1.6 Research Hypotheses

The hypotheses for the current study are: -

| No | Hypothesis Statement |
|---|---|
| $H_1$ | Financial literacy has significant and direct effect on financial behaviour |
| $H_2$ | Financial socialization has significant and direct effect on financial behaviour |
| $H_3$ | Self-control has significant and direct effect on financial behaviour |
| $H_4$ | Financial technology has significant and direct effect on financial behaviour |
| $H_5$ | Financial behaviour has significant and direct effect on financial well-being |
| **Hypothesis on Mediation** | |
| $H_6$ | Financial behaviour mediates the relationship between financial literacy and financial well-being |
| $H_7$ | Financial behaviour mediates the relationship between financial socialization and financial well-being |
| $H_8$ | Financial behaviour mediates the relationship between self-control and financial well-being |
| $H_9$ | Financial behaviour mediates the relationship between financial technology and financial well-being |
| **Hypothesis on Moderation** | |
| $H_{10}$ | Gender of respondents moderates the relationship between financial behaviour and financial well-being |

## 1.7 Contributions of the Research

The contributions of this study are illustrated by methodological, practical and theoretical.

### 1.7.1 Methodological Contributions

In terms of methodological, as postulated in the High-level Principles on National Strategies, developed by the OECD International Network on Financial Education (OECD/INFE), a key national strategy must constitute an assessment of the financial literacy level of the population (OECD, 2015). The same report does not include a financial well-being score for Malaysia; hence this research aims to provide some perspective of the state of financial well-being among young adults. Also, based on a total of 44 know studies based on the finding of (Sorgente & Lanz, 2017), the majority of studies were published after the Global

Financial Crisis in contrast to only six studies published before the year 2008. Older adults are lesser impacted compared to young adults by the global financial and economic crisis than older adults (Choudhry et al., 2010; Verick, 2009).

As such, the methodological contribution from this research is i) focus on young adults whereby minimum amount of research has been conducted and ii) provide perspective of the state of financial well-being of young adults in Malaysia. Attention of this study focussed on young adults, to help prevent them from financial stressful events in their future life-cycle.

### 1.7.2 Practical Contributions

Financial missteps early in life of an individual, if not corrected, can have severe consequences for an individual's lifetime. In money management, the concept of compounding interest states that one must start as early as possible to gain the best outcome from such financial management practices. Young adults are very often influenced by the lifestyle of choice and the concept of YOLO (You Only Live Once), must be eradicated from their mindset. In Malaysia, there are many factors affecting young adult's financial well-being. As highlighted by Sundarasen and Rahman (2017) the financial environment that consumers face today is becoming increasingly complex, requiring a complicated set of financial decisions, a reality highly relevant to young adults, who, will need to make numerous financial decisions often with longer term consequences which will hinder their financial well-being.

This research intends to be of benefit to the local financial services industry, particularly to ensure that the programmes that will be undertaken would be of benefit to the target participants- young adults in Malaysia. The researcher hopes that policymakers will use findings from this study for the benefit of young adult's financial well-being with the various initiatives that they ought to undertake. In addition, agencies such as the Financial Planning Association of Malaysia (FPAM), Malaysian Financial Planning Council (MFPC), Association of Financial Advisers (AFA) and a host of other stakeholders Employees Provident Fund (EPF), Inland Revenue Board (IRB), Federation Investment Managers Malaysia (FIMM), Perbadanan Insurans Deposit Malaysia (PIDM), Securities Commission Malaysia (SC) through their multi collaborative programmes for young adults should be able to gain some perspective from this research. In addition, the use of technology-driven educational platform will ensure financial well-being could be intensified through the development of more engaging content such as short videos.

### 1.7.3 Theoretical Contributions

In terms of theoretical contribution, based on a scoping review by Sorgente and Lanz (2017) on the literature on financial well-being among emerging adults (i.e., people aged 18–29 years old; Arnett, 2000) from 1990-2017 it found that the focus was both on the objective and subjective financial well-being, however, no known study has included a personality trait variable of self-control. This study explores this variable. In addition, this study contributes to the literature on the financial well-being of young adults in various ways. Despite their importance to a nation's economy, there are few studies that has been undertaken with the sole focus on this age group especially in an emerging economy like Malaysia. As self-control has been determined as a barrier in achieving financial well-being especially among the young adults' category, its role as a suppressor to attain financial well-being forms part of the theoretical contribution.

This study is potentially a new contribution to the body of knowledge in terms of the importance of the role of technology adoption among young adults to attain financial well-being. From the framework presented, the new relationship of financial behaviour through the use of financial technology to attain financial well-being is explored by the UTAUT theory. Financial technology has impacted financial well-being (Frame et al., 2019) and as such, this would be a relevant theoretical contribution. Past studies in Malaysia which studied the financial well-being of young employees/ youths/young adults/ emerging adults did not examine the use of financial technology and how it could aid financial well-being. In all fairness, the availability of financial technology methods that could contribute to youth's financial well-being is relatively very new in Malaysia, as such, why this perhaps has not been explored by other researchers previously. This study could add to the literature which suggests that fintech plays a crucial role in young adult's financial well-being.

Furthermore, as to measure, the personality trait variable of self-control the theoretical underpinnings, the theory of self-control is incorporated in this study. The self-control theory has not been used in any preceding study on financial well-being of young adults in Malaysia. The inclined relationship with self-control and financial well-being delves away from the current state of literature of financial well-being of young adults in Malaysia. Additionally, only a few studies on young adults have explored the mediating role of financial behaviour, this study potentially contributes by examining the mediating effect of financial behaviour in the relationship between financial literacy, financial socialization, self-control and financial technology. This study also looks at the moderating effect of gender, and in the researchers search more recent studies have reported positive findings of female financial behaviour in the attainment of financial well-being. Hence, the moderation of gender and if it moderates the relationship between financial behaviour and financial well-being could potentially provide a more in-depth understanding.

The findings of this study will contribute to new knowledge in the field of personal financial management among young adults. System theory, includes structural and process constructs (e.g. input, throughput, and output). Danes and Yang (2014), explained that these are developmental sequences that are needed in order to achieve a successful financial satisfaction or a sense of well-being derived from demands being met (Deacon & Firebaugh, 1988). The primary focus of family resource management is the management of financial resources. In this study, the target population are young adults. Whilst many have not achieved financial well-being, their ability to do so cannot be discounted. This study can contribute to the body of knowledge by identifying target groups for suitable programs among the young adult's segment which can be directed towards tailoring interventions that address the particular characteristics, strengths, and weaknesses of the genders. A move away from a specific programme approach (a one size fits all) may be necessary. The effort to identify the best practice and innovative delivery remain a struggle even for the regulators in Malaysia. Segmenting individuals according to a cohort will help to provide more customised programmes in this case among the genders. The approach must be geared to target financial behaviours, using appropriate means.

## 1.8 Limitations of the Study

The present study has certain limitations that ought to be addressed.

One of the major limitations of this study, data collection was conducted during the covid-19 pandemic fueled months, limiting the researchers' intention to have basic financial literacy programme as a means to help young adults better comprehend managing money. The pandemic also had a strain to young adults earning capability; however, this has been addressed in the questionnaire.

The second limitation of the study is the adoption of technology was leapfrogged among all sections of the society in view of covid-19. In this regard, basic use of technology applications for personal finance especially banking services was not an option to be considered for most young adults.

The third limitation in this study was the usage of cross-sectional data and self-reported responses which does not allow further interpretation of the data.

## 1.9 Definition on Main Terminologies

### 1.9.1 Financial Literacy

**Conceptual**

"Financial literacy refers to a combination of awareness, knowledge, skill, attitude and behaviour necessary to build sound financial decisions and ultimately achieve individual financial well-being" (Atkinson & Messy, 2012).

**Operational**

Financial literacy in this study refers to the level of knowledge in finance among young adults and the significant relationship with day-to-day personal financial management to attain financial well-being.

### 1.9.2 Financial Socialization

**Conceptual**

"Financial socialization indicates parents play a critical role in enhancing knowledge on economic matters, which can positively affect financial well-being" (Agnew et al., 2018; Shim et al., 2009) and are a crucial source of financial socialization for young adults.

**Operational**

Financial socialization in this study refers to observations that young adults gained from their parents in their everday financial habits for them to emulate.

### 1.9.3 Self-Control

**Conceptual**

"Self-control is typically manifested as our ability to break bad habits, resist temptations and overcome first impulses" (Baumeister, 2002; Fujita et al., 2006).

**Operational**

Self-control in this study refers to a young adult's ability to control their current self for something that is to come in the future. In this study, a young adult's self-control is measured by the way they plan for their future buy suppressing current desires as well as to gauge their control over their finances.

### 1.9.4 Financial Technology

**Conceptual**

Financial technology or better known as "FinTech refers to an innovative financial service that emerged in tandem with the new technologies advancement, it incorporates the whole plethora of technology that is used in finance to facilitate trades, corporate business or interaction and services provided to retail consumers" (Micu & Micu, 2016).

**Operational**

Financial technology in this study refers to young adult's adoption of financial technology platforms/services as part of the ecosystem of attaining financial well-being. It also explores young adult's usage and reasons for using fintech as well as for what particular transactions fintech platforms are most used by them.

### 1.9.5 Financial Behaviour

**Conceptual**

Financial behaviour is "a pattern of action over time such as earning, saving, spending, and gifting" and also includes "financial turning points and decision making" (Gudmunson & Danes, 2011).

**Operational**

Financial behaviour in this study refers to young adults' actions such as having a budget, cash flow management, make plans for spending, managing credit and planning finances for the longer term.

### 1.9.6 Financial Well-Being

**Conceptual**

"Financial well-being refers to more than just happiness. As well as feeling satisfied and happy, well-being means developing as a person, being fulfilled, and making a contribution to the community" (Shah & Marks, 2004).

### Operational

Financial well-being in this study refers to young adult's assessment of their quality of life according to their own chosen criteria and individual perception. This is by understanding their sufficiency of money for everyday living as well as emergency savings for the future.

## 1.10 Organisation of the Study Chapters

The thesis is divided into five chapters.

Chapter one provides the overview of the study by discussing the importance on the conduct of the study, the problems of young adult's financial well-being in Malaysia and how young adults could have a better degree of financial well-being. The research questions, objectives and hypotheses were detailed in this chapter. The operational definition as well as the conceptual definitions were also highlighted in this chapter.

Chapter two discusses the literature related to the variables under study. A range of literature on financial literacy, financial socialization, self-control, financial technology as well as financial well-being was synthesized to provide a core understanding of the study with relevance to suggested theories and the studies which have previously utilised similar theories. In addition, this chapter explains the theoretical framework and the linkages towards how financial behaviour aids financial well-being.

Chapter three highlights the method that was used to undertake the research study, including the sample size, how it was chosen, the locations, data collection procedures and subsequently the steps to analyze the data.

Chapter four highlights the findings of the study and draws a connection to the existing available literature. It discusses the findings of other studies in the field and highlights similarities and differences that were found.

In Chapter five the summary of the study, the limitations, implications, recommendations and areas for future studies are provided.

## 1.11 Chapter Summary

This chapter provided a detailed introduction to the study. It highlights the need for the study to be conducted by discoursing the issues in the problem statement.

The study's research questions, objectives, and hypotheses were all detailed. The study's importance and limitations were also discussed. The study is useful in many folds. First, it creates awareness of financial well-being of young adults in Malaysia. Second, it provides useful insights on possible intervention programmes to be conducted that would have lasting implications for young adults. Third, the importance of young adult's financial behaviour is examined.

## REFERENCES


Abdullah, K., Noor, N. M., & Wok, S. (2008). The perceptions of women's roles and progress: A study of Malay women. *Social Indicators Research*, *89*(3), 439-455.

Abdullah, N., Fazli, S. M., & Arif, A. M. M. (2019). The Relationship between attitude towards money, financial literacy and debt management with young worker's financial well-being. *Pertanika Journal of Social Sciences and Humanities, 27*(1), 361-387.

Abrantes-Braga, F., & Veludo-de-Oliveira, T. (2019). Development and validation of financial well-being related scales. *International Journal of Bank Marketing, 37*(4), 1025-1040.

Achtziger, A., Hubert, M., Kenning, P., Raab, G., & Reisch, L. (2015). Debt out of control: The links between self-control, compulsive buying, and real debts. *Journal of Economic Psychology*, *49*, 141–149. https://doi.org/ 10.1016/j.joep.2015.04.003

Ackerman, N., & Paolucci, B. (1983). Objective and subjective income adequacy: Their relationship to perceived life quality measures. *Social Indicators Research, 12*(1), 25–48. https://doi.org/10.1007/BF0042 8859

Acock, A. C., & Washburn, I. (2013). Quantitative methodology for family science. In: Peterson, G., Bush, K. (Eds), *Handbook of Marriage and the Family* (3rd edition, pp. 65-89). Springer, Boston, MA. https://doi. org/10.1007/978-1-4614-3987-5_4

Adler, N. E., & Stewart, J. (2010). Health disparities across the lifespan: Meaning, methods, and mechanisms. *Annals of the New York Academy of Sciences, 1186*, 5–23. https://doi.org/10.111 1/j.1749-6632.2009.05337.x

Adzis, A., Abu Bakar, J., & Kadir Shahar, H. (2017). Factors influencing young adults' debt in Malaysia. *Journal of Business and Retail Management Research,* 1*2,* 76-85. https://doi.org/10.24052/JBRMR/ V12IS01/ FIYADIM.

Afthanorhan, A., Awang, Z., & Aimran, N. (2020a). An extensive comparison of CB-SEM and PLS-SEM for reliability and validity. *International Journal of Data and Network Science*, *4*(4), 357-364.

Afthanorhan, A., Awang, Z., & Fazella, S. (2017a). Developing the patients' loyalty model for medical tourism industry: the case of Malaysia. *International Journal of Society Systems Science*, *9*(2), 139-164.

Afthanorhan, A., Awang, Z., & Fazella, S. (2017b). Perception of tourism impact and support tourism development in Terengganu, Malaysia. *Social Sciences*, *6*(3), 106.

Afthanorhan, A., Awang, Z., Rashid, N., Foziah, H., & Ghazali, P. (2019). Assessing the effects of service quality on customer satisfaction. *Management Science Letters*, *9*(1), 13-24.

Afthanorhan, A., Awang, Z., Salleh, F., Ghazali, P., & Rashid, N. (2018). The effect of product quality, medical price and staff skills on patient loyalty via cultural impact in medical tourism. *Management Science Letters*, *8*(12), 1421-1424.

Afthanorhan, A., Mamun, A. A., Zainol, N. R., Foziah, H., & Awang, Z. (2020b). Framing the retirement planning behavior model towards sustainable wellbeing among youth: The moderating effect of public profiles. *Sustainability*, *12*(21), 8879.

Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S., & Evanoff, D. D. (2015). Financial literacy and financial planning: Evidence from India. *Journal of Housing Economics, 27,* 4-21.

Agarwal, S., & Zhang, J. (2020). FinTech, lending and payment innovation: A review. *Asia-Pacific Journal of Financial Studies*, https://ssrn.com/abstract=3573248

Agarwal, S., Driscoll, J. C., Gabaix, X., & Laibson, D., (2009). The age of reason: financial decisions over the life cycle and implications for regulation. Brook. Pap. Econ. Act. 2009, 51–117.

Aggarwal, S. (2014). Developing an index for measuring financial well-being in a geography. IFMR Finance Foundation. https://www.dvara.com/blog/2011/02/14/developing-an-index-for-measuring-financial- well-being-in-a-geography/.

Agnew, S., Maras, P., & Moon, A. (2018). Gender differences in financial socialization in the home—An exploratory study. *International Journal of Consumer Studies*, *42*(3), 275–282.

Ahad, N., Sin, Y. T., Othman, A., & Yaacob, C. (2011). Sensitivity of normality tests to non-normal data (kepekaan ujian kenormalan terhadap data tidak normal). *Sains Malaysiana*, *40*, 637-641.

Aiken, L. S., & West, S. G. (1991). Multiple Regression: Testing and interpreting interactions. Sage Publication.

Aimran, A. N., Ahmad, S., Afthanorhan, A., & Awang, Z. (2017a). The development of comparative bias index. In *AIP Conference Proceedings* (Vol. 1870, No. 1, p. 060008). AIP Publishing.

Aimran, A. N., Ahmad, S., Afthanorhan, A., & Awang, Z. (2017b). The assessment of the performance of covariance-based structural equation modeling and partial least square path modeling. In *AIP Conference Proceedings* (Vol. 1842, No. 1, p. 030001). AIP Publishing.

Akben-Selcuk, E. (2015). Factors influencing college students' financial behaviors in Turkey: Evidence from a National Survey. *International Journal of Economics and Finance*, *7*(6), 87–94. https://doi.org/10.5539/ijef.v7n6p87

Akben-Selcuk, E., & Altiok-Yilmaz, A. (2014). Financial literacy among Turkish college students: The role of formal education, learning approaches, and parental teaching. *Psychological Reports*, *115*(2), 351–371. https://doi.org/10.2466/31.11.PR0.115c18z3

AKPK. (2018). Financial behaviour and state of financial well-being of Malaysian working adult.https://www.akpk.org.my/sites/default/files/AKPK_Financial%20Behaviour%20and%20 State%20of%20Finanical%20Well-being%20of%20Malaysian%20 Working%20Adult.pdf

Alba, J. W., & Hutchinson, J. W. (2000). Knowledge calibration: what consumers know and what they think they know. *Journal of Consumer Research*, *27*(2), 123-156.

Albeerdy, M. I., & Gharleghi, B. (2015). Determinants of the financial literacy among college students in Malaysia. *International Journal of Business Administration, 6*(3), 15-24. https://doi.org/10.5430/ijba.v6n3p15

Alias, N., Awang, Z., & Muda, H. (2019). Policy implementation performance of primary school leaders in Malaysia: An exploratory factor analysis. *IIUM Journal of Educational Studies, 7*(2), 22-39.

Allen, P., Bennett, K., & Heritage, B. (2014). SPSS statistics version 22: A practical guide. Australia: Cengage Learning Australia.

Allgood, S., & Walstad, W. B. (2016). The effects of perceived and actual financial literacy on financial behaviors. *Economic Inquiry*, *54*(1), 675-697.

Almenberg, J., Lusardi, A., Säve-Söderbergh, J., & Vestman, R. (2019). Attitudes toward debt and debt behavior NBER working paper No. 24935.JEL No. D14, D15, D91.

Ameliawati, M., & Setiyani, R. (2018). The influence of financial attitude, financial socialization, and financial experience to financial management behavior with financial literacy as the mediation variable. *In International Conference on Economics, Business and Economic Education 2018* (pp. 811–832). KnE Publishing.

Amin, H., Hamid, M. R. A., Lada, S., & Anis, Z. (2008). The adoption of mobile banking in Malaysia: The case of Bank Islam Malaysia Berhad. *International Journal of Business and Society, 9*, 43-53.

Anderloni, L., Bacchiocchi, E., & Vandone, D. (2012). Household financial vulnerability: An empirical analysis. *Research in Economics*, *66*(3), 284-296.

Anderson, J., Danielle, H., & Myra, V. (2019). The Role of financial services in youth education and employment. Working Paper. Washington, D.C.: CGAP.

Anderson, M. (2015). Technology device ownership: 2015. Report, PEW Research Center.

Andre, F., Forbes Marketplace. (2020).https://www.forbes.com/sites/forbesmarketplace/2020/04/23/what-are-fomo-and-yolo-teaching-us-about-our-money/?sh=46c2ab4512dd

Andrews, B., & Wilding, J.M. (2004). The relation of depression and anxiety to life-stress and achievement in students. *British Journal of Psychology, 95*, 509-521. http://dx.doi.org/10.1348/0007126042369802

Angeletos, G. M. (2001). The hyberbolic consumption model: Calibration, simulation, and empirical evaluation, *Journal of Economic Perspectives*, *15*(3) 47-68.

Anthony, M., Sabri, M. F., Magli, A. S., Rahim, H. A., Burhan@Jaohari, N. A. S., Othman, M. A., & Abdullah, H. (2021). The financial health and the usage of financial technology among young adults. *International Journal of Academic Research in Business and Social Sciences, 11*(19), 44–67.

Anthony, M., Sabri, M. F., Wijekoon, R., Rahim, H. A., Abdullah, H., Othman, M. A., & Yusoff, I. S. M. (2021). The influence of financial socialization, financial behavior, locus of control and financial stress on young adults' financial vulnerability. *International Journal of Academic Research in Business and Social Sciences, 11*(19), 289–309

Arber, S., Fenn, K., & Meadows, R. (2014). Subjective financial well-being, income and health inequalities in mid and later life in Britain. *Social Science and Medicine, 100*, 12-20.

Arner, D. W., J. N. Barberis., & R. P. Buckley. (2016). The evolution of fintech: A new post-crisis paradigm? UNSW Law Research Paper 2016-62, University of Hong Kong Faculty of Law Research.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. https://doi.org/10.1037/0003-066X.55.5.469.

Arnett, J. J., & Schwab, J. (2012). The Clark University poll of emerging adults: Thriving, struggling, and hopeful. Worcester, MA: Clark University.

Arnett, J. J., Zukauskiene, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18-29 years: Implications for mental health. *The Lancet Psychiatry, 1*(7), 569-576.

Arrondel, L., Debbich, M., & Savignac, F. (2015). Stockholding in France: the role of financial literacy and information. *Applied Economics Letters*, *22*(16), 1315–1319.

Asia Money Parenting Survey. (2020).https://https://eastspring.com/docs/librariesprovider6/fund-announcements-media-releases/my/2021/my-moneyparenting-press-release-(jan-2021)--final_final.pdf?sfvrsn=57f567f_4

Asian Institute of Finance. (2015). Finance matters: understanding gen y,.https://www.aif.org.my/clients/aif_d01/assets/multimediaMS/publication/Finance_Matters_Understanding_Gen_Y_Bridging_the_Knowledge_Gap_of_Malaysias_Millennials.pdf

ASIC. (2018). Report 600: Review of buy now pay later arrangements, ASIC, Canberra, https://download.asic.gov.au/media/4957540/rep600-published-07-dec-2018.pdf.

Asnawi, A., Awang, Z., Afthanorhan, A., Mohamad, M., & Karim, F. (2019). The influence of hospital image and service quality on patients' satisfaction and loyalty. *Management Science Letters*, *9*(6), 911-920.

Atkinson, A., & Messy, F.A. (2012). Measuring financial literacy results of the oecd / international network on financial education (INFE) pilot study (no. 15). OECD Working Papers on Finance, Insurance and Private Pensions. https://doi.org/10.1787/20797117

Atkinson, A., McKay, S., Kempson, E., & Collard, S. (2006). Levels of financial capability in the UK: Results of a baseline survey (Consumer Research No. 47). Financial Services Authority website: http://www.fsa.gov.uk/pubs/consumer-research/ crpr47.pdf.

Atwood, J. D. (2012). Couples and money: The last taboo. *The American Journal of Family Therapy, 40*(1), 1-19.

Aw, E. C. X., & Sabri, M. F. (2018). Financial literacy and related outcomes: The role of financial information sources. *International Journal of Business & Society, 20*(1), 286–298.

Awang, Z. (2012). *Research methodology and data analysis*. Penerbit Universiti Teknologi MARA Press. Malaysia.

Awang, Z. (2014). A handbook on SEM for academicians and practitioners: the step-by-step practical guides for the beginners. *Bandar Baru Bangi, MPWS Rich Resources*.

Awang, Z. (2015). SEM made simple: A gentle approach to learning structural equation modelling. *Bandar Baru Bangi, MPWS Rich Resources*.

Awang, Z., Afthanorhan, A., & Mamat, M. (2016). The Likert scale analysis using parametric based Structural Equation Modeling (SEM). *Computational Methods in Social Sciences*, *4*(1), 13-21.

Awang, Z., Afthanorhan, A., Mamat, M., & Aimran, N. (2017). Modeling Structural Model for Higher Order Construct (HOC) using Marketing Model. *World Applied Sciences Journal*, *35*(8), 1434-1444.

Awang, Z., Afthanorhan, A., Mohamad, M., & Asri, M. A. M. (2015a). An evaluation of measurement model for medical tourism research: the confirmatory factor analysis approach. *International Journal of Tourism Policy*, *6*(1), 29-45.

Awang, Z., Afthanorhan, W. M. A. W., & Asri, M. A. M. (2015b). Parametric and non-parametric approach in structural equation modeling (SEM): The application of bootstrapping. *Modern Applied Science*, *9*(9) 58.

Awang, Z., Lim, S. H., & Zainudin, N. F. S. (2018). Pendekatan mudah SEM-Structural Equation Modelling. *Bandar Baru Bangi, MPWS Rich Resources*.

Awang, Z., Rahlin, N. A., & Afthanorhan, A. (2019). Conceptual framework for best practices of behavior-based safety performance evaluation in SME. *Journal of Applied Engineering Science, 17(4).*

Aydemir, S. D., & Aren, S. (2017). Do the effects of individual factors on financial risk- taking behavior diversify with financial literacy? *Kybernetes, 46* (10), 1706-1734.

Aziz, M. I., Afthanorhan, A., & Awang, Z. (2016). Talent development model for a career in Islamic Banking Institutions: A SEM approach. *Cogent Busines and Management 3*(1), 1186259.

Azli, R. M., Palil, M. R., Nor, S. M., Hamid, M. A., & Awang, Z. (2017). The role of Ar-Rahnu's Benefits-Sacrifices Exchange towards relationships between customers and Islamic Financial Institutions. *Pertanika Journal of Social Sciences & Humanities*, *25*.

Bahkia, A. S., Awang, Z., Afthanorhan, A., Ghazali, P. L., & Foziah, H. (2019). Exploratory factor analysis on occupational stress in context of Malaysian sewerage operations. *AIP Conference Proceedings*, *2138*(1). doi.org/10.1063/1.5121111

Bahkia, A. S., Awang, Z., Rahlin, N. A., & Zulkifli, A. R. (2020). The Importance of supportive leadership in the sewerage operation industry: A case of indahwater konsortium private IWK. *Humanities and Social Science Review. 8*(3)149-162. https://doi.org/10.18510/hssr.2020.8317

Baistaman, J., Awang, Z., Afthanorhan, A., & Abdul Rahim, M. Z. (2020a). Developing and validating the measurement model for financial literacy construct using confirmatory factor analysis. *Humanities and Social Science Review*, *8*(2), 413-422. https://doi.org/10.18510/hssr. 2020.8247.

Baistaman, J., Awang, Z., Nawawi, R., Arifin, N., Mustapha, W. M., & Shari, A. S. (2020b). Assessing measurement model of Malaysian voluntary saving decision for future retirement planning using confirmatory factor analysis. *International Journal of Accounting, Finance and Business (IJAFB). 5*(26), 1-7.

Bakar, E. A., Masud, J., & Jusoh, Z. M. (2006). Knowledge, attitude and perceptions of university students towards educational loans in Malaysia. *Journal of Family Economic Issues*, *27*, 692-701. http://dx.doi.org/ 10.1007/s10834-006-9035-6

Bakar, M. Z. A., Bakar, S. A., & Ayub, S. H. (2020). Financial education as moderating influence in prudent financial management practices among Malaysian Youth. *International Journal of Academic Research in Business and Social Sciences, 10*(2), 1–11.

Baker, H. K., Kumar, S., Goyal, N., & Gaur, V. (2018). How financial literacy and demographic variables relate to behavioural biases. *Managerial Finance*, https://doi.org/10.1108/MF-01-2018-0003.

Ballinger, T. P., Hudson, E., Karkoviata, L., & Wilcox, N. T. (2011). Saving behavior and cognitive abilities. *Experimental Economics, 14*(3), 349-374.

Bamforth, J., & Geursen, G. (2017). Categorising the money management behaviour of young consumers. *Young Consumers*, *18*(3), 205-222.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, *84(*2), 191.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4*(3), 359-373. https://doi.org/10.1521/jscp.1986.4.3.359

Bank Negara Malaysia. (2021). *Economic and Monetary Review 2020*. https://www.bnm.gov.my/documents/20124/2294076/ar2020_slides.pdf

Bank Negara Report. (2019). Annual report & financial stability and payment system report. https://www. bnm.gov.my/documents/2019/2018_AR_ FSPSR_slides.pdf

Barnard, B. (2020). FinTech for all ensuring that everyone benefits from innovative financial services Afterword by Lord Darling of Roulanish, Policy Exchange, London, https://policyexchange.org.uk/publication/fintech-for-all/.

Barnea, A., Cronqvist, H., & Siegel, S. (2010). Nature or nurture: what determines investor behavior? *Journal of Financial Economics. 98,* 583–604. https:// doi: 10.1016/j.jfineco.2010.08.00

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bashir, T., Hassan, A., Nasir, S., Baber, A., & Shahid, W. (2013). Gender differences in saving behavior and its determinants: Patron from Pakistan. *IOSR Journal of Business and Management (IOSR-JBM), 9*(6), 74–86.

Batty, M., Collins, J. M., & Odders- White, E. (2015). Experimental evidence on the effects of financial education on elementary school students' knowledge, behavior, and attitudes. *Journal of Consumer Affairs, 49*(1), 69-96

Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research, 28*(4), 670–676. https://doi.org/10.1086/338209

BCG and Mastercard Foundation (2018). Financial services for young people: Prospects and challenges, Mastercard Foundation, https://mastercardfdn.org/wp- content/uploads/2018/06/Youth-Financial-Services-Accessible.pdf.

Behrman, J. R., Mitchell, O. S., Soo, C. K., & Bravo, D. (2012). How financial literacy affects household wealth accumulation. *American Economic Review, 102*(3), 300-304.

Bell, M. M., Nelson, J. S., Spann, S. M., Molloy, C. J., Britt, S. L., Briana, S., & Goff, N. (2014). The Impact of financial resources on soldiers' well-being. *Journal of Financial Counseling and Planning, 2*5(1), 41–52.

Bender, K. A. (2004). The well-being of retirees: Evidence using subjective data. *Center for Retirement Research at Boston College Working Paper No. 2004-24*.

Bernhardt, D., & C. Cuevas (2016, May). The pied piper of pensioners. Working Paper.

Bernheim, B. (1998). Financial literacy, education, and retirement saving. In Living with defined contribution pensions: Remaking responsibility for retirement, Mitchell, O. S., & Schieber, S. J. (Eds.) , pp. 38–68. Philadelphia: University of Pennsylvania Press.

Biljanovska, N., & Palligkinis, S. (2015). Control thyself: Self-control failure and household wealth. *Journal of Banking and Finance*, *92*, 280-294. https://doi.org/10.1016/j.jbankfin.2016.10.010

Birari, A., & Patil, U. (2014). Spending & saving habits of youth in the city of Aurangabad. *The SIJ Transactions on Industrial, Financial & Business Management, 2(3),* 158 –165.

Boddington, L., & Kemp, S. (1999). Student debt, attitudes towards debt, impulsive buying and financial management. *New Zealand Journal of Psychology, 28*, 89- 93.

Bolognesi, A., Hasler, A., & Lusardi, A. (2020). Trends and Issues February 2020 Millennials and money: The state of their financial management and how workplaces can help them, TIAA Institute, https://www.tiaainstitute.org/sites/default/files/presentations/2020-02/TIAA%20Institute_Millennials%20and%20Money_T%26I_Lusardi_02%2020.pdf.

Boon, T. H., Yee, H. S., & Ting, H. W. (2011). Financial literacy and personal financial planning in Klang Valley, Malaysia.*International Journal of Economics and Management*, *5*(1), 149-168.

Borden, L. M., Lee, S.-A., Serido, J., & Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of Family and Economic Issues, 29(1)*, 23-40.

Bowman, D., Banks, M., Fela, G., Russell, R., & Silva, A.D. (2017). Understanding financial wellbeing in times of insecurity, Brotherhood of St. Laurence, Fitzroy, Vic.

Brauner-Otto, S. R., & Geist, C. (2018). Uncertainty, doubts, and delays: Economic circumstances and childbearing expectations among emerging adults. *Journal of Family and Economic Issues, 39*(1), 88–102. https://doi.org/10.1007/s10834-017-9548-1

Britt, S. L. (2016). The intergenerational transference of money attitudes and behaviors. *Journal of Consumer Affairs, 50*(3), 539– 556. https://doi.org/10.1111/joca.12113

Brown, M., John, G., Wilbert, V.D. K., Jaya, W., & Basit, Z. (2015). Financial education and the debt behavior of the young. Staff Report no. 634. New York: Federal Reserve Bank of New York.

Brown., & Venkatesh. (2005). Model of adoption of technology in households: A Baseline model test and extension incorporating household life cycle. *MIS Quarterly*, 293, 399.

Bruggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Lofgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research, 79* (October), 228–237. https://doi.org/10.1016/j.jbusres.2017.03.013

Bryman, A., & Teevan, J. J. (2005). Social research methods. Canadian edition. Don Mills: Oxford University Press.

Bucciol, A., & M. Veronesi. (2014). Teaching children to save: What is the best strategy for lifetime savings? *Journal of Economic Psychology*, *45*, 1-17. http://dx.doi.org/10.1016/J.JOEP.2014.07.003

Bucher-Koenen, T., & Lusardi, A. (2011). Financial literacy and retirement planning in Germany. *Journal of Pension Economics & Finance, 10*(4), 565-584.

Bush, K. R., & Peterson, G. W. (2013). Parent–child relationships in diverse contexts. In: *Handbook of marriage and the family*. USA: Springer, Boston, MA.

Campara, J., Vieira, K., & Potrich, A. (2017). Overall life satisfaction and financial well-being: revealing the perceptions of the beneficiaries of the bolsafamılia program. *Brazilian Journal of Public Administration, 51*(2), 182-200.

Campbell, A., Converse, P. E., & Rodgers, W. L. (1977). The quality of American Life: Perceptions, evaluations, and satisfactions. *Canadian Journal of Political Science, 10*(4), 875–877.

Carlin, B. I., Jiang, L. & Spiller, S. (2016). Millennial-style learning: Search intensity, decision-making, and information-sharing. *Management Science*.

CFPB. (2015). Financial well-being: The goal of financial education.

CGAP. (2019). How are Kenya's youth experiencing the gig economy, Blog series, http://www.cgap.org/blog/how-are-kenyas-youthexperiencing-gig-economy

Chatterjee, D., Kumar, M., & Dayma, K. (2019). Income security, social comparisons and materialism: determinants of subjective financial well-being among Indian adults. *International Journal of Bank Marketing, 37*(4), 1041-1061.

Chatterjee, S., Palmer, L., & Goetz, J. W. (2012). Individual wealth accumulation: Why does dining together as a family matter? *Applied Economics Research Bulletin*, 1-22.

Chikezie, & Sabri, M. F. (2017). The financial well-being of Nigerian students in Universiti Putra Malaysia. *Journal of Education and Social Sciences, 6(2), (February) ISSN 2289-1552.*

Cho, S. H., Gutter, M., Kim, J., & Mauldin, T. (2012). The effect of socialization and information source on financial management behaviors among low- and moderate-income adults. *Family and Consumer Sciences Research Journal, 40*(4), 417–430. https:// doi.org/10.1111/j.1552-3934.2012.02120. x

Choi, J.J., Laibson, D., & Madrian, B.C., (2011). $100 bills on the sidewalk: Suboptimal investment in 401 (k) plans. *Rev. Econ. Stat, 93*(3), 748–763.

Cox, A., Hooker, H., Marwick, C., & Reilly, P. (2009). Financial well-being in the workplace, Institute of Employment Studies, University of Sussex Campus Brighton. http://www.employment-studie s.co.uk

Choudhry, M. T., Marelli, E., & Signorelli, M. (2010). The impact of financial crises on youth unemployment rate. *Quaderni del Dipartimento di Economia, Finanza e Statistica, 79, 1*–18.

Christelis, D., T. Jappelli, & M. Padula. (2010). Cognitive abilities and portfolio choice. *European Economic Review, 54*(1), 18–38.

Christensen, C. M., & Carlile, P. R. (2009). Course research: using the case method to build and teach management theory. *Academy of Management Learning & Education, 8*, 240–251.

Chu, Z., Wang, Z., Xiao, J. J., & Zhang, W. (2017). Financial literacy, portfolio choice and financial well-being. *Social Indicators Research, 132*(2), 799–820. https://doi.org/10.1007/s1120 5-016-1309-2

Cohen, J. (1988). *Statistical power analysis* (2nd ed.). Hillsdale NJ: Erlbaum.

Collins, J., & Urban, C. (2019). Measuring financial well-being over the lifecourse. *The European Journal of Finance, 26*, 1-19. 10.1080/1351847X.2019.1682631

Consumer Financial Protection Bureau. (2015a). Measuring financial well-being: a guide to using the CFPB financial well-being scale, http://www.consumerfinance.gov/data-research/ research-reports/financial-well-being-scale/.

Consumer Financial Protection Bureau. (2015b). *Financial well-being: The goal of financial education*. New York: Consumer Financial Protection Bureau. https://www.consumerfinance.gov/reports/financial-well-being.

Consumer Financial Protection Bureau. (2016). *Building blocks to help youth achieve financial capability. A new model and recommendations*, Consumer Financial Protection Bureau, https://s3.amazonaws.com/ files.consumerfinance.gov/f/documents/092016_cfpb_BuildingBlo cksReport_ModelAndRecommendations_web.pdf

Consumer Financial Protection Bureau. (2017a). Financial Well-Being in America Report. https://catalog.data.gov/dataset/financial-well-being-in-america-2017

Consumer Financial Protection Bureau. (2017b). *CFPB financial well- being scale: scale development technical report*. New York: Consumer Financial Protection Bureau. https://www.consumerfinance.gov/data-research/research- reports/financial-well-being-technical-report/

Coskuner, S. (2016). Understanding factors affecting financial satisfaction: the influence of financial behavior, financial knowledge and demographics. *Imperial Journal of Interdisciplinary Research (IJIR), 2*(5), 377–385.

Council for Economic Education. (2018). *Survey of the States: Economic and Personal Finance Education in our Nation's Schools*, Council for Economic Education, https://www.counciloreconed.org/wp-content/ uploads/2018/02/2018-SOS-Layout-18.pdf

Creswell, J. W. (2009). Research design: Qualitative, quantitative and mixed methods approaches. London: Sage Publication.

Creswell, J. W. (2014). The selection of a research approach. Research design, qualitative, quantitative and mixed methods approaches. London: Sage Publication.

Cronbach, L. J. (1990). Essentials of psychological testing (5th Edition). New York: Harper Collins.

Curran, M. A., Parrott, E., Ahn, S. Y., Serido, J., & Shim, S. (2018). Young adults' life outcomes and well-being: Perceived financial socialization from parents, the romantic partner, and young adults' own financial behaviors. *Journal of Family and Economic Issues, 39*(3), 445–456. https://doi.org/10.1007/s10834-018-9572-9

Damian, L. E., Negru-Subtirica, O., Domocus, I., & Friedlmeier, M. (2019). Healthy financial behaviors and financial satisfaction in emerging adulthood: A parental socialization perspective. *Emerging Adulthood*. https://doi.org/10.1177/2167696819841952

Danes, S. M. (1994). Parental perceptions of children's financial socialization. *Journal of Financial Counseling and Planning*, *5*, 27–146.

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Journal of Financial Counseling and Planning, 18*(2), 48-60.

Danes, S. M., & Yang, Y. (2014). Assessment of the use of theories within the Journal of Financial Counseling and Planning and the contribution of the family financial socialization conceptual model. *Journal of Financial Counseling and Planning, 25*(1), 53–68.

Davies, E., & Lea, S. E. G. (1995). Student attitudes to student debt. *Journal of Economic Psychology, 16*, 663-679.

Davis, E. P., & Helmick, S. A. (1985). Family financial satisfaction: The impact of reference points. *Family and Consumer Sciences Research Journal, 14*(1), 123–131. https://doi.org/10.1177/1077727X8501400112

Davydenko, M., Kolbuszewska, M., & Peetz, J. (2021). A meta-analysis of financial self-control strategies: Comparing empirical findings with online media and lay person perspectives on what helps individuals curb spending and start saving. PLoS ONE 16(7), e0253938. https://doi.org/10.1371/journal.pone.0253938

de Bassa Scheresberg, C. (2013). Financial literacy and financial behavior among young adults: Evidence and implications.6(2), http://dx.doi.org/10.5038/1936-4660.6.2.5

De Neve, J-E., Christakis, N. A., Fowler, J. H., & Frey, B. S. (2012). Genes, economics, and happiness. *Journal of Neuroscience Psychology & Economics*, https://doi.org/10.1037/a0030292

De Sena Abrahão, R., Moriguchi, S. N., & amp; Andrade, D. F. (2016). Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT). *RAI Revista de Administração e Inovação, 13*(3), 221-230.

Deacon, R., & Firebaugh, F. (1988). Family resource management: Principles and applications. Boston, MA: Allyn and Bacon.

Debruyckere, S. (2017). The relationship between perspective taking, empathy, tax incentives and prosicial behaviour. Submitted Master Dissertation, Universiteit Gent, Netherlands.

Deenanath, V., Danes, S. M., & Jang, J. (2019). Purposive and unintentional family financial socialization, subjective financial knowledge, and financial behavior of high school students. *Journal of Financial Counseling and Planning, 30*(1), 83–96. https:// doi.org/10.1891/1052-3073.30.1.83

Delafrooz, N., & Paim, L. H. (2011a). Determinants of financial wellness among Malaysia workers. *African Journal of Business Management, 5*(24), 10092–10100.

Delafrooz, N., & Paim, L. H. (2011b). Determinants of saving behavior and financial problem among employees in Malaysia. *Australian Journal of Basic and Applied Sciences, 5*(7), 222–228.

DellaVigna, S. (2009). Psychology and economics: Evidence from the field. *Journal of Economic Literature*, *47* (2), 315-72. https://doi: 10.1257/jel.47.2.315

Demirguc-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank Publications.

Denis, D. J. (2018). *SPSS data analysis for univariate, bivariate, and multivariate statistics*. John Wiley & Sons.

Department of Statistic Malaysia. DOSM. (2019). Household Income and Basic Amenities Survey Report.https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=120&bul_id=TU00TmRhQ1N5TUxHVWN0T2VjbXJYZz09&menu_id=amVoWU54UTl0a21NWmdhMjFMMWcyZz09

Department of Statistic Malaysia. DOSM. (2020a). Current Population Estimates. https://www.dosm.gov.my/v1/index.php?r=column/ctwoByCat&parent_id=115&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09

Department of Statistic Malaysia. DOSM. (2020b). Key Statistics of Labour Force 2020.https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=124&bul_id=UXQ2VUpIOVRvT3p6T0NHMHk1TGkxUT09&menu_id=Tm8zcnRjdVRNWWlpWjRlbmtlaDk1UT09

DeVaney, S. A. (1994). e usefulness of financial ratios as predictors of household insolvency: Two perspectives. *Journal of Financial Counseling and Planning*, *5*, 5-24.

Dew, J., & Xiao, J. J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning, 22*(1), 43.

Diamond, N., & O'Curry, S. (2003). Self-control and personal financial management. *Advances in Consumer Research*, *3*, 361-363.

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research, 57*(2), 119–169. https ://doi.org/10.1007/978-90-481-2350-6_6

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*,276-302 https://doi.org/ 10.1037/0033-2909.125.2.276

Dillman, D. A. (2011). Mail and Internet surveys: The tailored design method--2007 update with new Internet, visual, and mixed-mode guide. John Wiley & Sons.

Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing, *International Journal of Wellbeing, 2*(3), 222-235. doi: http://dx.doi.org/10.5038/1936-4660.6.2.5

Dollahite, D. C. (1991). Family resource management and family stress theories: Toward a conceptual integration. *Lifestyles, 12*(4), 361-377.

Douissa, I. B., (2019). Factors affecting College students' multidimensional financial literacy in the Middle East. *International Review of Economics Education*, https://doi.org/http://10.0.3.248/j.iree.2019.100173

Drentea, P., & Reynolds, J. R. (2012). Neither a borrower nor a lender be: The relative importance of debt and SES for mental health among older adults. *Journal of Aging and Health*, *24*(4), 673–695. https://doi.org/10.1177/0898264311431304

Drever, A. I., Odders-White, E., Kalish, C. W., Else-Quest, N. M., Hoagland, E. M., & Nelms, E. N. (2015). Foundations of financial well-being: Insights into the role of executive function, financial socialization, and experience-based learning in childhood and youth. *Journal of Consumer Affairs, 49*(1), 13–38.

Driscoll, M. P. (1994). Psychology of learning for instruction: Allyn & Bacon, A Division of Paramount Publishing, Inc., 160 Gould Street, Needham Heights, MA 02194.

Ehido, A., Awang, Z., Halim., B.A., & Ibeabuchi., C. (2020a). Establishing valid and reliable measures for organizational commitment and job performance: An exploratory factor analysis. *International Journal of Social Sciences Perspectives 7(2),* 58-70.

Ehido, A., Awang, Z., Halim., B.A., & Ibeabuchi., C. (2020b). Developing Items for Measuring Quality of Worklife among Malaysian Academics: An Exploratory Factor Analysis Procedure. *Humanities & Social Sciences Reviews eISSN: 2395-6518, 8*(3) 1295-1309 https://doi.org/10.18510/hssr.2020.83132

Engels, C., Kumar, K., & Philip, D. (2020). Financial literacy and fraud detection, *The European Journal of Finance, 26*(4-5), 420-442.

Erner, C., Goedde-Menke, M., & Oberste, M. (2016). Financial literacy of high school students: Evidence from Germany. *The Journal of Economic Education, 47*(2), 95–105. https://doi.org/10.1080/00220485.2016.1146102

Esser, A., Vuuren,P.F.J., & Thom, M.(2019). Insurtech for development: Emerging market trends: An update, Cenfi, FSD Africa, http://www.cenfri.org.

Experian i-SCORE analysis (2021): Credit mix for Malaysian consumers shift over 3 years as digitalisation accelerates in financial services. *Experian plc. https://www.experianplc.com/media/news/2021/experian-i-score-analysis-credit-mix-for-malaysian-consumers-shift-over-3-years-as-digitalisation-accelerates-in-financial-services/*

EY. (2018). *Asean Fintech Census*. https://assets.ey.com/content/dam/ey-sites/ey-com/en_sg/topics/financial-services/ey-asean-fintech-census-2018.pdf?download. https://assets.ey.com/content/dam/ey-sites/ey-com/en_sg/topics/financial-services/ey-asean-fintech-census-2018.pdf?download

EY. (2019). Global FinTech Adoption Index, http://www.ey.com/en_gl/ey-global-fintech-adoption-index.

Faber, R. J., & Vohs, K. D. (2004). To buy or not to buy? Self-control and self-regulatory failure in purchase behavior. In Baumeister, R. F. & Vohs, K. D. (Eds.), *Handbook of self-regulation: Research, theory, and applications*, New York: Guilford Press.

Falahati, L., & Paim, L. (2011a). Gender differences in financial well-being. Financial socialization and financial knowledge among college students. *Life Science Journal, 8*(3), 173-178.

Falahati, L., & Paim, L. H. (2011b). Toward a framework of determinants of financial management and financial problems among university students, *5*(22), 9600–9606. https://doi.org/11.5897/ AJBM11. 1293

Falahati, L., & Sabri, M. F. (2015). An exploratory study of personal financial wellbeing determinants: Examining the moderating effect of gender. *Asian Social Science*, *11*(4), 33–42. http://doi.org/10.5539/ass. v11n4p33

Falahati, L., Sabri, M. F., & Paim, L. H. J. (2012). Assessment a model of financial satisfaction predictors: Examining the mediate effect of financial behaviour and financial strain. *World Applied Sciences Journal, 20*(2), 190–197. https://doi.org/10.5829/idosi.wasj.2012.20.02.1832

Fan, L., & Chatterjee, S. (2019). Financial socialization, financial education, and student loan debt. *Journal of Family and Economic Issues, 40*(1), 74-85.

Farrell, L., Fry, T. R., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology, 54*, 85-99, https://doi.org/10.1016/j.joep. 2015.07.001

FCA. (2018). The financial lives of consumers across the UK Key findings from the FCA's Financial Lives Survey 2017, Financial Conduct Authority - UK, London, https://www.fca.org.uk/publication/research/financial-lives-consumers- across-uk.pdf

Federal Deposit Insurance Corporation. (2010). Bank accounts are changing. Government Printing Office.

Fei, C. K., Sabri, M. F., Mohamed, N. A., Wijekoon, R., & Majid A. Z. A. (2020). Determinants of financial vulnerability among young employees in Malaysia. *Journal of Critical Reviews*, *7*(15), 3097-3107. https://doi:10.31838/jcr.07.15.425

Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science, 60*(8), 1861–1883. https://doi.org/10.1287/ mnsc.2013.1849

Financial Education Network. (2019). Malaysia national strategy for financial literacy 2019-2023. Bank Negara Malaysia.

Fingerman, K. L., Kim, K., Davis, E. M., Furstenberg, F. F., Jr., Birditt, K. S., & Zarit, S. (2015). I'll give you the world: Socioeconomic differences in parental support of adult children. *Journal of Marriage and Family, 77*, 844–865. https://doi.org/10.1111/ jomf.12204

Finney, A. (2016a). *Components of financial capability: Defining, measuring and predicting scores in the UK population*. London: Money Advice Service.

Finney, A. (2016b). Descent into financial difficulty and the role of consumer credit. in *Consumer Vulnerability Conditions, Contexts and Characteristics*, Hamilton, K., Dunnett, S., & Piasentini, M. (Eds), Abingdon: Routeledge.

Fluellen, V. M. (2013). Exploring the relationship between financial behaviors and financial well-being of African American college students at one historically black institution. Graduate Theses and Dissertations. 12987.https://lib.dr.iastate.edu/etd/12987

Forgeard, M. J. C., Jayawickreme, E., Kern, M., & Seligman, M. E. P. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing, 1*(1), 79–106. http://dx.doi.org/10.5502/ijw.v1i1.15

Fornell, C. G., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50.

Förster, M., Happ, R., & Walstad, W. B. (2019). Relations between young adults' knowledge and understanding, experiences, and information behavior in personal finance matters. *Empirical Research in Vocational Education and Training*, *11*(1). http://doi.org/10.1186/s40461-019-0077-z

Frame, W. S., Wall, L., & White, L. J. (2019). Technological change and financial innovation in banking: Some implications for FinTech. In *Oxford Handbook of Banking*, 3rd ed., Berger, A., Molyneux, P., & Wilson, J. O. S. (Eds.), 262–284. Oxford: Oxford University Press.

Francis, B., Hasan, I., Park, J. C., & Wu, Q. (2015). Gender differences in financial reporting decision-making: Evidence from accounting conservatism. *Contemporary Accounting Research, 32*(3), 1285–1318. http://doi.org/10.2139/ssrn.2377312

Frasier, A. (2020). What are FOMO and YOLO teaching us about our money?https://www.forbes.com/sites/forbesmarketplace/2020/04/23/what-are-fomo-and-yolo-teaching-us-about-our-money/?sh=7c90af0d12dd

French, D., & McKillop, D., (2016). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis*, *48*, 1-11.

French, D., Mckillop, D., & Stewart, E. (2020). The effectiveness of smartphone apps in improving financial capability. *The European Journal of Finance, 26*, 302 - 318.

Frey, B. S., & Stutzer, A. (2002). What can economists learn from happiness research? *Journal of Economic Literature, 40*(2), 402–435. https://doi.org/10.1257/jel.40.2.402

Friedline, T., & Rauktis, M. (2014). Young people are the front lines of financial inclusion: A review of 45 years of research. *J Consum Aff, 48*, 535-602. https://doi.org/10.1111/joca.12050

Friedline, T., & West, S. (2016). Financial education is not enough: Millennials may need financial capability to demonstrate healthier financial behaviors. *Journal of Family and Economic Issues, 37*(4), 649–671. https://doi.org/10.1007/s10834-015-9475-y

Friedline, T., Elliott, W., & Chowa, G. (2013). Testing an asset- building approach for children: Early access to savings predicts later savings. *Economics of Education Review, Special Issue: Assets and Educational Attainment: Theory and Evidence*, *33*, 31–51. https://doi:10.1016/j.econedurev. 2012.10.004

Friedman, M. (1957). The permanent income hypothesis. In *A theory of the consumption function* (pp. 20-37). Princeton: Princeton University Press.

Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. Bank of International Settlements Working Paper Number 779.

Fudenberg, D., & Levine, D. K. (2006). A dual-self model of impulse control. *The American Economic Review, 96*(5), 1449-1476.

Fujita, K., Trope, Y., Liberman, N., & Levin-Sagi, M. (2006). Construal levels and self- control. *Journal of personality and social psychology, 90*(3), 351

Furnham, A., Von Stumm, S., & Fenton-O'Creevy, M. (2015). Sex differences in money pathology in the general population. *Social indicators research, 123*(3), 701-711.

G20. (2012). *G20 Los Cabos 2012: G20 Leaders Declaration*, http://www.g20.utoronto.ca/2012/2012-0619-loscabos.html

Gallup. (2017). Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx;

Garg, N., & Singh, S. (2018). Financial literacy among youth. *International Journal of Social Economics, 45*(1), 173–186.

Garman, E., & Forgue, R. (1997). *Personal Finance*. Boston, MA: Houghton Mifflin Company.

Garman, E., & Forgue, R. (2006). *Personal Finance -8th edition*. http://www.financesitesearch.com/46074/personal-finance-by-garman-and-forgue-8th-edition-2

Garman, E. T., Leech, I. E., & Grable, J. E. (1996). The negative impact of employee poor personal financial behaviors on employers. *Association for Financial Counseling and Planning Education*, 7, 157-16

Gasparri, A., & Munoz, L. (2019). Inclusive finance and rural youth, IFAD Research Series, http://www.ifad.org/ruraldevelopmentreport.

Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness, *Journal of Economic Psychology*, *33*, 590-602.

GDP growth (annual %) - Malaysia. (2021). World Bank Open Data.https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=MY

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update 4th ed. Boston: Allyn & Bacon.

Gerrans, P., Speelman, C., & Campitelli, G. (2014). The relationship between personal financial wellness and financial wellbeing: A structural equation modelling approach. *Journal of Family and Economic Issues, 35(*2), 145–160. https://doi.org/10.1007/s10834-013-9358-z

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, *10*(2), 486.

Gilovich, T., Amit, K., & Lily J. (2015). A wonderful life: Experiential consumption and the pursuit of happiness. *Journal of Consumer Psychology, 25*(1), 152–165.

Giuliano P., (2017). Gender: An historical perspective, National Bureau of Economic Research, No. w23635.

GLSS 6. (2014). Labour force report: Ghana Statistical Standard Survey rounds 6.

Godwin, D. D. (1994). Antecedents and consequences of newlyweds' cash flow management. *Financial Counseling and Planning, 5*, 161–190.

Goh, E. (2015). Understanding non-compliance in national parks: an extension of the theory of planned behaviour. The University of Queensland. https://doi.org/10.14264/uql.2015.438

Goldsmith, R. E., & Goldsmith, E. B. (2006). The effects of investment education on gender differences in financial knowledge. *Journal of Personal Finance, 5*(2), 55-69.

Gravetter, F., & Wallnau, L. (2014). Essentials of statistics for the behavioral sciences 8th ed. Belmont, CA: Wadsworth.

Greenhalgh, T., & Russell, J., and Swinglehurst, D. (2005). Narrative methods in quality improvement research. *Qual Saf Health Care, 14*(6), 443-9.

Greninger, S. A., Hampton, V.L., Kitt, K. A., & Achacoso, J. A. (1996). Ratios and benchmarks for measuring financial well-being of families and individuals. *Financial Services Review*, *5*(1), 57-70.

Grinstein-Weiss, M., Spader, J., Yeo, Y. H., Taylor, A., and Freeze, E. (2011). Parental transfer of financial knowledge and later credit outcomes among low- and moderate-income homeowners. *Children and Youth Services Review, 33 (*1): 78-85

Grohman, A., Kouwenburg, R., & Menkhoff, L. (2015). Childhood roots of financial literacy. *Journal of Economic Psychology, 52*, 114–133. https://doi:10.1016/j.joep.2015.09.002

Grohmann, A. (2018). Financial literacy and financial behavior: Evidence from the emerging Asian middle class. *Pacific-Basin Finance Journal, 48*, 129–143. https://doi:10.1016/j.pacfin. 2018.01.007

Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues, 32*(4), 644–667. https://doi.org/10.1007/s1083 4-011-9275-y

Gudmunson, C. G., Ray, S. K., & Xiao, J. J. (2016). Financial socialization. In *Handbook of consumer finance research* (pp. 61–72). Cham: Springer. https://doi.org/10.1007/978-3-319-28887-1_5

Gul, F., & Pesendorfer, W. (2001). Temptation and self-control. *Econometrica, 69*(6), 1403- 1435.

Gul, F., & Pesendorfer, W. (2004). Self-control and the theory of consumption. *Econometrica, 72*(1), 119-158.

Gulamhuseinwala, I., Bull, T., & Lewis, S. (2015). FinTech is gaining traction and young, high-income users are the early adopters. *Journal of Financial Perspectives*, *3*(3), .

Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues, 32*(4), 699-714. https://doi:10.1007/s10834-011-9255-2

Hafstrom, J. L., & Schram, V. R. (1983). Housework time of wives: Pressure, facilitators, constraints. *Home Economics Research Journal, 11*, 245–254.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. (7th ed.). Upper Saddle River, New Jersey: Prentice Hall.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate Data Analysis (6th Ed.). Upper Saddle River, New Jersey: Prentice Hall.

Hair, J. F., Hult, T. M., Ringle, C. M., & Sarsted, M. (2017). A primer on partial least squares structural equation modelling (PLS-SEM) (2nd ed.). Thousand Oaks, CA: Sage.

Hakim, C. (1994). Research design: Strategies and choices in the design of social research. London: Routledge.

Hancock, A. M., Jorgensen, B. L., & Swanson, M. S. (2013). College students and credit card use: The role of parents, work experience, financial knowledge, and credit card attitudes. *Journal of Family and Economic Issues, 34*(4), 369-381.

Hanna, S., & Wang, H. (1995). The adequacy of emergency funds to cover household expenditures. *Consumer Interests Annual*, *41*, 224-225.

Hasting, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial Literacy, financial education and economic outcomes. *Annual Review of Economics*, *5*(1), 347-373.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, *76*(4), 408-420.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Hayes, A.F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York, NY: The Guilford Press. *Journal of Educational Measurement, 51*(3), 335-337.

Hayes, D., & Finney, A. (2013). *Genworth Index: Measuring consumer financial security and vulnerability* (5th ed.). Genworth Financial.

Headey, B., & Wooden, M. (2004). The effects of wealth and income on subjective well-being and ill-being. *Economic record, 80*, S24- S33.

Headey, B. W., & Wearing, A. J. (1989). Personality, life events and subjective well-being: toward a dynamic equilibrium model. *Journal of Personality and Social Psychology, 57*, 731–739.

Headey, B. W., & Wearing, A. J. (1992). *Understanding happiness: a theory of subjective well-being*. Melbourne: Longman Cheshire.

Heck, R. K., & Douthitt, R. A. (2009). Research modelling implications of conceptual framework in family management. *Journal of Consumer Studies and Home Economics, 6*(3), .

Helliwell, J. (2006). Well-being, social capital, and public policy: what's new? Econ. J. 116, C34–C45. https://doi: 10.1111/j.1468-0297.2006. 01074.x

Henager, R. & Mauldin, T. (2015). Financial literacy, the relationship to saving behavior in low-to moderate-income households. *Family and Consumer Sciences Research Journal, 44*(1), 73-87.

Henager, R., & Cude, B. J. (2016). Financial literacy and long-and short-term financial behavior in different age groups. *Journal of Financial Counseling and Planning, 27*(1), 3–19. https://doi. org/10.1891/1052-3073.27.1.3

Henry, R. A., Weber, J. G., & Yarbrough, D. (2001). Money management practices of college students. *College Student Journal*, *35*(2), .

Herzlich, C. (1973). Health and Illness – A social psychological analysis. London: Academic Press.

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: the connection between knowledge and behavior. *Federal Reserve Bulletin*, *89*, 309-322.

Hira, A. (2016). An East Asian model for Latin American success*: The New Path.* Routledge.

Hira, T. K., & Mugenda, O. M. (1999). Do men and women differ in their financial beliefs and behaviours? In *Proceedings of Eastern Family Economics Resource Management Association* (pp. 1–8).

Hira, T. K., & Mugenda, O. (2000). Gender differences in financial perceptions, behaviors and satisfaction. *Journal of Financial Planning, 13*(2), 86-93.

Hira, T. K., & Mugenda, O. M. (1998). Predictors of financial satisfaction: differences between retirees and non-retirees. *Journal of Financial Counselling and Planning, 9*(2), 75-84.

Hira, T. K., Sabri, M. F., & Loibl, C. (2013). Financial socialization's impact on investment orientation and household net worth. *International Journal of Consumer Studies, 37*(1), 29-35.

Hoeve, M., Stamps, G. J. M, Zouwen, M. V. D., Vergeer, M., Jurrius, K., & Asscher, J. J. (2014). A systematic review of financial debt in adolescents and young adults: Prevalence, correlates and association with crime. Financial debt in Adolescents and Young Adults, *Prevalence, Correlates and Associations with Crime. PLoS ONE, 9*(8), e104909. https://doi.org/10.1371/journal.pone.0104909

Hogarth, J. (2006). Financial Education and Economic Development. https://www.oecd.org/finance/financial-education/37742200.pdf

Hoque, A. S. M. M., Siddiqui, B. A., Awang, Z. B., & Baharu, S. M. A. T. (2018). Exploratory factor analysis of entrepreneurial orientation in the context of Bangladeshi small and medium enterprises (SMEs). *European Journal of Management and Marketing Studies*,

Hoque, A., & Awang, Z. (2019). Does gender difference play moderating role in the relationship between entrepreneurial marketing and Bangladeshi SME performance? *Accounting, 5*(1), 35-52.

Hoque, A. S. M. M, Awang, Z., Jusoff, K., Salleh, F., & Muda, H. (2017). Social business efficiency: Instrument development and validation procedure using structural equation modelling. *International Business Management, 11*(1), 222-231.

Howlett, E., Kees, J., & Kemp, E. (2008). The role of self-regulation, future orientation, and financial knowledge in long-term financial decisions. *Journal of Consumer Affairs, 42*(2), 223-242.

Hsieh, C. M. (2004). Income and financial satisfaction among older adults in the United States. *Social Indicators Research, 66*(3), 249–266. https://doi.org/10.1023/B:SOCI.00000 03585 .94742. aa

Hundtofte, S., & J. Gladstone. (2017). Who uses a smartphone for financial services? evidence of a selection for impulsiveness from the introduction of a mobile FinTech App. Working Paper.

Hung, A., Yoong, J., & Brown, E. (2012). Empowering women through financial awareness and education. OECD Publishing. http://dx.doi.org/10.1787/5k9d5v6kh56g-en

Ibrahim, M. E., & Alqaydi, F. R. (2013). Financial literacy, personal financial attitude and forms of personal debt among resident of UAE. *International Journal of Economic and Finance, 5*(7), 126-138.

ILBS, Age of Majority Act 1971, Kuala Lumpur: ILBS Publications, 2007. http://www.commonlii.org/my/legis/consol_act/aoma1971153/

ILBS, Youth Societies and Youth Developments Act, Kuala Lumpur: ILBS Publications, 2007.

International Labour Organisation (ILO), (2021). The socioeconomic impacts of Covid-19 in Malaysia: Policy review and guidance for protecting the most vulnerable and supporting enterprises. http://ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_751600. pdf

International Monetary Fund. (2020). https://www.imf.org/en/News/Articles/2020/02/27/na022820-malaysia-a-flourishing-fintech-ecosystem

Ismail, S., Faique, F. A., Bakri, M. H., Zain, Z. M., Idris, N. H., Yazid, Z. A., ... & amp; Taib, N. M. (2017). The role of financial self-efficacy scale in predicting financial behavior. *Advanced Science Letters, 23*(5), 4635-4639.

Israel, G.D. (2009). Determining sample size. PEOD6, Agricultural Education and Communication Department, UF/IFAS Extension URL http:// edis.ifas.uf.edu.

Jabareen, Y. (2009). Building a conceptual framework: Philosophy, definations and procedure. *International Journal of Qualitative Methods, 8*(4), 49-52.

Jacobs-Lawson, J., & Hershey, D. (2005). Influence of future time perspective, financial knowledge, and financial risk tolerance on retirement saving behaviors. Financial Services Review. 14.

Jappelli, T., & Padula, M. (2013). Investment in financial literacy and saving decisions. *Journal of Banking & Finance, 37*(8), 2779-2792.

Jariwala, H. V., & Sharma, M. S. (2016). Assessment of behavioural outcomes of financial education workshops on financial behaviour of the participants: An experimental study. In *Financial Literacy and the Limits of Financial Decision-Making* (pp.302-324). Palgrave Macmillan, Cham.

Jay, B. N. (2017). Young Malaysians lacking in financial knowledge, need to start investing. https://www.nst.com.my/news/nation/2017/10/290665/ young-malaysians-lacking-financial-know ledge-need-start-investing

Jennings, M. K., & Niemi, R. (1981). Generations and politics: A panel study of young adults and their parents. Princeton, NJ: Princeton University Press.https://doi.org/10.1515/9781400854264

Jin, M., and Chen, Z. (2020). Comparing financial socialization and formal financial education: building financial capability. *Social Indicators Research, 149*, 641-656.

Johnson, B., & Ray, W. (2016). Family Systems Theory. 10.1002/9781119085621.wbefs130.

Johnson, D. P., & Widdows, R. (1985). Emergency fund levels of households. In: K.P. Schnittgrund (Ed.), *Proceedings of the 31st Annual Conference of the American Council of Consumer Interests* (pp. 235-241). Fort Worth, TX: American Council Consumer Interest.

Jones, J. D., Lang, W. W., & Nigro, P. J. (2005). Agent bank behavior in bank loan syndications, *Journal of Financial Research, 28*(3), 385-402.

Joo, S. (2008). Personal financial wellness. *Handbook of Consumer Finance Research*. https://doi.org/10.1007/978-0-387-75734-6_2

Joo, S. H. (1998). *Personal financial wellness and worker job productivity* (Doctoral dissertation, Virginia Polytechnic Institute and State University).

Joo, S. H., Durband, D. B., & Grable, J. E. (2008). The academic impact of financial stress on college students. *Journal of College Student Retention*: *Research, Theory and Practice, 10*(3), 287-305.

Joo, S., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues, 25*(1), 162–171. https ://doi.org/10.1023/B: JEEI.0000016722 .37994 .9f

Jorgensen, B. L., & Savla, J. (2010). Financial literacy of young adults: The importance of parental socialization. *Family Relations, 59*(4), 465–478. https://doi.org/10.1111/j.1741-3729.2010.00616.x

Kadoya, Y., & Khan, M.S.R. (2017). Can financial literacy reduce anxiety about life at the old age? *Journal of Risk Research*,1-19 http://dx.doi.org/10.1080/13669877.2017.1313760

Kahnemann, D. (2011). Thinking, fast and slow. Farrar, Straus and Giroux. 1.

Kaiser, T., & Menkhoff, L. (2016). Does financial education impact financial literacy and financial behavior, and if so, when? Discussion papers, 1562. http://www.diw.de/ documents/publikationen/73/diw_01.c.529 454.de/dp1562.pdf

Kaiser, T., & Menkhoff, L. (2018). Financial education in schools: A meta-analysis of experimental studies. https://doi.org/10.13140/RG.2.2. 18174.43846.

Kalmi, P., & Ruuskanen, O. P. (2018). Financial literacy and retirement planning in Finland. *Journal of Pension Economics & Finance*, *17*(3), 335-362.

Kamakia, M. G., Mwangi, C. I., & Mwangi, M. (2017). Financial literacy and financial wellbeing of public sector employees: A critical literature review. *European Scientific Journal, 13*(6), 233–249. https://doi.org/10.19044/esj2017.v13n16p233

Karlan, D., Kendall, J., Mann, R., & Suri, T. (2016). Research and impacts of Digital Financial Services. *NBER Working Paper Series, 4*(5), 1-14.

Kashif, M., Awang, Z., Walsh, J., & Altaf, U. (2015). I'm loving it but hating US: understanding consumer emotions and perceived service quality of US fast food brands. *British Food Journal*, *117*(9), 2344-2360.

Kashif, M., Braganca, E., Awang, Z., & De Run, E. C. (2017). You abuse but I will stay. *Journal of Management Development*, *36*(7), 899-914.

Kashif, M., Samsi, S. Z. M., Awang, Z., & Mohamad, M. (2016). EXQ: measurement of healthcare experience quality in Malaysian settings: A contextualist perspective. *International Journal of Pharmaceutical and Healthcare Marketing*, *10*(1), 27-47

Kempson, E., Finney, A., & Poppe, C. (2017). Financial Well-being a Conceptual Model and Preliminary Analysis. Retrieved from: http://www.bristol.ac.uk/media- library/sites/geography/pfrc/pfrc1705-financial-well-being-conceptual-model.pdf

Keng-Soon, W. C., Yen-San, Y., Pui-Yee, C., Hong-Leong, T., & Shwu-Shing, N. (2019). An adoption of FinTech services in Malaysia, *South East Asia Journal of Contemporary Business, Economics and Law, Zes Rokman Resources, 18*(5)134-147.

Key, R., & Firebaugh, F. M. (1989). Family resource management: Preparing for the 21st century. *Journal of Home Economics*, *81*(1), 13–17.

Kezar, A., & Yang, H. (2010). The importance of financial literacy. *About Campus, 14*(6), 15–21. https://doi.org/10.1002/abc.20004

Khamaiseh, Z., Halim, B.A., Afthanorhan, A., & Alqahtani, A.H. (2020). Exploring and developing items for measuring situational leadership II (SLII). *Humanities & Social Sciences Reviews*. eISSN: 2395-6518 (2), 579-588. https://doi.org/10.18510/hssr.2020.826

Kim, J. (2000). *The effects of workplace financial education on personal finances and work outcomes* (Doctoral dissertation, Virginia Polytechnic Institute and State University).

Kim, J. (2004). Impact of a workplace financial education program on financial attitude, financial behavior, financial well-being, and financial knowledge. In: *Proceedings of the association for Financial Counseling and Planning Education, 22*(1), 82-89.

Kim, J. (2016). Financial issues of workers. In Xiao, J. J. (Ed.), *Handbook of consumer finance research* (2nd ed.). New York, NY: Springer Publishing.

Kim, J., & Chatterjee, S. (2013). Childhood financial socialization and young adults' financial management. *Journal of Financial Counseling and Planning, 24*, 61–79.

Kim, J., & Garman, E. T. (2004). Financial stress, pay satisfaction and work place performance. *Compensation & Benefits Review, 36*, 69–76. https://doi.org/10.1177/0886368703261215

Kim, J., Garman, E. T., & Sorhaindo, B. (2003). Relationships among credit counseling, clients' financial well-being, financial behaviors, financial stressor events, and health. *Financial Counseling and Planning*, *14*(2), 75– 87.

Kim, J., LaTaillade, J., & Kim, H. (2011). Family processes and adolescents' financial behaviors. *Journal of Family and Economic Issues, 32*(4), 668–679. https://doi.org/10.1007/s1083 4-011-9270-3

Kim, K., Wilmarth, M., & Henager, R. (2017). Poverty levels and debt indicators among low-income households before and after the great recession. *Journal of Financial Counseling and Planning*, *28*(2), 196–212. https ://doi.org/10.1891/1052-3073.28.2.196

Kim, J., & Garman, E. T. (2003). Financial education and advice change worker attitudes and behaviors. *Journal of Compensation and Benefits, 19*(5), 7–13

Kim,J., & Prabhakar, B. (2004). Initial trust and the adoption of B2C e-commerce: the case of internet banking. *Database for Advances in Information Systems, 35*, 50-64.

Kiyosaki, R. T. (2012). Rich dad poor dad. http://www.csce001.com/edit_zoop/uploadfile/system/20150408/20150408135309188.pdf

Klapper, L., & Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world, *Financial Management*, *49*, 589-614.

Kline, R. (2011). Principles and practice of structural equation modeling, 2nd ed. New York: The Guilford Press.

Knoll, M. (1974). French Lick - Twelve years later. Actualizing concepts in home management. In *Proceedings of a national conference. Washington, DC: American Home Economics Association*.

Koen, V., Asada, H., Nixon, S., Rahuman, M. R. H., & Arif, A. Z. M. (2017). Malaysia's economic success story and challenges. *OECD Economic Department Working Paper*, OECD Publishing, Paris. https ://doi.org/10.1787/cf7fddf2-en

Koposko, J. L., & Hershey, D. A. (2014). Parental and social influences on retirement planning. *Journal of Personal Finance, 13*, 17–27.

Krejcie, R. V., & Morgan, D. (1970). Determining sample size for research activities. *Education and Psychological measurement*, 607–610.

Laforet, S., & Li, X. (2005). Consumers' attitudes towards online and mobile banking in China. *International Journal of Bank Marketing*, *23*(5), 362-380.

Lanz, M., Sorgente, A., & Danes, S. M. (2019). Implicit family financial socialization and emerging adults' financial well-being: A multi-informant approach. *Emerging Adulthood*, https://doi. org/10.1177/21676 96819876752

Layard, R., Mayraz, G., & Nickell, S. (2010). Does relative income matter? Are the critics right? Chapter 6. In: Diener, E., Helliwell, J. F., & Kahneman, D., (Eds.), International Differences in Well-being, Oxford University Press

Lea, S. E. G., & Webley, P. (1995). Psychological factors in consumer debt: Money management, economic socialization, and credit use. *Journal of Economic Psychology, 16*, 681-701.

Lee, D. K. C., & Teo, G. S. Z. J. (2015). Emergence of FinTech and the LASIC Principles. *Journal of Financial Perspectives*, *3*(3), 1.

Lee, J. M., Lee, J., & Kim, K. T. (2020). Consumer financial well-being: knowledge is not enough, *Journal of Family and Economic Issues, 41*, 218-228. https://doi: 10.1007/s10834-019-09649-9

Letkiewicz, J. C. (2012). Self-control, financial literacy, and the financial behavior of young adults (Doctoral dissertation). ProQuest Dissertations and Theses. (Accession Order No. 3521038).

Levi, Y. (2015). Information architecture and intertemporal choice: A randomized field experiment in the United States.

Li, X., Curran, M. A., LeBaron, A. B., Serido, J., & Shim, S. (2020). Romantic attachment orientations, financial behaviors, and life outcomes among young adults: A mediating analysis of a college cohort. *Journal of Family and Economic Issues,* https://doi. org/10.1007/s10834-020-09664-1

Lim, H., Heckman, S. J., Letkiewicz, J .C., & Montalto, C. P. (2014). Financial stress, self-efficacy, and financial help-seeking behavior of college students. *Journal of Financial Counseling and Planning, 25* (2), 148-160.

Lin, J. T., Bumcrot, C., Ulicny, T., Mottola, G., Walsh, G., Ganem, R., & Lusardi, A. (2019). The state of US financial capability: The 2018 national financial capability study. *FINRA Investor Education Foundation*.

Liu, F. (2014). Professional financial advice, self-control and saving behavior (Doctoral dissertation). ProQuest Dissertations and Theses. (Accession Order No. 3670719).

Loke, Y. J. (2017a). Financial vulnerability of working adults in Malaysia. *Contemporary Economics*, *11*(2), 205-219.

Loke, Y. J. (2017b). The influence of socio-demographic and financial knowledge factors on financial management practices of Malaysians. *International Journal of Business and Society*, *18*(1), 33-50.

London, M. (2014). Career barriers: How people experience, overcome, and avoid failure, Erlbaum, New York, NY.

Losada-Otalora, M., & Alkire (nee Nasr), L. (2019). Investigating the transformative impact of bank transparency on consumers' financial well-being. *International Journal of Bank Marketing, 37*(4), 1062-1079.

Luhr, S. (2018). How social class shapes adolescent financial socialization: Understanding differences in the transition to adulthood. *Journal of Family and Economic Issues, 39*(3), 457–473. https:// doi.org/10.1007/s10834-018-9573-8

Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal Economics Statistics, 155,* https://doi.org/10.1186/s41937-019-0027-5

Lusardi, A. M., A. Samek, A., Kapteyn, L., Glinert, A., Hung., & A. Heinberg. (2015a). Visual tools and narratives: New ways to improve financial literacy. *Journal of Pension Economics and Finance*, 1–27.

Lusardi, A., & Mitchell, O. S. (2008). Planning and financial literacy: How do women fare? *American Economic Review, 98*(2), 413–417.

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and planning: Implications for retirement wellbeing (NBER Working Paper No. 17078). National Bureau of Economic Research. https://www.nber.org/papers/w17078

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5–44.

Lusardi, A., & Mitchelli, O. S. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, *42*(1), 35–44.

Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and over indebtedness. *Journal of Pension Economics & Finance, 14*(4), 332-368.

Lusardi, A., de Bassa Scheresberg, C., & Avery, M. (2018). Millennial mobile payment users: A look into their personal finances and financial behaviors. *GFLEC Insights Report* https://gflec. Org/wp-content/uploads/2018/04/GFLEC-Insight-Report-Millennial-Mobile-Payment-Users-Final. pdf.

Lusardi, A., Keller, P., & Keller, A. (2008). New ways to make people save: The Dartmouth Project. TIAA-CREF Institute: Trends and Issues.

Lusardi, A., Michaud, P.C., & Mitchell, O. S. (2015b). Optimal financial knowledge and wealth inequality. *Journal of Political Economy*, 1–48. https://doi.org/10.1017/CBO9781107415324.004

Lusardi, A., Michaud, P., & Mitchell. O. S. (2013). Optimal financial knowledge and wealth inequality. National Bureau of Economic Research (Working Paper No. 18669). https://doi.org/10.3386/w18669

Lusardi, A., Michaud, P. C., & Mitchell, O. S. (2017). Optimal financial knowledge and wealth inequality, *Journal of Political Economy, 125*(2), 431-477.

Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, *44*(2), 358–380.

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological bulletin 131*(6), 803.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005a). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*(2), 111-131.

MacKinnon, D.P. (2008). Introduction to statistical mediation analysis. Mahwah, NJ: Erlbaum.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7*, 83-104.

Mahalingam, E. (2017, October 4). Bank Negara working on financial literacy roadmap. The Star: https://www.thestar.com.my/business/business-news/2017/10/04/bank-negara-working-on-financial-literacy-roadmap/

Mahdzan, N. S., & Tabiani, S. (2013). The impact of financial literacy on individual saving: an exploratory study in the Malaysian context. *Transformations in Business & Economics, 12*(1), 41-55.

Mahdzan, N. S., Zainudin, R., Sukor, M. E. A., Zainir, F., & Ahmad, W. M. W. (2019). Determinants of subjective financial well-being across three different household income groups in Malaysia. *Social Indicators Research, 143*, 1-28.

Mahfouz, S., A., Awang, Z., & Muda, H. (2019). The impact of transformational leadership on employee commitment in the construction industry. *International Journal of Innovation, Creativity and Change*, *7*(10), 151-167.

Mahfouz, S., A., Awang, Z., Muda, H., & Bahkia, A.S. (2020). Mediating role of employee commitment in the relationship between transformational leadership style and employee performance. *Humanities & Social Sciences Reviews.* eISSN: 2395-6518, *8*(2), 624-637. https://doi.org/10.18510/hssr.2020.8270

Malaysian Department of Insolvency (MDI). (2020). 945 Youths declared bankrupt, January-July 2020. https://themalaysianreserve.com/2020/09/10/945-youths-declared-bankrupt-january-july/

Malaysian Department of Insolvency. (2021). Bankruptcy Statistics. https://www.mdi.gov.my/index.php/legislation/bankruptcy/1786-bankruptcy-statistic-disember-2020

Malaysian Financial Planning Council. (MFPC). (2020). Report of national findings: Financial capability and utilization of financial advisory services in Malaysia. Kuala Lumpur, Malaysia.

Malik, M. (2020). Elements influencing the adoption of Electronic Banking in Pakistan. An Investigation carried out by using Unified Theory of Acceptance and Use of Technology (UTAUT) Theory. *Journal of Internet Banking and Commerce, 25*(2),

Maloney, P. W., Grawitch, M. J., & Barber, L. K. (2012). The multi-factor structure of the brief self-control scale: Discriminant validity of restraint and impulsivity.*Journal of Research in Personality, 46*(1), 111–115.

Mandigma, M. B. S. (2013). Relationship of financial capability (FC) with knowledge, skills and attitude: Evidence from Philippine Comprehensive University. World *Journal of Social Sciences, 3*(3), 28–45. http://www.wjsspapers.com/static/documents/May/2013/4

Manfrè, M. (2017). Saving behavior: Financial socialization and self-control. https://siecon3607788.c.cdn77.org/sites/siecon.org/files/media_wysiwyg/288-manfre.pdf.

Mannheim, K. (1952). The problem of generations. In Kecskemeti, P. (Ed.), *Essays on the Sociology of Knowledge* (pp. 276-320). London: Routledge and Kegan Paul.

Maraire, T., & Chethiyar, S. D. M. (2019). The nexus between violent video game playing and aggression among emerging adults at Universiti Utara Malaysia. *International Journal of Education, Psychology and Counseling, 4(*33), 298-308.

Marcketti, S., Niehm, L., & Fuloria, R. (2009). An exploratory study of lifestyle entrepreneurship and its relationship to life quality. *Family and Consumer Sciences Research Journal*, *34*, 241 - 259. https://doi.org/10.1177/1077727X05283632.

Martin, A., & Oliva, J. C. (2001). Teaching children about money: Applications of social learning and cognitive learning developmental theories. *Journal of Family and Consumer Sciences: From Research to Practice, 93*(2), 26–29.

McCarthy, Y. (2011). Behavioural characteristics and financial distress. European Central Bank. https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1303.pdf?4ca9f70deb4b072c54015aa30aac835b

Mcfall, B. S. (1998). Personal resource systems management. management. Virginia Polytechnic Institute and State University in USA.

McGregor, S. L. T., & Goldsmith, E. B. (1998). Expanding our understanding of Quality of life, standard of living, and well-being. *Journal of Family and Consumer Science, 90*(2), 2–22.

McKillop, D., French, D., & Stewart, E. (2020). The effectiveness of Smart Phone Apps in improving financial capability. *European Journal of Finance, 26*(4–5),302–318.

McMillan, J. H., & Schumacher, S. (1993). Research in education: A conceptual understanding. New York: Haprer Collins.

Meckelmann, V., & Peiker, P. (2013). Development in emerging adulthood comparison of employed and unemployed emerging adults in Germany. *Poster presentation at the 6th Conference on Emerging Adulthood*, Chicago, IL.

Medina, P. (2016). Selective attention in consumer finance: Experimental evidence from the credit card market. Working Paper.

Meier, S., & Sprenger, C. D. (2013). Discounting financial literacy: time preferences and participation in financial education programs. *Journal of Economic Behavior & Organization, 95*, 159-174.

Metcalf, J. L., & Atance, C. M. (2011). Planning in young children: A review and synthesis. *Development Review, 31*, 1-31.

Micu, I., & Micu, A. (2016). Financial Technology (FINTECH) and Its implementation on the Romanian non-banking capital market. *SEA - Practical Application of Science*, *XVIII*(1), 47–54.

Mimura, Y., Cai, Y., Tonyan, H., & Koonce, J. (2019). Resource Well-Being among Family Child Care Business Owners. *Journal of Family and Economic Issues*, *40*(3), 408-422.

Mimura, Y., Koonce, J., Plunkett, S. W., & Pleskus, L. (2015). Financial information source, knowledge, and practices of college students from diverse backgrounds. *Journal of Financial Counseling and Planning, 26*, 63–78.

Ministry of Finance Malaysia. (2021). https://www.mof.gov.my/portal/en/news/press-citations/programmes-focusing-on-financial-planning-to-be-intensified-tengku-zafrul

Miotto, A. P. S., & Parente, J. (2015). Antecedents and consequences of household financial management in Brazilian lower-middle-class. *Revista de Administração de Empresas, 55*(1), 50-64.

Mischel, W., & Ayduk, O. (2004). Willpower in a cognitive-affective processing system. In Baumeister, R. F., & Vohs, K. (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 99–129). New York: The Guilford Press.

Mischel, W., Ebbesen, E. B., & Raskoff Zeiss, A. (1972). Cognitive and attentional mechanisms in delay of gratification. *Journal of personality and social psychology, 21*(2), 204.

Mischel, W., Shoda, Y., & Peake, P. K. (1988). The nature of adolescent competencies predicted by preschool delay of gratification. *Journal of Personality and Social Psychology, 54*(4), 687.

Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, *22*(1), 68. https://doi.org/10.4103/aca.ACA_157_18

Mitchell, O. S., Mottola, G. R., Utkus, S. P., & Yamaguchi, T. (2006). The inattentive participant: Portfolio trading behavior in 401 (k) plans. *Michigan Retirement Research Center Research Paper No.*

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences*, *108*(7), 2693–2698. https://doi.org/10.1073/pnas.1010076108

Mohamad, M., Afthanorhan, A., Awang, Z., & Mohammad, M. (2019). Comparison between CB-SEM and PLS-SEM: Testing and confirming the maqasid syariah quality of life measurement model. *The Journal of Social Sciences Research*, *5*(3), 608-614.

Mohamad, M., Ali, N.A. M., & Awang, Z. (2018). The impact of life satisfaction on substance abuse: delinquency as a mediator. *International Journal of Adolescence and Youth*, *23*(1), 25-35.

Mohamad, M., Awang, Z., Ali, N. A. M. (2017). Validating the Maqasid Shariah Prison Quality of Life (MSPQoL) among drug-abuse inmates using confirmatory factor analysis. *International Journal of Applied Business and Economic Research*,*15*(24), 91-103.

Mohamad, M., Mohammad, M., Ali, N. A. M., & Awang, Z. (2016). Measuring positive youth development: The confirmatory factor analysis (CFA). *Indian Journal of Applied Business & Economic Research*, *14*(13), 9441-9451.

Mohamed, N. A. (2017). Financial socialization: A cornerstone for young employees' financial well-being. *Reports on Economics and Finance, 3*(1), 15–35.

Moisa, C. (2010). Aspects of youth travel demand, *Annales Universtatis Aplensis Series Oeconomica*, *12*(2), 575-82.

Mokhtar, N., & Husniyah, A. R. (2017). Determinants of financial well-being among public employees in Putrajaya, Malaysia. *Pertanika Journal of Social Science and Humanities, 25*(3), 1241-1260.

Mokhtar, N., Sabri, M. F., Catherine, S. F., & Thinagaran, M. D. (2018). Profile and differences in financial literacy: Empirical evidence. *Malaysian Journal of Consumer and Family Economics, 21*, 164-185.

Mokkink, L. B., Terwee, C. B., Patrick, D. L., Alonso, J., Stratford, P. W., & Knol, D. L., (2012). COSMIN checklist manual. http://www.cosmin.nl/cosmin_checklist.

Morsunbul, U. (2014). The validity and reliability study of the Turkish version of Quick Big Five Personality Test. Dusunen Adam: *The Journal of Psychiatry and Neurological Sciences, 27*, https://doi:316-322. 10.5350/DAJPN2014270405

Mottola, G. R. (2013). In our best interest: Women, financial literacy, and credit card behavior. *Numeracy, 6*(2), 4. http://dx.doi.org/10.5038/1936-4660.6.2.4

Muda, H., Baba, Z. S., Awang, Z., Badrul, N. S., Loganathan, N., & Ali, M. H. (2020). Expert review and pretesting of behavioral supervision in higher education. *Journal of Applied Research in Higher Education*,

Muda, H., Loganathan, N., Awang, Z., Jusoh, H., & Baba, Z. S. (2018). Application of theory, methodology and analysis in conducting research. A Practical Guide to Quantitative Research and Thesis Writing, UniSZA Publisher, ISBN: 978-967-2231-11-0

Mudzingiri, C., Muteba Mwamba, J. W., & Keyser, J. N. (2018). Financial behavior, confidence, risk preferences and financial literacy of university students. *Cogent Economics and Finance, 6*(1), 1–25. https://doi.org/10.1080/23322039.2018.1512366

Mugenda, O. M., Hira, T. K., & Fanslow, A. M. (1990). Assessing the causal relationship among communication, money management practices, satisfaction with financial status, and satisfaction with quality of life. *Lifestyles*, *11*(4), 343–360.

Mulyana, A., Disman, D., Wibowo, L., & Ahmad, R. (2020). Application of customer behavior in using fintech as business media based on the Unified Theory of Acceptance and Use of Technology Model. https://doi:10.2991/aebmr.k.200131.016

Munoz-Murillo, M., Alvarez-Franco, P. B., & Restrepo-Tobón, D. A. (2020). The role of cognitive abilities on financial literacy: New experimental evidence. *Journal of Behavioral and Experimental Economics, 84*, 1–21. https://doi.org/10.1016/j.socec.2019.101482

Munson, M. R., Lee, B. R., Miller, D., Cole, A., & Nedelcu, C. (2013). Emerging adulthood among former system youth: The ideal versus the real. *Children and Youth Services Review, 35*(6), 923–929. https://doi.org/10.1016/j.childyouth.2013.03.003

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin, 126*(2), 247.

Muro, M., & Jeffrey, P. (2008). A critical review of the theory and application of social learning in participatory natural resource management processes. *Journal of environmental planning and management, 51*(3), 325-344.

Dowling, N. A., Corney, T., & Hoiles, L. (2009). Financial management practices and money attitudes as determinants of financial problems and dissatisfaction in young male Australian workers, *Journal of Financial Counselling and Planning, 20*, 5-13.

National Youth Development Policy of Malaysia. (1997). http://www.youthpolicy.org/national/Malaysia_1997_National_Youth_Development_Policy.pdf

National Youth Policy of Ghana. (2010). Towards an empowered youth, impacting positively on national development, Ministry of Youth and Sport, Ghana, Accra.

Neill, B., Xiao, J. J., & Benoit, S. E. T. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning*, *16*(1), .

Nejad, M. G., & Javid, K. (2018). Subjective and objective financial literacy, opinion leadership, and the use of retail banking services, *International Journal of Bank Marketing, 36*(4), 784-804

Nelson, M. C., Lust, K., Story, M., & Ehlinger, E. (2008). Credit card debt, stress and key health risk behaviors among college students. *American journal of health promotion, 22*(6), 400–407. https://doi.org/10.4278/ajhp.22.6.400

Németh, E., & Zsótér, B. (2019). Anxious spenders: Background factors of financial vulnerability*. Economics and Sociology, 12(2), 147-169.*

Netemeyer, R. G., Warmath, D., Fernandes, D., & Lynch, J. G. Jr (2017). How am i doing? Perceived financial well-being, its potential antecedents, and its relation to overall well-being. *Journal of Consumer Research*, *45*(1), 68–89.

Neuman, W. L. (2014). Social research methods: qualitative and quantitative approaches. *Relevance of social research, 8*, https:// doi.org/ 10.2307/3211488

Neuner, M., Raab, G., & Reisch, L. A. (2005). Compulsive buying in maturing consumer societies: An empirical re-inquiry. *Journal of Economic Psychology, 26*(4), 509–522.

Nga, J. K., Yong, L. H., & Sellappan, R. D. (2010). A study of financial awareness among youths. *Young Consumers, 11*(4), 277-290.

Nickols, S. Y. (2003). Human eco-system theory: A tool for working with families. *Journal of Family and Consumer Sciences*, *95*(2), 15-18.

Noor, N. M., Aziz, A. A., Mostapa, M. R., & Awang, Z. (2015). Validation of the Malay version of the Inventory of Functional Status after Childbirth questionnaire. *BioMed research international*,

Norvilitis, J. M., & MacLean, M. G. (2010). The role of parents in college students' financial behaviors and attitudes. *Journal of Economic Psychology, 31*(1), 55–63. https://doi.org/10.1016/j. joep.2009.10.003

Norvilitis, J. M., & Santa Maria, P. (2002). Credit card debt on college campuses: Causes, consequences, and solutions. *College Student Journal, 36*(3), 356-363.

Nunnally, J. C. (1967). Psychometric Methods. New York: Mcgraw Hill.

Nunnally, J. C. (1978). Psychometric Theory (2nd Ed). New York: Mcgraw Hill.

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financial distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16,* 73-87.

OECD (2019). Policy handbook on financial education for young people in the Commonwealth of Independent States (CIS*), OECD, Paris,* https://www.oecd.org/financial/education/Youth-Policy-Handbook-on-Financial-Education-CIS-EN.pdf.

OECD (2020a). Youth and COVID-19: Response, Recovery and Resilience, Tackling Coronavirus (COVID-19), OECD, Paris, http://www.oecd.org/coronavirus/en/.

OECD (2020b). Global Report on Youth Empowerment and Intergenerational Justice.

OECD. (2020c). PISA 2018 Results (Volume IV): Are Students Smart about Money? PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/48ebd1ba-en.

OECD. (2009). Financial Literacy and Consumer Protection: Overlooked Aspects of the Crisis, OECD Publishing, http://www.oecd.org/finance/financial-markets/43138294.pdf

OECD. (2015a). OECD/INFE Policy Handbook on National Strategies for Financial Education, OECD, http://www.oecd.org/daf/fin/financial-education/National-Strategies-Financial-Education-Policy-Handbook.pdf

OECD. (2015b). OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion https:// www.oecd.org/daf/fin/financial-education/2015_OECD_INFE_Toolkit_Measuring_Financial_Literacy.pdf

OECD. (2016). OECD/INFE International Survey of Adults Financial Literacy Competencies www.oecd.org/finance/oecd-infe-survey-adult-financial-literacy-competencies.htmOECD (2016b), "Financial Education in Europe", OECD Publishing Paris DOI: http://dx.doi.org/10.1787/9789264254855-en

OECD. (2017a). Economic Policy Reforms 2017: Going for Growth, OECD Publishing, Paris, http://dx.doi.org/10.1787/growth-2017-en.

OECD/INFE. (2020d). International Survey of Adult Financial Literacy.

OECD/INFE. (2012). OECD/INFE High-Level Principles on National Strategies for Financial Education, http://www.oecd.org/daf/fin/financial-education/OECD-INFE-Principles- National-Strategies-Financial-Education.pdf

OECD/INFE. (2015c). Core Competencies Framework on Financial Literacy for Youth www.oecd.org/finance/Core-Competencies-Framework-Youth.pdf

OECD/INFE. (2017b). G20/OECD INFE Report on Adult Financial Literacy in G20 Countries. Paris: OECD. http://www.oecd.org/daf/fin/financial-education/ G20-OECD-INFE-report-adult-financial-literacy-in-G20-countries.pdf.

Oechssler, J., Roider, A., & Schmitz, P. W. (2009). Cognitive abilities and behavioral biases. *Journal of Economic Behavior and Organization, 72*(1),147–52. https://doi.org/10.1016/j.jebo.2009.04.018

Oppong-Boakye, P. K., & Kansanba, R. (2013). An assessment of financial literacy levels among undergraduate business students in Ghana. *Research Journal of Finance and Accounting, 4*(8), 36-49.

Oseifuah, E., Gyekye, A., & Formadi, P. (2018). Financial literacy among undergraduate students: Empirical evidence from Ghana. *Academy of Accounting and Financial Studies Journal, 22*(6), 1–17.

Otto, A. (2013). Saving in childhood and adolescence: Insights from developmental psychology. *Economics of Education Review, 33*, 8–18.

Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. http://www.uky.edu/~eushe2/Pajares/eff.html.

Pallant, J. (2013). SPSS survival manual: A step by step guide to data analysis using SPSS (Version 21). Two Penn Plaza, New York: Licensing Agency Ltd.

Pandya, R. S. (2010). Educational research: Sample meaning. New Delhi: APH Publishing Corporation.

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Journal of Financial Counseling and Planning, 9*(2), 59-75.

Patterson P., Millar B, Desille N., & McDonald, F. (2012). The unmet needs of emerging adults with a cancer diagnosis: A qualitative study. Cancer Nurs. *35*(3), E32-40. https://:doi: 10.1097/NCC.0b013e31822d9105. PMID: 22538263

Pederson P., & Ling, R. (20020. Modifying adoption research for mobile internet service adoption: cross-disciplinary interactions. *In Proceedings of the 36th Hawaii International Conference on System Sciences*, Big Island, HI.

Pelz, B. (2010). My three principles of effective online pedagogy. *Journal of Asynchronous Learning Networks*, *14*(1), 103-116.

Perry, VG. (2008). Is ignorance bliss? Consumer accuracy in judgments about credit ratings. *Journal of Consumer Affairs, 42*(2), 189-205.

Pew Research Center (2015). *Comparing millennials to other generations*. http://www.pewsocialtrends.org/2015/03/19/ comparing-millennials-to-other-generations/.

Philippon, T. (2016). The fintech opportunity. Working Paper 22476, National Bureau of Economic Research.

Pinto, M. B., Parente, D. H., & Mansfield, P. M. (2005). Information learned from socialization agents: Its relationship to credit card use. *Family and Consumer Sciences Research Journal, 33*, 357–367. https://doi.org/10.1177/1077727X04274113

Pirouz, D. (2009). Culture, self-control, and consumer financial behavior. In McGill, A. L., & Shavitt, S. (Eds.), *NA - Advances in Consumer Research* (36). 908-909. Duluth, MN: Association for Consumer Research. http://www.acrwebsite.org/volumes/14670/volumes/v36/NA-36

Plagnol, A.C. (2011). Financial satisfaction over the life course: the influence of assets and liabilities, *Journal of Economic Psychology, 32*(1), 45-64.

Polit, D. F., & Yang, F. M. (2016). Measurement and the measurement of change. Philadelphia (US): Wolters Kluwer.

Pollard, E., & Lee, P. (2003). Child well-being: A systematic review of the literature, *Social Indicators Research, 61*(1), 9–78. http://dx.doi.org/10.1023/A:1021284215801

Ponchio, M., Cordeiro, R., & Gonçalves, V. (2019). Personal factors as antecedents of perceived financial well-being: evidence from Brazil, *International Journal of Bank Marketing, 37*(4), 1004-1024.

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. *Financial Counseling and Planning, 4*(803), 135–164.

Potrich, A. C. G., Vieira, K. M., & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students. *Management Research Review, 39*(3), 356-376.

Praag, V., Frijters, P., & Ferrer-i-carbonell, A. (2003). The anatomy of subjective well-being, *Journal of Economic Behavior and Organisation, 51*, 29-49.

Prawitz, T., Garman, B., Sorhaindo, B., O'Neill, J., Kim., & Drentea. P. (2006). Incharge financial distress/ financial well-being scale: development, administration and score interpretation. Westerville: Association for Financial Counselling and Planning Education.

Preacher, K., & Hayes, A. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instrument, and Computers, 36*(4), 717-731.

Preacher, K., & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behaviour Research Methods, 40*(3), 879-891.

Prendergast, S., Blackmore, D., Kempson, E., Russell, R., & Kutin, J. (2018). Financial well-being: A survey of adults in Australia. In, ANZ Melbourne, Australia.

Putnam, R. D. (2001). Social capital: Measurement and consequences. *The Isuma* Canadian *Journal of Policy Research (ISUMA), 2*, 41–51.

Rahlin, N. A., Awang, Z., Afthanorhan, A., & Aimran, N. (2019a). Antecedents and consequences of employee safety climate in small manufacturing enterprises: Translation, validation and application of generic safety climate questionnaire. *International Journal of Innovation, Creativity and Change, 7(10),* .

Rahlin, N .A., Awang, Z., Afthanorhan, A., & Aimran, N. (2019b). The art of covariance based confirmatory factor analysis: Evidence from SME'S. *International Journal of Innovation, Creativity and Change, 5(2),*351-370.

Rahlin, N. A., Awang, Z., Zulkifli, A. R., & Bahkia, A. S. (2020a). The direct effect of climate emergence and safety climate on intention to safety behavior. *Humanities and Social Science Review, 8*(3), 178-189. https://doi.org/10.18510/hssr.2020.8319

Rahlin, N .A., Awang, Z., Zulkifli, A. R., & Bahkia, A.S. (2020b). The impact of employee safety climate on safety behavior in small and medium enterprises: An empirical study. *Humanities and Social Science Review*, *8*(3), 163-177. https://doi.org/10.18510/hssr.2020.8318

Rai, K., Dua, S., & Yadav, M. (2019). Association of financial attitude, financial behaviour and financial knowledge towards financial literacy: A structural equation modeling approach. *FIIB Business Review*, *8*(1), 51-60.

Ramli, Z., Sum, S. M., Manaf, A. A., Saad, S., Hussain, M. Y., & Lyndon, N. (2012). Kualiti- hidup dan kesejahteraan belia: Kajian keatas pekerja sektor awam Malaysia. *Geografia: Malaysian Journal of Society and Space*, *8*(6), 150–156.

Ranta, M., Silinskas, G., & Wilska, T. A. (2020). Young adults' personal concerns during the COVID-19 pandemic in Finland: An issue for social concern. *International Journal of Sociology and Social Policy*, *40*(9–10), 1201–1219. https://doi.org/10.1108/IJSSP-07-2020-0267

Rarick, T. M. (2011). Importance of perceived adulthood and goal pursuit in emerging adult college students. Kansas State University.

Raza, I., & Awang, Z. (2020a). Knowledge sharing in multicultural organizations: Evidence from Pakistan. *Higher Education, Skills and Work-Based Learning*. https://www.emerald.com/insight/2042-3896.htm

Raza, I., & Awang, Z. (2020b). Knowledge-sharing practices in higher educational institutes of Islamabad, Pakistan: an empirical study based on theory of planned behavior. *Journal of Applied Research in Higher Education*, https://doi: 10.1108/JARHE-03-2020-0068.

Raza, I., Chaudhry, A. R., & Awang, Z. (2019). Knowledge sharing behaviour of multiracial staff engaged in industrial firms of Islamabad, Pakistan. *International Journal of Academic Research in Business and Social Sciences, 9*(11),1074-1085.

Rea, J. K., Sharon, M. D., Joyce, S., Lynne, M. B., & Soyeon, S. (2019). Being able to support yourself': Young adults' meaning of financial well-being through family financial socialization. *Journal of Family and Economic Issues, 40*, 250- 268.

Redina, S., & Ipit, S. (2019). Financial well-being of college students: An emprical study on mediation. effect of financial behaviour. *In International Conference on Economics, Education, Business and Accounting, KnE Social Sciences*, 451–474. https://doi:10.18502/kss. v3i11.4026

Reed, A., Aquino, K., & Levy, E. (2007). Moral identity and judgments of charitable behaviors. *Journal of Marketing, 71*(1), 178–193.

Rettig, K. (1988). A framework for integrating family relations and family resource management. Paper presented at the Theory Construction and Research Methodology Pre-conference Workshop at the annual meeting of the national Council on Family Relations, Philadelphia, PA

Rha, J. Y., Montalto, C. P., & Hanna, S. D. (2006). The effect of self-control mechanisms on household saving behavior. *Journal of Financial Counseling and Planning, 17*(2), 3-16.

Rice, A., & Tucker, S. (1986). Family life management (6th Ed). New York: Macmillan

Richins, M. (2011). Materialism, transformation expectations, and spending: Implications for credit use. *Journal of Public Policy & Marketing, 30*, 141-156. https://10.2307/23209270

RinggitPlus Malaysian financial literacy survey (2020). RinggitPlus. https://ringgitplus.com/en/blog/tag/ringgitplus-malaysian-financial-literacy-survey-rmfls-2020/

Riquelme, H., & Rios, R. (2010). The moderating effect of gender in the adoption of mobile banking. *The International Journal of Bank Marketing*, *28*, 328-341. https://10.1108/02652321011064872

Robb, C. A., & Sharpe, D. L. (2009). Effect of personal financial knowledge on college student's credit card behavior. *Journal of Financial Counseling and Planning, 20*(1), 25-43.

Robertson, L., & Jones, M. G. (2013). Chinese and US middle school science teachers' autonomy, motivation, and instructional practices. *International Journal of Science Education, 35*(9), 1454-1489. https://doi:10.1166/jne.2013.1031

Rosa, C. M., Marks, L. D., LeBaron, A. B., & Hill, E. J. (2018). Multigenerational modeling of money management. *Journal of Financial Therapy, 9*(2), 54–74. https://doi. org/10.4148/1944-9771.1164

Rudzinska-Wojciechowska, J. (2017). If you want to save, focus on the forest rather than on trees. The effects of shifts in levels of construal on saving decisions. *PLOS ONE, 12(*5), e0178283. https:// doi.org/10.1371/journal.pone.0178283 PMID: 28552943

Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719–727. http://dx.doi.org/10.1037/0022-3514.69.4.719www.internationaljournalofwellbeing.org

Saad, L. (2015). Fewer young people say I do—to any relationship. Gallup. http://www.gallup.com/poll/18351 5/ fewer -young -people-say-relationship.aspx? g_sourc e=married&g_mediu m=searc h&g_campa ign=tiles

Saboe-Wounded Head, L. (2014). Influences on financial knowledge and behavior. *Journal of Consumer Education, 30*, 58-73.

Sabri, M., & Falahati, L. (2012). Estimating a model of subjective financial well-being among college students. *International Journal of Humanities and Social Science, 2*(18), 191–199.

Sabri, M. F., & Juen, T. T. (2014). The influence of financial literacy, saving behaviour, and financial management on retirement confidence among women working in the Malaysian public sector. *Asian Social Science, 10*(14), 40-51.

Sabri, M. F., & MacDonald, M. (2010). Savings behavior and financial problems among college students: The role of financial literacy in Malaysia.*Cross-Cultural Communication*, *6*(3), 103-110

Sabri, M. F., Anthony, M., Wijekoon, R., Suhaimi, S. S. A., Rahim, H. A., Magli, A. S., & Isa, M. P. M. (2021). The Influence of financial knowledge, financial socialization, financial behaviour, and financial strain on young adults' financial well-being. *International Journal of Academic Research in Business and Social Sciences, 11*(12), 566-586.

Sabri, M. F., Masud, J., Karen K. L., & Laily Paim (2008). Personal financial wellness among Malaysian employees: Socio demographic comparison. *Consumer Interests Annual, 54*, 189-192.

Sabri, M. F., MacDonald, M., Hira, T. K., & Masud, J. (2010). Childhood consumer experience and the financial literacy of college students in Malaysia. *Family & Consumer Sciences Research Journal*, *38*(4), 455-467

Sabri, M. F., Masud, J., & Paim L. (2006). Financial literacy, attitude and practice among Malaysian IPTs students'. Serdang. UPM.

Sabri, M. F., Rahim, H. A., Wijekoon, R., Zakaria, N. F., Magli, A. S., & Reza, T. S. (2020a). The mediating effect of money attitude on association between financial literacy, financial behaviour, and financial vulnerability. *International Journal of Academic Research in Business and Social Sciences*, *10*(15), 340-358. https://doi:10.6007/IJARBSS/v10-i15/8254

Sabri, M. F., Reza, T. S., & Wijekoon, R. (2020b). Financial management, savings and investment behavior and financial well-being of working women in the public sector. *Majalah Ilmiah Bijak*, *17*(2), 135-153.

Sabri, M. F, Cook, C. C., & Gudmunson, C. G. (2012). Financial well-being of Malaysian college students. *Asian Education and Development Studies, 1*(2), 153–170 https://doi.org/10.1108/20463161211240124

Sabri, M.F., & Falahati, L. F. (2013). Predictors of financial well-being among Malaysian employees: Examining the mediate effect of financial stress. *Journal of Emerging Economies and Islamic Research, 1*(3), 61–76. https://doi.org/10.24191/jeeir.v1i3.9130

Sabri, M. F., & Zakaria, N. F. (2015). The influence of financial literacy, money attitude, financial strain and financial capability on young employees' financial well-being. *Pertanika Journal of Social Sciences and Humanities, 23*(4), 827–848.

Sadiq, N., Hafiz., & Muhammad, I. M. (2014). The effect of demographic factors on the behaviour of investors during the choice of investments: Evidence from twin cities of Pakistan. *Global Journal of Management and Business Research, 14*(3), 47-56.

Sahi, S. K., & Kalra, S. K. (2013), Measuring financial risk taking using a dual preference approach for determination of financial satisfaction, *IIMA Institutional Repository*, Ahmedabab, http://vslir.iima.ac.in:8080/jspui/bitstream/11718/11486/1/BF-PP- 314-Measuring_Financial_Risk_Taking_using_a_dual_preference_approach-294-Sahi_b.pdf

Saksonova, S., & Kuzmina-Merlino, I. (2017). Fintech as financial innovation – the possibilities and problems of implementation. *European Research Studies Journal, 20*(3A), 961-973.

Salant, P., & Dillman, D. A. (1994). How to conduct your own survey. New York: John Wiley and Sons.

Salleh, F., Awang, Z., Rashid, N., & Burhan, N.A.S. (2021). The Moderating effect of risk-taking propensity on the relationship between perception towards insurable risks and general takaful demand among SMEs. *Journal of Contemporary Issues in Business and Government, 27*(2),.

Samani, S. A. (2016). Steps in research process (Partial Least Square of Structural Equation Modeling (PLS-SEM)). *International Journal of Social Science and Business, 1*(2), http://www.ijssb.com/images/vol1no2/5.pdf

Sarker, S., & Valacich, J. S. (2010). An alternative to methodological individualism: A non-reductionist approach to studying technology adoption by groups. *MIS Quarterly*, *34*(4), 779-808.

Sarker, S., Valacich, J. S., & Sarker, S. (2005). Technology adoption by groups: A valence perspective. *Journal of the Association for Information Systems, 6*(2), 37-71.

Sarwar, M. A., Awang, Z., Habib, M. D., Nasir, J., & Hussain, M. (2020). Why did I buy this? Purchase regret and repeat purchase intentions: A model and empirical application. *Journal of Public Affairs*, e2357.

Sass, S. A., Belbase, A., Cooperrider, T., & Ramos-Mercado, J. D. (2015). What do subjective assessments of financial well-being reflect? *Center for Retirement Research at Boston College*. https ://doi.org/10.2139/ssrn.2577285.

Scherhorn, G., Reisch, L. A., & Raab, G. (1990). Addictive buying in West Germany: An empirical study. *Journal of Consumer Policy, 13*(4), 355–387.

Schmeichel, B. J., & Baumeister, R. F. (2004). Self-regulatory strength. New York: The Guilford Press.

Securities Commission Malaysia .(2020). Peer to peer financing. https://www.sc.com.my/api/documentms/download.ashx?id=69cb6d1b-3703-4835-8467-5e10e4f54b79

SEEP. (2013). Understanding youth and their financial needs youth and financial services working group, innovations in youth financial services practitioner learning program.

Seiter, L., & Nelson, L. (2011). An examination of emerging adulthood in college students and nonstudents in India. *Journal of Adolescent Research, 26,* 506-536. https://doi.org/10.1177/0743558410391262

Sekaran, U. (2003). Research methods for business- A skill building approach. 4th ed. Carbondale: John Wiley & Sons.

Sekaran, U., & Bougie, R. (2016). *Research methods for business, A skill building approach*. John Wiley & Sons.

Serido, J., & Deenanath, V. (2016). Financial parenting: Promoting financial self-reliance of young consumers. In Xiao, J. J. (Ed.), *Handbook of consumer finance research* (2nd ed., pp. 291–300). New York: Springer Science + Business Media. https://doi. org/10.1007/978-3-319-28887-1_24.

Serido, J., Curran, M. J., Wilmarth, M., Ahn, S. Y., Shim, S., & Ballard, J. (2015). The unique role of parents and romantic partners on college students' financial attitudes and behaviors. *Family Relations, 64*(5), 696–710. https://doi.org/10.1111/fare.12164

Serido, J., Shim, S., & Tang, C. (2013). A developmental model of financial capability: A framework for promoting a successful transition to adulthood. *International Journal of Behavioral Development, 37*, 287–297. https ://doi.org/10.1177/01650 25413 479476

Setiawan, B., Nugraha, D. P., Irawan, A., Nathan, R. J., & Zoltan, Z. (2021). User Innovativeness and Fintech adoption in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(3), 188. https://doi.org/10.3390/joitmc7030188

Setiyani, R., & Solichatun, I. (2019). Financial well-being of college students: an empirical study on mediation effect of financial behaviour. *KNW Social Sciences, 3*(11), 451-474

Settersten, R.A. Jr. (2012). The contemporary context of young adulthood in the usa: from demography to development, from private troubles to public issues. in booth, a., brown, s. l., landale, n. s., manning, w. d., & mchale, s. m. (eds), *early adulthood in a family context*, springer, pp. 3-26

Shah, H., & Marks, N. (2004). A well-being manifesto for a flourishing society. london: the new economics foundation.

Shams, K. (2016). Developments in the measurement of subjective well-being and poverty: an economic perspective, *Journal of Happiness Studies, 17(*6), 2213-2236.

Sharif, S. P., Naghavi, N., Nia, H. S., & Waheed, H. (2020). Financial literacy and quality of life of consumers faced with cancer: a moderated mediation approach. *International Journal of Bank Marketing*,1-23.

Sheehan, D., & van ittersum, K. (2018). In-store spending dynamics: how budgets invert relative-spending patterns. *j consum res., 45*(1), 49–67.

Sherraden, M. S. (2013). Building blocks of financial capability. in Birkenmaier, J. M., Sherraden, M. S., & Curley, J. C. (eds), *financial capability and asset building: research, education, policy, and practice*, Oxford University Press, pp. 3-43.

Shim, S., Barber, B. l., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: the roles of parents, work, and education*. Journal of Youth and Adolescence, 39*(12), 1457–1470. https://doi.org/10.1007/s10964-009-9432-x

Shim, S., Serido, J., & Barber, B. (2011). a consumer way of thinking: linking consumer socialization and consumption motivation perspectives to adolescent development. *Journal of Research on Adolescence, 21*(1), 290–299. https://doi:10.1111/j.1532-7795.2010.00730.x

Shim, S., Serido, J., & Tang, C. (2012). The ant and the grasshopper revisited: the present psychological benefits of saving for tomorrow. *Journal of Economic Psychology, 33*(1), 155–165. https://doi.org/10.1016/j.joep.2011.08.005

Shim, S., Serido, J., Tang, C., & Card, N. (2015). Socialization processes and pathways to healthy financial development for emerging young adults. *Journal of Applied Developmental Psychology, 38,* 29–38. https://doi.org/10.1016/j.appdev.2015.01.002

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology, 30*(6), 708–723. https://doi.org/10.1016/j.appdev.2009.02.003

Shkeer, A. S., & Awang, Z. (2019a). Exploring Items for measuring marketing information system construct: An exploratory factor analysis. *International Review of Management and Marketing, 9(6),* 87-97.

Shkeer, A. S., & Awang, Z. (2019b). The impact of marketing information system components on organizational decision making: A case of five-star hotels in Jordan. *International Review of Management and Marketing, 9(6),* 1-8.

Shuell, T. J. (1986). Cognitive conceptions of learning. *Review of educational research*, *56*(4), 411.

Sia, C. L., Lee, M. K. O., Teo, H. H., & Wei, K. K. (2001). Information channels for creating awareness in IT innovations: An exploratory study of organizational adoption intentions of ValuNet. *Electronic Markets*, *11*(3), 206-215.

Sia, C. L., Teo, H. H., Tan, B. C. Y., & Wei, K. K. (2004). Effects of environmental uncertainty on organizational intention to adopt distributed work arrangements. *IEEE Transactions on Engineering Management*, *51*(3), 253-267.

Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of Economics, Commerce and Management, 2*(11), 1-22.

Sirsch, U., Zupan, M., Poredo, M., Levec, K., & Friedlmeier, M. (2020). Does parental financial socialization for emerging adults matter? The case of Austrian and Slovene first-year university students. *Society for the Study of Emerging Adulthood and Sage Publishing, 8*(6) 509-520.

Smit, H., Denoon-Stevens, C., & Esser, A. (2017). InsurTech for development: A review of insurance technologies and applications in Africa, Cenfri, https://cenfri.org/wp- content/uploads/2017/11/InsurTech-Research-Study_March-2017.pdf.

Sohn, S. H., Joo, S. H., Grable, J. E., Lee, S., & Kim, M. (2012). Adolescents' financial literacy: The role of financial socialization agents, financial experiences, and money attitudes in shaping financial literacy among South Korean youth. *Journal of adolescence, 35*(4), 969-980.

Somville, V., & Vandewalle, L. (2018). Saving by default. *Am Econ J Appl Econ, 10*(3), 39–66.

Sorgente, A., & Lanz, M. (2017). Emerging adults' financial well-being: A scoping review. *Adolescent Research Review, 2*(4), 255–292.

Soydemir, G. A., Bastida, E., & Gonzaelz, G. (2004. The Impact of religiosity on self-assessments of health and happiness: evidence from the US Southwest, Applied.

Stango, V., & Zinman, J. (2014). Limited and varying consumer attention: Evidence from shocks to the salience of bank overdraft fees. *The Review of Financial Studies, 27*(4), 990–1030.

Starobin, S. S., Hagedorn, L. S., Purnamasari, A., & Chen, Y. A. (2013). Examining financial literacy among transfer and nontransfer students: Predicting financial well-being and academic success at a four-year university. *Community College Journal of Research and Practice, 37*(3), 216–225. https://doi.org/10.1080/ 10668926.2013.740388

Stein, C. H., Hoffman, E., Bonar, E. E., Leith, J. E., Abraham, K. M., Hamill, A. C., Kraus, S. W., Gumber, S., & Fogo, W. R. (2013). The United States economic crisis: young adults' reports of economic pressures, financial and religious coping and psychological well-being. *Journal of Family and Economic Issues, 34*(2), 200-210.

Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics, 87*(5), 581- 643.

Stolper, O., (2018). It takes two to tango: Households' response to financial advice and the role of financial literacy. *J. Bank. Financ, 92*, 295–310.

Stone, A. L., Becker, L. G, Huber, A. M., & Catalano, R. F. (2012). Review of risk and protective factors of substance use and problem use in emerging adulthood. *Addictive Behaviors*, *37*(7), 747–775.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance, 14*, 30–38. https://doi.org/10.1016/j.jbef.2017.04.002

Sumarwan, U., & Hira, T. K. (1993). The effects of perceived locus of control and perceived income adequacy on satisfaction with financial status of rural households. *Journal of Family and Economic Issues, 14*(4), 343–364. https://doi.org/10.1007/BF01013984

Sundarasen, S. D. D., & Rahman, M. S. (2017). Attitude towards money: Mediation to money management. *Academy of Accounting & Financial Studies Journal*, *21*(1), 1–17.

Sundarasen, S. D. D., Rahman, M. S., & Othman, N. S. and (2016). Impact of financial literacy, financial socialization agents, and parental norms on money management. *Journal of Business Studies Quarterly, 8*(1), 140–156.

Supanantaroek, S., Lensink, R., & Hansen, N. (2017). The impact of social and financial education on savings attitudes and behavior among primary school children in Uganda. *Evaluation Review*, *41*(6), 511–541. https ://doi.org/10.1177/01938 41x16 66571 9

Syed, M., & Mitchell, L. (2013). Race, ethnicity, and emerging adulthood: Retrospect and prospects. *Emerging Adulthood*. https://10.1177/ 2167696813480503

Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics (6th ed.). Boston, MA: Pearson.

Taft, M. K., Hosein, Z. Z., & Mehrizi, S. M. T. (2013). The relation between financial literacy, financial wellbeing and financial concerns. *International Journal of Business and Management, 8*(11), 63–75. https://doi.org/ 10.5539/ijbm. v8n11p63

Tang, N., & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior, *Journal of Economic Psychology, 54,*164-176.

Tang, N., & Peter, P. C. (2015). Financial knowledge acquisition among the young: The role of financial education, financial experience, and parents' financial experience. *Financial Services Review, 24*, 119–137.

Tang, N., Baker, A., & Peter, P.C. (2015). Investigating the disconnect between financial knowledge and behavior: the role of parental influence and psychological characteristics in responsible financial behaviors among young adults, *Journal of Consumer Affairs, 49*(2), 376-406.

Tang, R. (2017). Bank Negara reveals the 4 biggest mistakes Malaysians make when it comes to money. http://says.com/my/news/bank-negara-malaysia-reveals-worrying- findings-on-financial-literacy-among-malaysians

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72*(2), 271–324. https://doi.org/10.1111/j.0022-3506.2004.00263.x

Tanguy, C. & Lorenz, J. T. (2017). Panorama Insurtech database: Insurtech—the threat that inspires, http://www.mckinsey.com/industries/financial-services/our-insights/insurtech-the-threat-that-inspires.

Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon: A structural equation modeling approach, *Information Technology & People, 29(4), 830-849. https://doi.org/10.1108/ITP-02-2014-0034*

Taylor, S., and Todd, P. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research, 6*(2), 144-176. http://www.jstor.org/stable/23011007

Thaler, R. H., & Shefrin, H. M. (1981). An economic theory of self-control`. *Journal of Political Economy, 89*(2), 392–406. https://doi.org/10.1086/260971

Thom, M. (2019). Can insurtech unlock new opportunities for insurance in Africa? Cenfri, FSD Africa, https://cenfri.org/wp-content/uploads/Cenfri_FSDA-presentation_Can-insurtech-unlock-new- opportunities-for-insurance-in-Africa.pdf.

Thomas, J. (2009). Working paper: Current measures and the challenges of measuring children's wellbeing. Newport: Office for National Statistics. Thriving, struggling, and hopeful. Worcester, MA: Clark University.

Titus, P. M., Fanslow, A. M., & Hira, T. K. (1989). Net worth and financial satisfaction as a function of household money managers' competencies. *Home Economics Research Journal, 17*, 309–317.

Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi journal of anaesthesia*, *11*(Suppl 1), S80–S89. https://doi.org/10.4103/sja.SJA_203_17

Tun-Pin, C., Keng-Soon, W. C., Yen-San, Y., Pui-Yee, C., Hong-Leong, J. T., & Shwu-Shing, N. (2019). An adoption of fintech service in Malaysia. *South East Asia Journal of Contemporary Business*, *18*(5), 134-147.

Turner, A. (2015). Generation Z: Technology and social interest. *The Journal of Individual Psychology, 71*(2), 103-113.

U.S. Department of the Treasury. (2018). A Financial System That Creates Economic Opportunities Nonbank Financials, Fintech, and Innovation, U.S. Department of the Treasury, https://home.treasury.gov/sites/default/files/2018-08/A-Financial-System-that-Creates-Economic-Opportunities---Nonbank-Financials-Fintech-and-Innovation.pdf.

UNDESA. (2013). *Definition of youth. United Nations*. New York: UN Department of Economic and Social Affairs. http://www.un.org/esa/ socdev/documents/youth/fact-sheets/youth-definition.pdf

UNESCO. (2013). Learning to Live Together, Social and Human Science, Youth, Paris, https:// www. unesco.org/new/en/socialand-humanscience/ theme/youth/youthdefinition/

United Nations. (2019.) Malaysia SDG Summit Report.https://malaysia.un.org/en/100997-malaysia-sdg-summit-2019-report

UNSC. (2015). Security council resolution 2250 (2015) [on youth, peace and security]. UN Security Council.

Valderas, J. M., Ferrer, M., Mendívil, J., Garin, O., Rajmil, L., & Herdman, M. (2008). Development of EMPRO: A tool for the standardized assessment of patient-reported outcome measures. *Value Health*, https://dx.doi. org/10.1111/j.1524-4733.2007.00309

Van Campenhout, G. (2015). Revaluing the role of parents as financial socialization agents in youth financial literacy programs. *Journal of Consumer Affairs, 49*(1), 186-222.

Van Rooij, M. C. J., Lusardi, M., & Alessie, R. (2012). Financial literacy, retirement planning and household wealth. *The Economic Journal*, *122*(560), 449–478

VanPraag, B. M. S., Frijters, P., & Ferrer-i-Carbonell, A., (2003). The anatomy of subjective well-being. *Journal of Economic Behavior & Organization, 51*(1), 29–49.

Venkatesh, V., Davis, F. D., & Morris, M. G. (2007). Dead or alive? The development, trajectory and future of technology adoption research. *Journal of the Association for Information Systems, 8*(4), 268-286.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*, *17*(5), 328–376. https://doi.org/10.17705/1jais.00428

Verick, S. (2009). Who is hit hardest during a financial crisis? The vulnerability of young men and women to unemployment in an economic downturn. Discussion paper series, IZA DP No. 4359. https://libra ry.bsl.org.au/jspui /bitst ream/1/1234/1/22714 8_Who_is_the_harde st_ hit_durin g_finan cial_crisi s.pdf.

Verplanken, B., & Herabadi, A. (2001). Individual differences in impulse buying tendency: Feeling and no thinking. *European Journal of personality, 15*(S1), S71-S83.

Victor, S., & Jonathan, Z. (2014). Limited and varying consumer attention: Evidence from shocks to the salience of bank overdraft fees. *The Review of Financial Studies*, *27*(4), 990–1030. https://doi.org/10.1093/rfs/hhu008

Von Bertalanffy, L. (1956). *General systems theory*. New York: George Braziller.

Vosloo, W., Fouche, J., & Barnard, J. (2014). The relationship between financial efficacy, satisfaction with remuneration and personal financial well-being, *International Business and Economics Research Journal, 13*(6),

Vosylis, R., & Erentaitė, R. (2019). Linking family financial socialization with its proximal and distal outcomes: Which socialization dimensions matter most for emerging adults' financial identity, financial behaviors, and financial anxiety? *Emerging Adulthood*, https://doi. org/10.1177/2167696819 856763

Walther, A. (2006). Regimes of youth transitions: Choice, flexibility and security in young people's experiences across different European contexts. *Journal Sage Publishing, 14*(2), 119-139. https://doi.org/10.1177/1103308806062737

Wathan, J., Higgins, V., Elliot, M., Browne, W., Carlton, C., Morales Gomez, A., & Buckley, J. (2019). Multiple regression in SPSS worksheet (Quiz and Practical). National Centre for Research Methods.

Watson, S. J., & Barber, B. L. (2016). University attendance moderates the link between financial norms and healthy financial behavior for Australian young adults. *Journal of Family and Economic Issues, Springer, 38*(2), 238-248.

Weinstein, C. E., & Mayer, R. E. (1986). The teaching of learning strategies. *Handbook of research on teaching*, *3*, 315-327.

Welman, C., Kruger, S. J., & Kruger, F. (2001). Research methodology for business and administrative sciences (2nd Edition). Cape Town: Oxford University Press.

White, S. (2018). System Theory, System Thinking. Senior Professor Long Island University (LIU-Post) IEEE Systems Council DL Talk. https://pdfs.semanticscholar.org/3e26/6353ed5b5dfaffc3e53e66f2bc1812edca92.pdf

Widuri, R., Kholil, M., Nurbani, K., & Hendri. (2020). The Use of Unified Theory of Acceptance and Use of Technology in the adoption of m-payment. *Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai.*

Wightman, P., & Schoeni, R. (2012). Familial financial assistance to young adults. (National Poverty Center Working Paper #12–10). http://npc.umich .edu/publi catio ns/u/2012-10%20 NPC %20Wor king%20Pap er.pdf.

Williams Shanks, T., Kim, Y., Loke, V., & Destin, M. (2010). Assets and child well-being in developed countries. *Children and Youth Services Review, 32*(11), 1488–1496. https://doi:10.1016/j.childyouth. 2010.03. 011

Wolf, M., Blomquist, C., Huq, R., Kovacs, E., Williamson, H., & Lauritzen, P. (2005). *Youth policy in Norway*. Strasbourg: Council of Europe Publishing/Cedex.

Wolla, S. (2017). Evaluating the effectiveness of an online module for increasing financial literacy. *Social Studies Research and Practice, 12*(2), 154-167.

World Bank Group (2017). 1.1 Billion 'Invisible' People without ID are Priority for new High Level Advisory Council on Identification for Development, Press release, http://www.worldbank.org/en/news/press-release/2017/10/12/11-billion-invisible-people-without-id-are-priority-for-new-high-level-advisory-council-on-identification-for-development

World Bank Group. (2021) GDP Growth (annual %)- Malaysia. https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=MY

World Economic Forum (2017). The global gender gap report 2017. http://www3.weforum.org/docs/WEF_GGGR_2017.pdf

Xiao, J. J. (2008). Applying behaviour theories to financial behaviour. (Ed.). *Handbook of Consumer Finance Research* (pp. 69-81). New York: Springer.

Xiao, J. J., & O'Neill, B. (2018). Propensity to plan, financial capability, and financial satisfaction. *International Journal of Consumer Studies, 42*(5), 501–512.

Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing, 35*(5), 805-817.

Xiao, J. J., Chatterjee, S., & Kim, J. (2014a). Factors associated with financial independence of young adults. *International Journal of Consumer Studies, 38*(4), 394–403. https://doi.org/10.1111/ ijcs.12106

Xiao, J. J., Chen, C., & Chen, F. (2013). Consumer financial capability and financial satisfaction. *Social Indicators Research, 113*(3), 1–18. https://doi.org/10.1007/s11205-013-0414-8

Xiao, J. J., Ford, M. W., & Kim, J. (2011a). Consumer financial behavior: An interdisciplinary review of selected theories and research. *Family & Consumer Sciences Research Journal, 39*(4), 399–414. https://doi.org/10.1111/j.1552-3934.2011.02078.x

Xiao, J. J., Sorhaindo, B., & Garman, E. T. (2006). Financial behavior of consumers in credit counseling. *International Journal of Consumer Studies, 30*(2), 108–121. https://doi.org/10.111 1/j.1470-6431.2005.00455.x

Xiao, J. J., Tang, C., & Shim, S. (2009). Acting for happiness: Financial behavior and life satisfaction of college students. *Social Indicators Research, 92*(1), 53–68. https://doi.org/10.1007/s1120 5-008-9288-6

Xiao, J. J., Tang, C., Serido, J., & Shim, S. (2011b). Antecedents and consequences of risky credit behavior among college students: Application and extension of the theory of planned behaviour. *Journal of Public Policy and Marketing, 30*(2), 239-245.

Xiao, J., Chen, C., & Chen, F. (2014b). Consumer financial capability and financial satisfaction. *Social Indicator Research, 118*(1), 415–432. https://doi.org/10.1007/s11205-013-0414-8

Xiao, J. J., Shim, S., Barber, B., & Lyons, A. (2007). Academic success and well-being of college students: financial behaviors matter. (Technical Report) TCAI, University of Arizono.

Yahaya, T., Idris, K., Suandi, T., & Ismail, I. (2018). Adapting instruments and modifying statements: The confirmation method for the inventory and model for information sharing behavior using social media. *Management Science Letters*, *8*(5), 271-282.

Yeboah, F. K., Jayne, T. S., Muyanga, M., & Chamberlin, J. (2019). Youth access to land, migration and employment opportunities: Evidence from sub-Saharan Africa. *IFAD Res. Ser*, *53*, 50.

Yoong, F. J., See, B. L., & Baronovich, D. L. (2012). Financial literacy key to retirement planning in Malaysia. *Journal of Management and Sustainability, 2*(1), 75–86. https://doi.org/10. 5539/jms.v2n1p75

Younas, W., Javed, T., Kalimuthu, K. R., Farooq, M., Khalil-ur-Rehman, F., & Raju, V. (2019). Impact of self-control, financial literacy and financial Behaviour on financial well-being. *The Journal of Social Sciences Research, 5*(1), 211-218.

YouthWiki. (2018). Youth policy in Norway. National Policies Platform. https://nationalpolicies.eacea.ec.europa.eu/sites/default/files/2021-02/norway2018.pdf

Yu, C. S. (2012). Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research, 13*(2), 104-121.

Yusof, Y., Awang, Z., Jusoff, K., & Ibrahim, Y. (2017). The influence of green practices by non-green hotels on customer satisfaction and loyalty in hotel and tourism industry. *International Journal of Green Economics*, *11*(1), 1-14.

Zahirovic-Herbert, V., Gibler, K. M., & Chatterjee, S. (2016). Financial literacy, risky mortgages, and delinquency in the US during the financial crisis. *International Journal of Housing Markets and Analysis, 9*(2), 164-189.

Zaimah Ramli. (2010). Pola tingkahlaku kewangan pekerja keluarga dwi-kerjaya. Malaysian *Journal of Consumer and Family Economics, 13*,114-124.

Zaimah, R. (2011). *Pengaruh pengetahuan, tingkahlaku dan pembuatan keputusan kewangan ke ataskesejahteraan kewangan pekerja sektor awam yang berkahwin* (Unpublished doctoral dissertation), Universiti Putra Malaysia, Serdang.

Zaimah, R. (2019). The probability factor influences the level of financial well-being of workers in Malaysia. Geografia-Malaysian *Journal of Society and Space, 15*(3), 122- 135. https://doi.org/10.17576/geo-2019-1503-0

Zainal, N. R., Kaur, G., Ahmad, N. A., & Khalili, J. M. (2012). Housing conditions and quality of life of the urban poor in Malaysia. *Procedia-Social and Behavioral Sciences*, *50*, 827-838.

Zainudin, A., (2012). *Research methodology and data analysis*. (5th edn), Shah Alam: University Technology MARA Publication Centre UiTM Press.

Zainudin, R., Mahdzan, N. S., & Yeap, M. Y. (2019). Determinants of credit card misuse among Gen Y consumers in urban Malaysia. *International Journal of Bank Marketing*, *37*(5), 1350-1370.

Zemtsov, A. A., & Osipova, T. Y. (2016). Financial wellbeing as a type of human Wellbeing: Theoretical review. *The European Proceedings of Social and Behavioural Sciences, 7*, 385-392.

Zhou, T., (2008). Exploring mobile user acceptance based on UTAUT and contextual offering. *International Symposium on Electronic Commerce and Security*, 241-245. https://doi.org/ 10.1109/ISECS.2008.10

Zulfiqar, M., & Bilal, M. (2016). Financial wellbeing is the goal of financial literacy. *Research Journal of Finance and Accounting, 7*(11), 94–103.