

## Payment Behaviour Among B40 Households During COVID-19 as a Mediator Towards Financial Well-Being

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### Abstract

Households in the B40 income category who are economically disadvantaged would be much affected during COVID-19, where the Movement Control Order (MCO) has limited the economic activity of households and businesses. They may find difficulties in loan repayments during the pandemic. During the order, the use of FinTech would facilitate payments. Hence, this study aims to determine the mediation effect of payment behaviour in the influence of FinTech usage on financial well-being among 2,125 respondents from B40 households in Malaysia via multi-stage random sampling and influential factors on financial well-being were also determined in this paper. Self-administered questionnaires were distributed at the respondents' residences. The mediated financial well-being model was a fit model based on the R square of 28.4 per cent; thus, the research findings have practical significance. Significant factors in the model comprised of income, savings, net-worth, health, internal locus of control, financial stress and FinTech usage in the first model. In the second model, payment behaviour mediated the effect of FinTech usage on financial well-being among B40 households. The models were valid models based on the significant F statistics. Prudent payment behaviour should be practised to elevate financial well-being. Though FinTech facilitates payments, a good financial situation would not be achieved without proper payments made for loans. Debt advisory services will be sought to assist households in improving their debt repayment practices.

**Keywords:** financial well-being, fintech, locus of control, net-worth, payment behaviour

## 1.0 Introduction

The appearance of the 'beast crasher' COVID-19 has severely affected the financial system and the financial industry's approach (World Economic Forum, 2020). The nature of the COVID-19 shock is unique compared to other shocks globally, and even less so in the last century; the world has never seen a pandemic of this magnitude. The disease originated amid the hyper-globalisation and inter-connectivity of systems. Systems are extremely fragile via contagion and domino effect.

This extraordinary occurrence was accompanied by a severe economic downturn, which harmed both individual income and the nation's financial status. The MCO caused by COVID-19 has an impact not only on the macro level but also on the micro-level, particularly on those groups of households. In Malaysia, the pandemic COVID-19 has prompted the government to impose the Movement Control Order (MCO) on March 18, 2020. Malaysia is a developing country that aspires to be a high-income nation by 2020. Nonetheless, between the years 2015 and 2019, 80,625 Malaysians declared bankruptcy, according to official data (Carvalho et al., 2019). In fact, Malaysia has a higher bankruptcy rate of 0.36% than developed countries like Singapore (0.31%) and the United Kingdom (0.23%) (Gazi, 2018). Additionally, according to the Department of Statistics Malaysia (DOSM), the country's unemployment rate jumped to 4.9% in January 2021, the highest level since 1993. Numerous Malaysians are experiencing severe financial hardship as a result of rising household debt and rising unemployment. The COVID-19 pandemic has had a detrimental effect on the world, including Malaysia, and the government's subsequent travel restrictions to flatten the pandemic's curve show a deterioration in health and economic and financial conditions.

During COVID-19, the Malaysian Institute of Economic Research anticipated that Malaysia's real GDP growth in 2020 would fall from 4.0 to -2.9%, with up to 2.4 million job losses, with 67% coming from unskilled employees. The DOSM study, conducted between March 23 and March 31, during the second week of MCO phase one, discovered that half of the self-employed individuals were unemployed, and up to a third claimed that their income had reduced by 90%, out of a total of 170,000 respondents survey. The statistics raise alarming concerns about vulnerable households' financial instability

Additionally, according to the Department of Statistics Malaysia survey, half of the respondents had enough money to last two weeks, while only 28% had enough money to last two months. The fact that this situation has reached another alarming level has piqued policymakers' interest. In response to these concerns, Bank Negara Malaysia (BNM) emphasises that stimulus measures, policy rate reductions, continued progress on public projects, and increased public sector spending should contribute to the sustainability of GDP growth in 2020. Malaysian authorities launched an RM250 billion Economic Stimulus Package to "buffer" the consequences of the COVID-19 outbreak and "reinvigorate" the Malaysian economy through one of three strategies: increased family spending and increased government expenditure, or more foreign direct investment.

As a result, the Malaysian government proposed implementing a stimulus package to assist affected households, particularly low-income households, with a B40 income. The PRIHATIN package offers immediate assistance to those impacted by the COVID-19 pandemics. Bantuan PRIHATIN Rakyat 2021 is aimed at the B40 group with an annual income of less than RM 5,000. Through this package, households would receive between RM500 and RM1,600 for two consecutive months, depending on their socioeconomic status: bottom 40 (B40) or middle 40 (M40) (M40). According to analysts, the government's PRIHATIN stimulus programme has aided Malaysia's B40 group to survive the COVID-19 pandemic while encouraging economic activity through consumer spending.

Before the COVID-19 outbreak, consumers faced growing self-responsibility for making financial decisions that influenced their current and future financial well-being. According to the RinggitPlus Malaysian Financial Literacy Survey 2020, Malaysians' financial behaviour has not been strongly impacted (RMFLS, 2020). Given that Malaysians' overall financial literacy remains low, and approximately 70% of Malaysians require financial help (RMFLS, 2020), many consumers look unprepared or unable to take on additional financial responsibility, especially in light of the COVID-19 pandemic. Henceforth, this research on financial well-being is becoming increasingly essential for Malaysia, working hard to alleviate poverty. As a result, financial well-being is critical because success in raising financial well-being can lead to success in decreasing poverty rates.

Malaysia's government is primarily concerned with improving the well-being of the B40 population segment, which accounts for 40%

of the country's total population. In Malaysia, households are classified into three income groups: the bottom 40% (B40) with a monthly household income of RM4,850 or less, the middle 40% (M40) with a monthly household income of RM4,851 to RM10,970, and the top 20% (T20) with a monthly household income of RM10,971 or more (Department of Statistics Malaysia, 2020). According to Sheykhi (2010), a household is defined as a single individual or a group of individuals who share a single address or primary residence and either share living quarters or a single meal each day. For sociological analysis, households can be categorised into two types:

- a. Based on the number, size, and structure of the families in the household, and
- b. Based on the age and sex structure of the household determines the number of children, adults, and pensioners at times.

According to a prior study, social capital has been able to link to a better quality of life in the low-income B40 group (Amin et al., 2018). For example, the Bantuan Rakyat 1 Malaysia (BRIM) was introduced to boost the purchasing power of those affected by the GST implementation in 2015, particularly the B40 group.

Malaysia's labour force participation rate in 2019 was 68.9%, with a 3.3% unemployment rate (Malaysia Labour Force, 2019). While in 2018, the Gross National Income (GNI) was USD 10,590, and the poverty headcount ratio at national poverty lines was 0.4, down from 3.8 in 2008 (World Bank, 2020). Amid social alienation, the COVID-19 health crisis has generated greater opportunities for digital finance to enhance financial inclusion. Fintech has contributed to the expansion of financial inclusion in countries at various stages of development.

This condition has resulted in a rise in the number of households having difficulty repaying secured or unsecured debt, rent arrears, and meeting unforeseen expenses. Thus, financial well-being research and the impact of financial behaviour, financial stress, and locus of control on the financial well-being of families are critical components of household research. Financial well-being is critical to studying family as a consumer unit because it impacts consumer and family financial management, as well as the financial well-being of the community. Financial well-being affects many aspects of individuals and families, not just low-income persons and families. Hence, using multi-stage random sampling, this study aims to determine whether payment

behaviour mediates the impact of FinTech usage on financial well-being among 2,125 Malaysians from B40 households. Influential factors on financial well-being were also determined among them.

## **2.0 Literature Review**

### **2.1 Financial Well-Being**

Financial well-being is a critical field of study that examines how consumers manage their money, spend, save, and invest (Nanda & Banerjee, 2021). The concept of financial well-being is widely employed in various sorts of research. However, due to the broad perspective of financial well-being, there is no thorough definition or assessment, particularly conceptualisation and component. Earlier, financial well-being was described as satisfaction or happiness with one's financial ownership. However, presently financial well-being is described broadly as having financial stability, freedom of choice, and overall pleasure in the present and future (Benjamin et al., 2014). Financial well-being has been evaluated using various measures, and the literature suggests that it may be classified into objective and subjective financial well-being. Nonetheless, researchers are likely to define financial well-being across the literature using both objective and subjective criteria or either objective or subjective aspects. Financial satisfaction or well-being is ultimately related to an individual's overall well-being and pleasure (Woodyard & Robb, 2016; Wan & Zhao, 2018; Sabri & Aw, 2019).

Objective economic indicators, such as the consumer's income, savings, and investments, credit score, credit card debt, regular mortgage payments, and tax payments, have been prioritised in the financial well-being sector (Schmeiser & Seligman, 2013; Bruggen et al., 2017; Mokhtar & Husniyah, 2017). The subjective evaluation of financial well-being, on the other hand, focuses on the consumer's self-assessment of their disposition, attitude, belief, and financial behaviours (Brüggen et al., 2017; Netemeyer et al., 2018; Mokhtar et al., 2020).

It has been determined that financial well-being includes objective and subjective measurements and may also be recognised as financial wellness (Van Praag et al., 2003; Mokhtar & Rahim, 2017). Financial well-being has been characterised by various contexts, including economics, services marketing, social, household level, financial counselling and planning, developmental psychology, and

consumer decision making (Aggarwal, 2014; Brügger et al., 2017; Sabri et al., 2021).

Nonetheless, which variables may contribute to increased financial satisfaction? Previous studies established that the capacity to perform well in a behavioural area correlates with increased pleasure. As a result, individuals who exhibit positive financial attitudes and behaviours are more prone to experiencing higher financial satisfaction (Lyubomirsky et al., 2005; Xiao et al., 2009). The capability to manage finances and save for the future has been linked to financial satisfaction in several studies (Joo & Grable 2004, Hilgert et al. 2003, Xiao 2008, Xiao et al. 2009). Disch et al. (2000) found that financial stress and consumer/finance concerns were among the top ten factors affecting young adults' perceptions of well-being.

Variables such as household income, debt, and economic, social, and financial health have been used to study the financial well-being of families for decades (Arendt & Brettel, 2010; Por et al., 2011; Sabri & Zakaria, 2015). However, taking a small number of variables into account will not provide a whole picture of financial well-being, as numerous factors influence financial well-being. Thus, scholars should explore different angles and perspectives. As a result, different countries can use different variables to describe and assess their financial well-being.

According to research in developed countries, 74 per cent of adults in the United States are relatively content with their financial situation (Anderson et al., 2015). Surprisingly, financial stresses were regarded as the most serious problem U.S. households face, particularly financial stress management (Board of Governors of the Federal Reserve System, 2018). CFPB (2015b) also indicated that rates of material hardship and financial challenges were particularly high in households, implying poorer levels of financial well-being. Households with lower levels of financial stress, on the other hand, had higher levels of financial well-being. However, a researcher must keep in mind that higher salaries do not always correlate with a higher level of well-being for all individuals.

However, Waqar et al. (2019) report that the direct effect of self-control on financial well-being is insignificant. While the association between financial behaviour and financial well-being is more significant than the relationship between financial literacy and self-control and financial well-being, the relationship between financial behaviour and financial well-being is less significant.

In conclusion, while numerous studies utilised various variables and produced disparate results, researchers should give priority beforehand to examining the period, time frame and research locale. These distinctions may reflect varying interpretations and measures of an individual's financial well-being and the link between variables (Taft et al., 2013).

## 2.2 Financial Stress

Financial stress is defined as financial pressures that occur when an individual is exposed to certain unfavourable occurrences, such as changes in one's current financial condition or when confronted with an emergency that requires a sum of money greater than the individual's normal financial capabilities (Kim et al. 2006).

It is essential to distinguish this concept from financial distress since financial stress relates to significant financial shocks or changes in one's life, whereas financial distress is the inverse of financial well-being. According to Yates (2007), financial stress is caused by an inability to meet fundamental financial necessities necessary to maintain a given living level.

According to some experts, financial stress is caused by three distinct sources: personal (e.g., injuries and illness), familial (e.g., marriages and babies), and financial shocks (e.g., foreclosure, major decreases in funds, and legal issues) (Joo & Grable 2004; Prawitz et al. 2006). According to Boss (2001), accumulated financial stress, such as increased debt or financial deficits, can result in financial distress or, in the alternative, low financial well-being.

Financial strain can substantially affect an individual's overall well-being, including health concerns (Drentea & Lavrakas 2000; Kim et al. 2006; O'Neill et al. 2005) and work performance (Kim et al., 2006). According to Xiao et al. (2006), financial stress is associated with rising debt levels and deteriorating health and family relationships. By contrast, Lyons and Yilmazer (2005) failed to establish the effect of financial stress on one's health but discovered a significant effect of health on financial stress.

Their rationale was that unhealthy individuals would struggle to manage their finances, exacerbating their financial strain or stress. According to Starrin et al. (2009), individuals, particularly those in lower-income categories, are more exposed to psychological health hazards when confronted with financial stress because they feel more guilty or resentful of their circumstances. According to the existing

studies, financial stress has a negative impact on an individual's financial status. Deterioration of these conditions will adversely affect a person's financial well-being (Nuradibah & Husniyah, 2016). Based on the discussion in this article, this study hypothesises that:

H1: Financial stress has a negative correlation with financial well-being in Malaysian's B40 households.

### 2.3 Payment Behaviour and Savings

Financial behaviours are distinct actions, feelings, or performances involving money management performed in a special way (Gorham et al., 1998). Individuals engage in daily financial behaviours such as managing cash, credit, and savings, affecting their financial well-being or vulnerability (Amirah Shazana et al. 2020, 2021; Dew & Xiao, 2011). Effective financial behaviour can be defined as any behaviour that results in attaining one's financial goals, such as preserving cash flow paperwork, budgeting expenses, paying utility bills, and limiting credit card and savings account usage (Xiao, 2008). On the other hand, irresponsible financial behaviour includes excessive spending, inefficient debt management, and late bill payments (Xiao et al., 2009).

Previous research has established that an individual's financial behaviour has a major impact on their financial well-being. According to these studies, financial well-being is associated with positive financial behaviours, whereas bad financial behaviours are driven by financial stress and associated stress. For example, Godwin (1994) evaluated the association between cash flow management and the outcome among newlywed couples. According to the study, couples that effectively manage their cash flow are financially happier than their counterparts. Joo and Grable (2004) replicated O'Neill et al. (2000)'s research on the relationship between financial behaviour and financial satisfaction. The findings of both studies are consistent in that respondents who exhibit good financial behaviour have a greater level of financial well-being. Similar findings were discovered in Xiao et al. (2014) study. Their study examines the relationship between consumer financial behaviour and financial satisfaction in the United States, arguing that customers who engage in desired financial behaviours experience increased financial well-being. Furthermore, extensive studies in Malaysia focused on the effects of financial behaviour and financial well-being.

Falahati et al. (2012) investigated the saving and spending behaviours of 700 university students in Malaysia and discovered that respondents' financial well-being increased when they engaged in good financial behaviours. According to a study on financial well-being and indebtedness among Malaysian employees, establishing good personal finances early on is crucial for addressing financial distress (Subramaniam et al., 2014). A local study among employees found that among the financial practices, the regression results confirmed that only savings affect financial health (Husniyah et al., 2017). This event reflected that financial practices other than savings was not that important to financial health. Hence, based on the prior discussion, this study hypothesises the following:

H2: Effective payment behaviour and savings lead to greater financial well-being among Malaysia's B40 households.

H3: Mediation effect of payment behaviour existed in the influence of Fintech usage on financial well-being.

#### 2.4 Internal Locus of Control (LOC)

The phrase "locus of control" derives from the field of psychology and relates to an individual's attitude, belief, or expectation regarding their behaviour and the consequences (rewards or penalties) associated with it (Rotter, 1966). In the case of personal financing, Lefcourt (1976) asserted that locus of control is vital in balancing an individual's financial stress and promoting improved financial behaviour to improve financial enforcement, particularly among B40 households.

To investigate the concept of locus of control, both internal and external viewpoints or perspectives can be used (LOC). Individuals with an internal locus of control are more enthusiastic and motivated to achieve their goals (Lefcourt 1976; Hellriegel et al. 2010). On the other hand, the external component of LOC suggests that individuals feel that other elements such as luck, chance, and fate influence a certain outcome, even though they have no control over them (Hoffman et al., 2000). Brewin and Shapiro (1984) suggested that researchers analyse these two factors separately rather than in conjunction to avoid contradicting interpretations.

According to an empirical study, a higher internal LOC has been proven to promote financial satisfaction and well-being (Sumarwan & Hira, 1993; Shim et al., 2009; Prawitz et al., 2013). According to prior

research, internal LOC and perceived value is associated with numerous personal financial behaviours, attitudes and satisfaction (Simanjuntak et al., 2020). Cobb-Clark et al. (2013) constructed a locus control index and discovered that an internal locus of control significantly affected the degree of savings relative to total income. Salamanca et al. (2016) discovered that individuals with a higher internal locus of control consider themselves to have more control over their outcomes, are more risk-tolerant, and hence, have a stronger propensity to hold more equity in their financial portfolios. According to studies, those with a higher internal LOC are also less likely to have financial difficulties and have better financial health (Prawitz & Cohart, 2016).

On the contrary, as a previous study has demonstrated, those with strong external control positions will be more financially vulnerable, decreasing well-being due to stress (Debus et al., 2014). On the other hand, individuals who believed in an external locus of control had a big impact and felt less control over their circumstances (Deacon & Firebaugh, 1988). Individuals who believed in an external locus of control felt less control of their situations (Deacon & Firebaugh, 1988). A similar concept with the locus of control, perceived behavioural control, had a significant influence on the financial behaviour of investors. It is the extent of control a person has over financial activity (Ahmad Fauzi et al., 2016). The following hypotheses may be established as a result of the research conducted:

H4: Internal locus of control is positively related to financial well-being among Malaysian B40 households.

## 2.5 Status

Health risks were prevalent in the health measures, with PCS and MCS recorded slightly below the border of 50, while financial health was slightly above the midpoint of its scale among households working in the public sector (Husniyah et al., 2017). Older employees with higher income displayed better financial health than younger and lower-income employees. In the influence on financial health measured by the financial well-being scale, it has been revealed that only physical measures of health significantly influenced financial health and not mental health.

Disability, physical health, and mental health also directly and indirectly affect financial well-being (Muir et al., 2017). Individuals with

a suspected significant mental illness, particularly those under 30, are more likely to suffer poor financial well-being than those with minimal or no psychological distress. Individuals with disabilities had considerably less social capital in a financial emergency, a critical component of financial well-being.

The researcher evaluated the link between self-reported health status and financial strain using three measures of financial strain from the Survey of Consumer Finances (SCF), namely delinquency on loan payments, an asset to debt ratio, and a liquid asset to income ratio. (Lyons & Yilmazer, 2005). For all three indicators, poor health greatly increased the chance of customers experiencing financial strain. The study found little empirical proof that financial stress causes health issues. As a result, the following hypothesis can be constructed.

H5: Health status is negatively impacting financial well-being among Malaysian B40 households.

## 2.6 Income and Net-worth

Inadequacy of income may result in the inability to involve in financial activities such as purchasing investment products (Ahmad Fauzi et al., 2016). The cash outflows will be affected as there are constraints due to the limited cash inflows. Other local studies looked at income (Husniyah et al., 2005; Mohamad Fazli et al., 2008), which significantly influenced financial satisfaction. Employees who earned a minimum monthly income of RM2,500 were also significantly associated with financial adequacy (Husniyah et al., 2016). For the participants in this study, the value of the income (i.e. the amount of money received), the stability of the income (i.e. was it consistent and secure), and the source of the income (i.e. work, a government payment, a superannuation income stream, or parents) were all significant factors in determining their financial well-being (Muir et al., 2017). Based on these lines of reasoning, we hypothesise:

H6: Income are positively related to financial well-being among Malaysian B40 households.

H7: Net worth is significantly influenced by financial well-being among Malaysian B40 households.

## 2.7 FinTech Usage

The financial technology (FinTech) industry has advanced quickly in retail markets, attracting more attention (Goldstein et al., 2019). Financial technology, often known as Fintech, is an economic sector made up of businesses that leverage technology to improve financial services efficiency (McAuley, 2014). Financial technology (FinTech) is accelerating the transition in the financial services industry (Frost et al., 2019). FinTech innovations have impacted financial planning, financial well-being, and economic inequality, ranging from mobile payments to Robo-advice and app-based investing platforms to online banking solutions (Frame, Wall, & White, 2019). The impact on customers is still up in the air, although FinTech improvements have been beneficial to their developers (Chen et al., 2019).

Individuals can view transaction and account balance information more frequently; as a result, resulting in considerable reductions in high-interest unsecured loans and bank fees (Carlin et al., 2020). The magnitudes are substantial economically, as one additional monthly login lowered consumer debt by 14% over two years for the general population.

FinTech innovations may also harm financial well-being by inducing impulsive consumer behaviour when consumers connect with financial applications and systems. For instance, mobile applications may appeal to impulsive and unsophisticated persons who lack the ability to foresee future preferences. As a result, mobile apps can result in users making poor selections when they are in 'hot' states or under sales pressure. In such instances, the shorter delay between purchasing financial services and their ultimate usage is likely to affect consumer welfare negatively. Hundtofte and Gladstone (2019) demonstrate that mobile users are more prone to impulsive purchasing and use payday loans. Mobile loan products are frequently overly accessible and allow for the fulfilment of transient wishes. This implies that mobile apps and platforms should be augmented with training. As a result, the following hypothesis can be constructed. Based on the reasoning above, we hypothesise:

H8: Fintech usage is significantly influencing financial well-being

## 2.8 Conceptual Framework of Financial Well-being

Based on past studies and theories, a conceptual framework of financial well-being was built, as shown in Figure 1. The framework shows interrelations between income, savings, net-worth, health, internal locus of control, financial stress and FinTech usage with payment behaviour and financial well-being. It also shows the potential of payment behaviour as a mediator in FinTech usage and financial well-being among the households. The Expected Utility Theory can explain the influence of personal factors on financial well-being among households. The expected utility introduced by Daniel Bernoulli can further explain the preference among households (Morgenstern, 1976). It is the decision making under risk and uncertainty where it describes the interrelation between the outcome and people's behaviour. Thus, based on current consumption and outcome, the Expected Utility Theory can be used to predict future behaviour. An expected output perceived as more relevant and beneficial to the individual will enhance the behaviour.

The behaviour regarding the payment of loans and payment for purchases of the households will affect the outcome of their actions. Payments of loans and purchases would be made properly as scheduled or when it is due when they perceive a potential unfavourable situation. This can justify the effects of payment behaviour and savings regularly as the potential factors influencing financial well-being. They will also be more satisfied if they have more control over their activities. They will act according to the expected utility perceived to gain.

Henceforth, households displaying an internal locus of control are capable of controlling their activities, elevating the utility. In the same vein, the usage of FinTech in making payments would also be expected to increase utility or satisfaction, thus leading to higher financial well-being. Other personal factors such as income, net worth, health status and financial stress could be explained as the inputs for a financial management process in a system advancing towards the output of the management process. The better financial well-being of the households would be achieved by having better inputs as understood by the Resource Management Model (Deacon & Firebaugh, 1988) that originates from the Systems Theory.

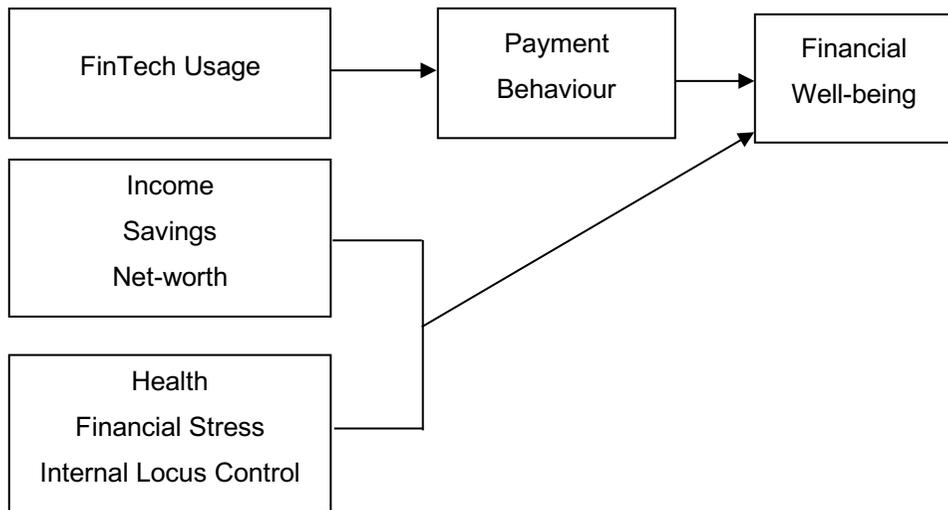


Figure 1 : Conceptual Framework for Financial Well-being

### 3.0 Methodology

#### 3.1 Sampling

Malaysia is home to 32.75 million people and 7.3 million households (DOS, 2021). Hence, the current study employed a two-stage sampling approach. In the first stage, 2,125 households from five (5) zones in Peninsular Malaysia and East Malaysia were sampled using multi-stage random sampling (Growth centre: Central, Southern, Northern, East Coast, and East Malaysia). Six states (Selangor, Johor, Penang, Pahang, Sabah and Sarawak) were elected from these five zones using random multi-stage sampling.

The researchers gained approval from the University's study ethics council before data collection. Throughout the procedure, constant monitoring was used to determine that responses were distributed fairly and in compliance with the six states' quotas. The questionnaire was created as a tool to accomplish the research's objectives.

Administered face-to-face questionnaires were then randomly distributed, and B40 households were selected as the subjects of this research. B40 households were identified based on the National Household Sampling Frame (NHSF) list after the consultancy from Malaysia's Department of Statistics. During the second stage, the selected states in each zone were targeted to obtain households from urban areas based on Enumeration Block (E.B.) and Residential

Places (R.P.) through random sampling. The unit of analysis for this study is adults representing households from selective low in income groups. However, preference was given to the head of the household to participate in the survey.

Given the study's time and economic limitations, this sampling approach method was chosen due to its time and cost advantages that would not compromise the performance of reliable inferences from the statistical analysis. Respondents were briefed about the purpose and rationale of the research, and no monetary incentives were offered. Finally, data screening yielded 2,125 usable responses under the B40 income group over six months, i.e. September 2020 until March 2021, for the analysis.

All the gathered data are computed to perform regression analyses to determine the influential factors and the mediating effect of financial behaviour using IBM Statistical Package for Social Science (SPSS) Version 26.0. This is quantitative research and correlational study between selected variables. Quantitative research is a good way to finalise the results and prove or disapprove of a hypothesis.

### 3.2 Instrumentation

The instrument developed to collect the data for this study is a questionnaire form that gathers data on the household's socioeconomic characteristics, savings, debt payment and health status (sickness). Questions on financial well-being, financial stress, net worth and internal locus of control were further asked. In addition, a question on FinTech usage, which became popular during the pandemic as a payment method, was also included.

The financial well-being variable was adopted in 2006 from Garman and Jariah's Malaysian context questionnaire (Jariah, 2007). The Malaysian Financial Well-Being Scale (MFWBS) assessed respondents' contentment with their financial circumstances, ability to cover daily expenses, financial management, financial sufficiency, and current financial satisfaction. Ten item statements were used to assess respondents' contentment with their financial situation, ability to cover daily expenses, financial management, and current financial satisfaction. The answers or responses range from Strongly Disagree (1) to Strongly Agree (4).

Credit management items were used in the payment behaviour section, and these items were constructed by Hogarth and Anguelov (2004). Credit management items from Hogarth and Anguelov (2004)

were also adapted to improve the measuring of loan payment behaviour. Cronbach's Alpha for the ten statements was reported to be 0.781.

Items for savings were identified from investments and savings measurement items from Hilgert and Hogarth (2003), O'Neill (2002), and Xiao et al. (2004). Aldana and Liljengquist's financial stress was assessed (1998). The B40 household financial stress is measured using instruments based on the respondent's negative health effects, financial satisfaction and stress, and financial perception on a four-frequency scale ranging from Never (1) to Very Frequently (4). The Cronbach's Alpha was reported to be 0.877 for the eight statements.

Finally, the locus of control measurement was developed from Sumarwan and Hira's (1993) items, which comprise internal elements that influence one's conviction to manage the circumstance. The answers range from Strongly Disagree (1) to Strongly Agree (4). Cronbach's Alpha was 0.91, indicating a high level of reliability.

#### **4.0 Results and Discussion**

Using Exploratory Data Analysis (EDA), the composite variable index was utilised to determine the distribution's normality. The normality and scatter plots suggest that the data satisfy the parametric and homoscedasticity assumptions for continuous variables analysis (Pallant, 2020). Further analysis with SPSS version 26 used hierarchical multiple regressions to determine the significant influence of income, net worth, savings, financial stress and internal locus of control on financial well-being among B40 Households in Malaysia and the mediating effect of payment behaviour.

##### **4.1 Respondents' Characteristics**

The respondents' backgrounds were determined using the sample frequency distribution. As shown in Table 1, this paper explored demographic variables such as gender, age, religion or ethnicity, marital status, and level of education.

Table 1 : Profile of Respondents

<b>Variable</b>	<b>Frequency (n=2,125)</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	1446	68.1
Female	678	31.9
<b>Age (years old)</b>		
< 20	16	0.8
21-25	123	5.8
26-30	235	11.1
31-35	215	10.1
36-40	243	11.4
41-45	204	9.6
46-50	245	11.5
50 and above	746	35.1
<b>Ethnicity</b>		
Malay	1484	70.1
Chinese	190	9.0
Indian	169	8.0
Sabah Bumiputera	125	5.9
Sarawak Bumiputera	69	3.3
Others	80	3.8
<b>Marriage Status</b>		
Single	300	14.2
Married	1524	71.9
Divorced	43	2.0
Widowed	252	11.9
<b>Educational Level</b>		
No formal education	112	5.5
Primary School	184	8.9
Secondary School (PMR/PT3, SPM,STPM)	1310	63.2
Tertiary Education (Diploma/Certificate, Degree, Masters, Ph.D)	465	22.4

#### 4.2 Respondents' Characteristics

Males comprised 68.1 per cent of participants, while females comprised the remaining 31.9 per cent. The questionnaire used in this study was designed for the family head of a household to respond. As a result, the examined findings represent the response of the head of the household in the Malaysian households. Slightly more than one-

third (35.1%) of the respondents were aged 50 years old and above. Meanwhile, others were between the age of 46 and 50 (11.5%), 41 to 45 (9.6%), 36 to 40 (11.4%), 31 to 35 (10.1%) 21 to 25 (5.8%) and 20 and below (0.8%).

The majority of the respondents (70.1%) were Malay, followed by Chinese (9.1%), Indian (8.0%), Bumiputera of Sabah (5.9%), Bumiputera of Sarawak (3.3%) and others (3.8%). Meanwhile, more than half of the respondents (63.2%) are engaged in secondary education. Additionally, 8.9 per cent of respondents attended primary school, while 5.5 per cent reported having no formal education. At the same time, less than a quarter of the respondents reported having tertiary education (22.4%). This indicates that most respondents completed their secondary education at the PMR/PT3 level and the SPM and STPM levels.

Table 2 : Socio-Economic Information

Variable	n	%
<b>Employment During Covid</b>		
Yes, Employed	1521	71.6
No, Unemployed	603	28.4
<b>Primary Employment Sector During Covid</b>		
Civil/Government Servant	275	12.9
Private Sector Employee	888	41.8
Self Employed	330	15.5
<b>Monthly Income (B40 Decile Group)</b>		
B4 RM3,971 – RM4,850	134	6.9
B3 RM3,171 – RM3,970	115	5.9
B2 RM2,501 – RM3,170	176	9.0
B1 Less than RM2,500	1523	78.2
<b>Personal Income/ Household Income in view of the COVID-19 Pandemic</b>		
Higher	727	34.2
No changes	489	23.0
Dropped	909	42.8

In terms of socioeconomic data, Table 2 reveals that more than two-thirds (71.6 per cent) of respondents could retain their employment throughout the COVID-19 phases. Meanwhile, 28.4 per cent reported being unemployed or jobless. COVID-19 had a negative effect on their prior careers. According to their primary employment sector, 15.5 per

cent were reported self-employed, while the highest group, which is 41.8 per cent, were serving in the private sector. The rest of the respondents (12.9 per cent) were employed as civil servants.

The findings also revealed that over two-thirds of the respondents, 78.2 per cent, belong to the B40 income group (specifically the B1 income group), with monthly earnings of less than RM2,500. As the national mean poverty line income for households in Malaysia in 2019 is RM2,208 per month, a large portion of the B1 income group respondents may be considered in poverty (Department of Statistics Malaysia, 2020). A small group of respondents belong to the Higher-income groups. About 9.0 per cent of the respondents found that they fall into the B40 income classification group (B2), where their income ranged from RM2,501 to RM3,170. The remaining 5.9 per cent of the small group came from B40 income classification group B3, with income ranging from RM3,171 to RM3,970, while 6.9 per cent of the respondents were from group B4 of the B40 income classification group, with income ranging from RM3,971 to RM4,850.

#### 4.3 Financial Well-Being Model

To determine whether payment behaviour mediates the impact of FinTech usage on financial well-being, controlling for other variables in the model, two financial well-being models and one payment behaviour model were developed. The first financial well-being model determined the significant influences of the factors on the financial well-being of B40 households. The second financial well-being model introduced the potential moderator variable, payment behaviour. The payment behaviour model was developed to determine the possibility of payment behaviour acting as a mediator, according to MacKinnon et al. (2002).

The statistical significance results for the financial well-being models gave significant F-ratios ( $F = 52.505$  &  $74.373$ ;  $p = .000$ ), indicating valid models based on the ANOVA output in Table 3. Hence, the regression models can be used for further discussion.

Table 3 : ANOVA<sub>a</sub> for financial well-being model

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	7613.120	7	1087.589	52.505	.000 <sub>b</sub>
Residual	31070.861	1500	20.714		
Total	38683.981	1507			
2 Regression	10991.631	8	1373.954	74.373	.000 <sub>c</sub>
Residual	27692.350	1499	18.474		
Total	38683.981	1507			

a. Dependent Variable: Financial Well-being

b. Predictors: (Constant), FinTech Usage, Positive Net-worth, Health, Savings, Income During Covid, Internal Locus Control, Financial Stress

c. Predictors: (Constant), FinTech Usage, Positive Net-worth, Health, Savings, Income During Covid, Internal Locus Control, Financial Stress, Payment Behaviour

The financial well-being model and the mediated financial well-being model were fit models indicated by R square values of .197 and .284 in Table 4, where the model explained 19.7 per cent and 28.4 per cent of the variances in the financial well-being model and the mediated financial well-being model by payment behaviour respectively. According to Cohen (1992), an R square value between .13 to .25 gives a medium fit model while an R-square value of .26 or above is a high R-square, thus indicating a high fit model where both are practical significance. The financial well-being was explained by the model's factors comprising savings, net worth, FinTech, financial stress, and internal locus of control in the first model. While the mediating effect of payment behaviour was determined using Model 2.

Table 4 : Fitness of the financial well-being model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.444 <sup>a</sup>	.197	.193	4.55125
2	.533 <sup>b</sup>	.284	.280	4.29813

a. Predictors: (Constant), FinTech Usage, Positive Net-worth, Health, Savings, Income During Covid, Internal Locus Control, Financial Stress

b. Predictors: (Constant), FinTech Usage, Positive Net-worth, Health, Savings, Income During Covid, Internal Locus Control, Financial Stress, Payment Behaviour

In testing mediation, the influence of FinTech on payment behaviour should be significant, controlling for other variables in the model before the payment behaviour was added to the regression. Before this, the payment behaviour model was confirmed as a valid model ( $F = 54.603$ ;  $p = .000$ ) with a significant F value, as shown in Table 5 thus, and it can also be used for further explanation. The

payment behaviour model was also a fit model indicated by an R square value of .203, where the model explained 20.3 per cent of the variances in the payment behaviour model. According to Cohen (1992), an R-square value of .203 is a moderate R-square and thus indicates moderate fitness. The model explained the payment behaviour model by the model's factors comprising savings, net-worth, FinTech, health, financial stress, and internal locus of control.

Table 5 : ANOVA<sup>a</sup> for payment behaviour model

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	2568.695	7	366.956	54.603	.000 <sup>b</sup>
Residual	10080.713	1500	6.720		
Total	12649.408	1507			

a. Dependent Variable: Payment Behaviour

b. Predictors: (Constant), FinTech Usage, Positive Net-worth, Health, Savings, Income During COVID, Internal Locus Control, Financial Stress

Table 6 shows that FinTech usage after controlling for other variables in the model, namely income during COVID, health, savings, positive net-worth, internal locus control and financial stress, was found as a significant factor in payment behaviour. This significant result for FinTech usage enables the following step of testing the mediation effect by payment behaviour in the influence of FinTech on financial well-being.

Table 6 : Multiple Regression for Payment Behaviour<sup>a</sup>

<b>Model</b>	<b>Unstandardised Coefficients</b>		<b>Standardised Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1 (Constant)	-.281	1.018		-.276	.783
Income During COVID	1.317	.267	.127	4.940**	.000
Health	-.231	.779	-.007	-.296	.767
Savings	.007	.007	.027	1.060	.289
Positive Net-worth	-.213	.149	-.034	-1.430	.153
FinTech Usage	.537	.162	.081	3.310**	.001
Internal Locus Control	.229	.031	.172	7.323**	.000
Financial Stress	.232	.015	.370	15.702**	.000

a. Dependent Variable: Payment Behaviour

\*p < .05; \*\*p < .01

The influence of income during COVID, health, savings, positive net-worth, internal locus control, FinTech Usage and financial stress on financial well-being are shown in Model 1 in Table 7. FinTech Usage significantly influenced financial well-being and other variables in Model 1: income during COVID, health, savings, positive net-worth, and internal locus control, except for financial stress, which was not significant in influencing financial well-being. Only health negatively impacted financial well-being since the frequency of sickness measured health status. Respondents frequently fall sick would lead to less financially well. This may be due to being unable to go to work or doing their work and unable to generate income when they are sick. FinTech usage would facilitate the payment process, especially during the Movement Control Order. The significance of FinTech usage was supported by statements made by Chen et al. (2019) and Frame, Wall, and White (2019).

With a significant FinTech usage on financial well-being, the potential mediator, payment behaviour, was added to the model resulting in Model 2 in Table 7. This is to test for mediation effect by payment behaviour in the influence of FinTech usage on financial well-being. The FinTech usage, which was significant in the first model, became insignificant in influencing financial well-being by including payment behaviour in Model 2. At the same time, the payment behaviour was significantly affecting financial well-being. This is in line with past studies (Dew & Xiao, 2011, Xiao et al., 2014), where healthy financial behaviour improves financial well-being. Thus, with the insignificant FinTech usage in Model 2, the mediation effect by payment behaviour existed in the influence of FinTech usage on financial well-being. It revealed the importance of payment behaviour in elevating financial well-being among B40 households. However, they are using FinTech to facilitate the payment of loans or purchases, especially during the pandemic and the Movement Control Order.

Referring to Model 2, payment behaviour emerged as the most influential factor in financial well-being among the B40 households. This was followed by internal locus control, positive net-worth, savings, income during COVID, financial stress and health based on beta values. Hence, hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub>, H<sub>6</sub>, H<sub>7</sub> and H<sub>8</sub> were accepted. The beta values indicate the proportion of independent factors used to characterise the dependent variable. Meanwhile, the significant value indicates the significance of the influence of the independent variables on the dependent variable.

Table 7 : Multiple Regressions for Financial Well-being<sup>a</sup>

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	6.380	1.787		3.569	.000
Income During COVID	2.695	.468	.148	5.756**	.000
Health	-5.590	1.368	-.095	-4.086**	.000
Savings	.058	.012	.122	4.755**	.000
Positive Net-worth	1.219	.262	.110	4.661**	.000
FinTech Usage	.806	.285	.070	2.829**	.005
Internal Locus Control	.634	.055	.273	11.560**	.000
Financial Stress	.023	.026	.021	.894	.372
2 (Constant)	6.542	1.688		3.876	.000
Income During COVID	1.932	.446	.106	4.335**	.000
Health	-5.457	1.292	-.093	-4.223**	.000
Savings	.054	.012	.113	4.663**	.000
Positive Net-worth	1.342	.247	.122	5.431**	.000
FinTech Usage	.495	.270	.043	1.833	.067
Internal Locus Control	.502	.053	.216	9.515**	.000
Financial Stress	-.111	.026	-.101	-4.204**	.000
Payment Behaviour	.579	.043	.331	13.523**	.000

a. Dependent Variable: Financial Well-being

\*p < .05; \*\*p < .01

## 5.0 Conclusion and Recommendation

The influential factors affecting the financial well-being of B40 households are savings, financial stress, health and internal locus of control other than income. Payment behaviour is confirmed to be mediating the influence of FinTech usage on the financial well-being of B40 households. Hence, though FinTech usage facilitates payment, B40 households would not achieve better financial well-being without prudent payment behaviour. When it comes to improving one's financial status, people who have power over their actions need to engage in well-planned financial activities. Henceforth, those

experiencing much financial stress should engage in appropriate financial activities to become more financially independent. In summary, establishing responsible practices, such as sound financial management, effective financial stress management, and a strong internal locus of control, will aid households in completing their financial management by focusing on B40 households.

Given the growing reliance on e-commerce and contactless payments, policymakers should continue to investigate technologies that enable rapid, low-cost, and ubiquitous payments via a resilient payment system. Hence, this study provides empirical evidence to bolster the case for evidence-based policymaking. The B40 income group is the most susceptible when it comes to financial well-being. According to the findings, there is a strong link between FinTech usage and financial well-being. However, payment behaviour diminished the effect of FinTech usage on financial well-being. As a result, policymakers should help organise roadshows to educate the B40 group on good financial practices, including savings, cash flow planning, and debt management, especially during high FinTech usage. A motivational program for this low-income group could help them develop their internal locus of control and empower them to take responsibility for their financial path. Even though this research is restricted to Malaysia, its findings and conclusions may apply to other emerging markets, including poor and middle-income countries.

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