ICMR

Institute for Capital Market Research Malaysia

New Age Vulnerabilities:

Understanding Investor Vulnerability within the Malaysian context

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2023

This ICMR report is produced to encourage the exchange of ideas and knowledge-sharing on the issues highlighted in the report, and to facilitate interaction among market participants, policy makers and academics. The views expressed are ICMR's own and not of any of the institutions which ICMR is affiliated to.

This paper was prepared by Aida Jaslina Jalaludin and Nadhirah Ibrahim, in collaboration with Clarrise Ng May Kymm and Chew Khai Yen. The authors would like to thank Dr. Joanne Yoong for reviewing this paper. The authors would also wish to acknowledge the contribution of the management and Board of Directors of ICMR in providing input and valuable comments. All views and errors remain the authors' own.*

ICMR welcomes and encourages any questions or suggestions. Please address your comments to Nadhirah Ibrahim at icmrall@icmr.my.

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Executive Summary

Overview

The current economic environment of high inflation, higher cost of living and volatile financial markets has created unprecedented levels of uncertainty and lower returns on average for today's investors. Moreover, financial products and services have become increasingly complex brought about by technological innovations, creating challenges for consumers who are less tech-savvy and financially-literate. As a result, many investors are at risk of suffering fraud, financial exploitation, or the effects of unsuitable investments due to the changing nature of financial services, financial decision-making and access to information.

Against this backdrop, regulators globally have focused their efforts to better understand and identify the possible drivers of investor vulnerability. While the underlying reason for the state of vulnerability can be multifaceted, a benchmarking exercise conducted by the Institute for Capital Market Research Malaysia (ICMR) to compare the definitions from various jurisdictions suggests that vulnerability triggers can be grouped into 3 key drivers:

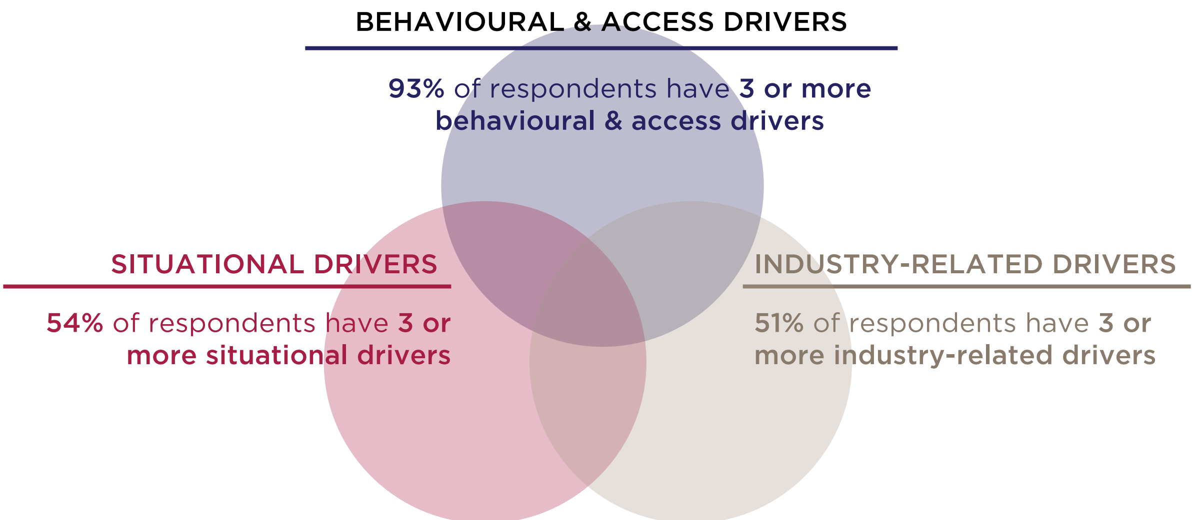
- Behavioural and access drivers - which include one's perception of their own financial status, financial stress, their savings behaviour including retirement readiness, health issues and disabilities, education, language, financial literacy and digital capability.
- Situational drivers - which include one's experiences of specific life events or temporary difficulties such as bereavement, job loss, income shock, death within close relatives as well as changes in expenses and savings behaviour.
- Industry-related drivers - which include one's experiences with regards to the actions of individual financial providers, unprecedented level of digitalisation and complexity of financial products, firms that do not act with appropriate levels of care, products which are inappropriate for a particular client as well as inadequate/complex or misleading documentation/information.

To better understand these new age vulnerabilities within the Malaysian context, ICMR embarked on a nationwide study in 2022 to capture an understanding of financial wellbeing, state of mind and challenges faced by individuals in today's environment. This study builds on ICMR's extensive demand-side research output over the past years and represents the next step in that direction.

A quantitative survey, designed to be representative of the Malaysian population, was rolled out to provide a comprehensive understanding of the experiences of Malaysians when it comes to investing. In addition to the quantitative survey, the study also included a qualitative component where focus group discussions with certain target groups were conducted to corroborate the survey findings and delve deeper into the experiences of investors, enhancing the research with a more nuanced and on-the-ground perspective.

Furthermore, ICMR conducted a closed-door Behavioural Workshop with key stakeholders in the investment landscape. Bank Negara Malaysia (BNM), the Securities Commission Malaysia (SC), the Employees' Provident Fund (EPF), Federation of Investment Managers Malaysia (FIMM), Securities Industry Dispute Resolution Centre (SIDREC) and Agensi Kaunselling dan Pengurusan Kredit (AKPK) attended the workshop, which was facilitated by ICMR's Research Fellow, Dr. Joanne Yoong. Dr. Yoong is an applied economist working at the crossroad of behavioural economics, financial decision making and health. On top of being the founder of Research for Impact, a research enterprise based in Singapore working on behavioural and social science research, Dr. Yoong serves in various national and international policy and industry advisory capacities and holds faculty appointments at the National University of Singapore and Singapore Management University. During the workshop, participants provided greater insights into how investor vulnerability is being dealt with in Malaysia today and explored the potential role of behavioural interventions to address some of these challenges. These findings were then incorporated into this study to further our understanding of investor vulnerability in Malaysia.

Key Findings:



Overall, 93% of respondents are exposed to 3 or more behavioural and access drivers whereby:

- 64% of Malaysians feel that they are either financially unstable or are living paycheck-to-paycheck. The majority of those within these categories report suffering from mental stress with regards to their finances.
- There are still gaps between awareness and application when it comes to good savings behaviour. 43% know that they should save 20% of their monthly income[1], but only 23% actually allocate that percentage from their monthly income to savings. Also, while 34% are aware that they need 6 months or more worth of emergency savings, only 22% claim to have that amount. Correspondingly, 65% have emergency savings of less than 3 months.[2] In addition, subjective perceptions of financial security are correlated with savings behaviour independent of reported

1 Saving 20% of monthly income is used as a guide based on MyMoney Matters, published by EPF

2 Emergency savings should be at least 6 months' worth of salary, as a guide based on MyMoney Matters, published by EPF

monthly income, suggesting that the latter alone does not determine individuals' ability to save and invest.

- When it comes to lack of retirement readiness, 75% of respondents felt that their total retirement savings would last them less than the required 20 years post-retirement. This is mainly due to the lack of retirement savings especially amongst retirees and gig workers. We also found that the majority of those above 41 years old are not able to meet a basic saving target for their age group. It is also interesting to note that many respondents do not apply mental accounting in managing their savings but rather save their money in a single fund. Therefore, influenced by COVID-19 withdrawal schemes, EPF is now being viewed by some as a source of emergency savings fund rather than retirement savings.
- Ill health is an issue that may compromise earnings and lead to significant future expenses for many - 26% of respondents claimed to be unhealthy and out of that, 79% felt that the state of their health is affecting their day-to-day activities. 46% of youth surveyed indicated that they had some form of mental illness.
- Financial literacy remains low, with only 39% of respondents able to answer between four to five basic financial literacy questions correctly. Despite this, there is some level of "overconfidence" whereby 67% of respondents were highly confident in their own financial capabilities. This is coupled with an apparent shift to online sources for knowledge where 61% rely on internet / online sources for information, opening up new potential for financial harm.

54% of respondents are exposed to 3 or more situational drivers whereby:

- 60% of respondents feel that their expenses had outpaced their monthly income in the last 12 months.
- 61% of respondents were negatively impacted by certain difficult events that happened to them in the last 12 months.

51% of respondents are exposed to 3 or more industry-related drivers whereby:

- 83% of those who do seek professional financial advice claim to experience multiple difficulties especially due to insufficient information or knowledge.
- 70% of those who engaged with financial service providers faced certain levels of misconduct.

With regards to scams, our survey showed that 84% had received advice that turned out to be a scam and 36% had lost monies to a scam. Also, those that were scammed were from across the surveyed population, indicating that scammers do not discriminate and a wide spectrum of the population are susceptible. Greed and family/friends' influence seem to be the main driver to getting scammed.

Our study also found that vulnerability is not easily categorised and that in practice different 'types' of vulnerability are frequently overlapping and closely interconnected – meaning that distress and suffering (including financial difficulties) are not always easily attributable to a single particular 'cause'. Even when cases of vulnerability are more straightforward, the experiences within each vulnerability category are often as diverse as the experiences of vulnerability across the group as a whole.

Moving Forward

Given the complexity of the challenges faced, ICMR is of the view that a dual and systematic approach is required to address investor vulnerability amongst Malaysians.

Firstly, there is a need to build financial resilience across the population. Government will need to prioritise the reforms needed to address the structural inequalities and the constraints such as sluggish wage growth, underemployment especially for youths, mismatch between labour demand and supply, the rise of the gig economy and the lack of social safety nets, in order to assist the vulnerable population to become more financially resilient such that they are able to use market opportunities to save and invest. Government must also ensure consistent policies and messaging of policies so as to shape the desired behaviour across the population.

Policymakers and regulators will then need to focus efforts towards building financial resilience through strengthening the savings and investment habit among Malaysians to help them be better equipped to weather financial vulnerabilities. This will require a nuanced and targeted approach including the review of incentive structures complemented with behavioural nudges to help shape and sustain the necessary savings and investment behaviours.

While economies tend to put the burden of financial wellbeing on the individuals themselves, the COVID-19 crisis has led to the shifting nature of risks impacting the most vulnerable segments of society. In order to move forward beyond the crisis, responsible finance will require that all stakeholders- government, policymakers, the financial industry and more- treat individual's financial wellbeing as a shared responsibility.

Secondly, a targeted approach to deal with vulnerable investors must be instituted. Emphasis needs to be placed on the regulators, market intermediaries and agents to better identify and manage vulnerable investors, which may require enhancing the existing know-your-client (KYC) process. Regulators must also focus on enhancing the "duty of care" that capital market intermediaries provide through guidance to market providers and firms on fair treatment of vulnerable customers. This must be coupled with investor protection measures such as more targeted investor education programmes as well as enhanced supervisory oversight including greater use of mystery shopping. Capital market intermediaries will also need to enhance their internal processes with regards to dealing with vulnerable investors.

Moving forward there is also a need for greater collaboration whereby a whole-of-nation approach, which goes beyond the ambit of any single regulator or agency, may be needed for holistic reforms that tackle both the structural and individual challenges. In line with this, behavioural insights should be incorporated into every stage of a policy cycle, from policy development all the way to post-implementation for more effective implementation of recommendations. While this may require embedding more rigorous evidence-based approaches to design and evaluation such as Randomised Control Trials (RCTs) into the policy cycle, it could eventually reduce the need for corrective measures once a policy is at the implementation stage. In 2023, ICMR will be embarking on RCTs based on some of the recommendations stemming from our study.

Chapter One

Why We Have Written This Report

Today's investing landscape features a confluence of challenges. The current economic environment of high inflation and higher cost of living, pandemic insecurity and less inclusive growth, within and across countries has led to more volatile financial markets and heightened uncertainty. On the demographic front, an ageing population is also contributing to a shrinking global workforce, productivity and pool of savings – adding pressure on retirement savings, pension and welfare systems.

Other major global trends affecting investors in general include rapidly evolving technology, which is changing the way people interact with their finances, as well as the products and services on offer. The rise of innovations in financial technology and platform financing has helped lower barriers to investing, but also poses new challenges such as how to conduct 'know-your-customer' (KYC) and customer care services when there are no longer face-to-face interactions with a client. These innovations create opportunities for investors but are also accompanied by the increased risk of being exposed to financial fraud and harm especially when investors are not well-equipped to deal with these challenges or are simply unable to benefit from these financial innovations due to personal circumstances.

Malaysian investors, as well as non-investors too, face the same challenges. Retirement inadequacy has been a perennial policy challenge and is the reality for many Malaysian individuals and households. The COVID-19 pandemic and accompanying policy responses, however well intended, has only exacerbated the issue of inadequate retirement savings. The pandemic also laid bare the disparate nature of access to and knowledge of investment opportunities, with some facing temporary windfalls and others falling victim to all manner of illegitimate financial schemes, perhaps out of desperation or greed.

With Malaysia fast becoming a 'super aged society'[3] and the increasing precarities of work, the economic picture we are confronted with is of an average Malaysian household under considerable financial pressure. How do investments play a part, and how do vulnerabilities emerge?

People save and invest for various purposes; some for short-term objectives and others for longer-term. The behavioural life-cycle hypothesis (Shefrin & Thaler,

3 World Bank (2020) 'A Silver Lining: Productive and Inclusive Aging for Malaysia,' Washington, DC: The World Bank.

1988) derives propositions about savings behaviour by incorporating three behavioural features i.e., 'self-control', 'mental accounting' and 'framing.'[4] More specifically, wealth is assumed to be divided between current income, current assets and future income and that the temptation to spend is greatest for current income, and least for future income, impacting an individual's financial resilience over the longer-term.

In this study, we show that across all levels of household income and an individual or households perceived financial status, people generally do not have a clear understanding of the differences between savings and investments. Without adequate financial literacy, investments can be misconstrued as just something for the rich to accumulate wealth, and not as a vital tool for every individual to work towards ensuring sufficient savings to support their consumption in the later years of life. The COVID-19 crisis has clearly demonstrated the different levels of vulnerabilities impacting different segments of the population. For instance, situational drivers such as an unexpected income shock due to the sudden loss of a job could easily complicate one's financial wellbeing. In addition, households' confidence in their financial condition is also shown to affect one's household savings and can increase after a crisis (Vanlaer et al.; 2020)5. The impact at country level also differs. Recent results from the Global Findex 2021 show that only 55% of adults in developing economies are resilient to financial shock compared to 79% of adults in high-income economies.[6]

Thus, regulators globally have increased their efforts to better understand and identify the possible drivers of investor vulnerability. While the challenge of investor vulnerability is real, it should allow for an expansive understanding of who is deemed a "vulnerable investor" as it can affect people from all walks of life, whether through issues of personal circumstance, access, mobility, inequality, or disparity. This report seeks to raise awareness of these challenges faced by vulnerable investors so that policymakers, financial regulators, industry players, and financial service providers are more equipped to deal with them. However, far from being definitive, the notion of investor vulnerability is not always precisely defined and tends to differ across geographies and jurisdictions.

To better understand new age vulnerabilities in the Malaysian context, ICMR embarked on a nationwide study in 2022 to capture an understanding of financial wellbeing, state of mind and challenges faced by individuals in today's environment. This study was also borne out of the need for financial authorities and intermediaries to develop an empirically informed understanding of what "investor vulnerability" could look like in Malaysia. Building on ICMR's extensive demand-side research output over the past years[7], this study represents the next step in that direction.

This report will highlight the findings of the study, including our initial understanding of how Malaysians experience vulnerability in the course of their investment journeys. It will assess the common challenges faced by investors, alongside their behaviours and attitudes when dealing with investing. It attempts to identify the characteristics of vulnerable investors, as well as the outcomes of investor vulnerability – including a special focus on scams and retirement inadequacy. Ultimately, it aims to help inform the work of regulators and policymakers in relation to vulnerable investors, such as with investor education and protection, but also provide context to firms' understanding of what it means to deal with a vulnerable client and how to provide appropriate levels of care.

4 Distinguished from the standard life-cycle hypothesis

5 Vanlaer, W., Bielen, S., & Marneffe, W. Consumer confidence and household saving behaviours: A cross-country empirical analysis (2020), Social Indicators Research 147, 677-721 (2020)

6 The World Bank publications (2021): The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19

7 The Rise of Millennial and Gen Z Investors: Trends, Opportunities and Challenges for Malaysia, 2021;
Retail Investor Behaviour in 2020: Data Insights, 2021;
The Gamestop Trading Rally: Understanding Investor Behaviour in a Changing World, 2021;
Financial Literacy and Behavioural Inisghts, 2020;
COVID-19: Rethinking Long-Term Savings for Greater Financial Inclusion in a Changing Economy, 2020

Chapter Two

Research Process and Methodology

Overview

To begin this research effort, it was necessary to conduct a stock-take of how investor vulnerability is currently viewed across the world, through a review of the literature encompassing approaches and research undertaken by major financial regulators, development institutions, non-governmental organisations, and other private entities, both Malaysian and international. Although a formalised understanding of investor vulnerability is still nascent in Malaysia, other areas of the world have attempted to define investor vulnerability or have published knowledge of some of its aspects, including anecdotal and empirical evidence of financial illiteracy, harms experienced by investors, investment behaviours and preferences, and so on.

As a starting point, the literature review took into account research and development efforts in the area of investor vulnerability and protection by financial and securities regulators. A major reference point was the UK Financial Conduct Authority's early work in the area of investor vulnerability in collaboration with ESRO, a qualitative research agency.[8] The review also included a look at the approach taken by other regulators in Europe such as the European Securities and Markets Authority (ESMA) and the Dutch Authority for the Financial Markets (AFM), and in Asia Pacific such as Japan's Financial Services Agency (FSA), Hong Kong's Securities and Futures Commission (SFC), the Monetary Authority of Singapore (MAS), and the Australian Securities and Investments Commission (ASIC).

In addition, the study also took into account work by international instructions such as the International Organization of Securities Commissions (IOSCO) and Organization for Economic Cooperation and Development (OECD) in areas relevant to investor vulnerability and supplemented it with the findings of local studies conducted by Malaysian financial authorities such as BNM, *Perbadanan Insurans Deposit Malaysia* (PIDM), SIDREC, and AKPK as well as those from the private sector. The high-level findings of the literature review and jurisdictional study are described in the next section.

Subsequently, these findings were used to inform the survey approach. A quantitative survey designed to be representative of the Malaysian population was developed to provide a comprehensive understanding of the experiences of Malaysians when it comes to investing. The survey also serves as a base on which future surveys can be built upon to incorporate a time-series perspective. In addition to the quantitative survey, the study also included qualitative data collection in the form of focus group discussions with certain target groups to further explore the survey findings and delve deeper into the experiences of investors.

Furthermore, ICMR also had the opportunity to conduct a closed-door Behavioural Workshop with key stakeholders in the investment landscape such as Bank Negara Malaysia (BNM), Securities Commission Malaysia (SC), Employees Provident Fund (EPF), Federation of Investment Managers Malaysia (FIMM), Securities Industry Dispute Resolution Centre (SIDREC), Agensi Kaunseling & Pengurusan Krediti (AKPK) and Social Wellbeing Research Center (SWRC) to gain more insights into how investor vulnerability is being dealt with in Malaysia today, and the potential role of behavioural interventions to address some of these challenges. The findings from this workshop are incorporated into the analysis of the quantitative and qualitative data, of which the results are discussed in subsequent sections of this report.

8 UK Financial Conduct Authority (2014). Vulnerability exposed: The consumer experience of vulnerability in financial services.

Jurisdictional benchmarking - How are Vulnerabilities Viewed Across the World?

Financial regulators across jurisdictions have long observed the importance of responding to the evolving needs of individuals, investors, and financial services. Innovations in technology and increasing complexity of products and financial services have highlighted the importance of protecting consumers, especially those who are less able to deal with these challenges. Together with digital and data tools, the changing nature of financial services, financial decision-making and access to information have put many investors at risk of suffering fraud, financial exploitation, and the effects of unsuitable investments.

This growing recognition includes concerns related to an ageing population and demographic changes, which in some ways was an impetus for regulators to begin understanding the specific needs, characteristics, and preferences of older consumers, and the accompanying concerns of risk, fraud, and retirement insecurity. The IOSCO's work in this area precluded its 2018 report on Senior Investor Vulnerability.[9] It has also been shown in other studies that vulnerability ascribed to older persons should not be treated as an inherent personal characteristic and that not all old people are vulnerable, but instead should reflect an understanding that differing social conditions may make a person more or less vulnerable.[10]

Thus, moving beyond age-old vulnerability the UK's Financial Conduct Authority (FCA) in 2014 conducted a pioneering study with ESRO on the consumer experience of vulnerability in financial services. The FCA subsequently published guidance for firms on the fair treatment of the UK's vulnerable consumers in 2017 and continues to survey the experiences of vulnerable consumers on a regular basis. Efforts such as these and that of other regulators are adding to a robust body of work and data, which in turn informs current and future regulatory approaches to investor protection.

Defining the 'vulnerable investor'

In general, the starting point of defining a vulnerable investor usually begins by identifying the circumstances which make the investor more susceptible to harm. Consumers may be susceptible to suffering harm, either temporarily or long term, at the hands of financial services providers or others purporting to be financial services providers.

Alternatively, harm may also occur when a consumer's personal circumstances or characteristics – typically a cognitive or physical limitation, whether temporary or life-long – increase the likelihood and severity of losses incurred on a financial transaction or series of transactions. These circumstances can differ based on the prevalence of such investor characteristics in a particular locale. As such, legal and common definitions vary widely across countries and jurisdictions.

Why define what it means to be a vulnerable investor? Although by no means exhaustive, definitions of investor vulnerability become especially helpful when used to not only identify vulnerable investors, but also to inform policies for investor protection, what firms can do, public education, and ultimately the reduction of harm faced by investors who are vulnerable.

Definitions of investor vulnerability can be intentionally broad, such as that of the UK FCA's – where a vulnerable consumer refers to "customers who, due to their personal circumstances are

9 IOSCO (2019). Senior Investor Vulnerability.

10 Canadian Foundation for the Advancement of Investor Rights (FAIR Canada) and Canadian Centre for Elder Law(2017) Report on Vulnerable Investors: Elder Abuse, Financial Exploitation, Undue Influence and Diminished Mental Capacity

especially susceptible to harm, particularly when a firm is not acting with appropriate levels of care". Vulnerability is defined as such that all customers are at risk of becoming vulnerable and this risk is increased by having certain characteristics of vulnerability, which range from personal and social characteristics to experiences and specific life events. This approach is akin to that of regulators in Canada, Australia, and Europe.

This differs from the more targeted approach taken by the likes of the US' Securities and Exchange Commission (SEC) and Financial Industry Regulatory Authority (FINRA), the North American Securities Administrators Association, the Monetary Authority of Singapore, or Hong Kong's Securities and Futures Commission. In these cases, specific criteria are needed for a client to be categorised as vulnerable, such as meeting certain age, education, language, and income thresholds, as summarised in the table below.

Summary Table of Criteria Used to Define Vulnerability

Terms used	– *'Eligible adults' (SEC, FINRA, NASAA)* – *'Customers who are especially susceptible to harm' (FCA)* – *'Selected client' (MAS)*	– *'A consumer who experiences vulnerability' (ASIC)* – *'Vulnerable clients' (HKFSC)* – *'Vulnerable consumer' (EC)*	– *'Consumers in vulnerable situations' (AFM)*
Personal characteristics	**Age:** • Vulnerability as a spectrum of risk, younger and older adults possibly also at risk (FCA) • 'Elderly' (HKSFC), or 'experiencing cognitive or behavioural impairments due to age' (ASIC), 'personal and demographic characteristics such as age' (EC) • Above a certain age, e.g., 62 (MAS) or 65 years old (SEC, FINRA, NASAA)	**Cognitive or behavioural impairments:** • Exhibiting certain mental or physical disabilities (SEC, FINRA, NASAA) • Health conditions or illnesses that affect ability to carry out day-to-day tasks, hearing or visual impairment, addiction, low mental capacity (FCA) • Experiencing cognitive or behavioural impairments due to intellectual disability, mental illness, chronic health problems (ASIC) • Observable disabilities which may affect customer's ability to make investment decision (HKSFC)	**Language barriers:** • Speaking a language other than English (ASIC) • Is not proficient in spoken or written English (MAS) • Poor English language skills (FCA) **Inadequate knowledge** • Low knowledge, confidence with financial matters (FCA) • Inexperience with financial services (EC) • Poor digital, literacy or numeracy skills (FCA) • Has below GCE 'O' Level or 'N' Level or equivalent (MAS)
Personal circumstances	**Non-exhaustive examples of unique life events that could cause heightened vulnerability:** • Bereavement, job loss, relationship breakdown, income shock, retirement, domestic abuse, caring responsibilities, migration, asylum, trafficking and slavery, convictions (FCA) • An accident or sudden illness, relationship breakdown, family violence, job loss, having a baby, or the death of a family member (ASIC) • Situational drivers, including periods of temporary over-indebtedness (EC), relatively low savings (AFD), low resilience or ability to withstand financial or emotional shocks, inadequate or erratic income (FCA)		
Market-related drivers	**Characteristics or actions of the market and providers that could cause heightened vulnerability:** • All customers are vulnerable to harm...particularly when a firm is not acting with appropriate levels of care (FCA) • Being targeted by products that are inappropriate for a particular consumer, or being given inadequate or overly complex documentation (ASIC), insufficient or misleading information (EC)		

In line with the global jurisdictional benchmarking study, we found that the underlying reasons for investor vulnerability could be multifaceted, and definitions vary across jurisdictions. From our research, these drivers of vulnerability can be broadly grouped into three categories based on their characteristics – situational (changing circumstances), investor behaviour and accessibility to financial products and services as well as issues related to the industry. A summary of the three categories and their related drivers are provided in the illustration below:

BEHAVIOURAL & ACCESS DRIVERS

Includes financial stress, income, savings attitudes and behaviour, health issues, disabilities, education, language, financial literacy, digital capability

SITUATIONAL DRIVERS

Experiencing specific life events or temporary difficulties; bereavement, job loss, income shock, relationship breakdown, death of close relatives, change in expenses and savings

INDUSTRY-RELATED DRIVERS

Actions of market or individual providers; increasing digitalization and complexity, a firm does not act with appropriate levels of care, products are inappropriate for a particular client, inadequate / complex or misleading documentation / information, unreachable financial service providers

Source: Compilation based on other jurisdictions' definitions (FINRAA, FCA, EU, HK, etc.)

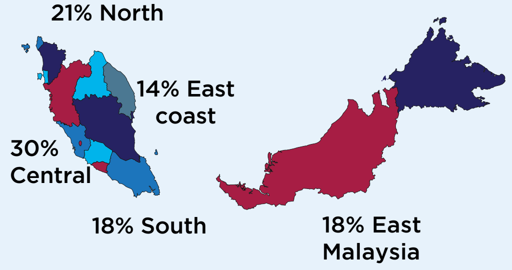
Quantitative Survey

ICMR designed a quantitative survey to capture an understanding of the state of financial wellbeing and vulnerabilities of individuals nationwide as well as their perception of the conduct of capital market players.

ICMR collaborated with IPSOS in designing the survey questions and the survey was distributed to 2,019 respondents across Malaysia (Figure 2) via IPSOS' survey panel. The primary data collection phase of the survey was administered online as well as through face-to-face interviews from April to June 2022 to respondents aged 18-70 years old.

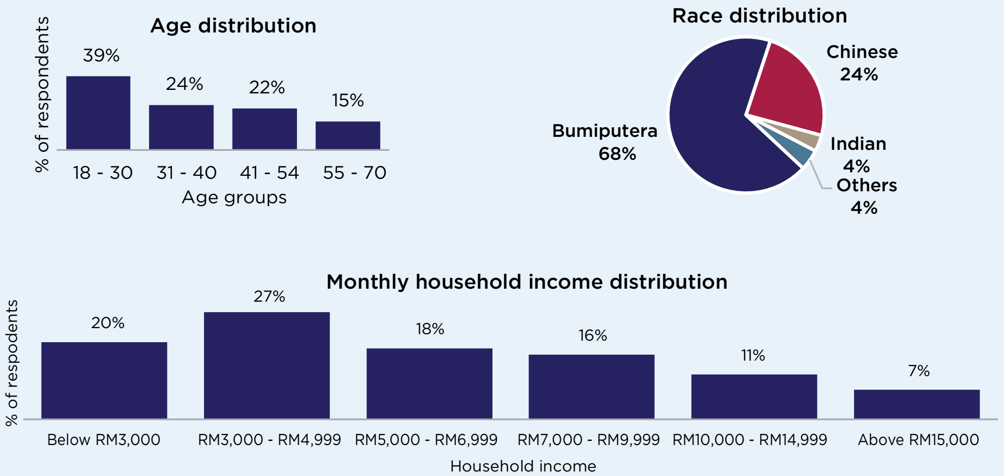
Unlike the 2021 ICMR study on Millennials and Gen Z investors which focused on just one generational cohort, this 2022 nationwide study was expanded to all age groups to capture a broader picture of investing experience across different cohorts.

Figure 2:
Quantitative region distribution



Hard recruitment quotas were used to ensure a representative sample akin to the Malaysian Department of Statistics' Census. The breakdown of the ultimate sample obtained is shown in Figure 3 below where 48% of the respondents were female and 52% male. The age, racial, and monthly household income distribution of the respondents are representative of the Malaysian population. The sampling quota used by IPOS can be viewed in Appendix 1.

Figure 3:
Quantitative survey respondent profiles



The survey had multiple-choice questions, segmented into five key areas of demographics, savings and investment behaviour, sources of information, attitudes and knowledge as well as savings and investment experiences so as to extract insights on the issue of vulnerability from various perspectives. The scope of the 2022 nationwide survey includes demographic characteristics of the respondents such as their primary language of communication, geographic location, and income, but also characteristics that could be relevant to investing such as their employment status, income regularity, health conditions, personal circumstances and life events, as well as digital capabilities.

Some basic financial literacy questions were included to gauge the level of knowledge on basic financial principles such as simple interest, compounding, risk return and risk diversification.

As it was important to understand investor attitudes and behaviour, the survey further asked respondents about their state of mind when investing – including their typical emotional responses to investing, risk-taking preferences, as well as perceptions of their financial status. It also included a section on retirement inadequacy, where respondents provided information on their retirement savings, perceived amount needed for retirement, and concerns related to retirement. Moreover, respondents were also tested on their financial literacy and perceived financial capabilities to provide a proxy for financial confidence.

In addition, the survey asked respondents about their awareness and holdings of capital market products, preferences and barriers to investing, investment objectives, expected returns, as well as their perceived financial standing. As investing is closely related to saving, or discretionary income, respondents were also asked about the changes in their monthly income, expenses, and saving-investment allocations.

The survey also attempted to capture Malaysians' experiences with investing by asking about challenges faced when interacting with financial services – whether due to knowledge, personal circumstances, or firm-level factors. Finally, to further capture different aspects of investor vulnerability, the 2022 nationwide survey featured a special section on experiences with scams, and propensity to invest based on certain scenarios to test respondents' ability to differentiate between a legitimate or illegitimate investment scheme.

Despite the differences in target group, the 2022 survey found that the distribution of respondents, based on three mutually exclusive categories of investing experience, was similar to that of the smaller survey population in the 2021 study (Figure 4).

Figure 4:
Three different categories of respondents

26% DON'T INVEST	74% INVEST IN CAPITAL MARKET	
GROUP A	GROUP B	GROUP C
DO NOT INVEST IN CAPITAL MARKET	INVEST ONLY IN ASB, ASNB & UNIT TRUST	INVEST IN VARIOUS CAPITAL MARKET PRODUCTS
26% (528)	33% (661)	41% (830)

Group A, which represents 26% of total respondents, comprises those who did not invest in any capital market products.

Of the 74% of total respondents that do invest in the capital market, it was found that there was a significant group whose only capital market investment was in the form of Amanah Saham Nasional Berhad (ASNB) funds and/or unit trusts - which is represented as Group B which consists of 33% of the total respondents. The remaining 41% of respondents making up Group C are those that invest in other capital market products, not limited to just ASNB and unit trusts.

Note: For the purposes of this survey, "investments" are defined as investing in capital market products. "Capital market products" in this survey do not include investments in the Employees' Provident Fund (EPF), given the predominantly mandatory nature of EPF investments.

Qualitative Study

The subject matter of the study – investor vulnerability – naturally necessitated a more in-depth, qualitative look at the lived experiences of respondents in order to provide additional colour and context to the quantitative survey responses.

ICMR supplemented the nationwide survey by conducting five targeted qualitative focus group discussions, each consisting of six to ten individuals between the ages of 25 – 66 years old, from July to September 2022. Interviewees were recruited and screened by IPSOS in accordance to ICMR's guiding criteria. Interviewees came from a variety of employment, age, income, race, and geographical backgrounds to ensure diversity in financial experiences and demographics. The interviews were conducted through a mix of online and in-person mediums and were carried out for a duration of two hours per group.

The five focus groups were construed based on key areas of interest that were identified from the survey findings. One group targeted low-income individuals in predominantly rural areas, while another focused on individuals reaching retirement and those already retired. In addition, another group consisted of victims of scams, including those who had incurred financial loss due to a scam or were solicited for a scam. To capture experiences of dealing with investment professionals, one group focused on individuals who have had poor experiences in the course of their investments. Finally, the qualitative study also included a group of self-employed, freelancers, and gig workers to analyse the impact of inconsistent or irregular income and other possible precarities related to their nature of work on these individuals' investment journeys.

The Focus Group Discussion consisted of six to ten participants within each group. The distribution of each group are as follows:

Focus Group	Race	Region	Age
• **Low-income group** (MHHI <RM3,000)	Malay	Kelantan	25 to 50 years old
• **Retirees and pre-retirees**	Mixed	Klang Valley	50 years old and above
• **Scam victims**	Mixed	Mix of region	25 to 50 years old
• **Investors/ past investors that have a bad experience with market**	Mixed	Mix of region	25 to 50 years old
• **Self-employed – freelancers & gig workers**	Mixed	Mix of region	25 to 50 years old

Note: Pseudonyms were assigned to each respondent as they are quoted throughout the report

Chapter Three

Vulnerabilities Found in Malaysia

Overview

As ICMR attempts to explore the different kinds of vulnerabilities that can be observed in Malaysia, we first delve into each of the driver categories identified above and examine how they could lead to higher susceptibility of investor vulnerability.

Behavioural & Access drivers

BEHAVIOURAL & ACCESS DRIVERS

93% of respondents have **3 or more behavioural and access drivers** that could make them feel vulnerable

In understanding the drivers that would make a person vulnerable, we found that most people will experience some type of vulnerability at some point in their lives.

In this section, we dive into the behavioural and access drivers which include their perception of their own financial status, financial stress, their savings behaviour including retirement readiness, health issues, disabilities, education, language, financial literacy, and digital capability.

1. Financial status

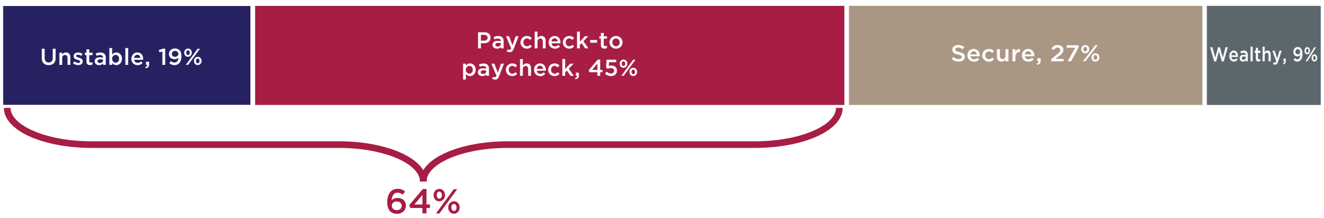
We set out to understand how one's own perception of their financial status is linked to their financial behaviour. In this study, we defined each financial status as below:

1. Financially unstable: having a negative cashflow, no savings and assets and debt exceeding income.
2. Living paycheck-to-paycheck: having just enough cash flow till the next paycheck, low savings and asset and debt is still under control.
3. Financially secure: having a positive cash flow, savings that could last 1 to 6 months' worth of income with debts that is well managed.
4. Financially wealthy: having positive cash flow, strong savings and assets while being able to generate extra income with low to no debt.

Note: The respondents were equipped with each definition upon selection.

We found that **64% of Malaysians reported they are either financially unstable or are living paycheck-to-paycheck** (Figure 5).

Figure 5:
Perceived financial status



Their own perceived financial status also appeared to influence their level of financial stress and well-being. **The majority of those report living in the category of financially unstable or paycheck-to-paycheck claim to suffer from stress with regards to their finances;** -

1. 74% of those who are financially unstable, and 54% who are living paycheck-to-paycheck claimed to always feel stressed and worried when thinking about their financial future.
2. 66% who are financially unstable and 49% from those who are living paycheck-to-paycheck felt pessimistic about their financial future.

Our findings also show that 61% of those who are financially unstable and 42% of those living paycheck-to-paycheck admitted that they get mentally drained when thinking about financial planning and would prefer to follow their family and friends' decisions. People who frequently have financial stress, experience financial scarcity and those who would often make decisions based on trade-offs tend to experience decision fatigue more intensely compared to others. This could explain why it is easier for this group to be easily influenced by others on their financial decision-making.

Decision fatigue

A term created by social psychologist Roy F. Baumeister which refers to the deteriorating quality of decisions made by an individual, after continuously making decisions. Decision fatigue may also lead to consumers making poor choices with their purchases.[11]

11 Vohs, K. D., Baumeister, R. F., Schmeichel, B. J., Twenge, J. M., Nelson, N. M., & Tice, D. M. (2008). Making choices impairs subsequent self-control: A limited-resource account of decision making, self-regulation, and active initiative. Journal of Personality and Social Psychology, 94, 883-898

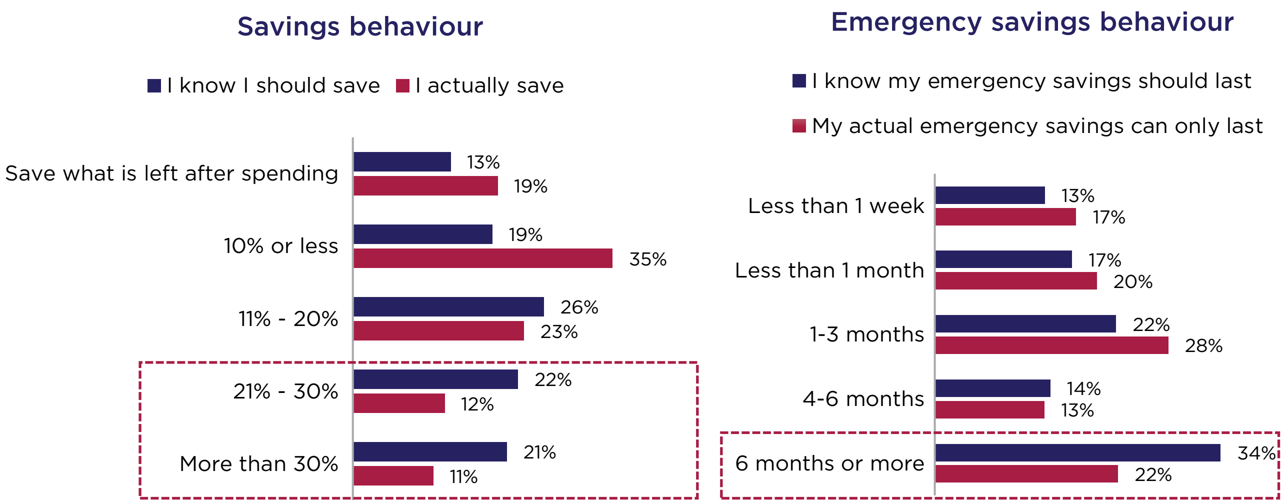
2. Savings behaviour

One of the biggest lessons we learned during the pandemic was that it was important to have emergency savings. The pandemic has ultimately shaken up people's savings and spending behaviours. Being in a state of lockdown, some people found that they were able to save more, but a big percentage of the population suffered from income cuts, loss of jobs and had to dig into their saving coffers. Having enough savings is a critical factor to ensure financial resilience to any unexpected life shocks.

One hypothesis is that people are generally not aware of how much they need to save monthly and how much they need to save for emergencies. The benchmark of 20% monthly savings and 6 months' worth of emergency savings used here is based on a guide published by EPF.[12]

However, our findings show otherwise. The figure below indicates that **while 43% know that they should save 20% of their monthly income, only 23% actually allocate that percentage from their monthly income.** Similarly with emergency funds, **34% are aware that they need 6 months or more worth of emergency savings but only 22% claim to have that amount** of buffer for emergencies.

Figure 6:
Monthly savings and Emergency savings behavior



Does income really affect savings behaviour and can cause financial stress?

It is a common assumption that those in the higher income bracket can save the most. At the same time, financial stress is commonly associated with those in the lower income group. This is supported by past research which shows that those with smaller income tend to have a higher rate of impatience. The effect of being in the poverty line or lower income group would cause individuals to diminish foresight and self-control and tempt them to trust others or to depend on luck for the future.[13]

12 Employees Provident Fund (EPF), MyMoneyMatters

13 Irving Fisher (1930), the theory of interest, as determined by impatience to spend income and opportunity to invest it

In contrast to that, this study challenges those assumptions as the findings indicate that the majority of the high-income group, specifically 68%, are saving less than 20% of their monthly income (Figure 7) and 76% of the high-income group have less than 6 months' worth of emergency savings (Figure 8).

Figure 7:
Actual income group and monthly savings

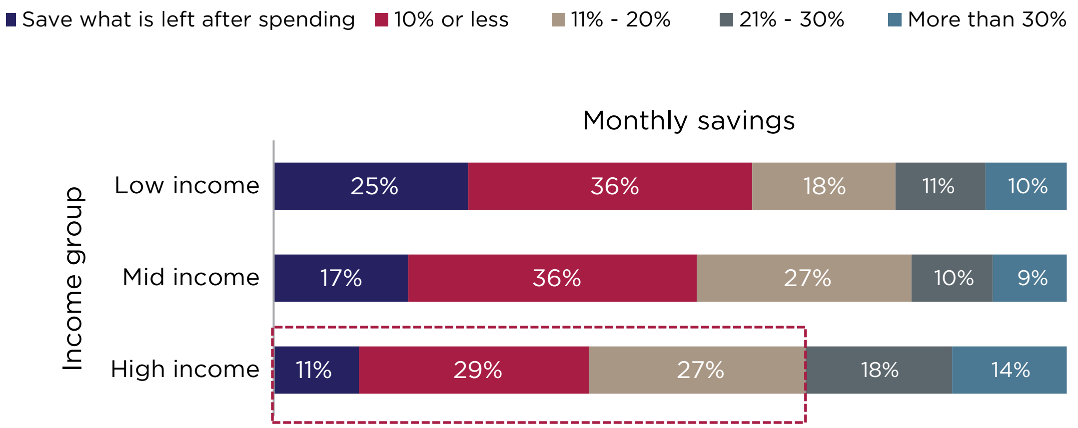
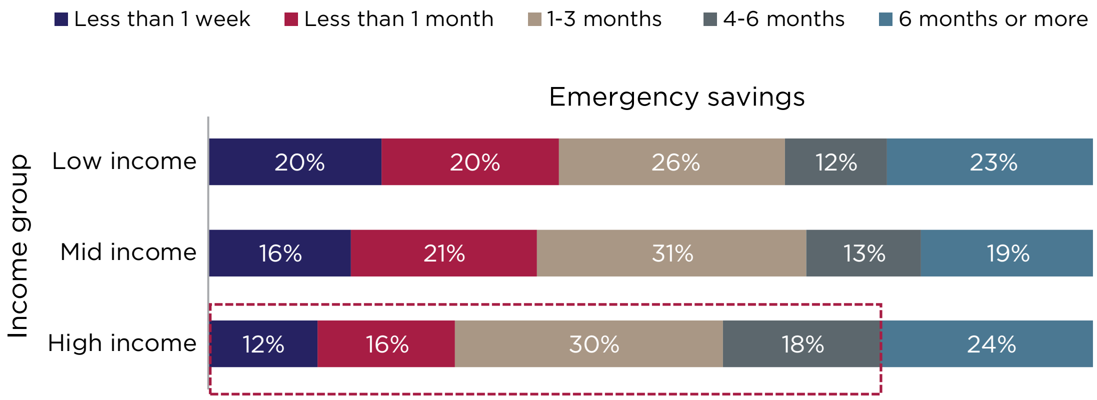


Figure 8:
Actual income group and emergency savings



In other words, this result shows that **even those with higher income are struggling to save enough.** Instead of the usual measurement of household income, Figure 9 and Figure 10 below show that **perceived financial status seems to influence savings behaviour, suggesting that an objective measure such as household income may not be the only determinant of the ability to save.**

In fact, how one perceives one's own financial status can be a determinant of one's own savings behaviour even more than their actual income. Following that, these insights can potentially change the way policymakers choose to formulate their policies and studies to promote financial inclusion and financial well-being among citizens.

Figure 9:
Perceived financial status and monthly savings

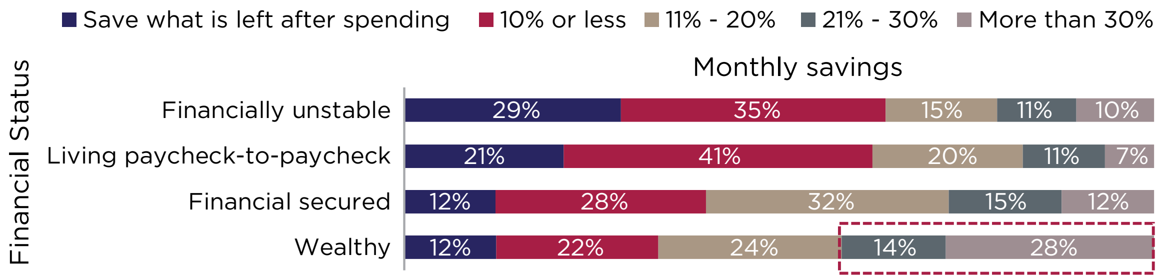


Figure 10:
Perceived financial status and emergency savings

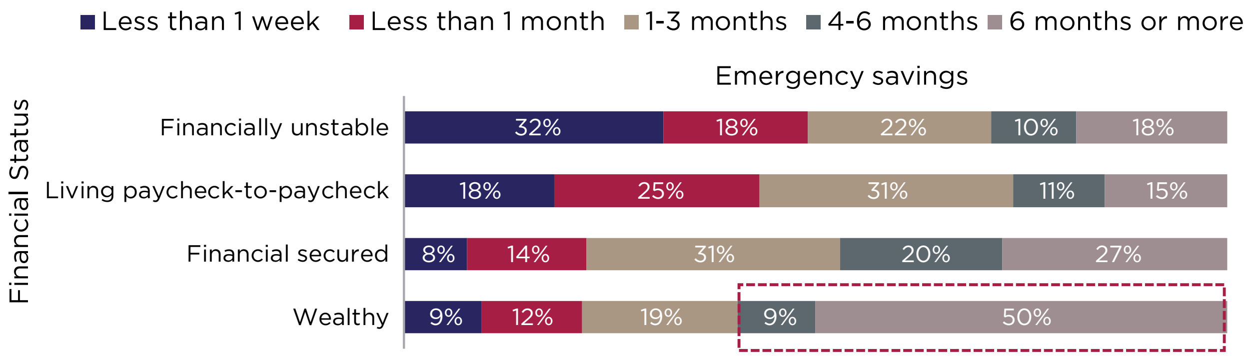
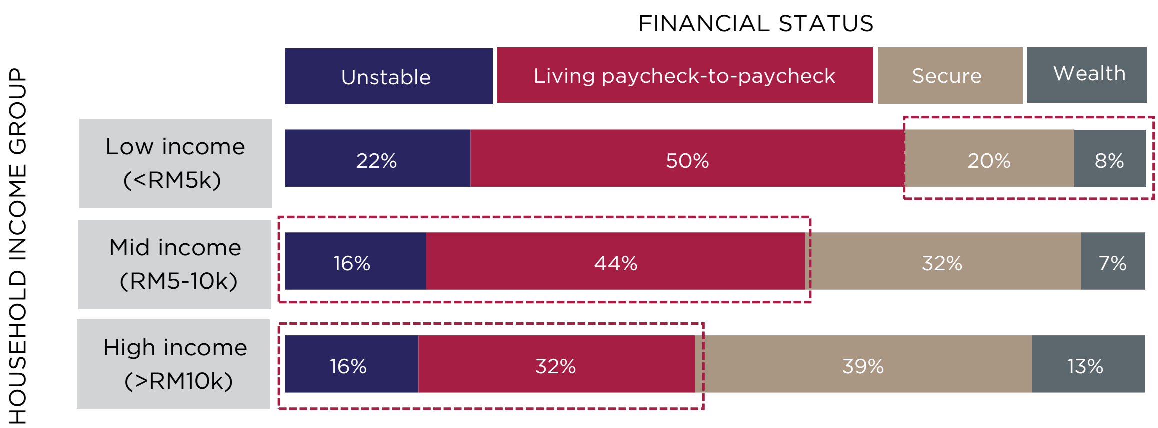


Figure 11 below shows that more than a quarter of those within the low household income segment perceived themselves to be financially secure or wealthy while 60% of those who earn monthly household income between RM5,000 to RM10,000 perceived themselves to be financially unstable or living paycheck-to-paycheck. On the other hand, almost half of those in the high household income group still perceived themselves to be financially unstable or living paycheck-to-paycheck.

Figure 11:
Perceived financial status and household income group



In 2021, ICMR conducted a study on The Rise of Millennials and Gen Z to research the trends, opportunities, and challenges faced by the youth. In that study, it was found that discretionary income matters more than household income when it comes to the ability to save and invest but the core definition of discretionary income varies depending on the individual's lifestyle and commitments.[14]

Discretionary income is income that is available for savings, investing and spending after necessities have been paid by the consumer (De La Rosa, Turner, and Aaker 2020; Semon 1962; Yeh et al. 2021). Discretionary incomes are subjective as the necessities such as cost of housing, food, clothing, utilities, and transportation varies with every individual.[15]

For example, in our qualitative interview with the lower income group in Kelantan, Malaysia, we found that even though they were from the lower income group, they perceived themselves to be adequate financially. This is in line with our survey findings where 28% of those within the lower income group feel that they are 'financially secure' and 'wealthy' (Figure 11). This could also be due to their lower spending habits and lower costs of living. Interestingly, when we asked the lower income group in Kelantan about how they felt financially during the pandemic, a majority of them felt that they were not affected and some even felt better off as they were able to benefit from the government stimulus packages aimed at aiding people during the pandemic.

> I was not affected by the lockdown during the pandemic, I think I have more money because I don't have to pay my loan and I get to withdraw my money from EPF every time government allows it.
>
> **- Low-income group in Kelantan**

Despite the level of household income and their perceived financial status, people generally do not have a clear understanding of the differences between savings, investments, and insurance. There were many misconceptions about the various types of financial products available and the inability to identify which products are meant to be savings, investment or insurance. This will only be intensified with the growing complexity of financial products and the applications of technology in an environment of low financial literacy. It also shows that efforts in spreading financial knowledge must be more targeted towards providing greater understanding of the role and functions of the various financial tools and products and with more inclusive financial education programmes leveraging on behavioural insights rather than just creating awareness on the dos and don'ts associated with these products.

This may also contribute to the lack of savings in Malaysia. The challenge of low savings is not unique to Malaysia. Many studies have shown that people generally do not always behave in line with their long-term goals. In fact, a BNM survey highlighted that while 84% of Malaysians do save on a regular basis, these savings are typically withdrawn by the end of the month. The BNM survey also found that most respondents do not consider investments as part of their financial planning to meet expected future needs. Savings tend to be for short-term goals, with only 24% of respondents reporting the ability to sustain living expenses for at least three months or more if they lose their income.[16] In BNM's Financial Sector Blueprint 2022-2026, it was highlighted that financial capability gaps remain across several dimensions. While Malaysians exhibit healthy money management (e.g. budgeting, living within means), they fall behind in terms of product

14 ICMR (2021) The Rise of Millennials and Gen Z investors: Trends, Opportunities and Challenges in Malaysia

15 De La Rosa, W. & Tully, S. (2020). The Impact of Payment Frequency on Subjective Wealth Perceptions and Discretionary

16 Bank Negara Malaysia (2019). The Financial Stability and Payment Systems Report 2018

knowledge, financial numeracy and planning for long-term goals.[17]

This is aligned with the behavioural science theory of self-control (Thaler & Shefrin, 1981) and behavioural life-cycle hypothesis[18] (Shefrin & Thaler, 1988) which argues that people find it difficult to picture themselves obtaining future gains at the expense of immediate costs, due to present bias and immediate gratification. Despite having the awareness on the need to make good decisions for their future self, humans are more prone to act on what pleases them during the present times, instead of thinking of their long-term goals.

Present bias can also be exacerbated by poverty and financial stress. Financial scarcity and stress can reduce a person's capacity to make sound decisions and solve problems.[19] This relates back to our study on why people tend to rely more on their friends and family when making financial decisions.

This also implies that the lack of positive savings behaviour and savings is not the only part of behaviour that we need to focus on, and it is also financial resilience that is an important aspect to consider. When it comes to financial resilience, research has found that a primary determinant of wealth differences at the point of retirement is not income, but whether they made the choice to save or spend in their younger years to take advantage of compound interest.[20]

Present Bias

A cognitive bias that causes people to prioritize immediate rewards over future rewards, even when the future rewards are greater. This can lead to short-term thinking and decision-making that may not be in a person's best long-term interests.

Immediate gratification

The temptation and the tendency of individuals to prioritize immediate pleasure or satisfaction over long-term goals or benefits as it provides an immediate reward or relief from discomfort or stress, but it often comes at the expense of long-term goals or well-being.

Their behavioural bias and inability to have clear understanding on saving and investing warranted them to be less financially resilient due to not having enough emergency savings. When we interviewed a group of self-employed and gig workers, many of them felt that one of the biggest lessons they learnt from the pandemic was the importance of an EPF account as it allowed them to withdraw from EPF to help tide them through the pandemic. This has had the adverse consequence of forming people's perceptions that during an economic crisis, they can rely on their EPF monies for emergency savings.

> I learnt from the pandemic that having an EPF account is important for emergencies and to receive government aid
>
> **- a group of self-employed across Malaysia**

If people are already struggling to save regularly and are not able to financially sustain themselves during emergency, it is hard to expect them to show better saving habits for a longer-term goal such as retirement. This then leads to another factor that defines vulnerability – retirement savings or lack thereof.

17 Bank Negara Malaysia Financial Sector Blueprint 2022-2026, Strategic Thrust 2

18 Thaler, R. H., & Shefrin, H. M. (1981). An economic theory of self-control. Journal of Political Economy, 89(2), 392–406

19 Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. Science, 341(6149), 976-980

20 Venti, Steven F. and Wise, David A. "The Cause of Wealth Dispersion at Retirement: Choice or Chance?" *American Economic Review, May 1998, 88 (), pp. 185-91*

3. Retirement readiness

Based on the assumption that one will retire at the age of 55 and life expectancy in Malaysia being 75, one's savings needs to last for at least 20 years. When we asked our 2,019 respondents how long they expect their current savings and EPF savings to last them after retiring, **75% felt that their total retirement savings would last them less than the required 20 years post retirement.** Even more worrying was the fact that 57% out of 254 respondents aged above 55 years old felt that their current retirement savings will not last them 20 years.

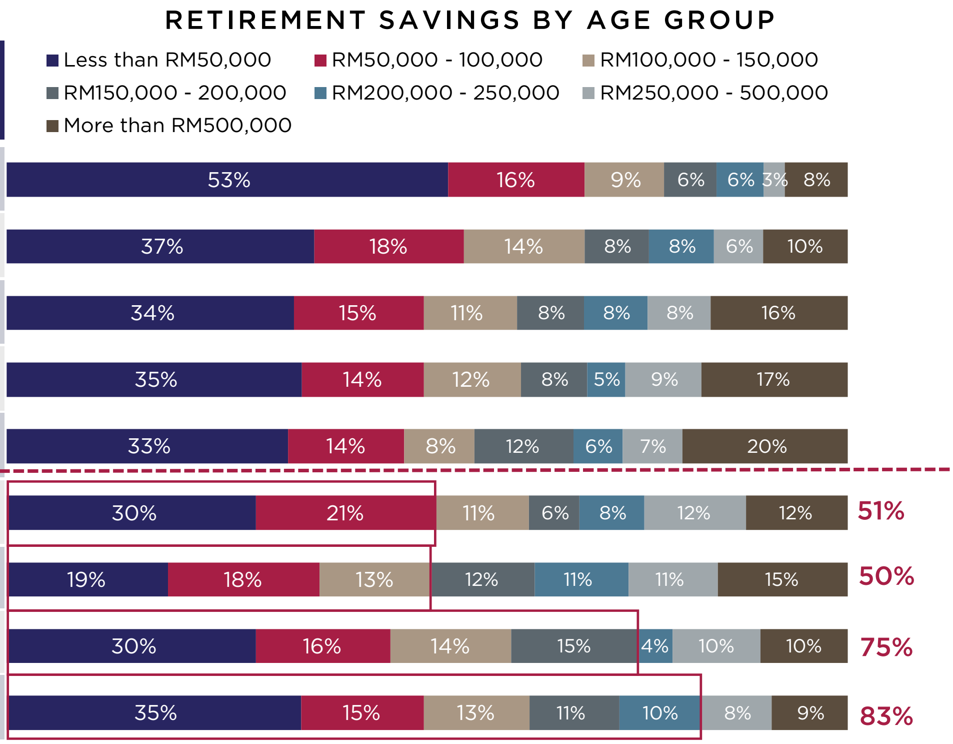
This is in line with the World Bank report and EPF data which shows that about 71% of EPF members aged 55–60 years opt for lump-sum withdrawals of their pension savings upon retirement; and 50% of members exhaust their savings within five years.[21] This is **mainly due to the lack of retirement savings especially amongst retirees and gig workers.** 62% of the gig workers surveyed claimed to have less than RM50,000 worth of retirement savings and what is more worrying is that 70% of the retirees that were surveyed admits having less than RM250,000 worth of retirement savings.

In 2019, EPF revamped the Basic Savings quantum. The new figure requires a person to have at least RM240,000 when they retire at age 55. The Basic Savings is considered adequate to cover the very basic needs for 20 years upon retiring from age 55 to 75 aligned with Malaysian life expectancy.[22] With that, EPF developed the Basic Savings quantum that matches Basic Savings with age. Figure 12 below shows the Basic Savings quantum compared against the age group and retirement savings for our 2,019 respondents.

Figure 12:
Retirement savings by age group

EPF Basic Savings table

Age	Basic savings quantum (RM)
18 – 20	2,000 – 6,000
21 – 25	8,000 – 18,000
26 – 30	21,000 – 35,000
31 – 35	39,000 – 57,000
36 – 40	62,000 – 86,000
41 – 45	93,000 – 125,000
46 – 50	134,000 – 175,000
51 – 55	187,000 – 240,000
Above 55	> 240,000



21 World Bank (2018): Case Study on the Employees Provident Fund of Malaysia
22 EPF press release 2019: EPF Sets New Target Of RM240,000 For Basic Savings

From the figure above, those who are 40 years old and below tend to meet the basic retirement savings threshold as determined by EPF. However, as soon as they reach **41 years old, more than half of the EPF contributors are not able to meet the target basic savings for each age group.**

It is fair to assume that as people move to different life stages, they would have bigger responsibilities and have less savings whilst their wages remain sticky. We could also assume that this age of 41 years old is where people will start withdrawing from their EPF Account 2[23] for home loans or construction/renovations, children's education, pilgrimage or even health expenses.

What is worrying is that 75% of those within age group 51 – 55 years old and 83% of those who have passed the retirement age do not meet the basic retirement savings level targets advocated by EPF, which is the absolute minimum. In September 2022, EPF announced that the adequate savings required should we want to retire in the next 20 to 30 years is now RM1,000,000, revised up from the previous target of RM600,000, to ensure a "dignified" retirement. This makes the retirement savings outlook for current Malaysians even more dire when the majority are not even able to meet the basic savings threshold.

When we spoke with pre-retirees and retirees in the Klang Valley, we found that most of them do not have any other form of savings specifically for retirement aside from EPF savings. However, in our previous research on Millennials and Gen Z, we had also found that there were some respondents who stated their intent of using their ASB funds to supplement their retirement savings. For the low-income group, saving for retirement seems far off as they are more focused on short term savings such as for emergencies, major purchases and for daily needs. In an attempt to understand savings behaviour, we would assume that people would be more rational and conservative according to specific financial goals. However, in our qualitative study we found that most people do not plan and allocate their savings according to specific goals but would generally maintain a single pool of savings meant for all purposes.

> We just save in general. Our previous companies have EPF so we rely on that for our retirement. We were never taught on how to save, invest or plan our finances. So, we just save in general and not for a specific goal
>
> **- Group of retirees in Klang Valley**

According to Nobel Prize winner Richard Thaler's paper "Mental Accounting and Consumer Choice (1985)", people think of value in relative rather than absolute terms. They derive pleasure not just from an object's value, but also the quality of the deal. In addition, humans often fail to fully consider opportunity costs (trade-offs) and are susceptible to the sunk cost fallacy.[24]

Taking this in the context of money, it introduced us to the theory of mental accounting. This is where people treat money differently, depending on factors such as the money's origin and intended use, rather than thinking of it in terms of the "bottom line" as in formal accounting (Thaler, 1999).

Another important term underlying the theory is fungibility, the fact that all money is interchangeable and has no labels. In mental accounting, people treat assets as less fungible than they really are. Even seasoned investors are susceptible to this bias

23 EPF Account 1 retains 70% of monthly contribution, whilst Account 2 holds the remaining 30%. Withdrawals are restricted in Account 1 until age 55. Account 2 permits life-cycle withdrawals and full withdrawals at age 50

24 Thaler. R (1985): Mental Accounting and Consumer Choice. Vol. 4, No. 3 (Summer, 1985), pp. 199-214

when they view recent gains as disposable “house money” (Thaler & Johnson, 1990) that can be used in high-risk investments. In doing so, they make decisions on each mental account separately, losing the big picture of the portfolio.

> Our kids are our priorities, most of our money finishes within the first 5 years and we can’t depend on our children because they are still depending on us
>
> **- Group of retirees in Klang Valley**

For the pre-retirees and retirees’ group that we interviewed, most of them had used up the bulk of their savings for their children and had not factored in their own expenses during their retirement. Even after retiring, many retirees felt that they had to continue helping with their children’s expenses. Therefore, some respondents had to downsize their lifestyle to manage while some continued working as they do not have enough for themselves and could not depend on their children for support and in fact some of their children are still dependent on them.

- Samad -

59 years old, working in IT sales industry, staying with wife and 3 children

It’s difficult to save money now. My children are not doing well financially so I even had to pay for their utility bills. It is a big cost on me and there is no way to reduce it except for sacrificing what you can. So, I can’t afford to retire yet. I will work even when my colleagues are all younger than me.

More concerning was the fact that the majority of the retirees we interviewed are not covered under personal health insurance as they had been solely reliant on their company’s insurance during the working years. They had also not received much information or advice on insurance during their younger days.

- Zaimah - 50 years old, living with her daughter and son-in law whilst taking care of her husband with cancer

My husband has cancer, and we have no insurance, so we have no choice but to go for government hospital care because chemotherapy in private hospitals is really expensive. I had to retire early to take care of my late mother and now my husband, but I am also the sole breadwinner, so I have to do side work and depend on my savings to support the family.

The group of retirees interviewed also indicated that they needed more guidance on how to best manage their retirement funds after retiring. The interviewees shared that they did not know what to do with the big sum of savings that became accessible to them after retiring. As a result, they tended to invest on a trial-and-error basis and followed advice from friends and family. Many were then plagued with instances where they found themselves stuck with failing investments.

A study by the National Bureau of Economic Research that examined 3,362 Swedish lottery winners who won at least $100,000 showed that people tend to spend most of their money when it is given to them in a large sum due to innate human behaviour. This study was done to measure financial well-being amongst lottery winners, but findings showed that their winnings did not last very long and in fact led to the winners feeling more miserable.[25] This behaviour is similar to the behaviour of retirees who upon suddenly receiving a huge sum of retirement savings, do not know how to manage it to last their remaining lifespan.

25 Lindqvist, E., Ostling, R., Cesarini, D.(2019). Long-Run Effects of Lottery Wealth on Psychological Well-Being, National Bureau of Economic Research

- Dhavindren - 66 years old, three children, living with youngest son and wife.

Everything needs money, how to save money? My daughter wants to do her Masters in the UK and that costs me about RM200,000 and recently my other daughter got married and I had some money at that time so I took care of the expenses. Within a few years, half of my retirement money was gone. I also had moved into a smaller apartment which I am fine with since it is just the three of us now.

Many retirees indicated that they would like to have more targeted financial advice to help them invest a portion of their retirement money and would also like to be made more aware of specific financial products that would benefit them such as reverse mortgages. They also mentioned that they do not mind downsizing their lifestyle as long as they are able to get more cash inflow to sustain daily expenses and for their near future.

Findings from these interviews are aligned with the structural issues that EPF had also shared in the behavioural workshop that ICMR conducted in July 2022. The issues are as follows:

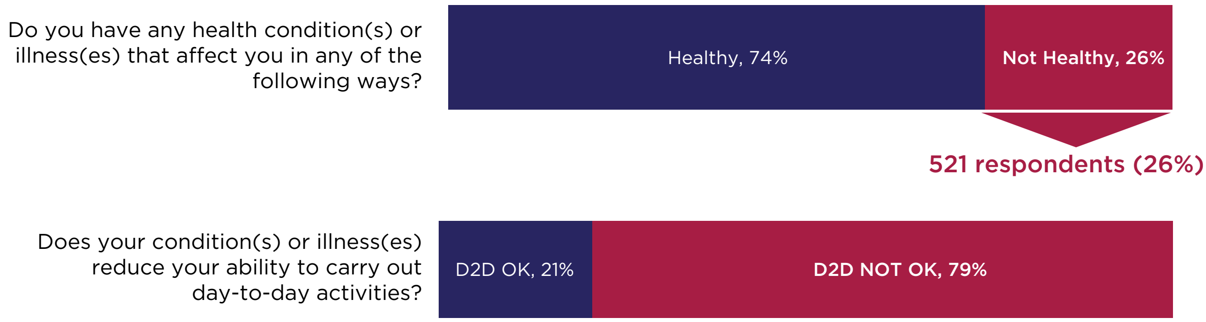
- Lack of a legislative framework that provides comprehensive old-age income security.
- Lack of legal coverage beyond the private sector where only 40% of the labour force in Malaysia is covered under formal pension and retirement schemes.
- Low savings balance or inadequate savings accumulation where only 29% of active EPF members meet the basic savings target according to age while only 4% of active EPF members meet the adequate savings target according to age.
- Lack of structured post-retirement income products to finance one's retirement and a need to strengthen post-retirement products to promote lifelong income security.

As such there remains several structural issues with regards to retirement savings in Malaysia – all requiring dire attention as Malaysia transitions into an ageing society.

4. Health Status

Health is another area under the category of Behaviour and Access drivers. What we found is that **26% of the 2,019 respondents claimed to be unhealthy. Out of that 26%, 79% feel that their bad health is affecting their day-to-day activities** (Figure 13).

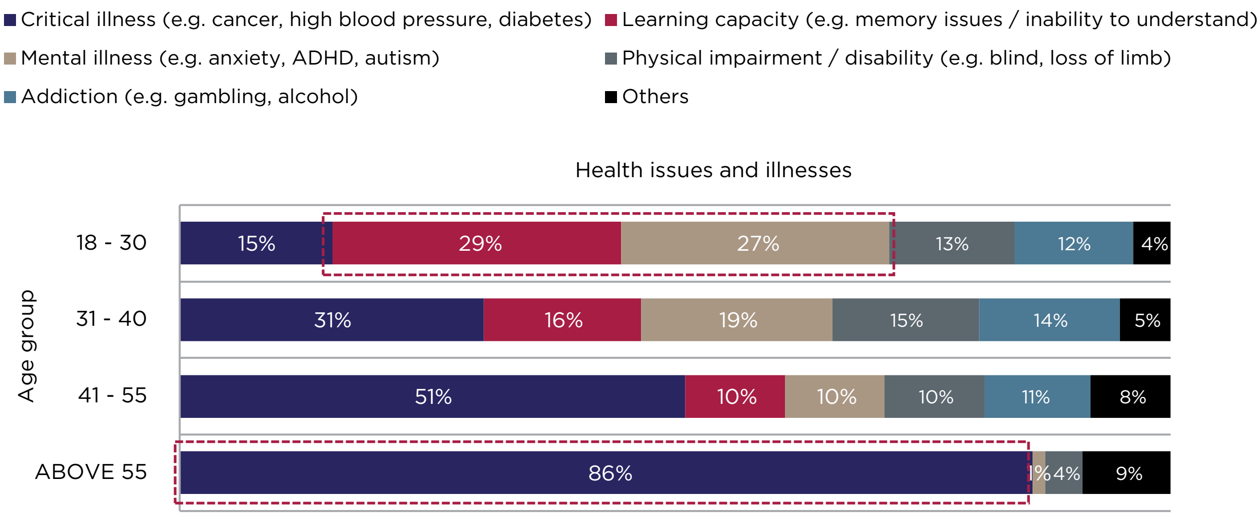
Figure 13:
Health conditions and ability to carry out day-to-day activities



Note: D2D OK = Can carry out day-to-day activity, D2D Not OK = Cannot carry out day-to-day activity

When we tried to understand the health issues across different age groups, there is a stark dichotomy between youths and the older generation whereby the **majority of youths are affected by mental illness and learning capacity issues while the majority of the older generations suffer from critical illnesses** (Figure 14).

Figure 14:
Health conditions and ability to carry out day-to-day activities



The Ministry of Health Malaysia (MOH) together with the National Institute of Health (NIH) conducted the National Health and Morbidity survey in 2019 to understand the level of non-communicable diseases, healthcare demand, and health literacy in Malaysia. The study shows that 1.7 million people in Malaysia currently live with diabetes, hypertension and high cholesterol and at least 1 in 5 Malaysians aged 18 years old and above have diabetes while 3 in 10 or 6.4 million people in Malaysia suffer from hypertension. The survey also found that 1 in 4 adults in Malaysia experienced functional difficulties which include difficulty in seeing, hearing, remembering, walking, self-care and communicating.

On the other hand, 2.3% which is about half a million of Malaysian adults were reported to suffer from depression and this was even before the pandemic storm hit the world.[26] A study conducted at the end of 2021 showed that 48% of Malaysians were reported to suffer severe to moderately severe depression during the third wave of COVID-19 infections in Malaysia.[27]

The World Health Organisation (WHO) reported that depression, anxiety, and behavioural disorders are among the leading causes of illnesses and disability among youths. In the article posted in 2021, WHO reported that youths with mental health conditions are also vulnerable towards social exclusion, discrimination, stigma, physical ill-health, risk-taking behaviours, and educational difficulties.[28]

People who suffer from bad health conditions especially those that disrupt their day-to-day activities would need a slightly different approach when it comes to making financial decisions. This is because these groups are mentally occupied with various difficulties which then could lead to a vicious cycle and phenomena known as a scarcity mindset. All these uncertain thoughts can take away one's mental capacity to make good financial decisions.

Scarcity mindset

A term coined by Dan Ariely and Saul Fine (2022) to explain that in individuals who are financially stressed, part of their brain is continuously busy with trying to figure out the uncertainty of future income, as well as when their next payments need to be made. This causes a lot of stress and unclear questions.

26 MOH, National Health and Morbidity Survey (NHMS) 2019, PPIM

27 Marzo RR, Vinay V, Bahari R, Chauhan S, Ming DAF, Nelson Fernandez SFA, Johnson CCP, Thivakaran AQA, Rahman MM, Goel S. (2021): Depression and anxiety in Malaysian population during third wave of the COVID-19 pandemic

28 World Health Organisation, WHO (2019): Adolescent mental health

5. Financial Literacy

Another area that we investigated under the category of Behavioural and Access drivers is financial literacy. We asked our respondents five basic financial literacy questions to gauge their basic understanding on topics such as compounding interest, inflation, risk and return, cost of borrowing and diversification. We also asked respondents to rate their own financial capabilities. However, this should not be interpreted as being a comprehensive financial literacy assessment vis-à-vis other existing financial literacy studies, as the aim of these questions was solely to benchmark actual financial knowledge against self-assessed financial capabilities. The questions used to test actual financial literacy can be found in Appendix II, and the term "financial literacy score" is used to refer to the number of correct answers obtained from this set of questions. Our findings show that there is a **slight overconfidence with regards to individuals rating their own financial capabilities**.

Table 2 showed that **only 39% of the respondents managed to answer between four to five questions correctly** despite the fact that **67% respondents had high confidence in their own financial capabilities (Figure 15).**

Table 2:
Financial Literacy score

Financial literacy score	% of respondents
0% - 20%	24%
40% - 60%	37%
80% - 100%	**39%**

Figure 15:
Financial confidence rate

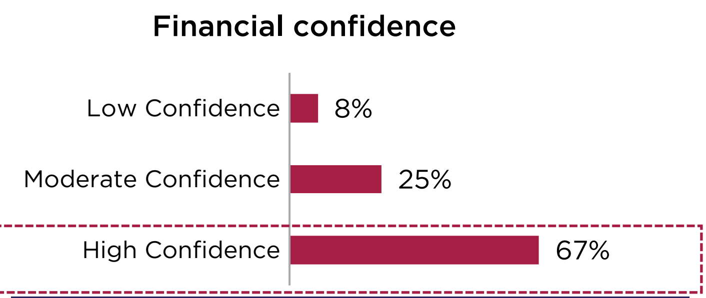
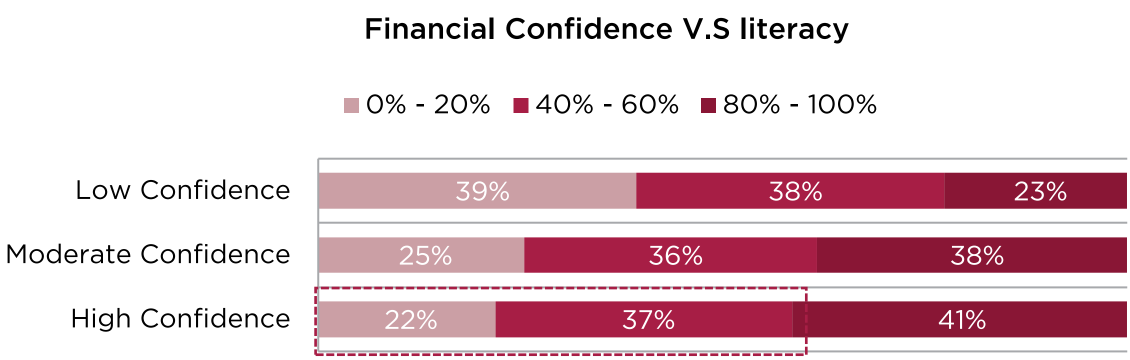


Figure 16:
Financial literacy score against financial confidence



The overconfidence effect is observed when people's subjective confidence in their own ability is greater than their objective (actual) performance (Pallier et al., 2002). The financial literacy areas tested are considered as the most basic to test respondents' understanding of some of the key financial concepts. In Figure 16, it is concerning to see that 59% of respondents who scored lower than 80% (less than 4 questions correct) feel highly confident in their own financial capabilities.

Overconfidence has been attributed to a range of issues. More generally, among investors, overconfidence has been associated with excessive risk-taking and is most likely to lead them to make wrong financial decisions. This tends to also relate to one's optimism bias during financial decision making.

When it comes to behavioural and access drivers, we found that a person's own perception of their financial status drives their savings behaviour and financial stress levels. This coupled with health issues can lead to a scarcity mindset resulting in bad financial decisions. A case in point, the majority of those who were overconfident in their own financial capabilities were also closely associated with excessive risk-taking and are more likely to make wrong financial decisions. Given this, there is a **strong correlation between behavioural and access drivers with financial decision making which may lead to financial vulnerability.**

Optimism bias

The tendencies for people to overestimate the probability of positive events and underestimate the probability of negative events happening to them in the future (Sharot, 2011).

Situational Drivers

In this section we explore a second category of drivers termed as 'situational drivers' to better understand vulnerability. The area under this category includes experiences of specific life events or temporary difficulties such as bereavement, job loss, income shock, death within close relatives, change in expenses and savings behaviour.

Since the pandemic hit, our lives have been impacted by greater uncertainty. Many suffered through uncertain income flow, job losses, loss of family and friends as well as fear and anxiety for their own well-being.

It was reported throughout the pandemic that many had lost their jobs, income or faced income cuts. The impact of this lasted even after the lockdown was lifted and has been exacerbated by the rising cost of living. In our study, we asked our respondents to share if their expenses outpaced their income in the last 12 months. Caveating that this survey was conducted in the early part of 2022, the following was observed:

Figure 17:
Percentage of respondents whose living expenses outpaced their income in the last 12 months

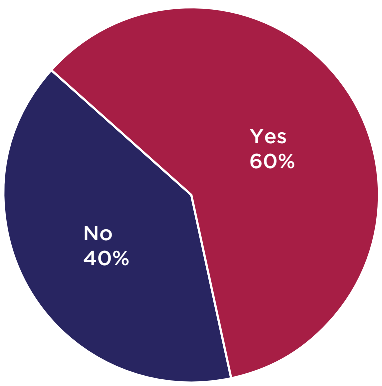
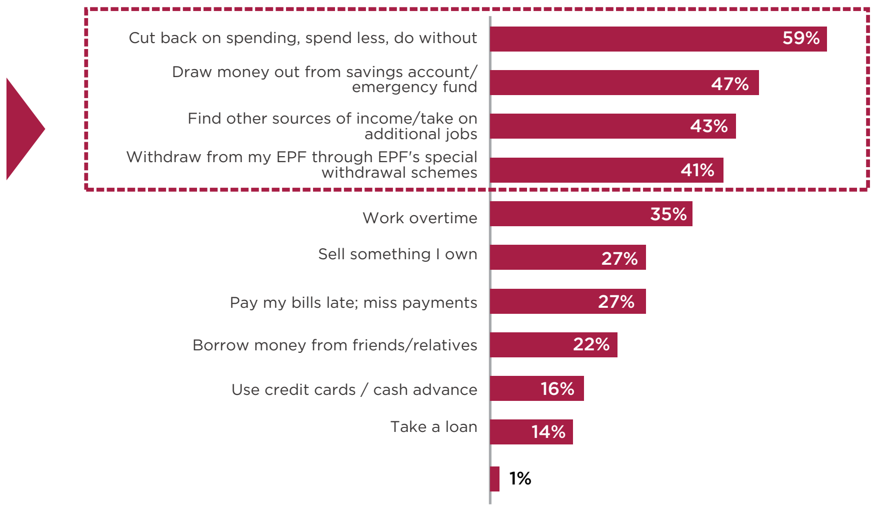


Figure 18:
Ways to make ends meet

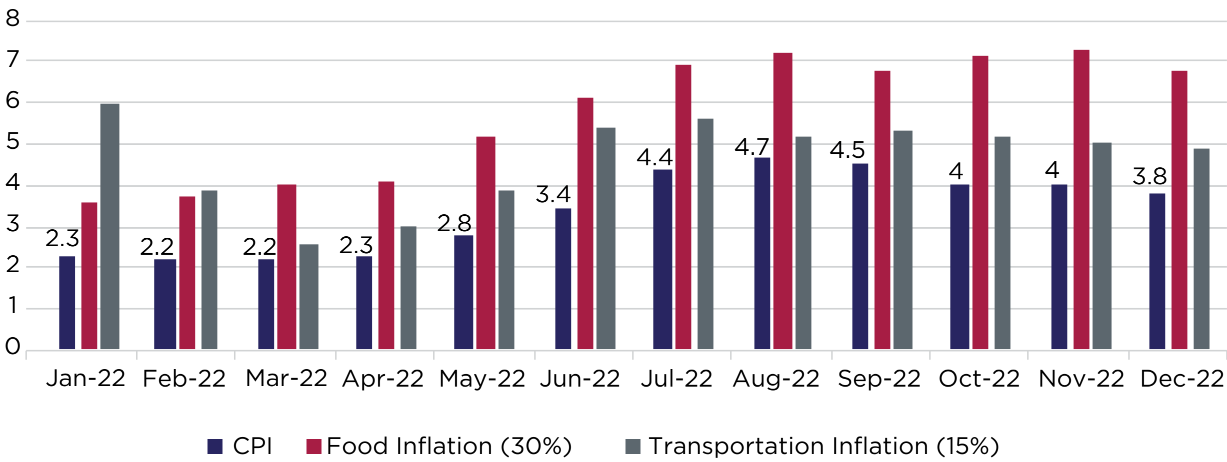


Note: Respondents were allowed to choose multiple answers, therefore the total adds up to more than 100% in the above chart

Figure 17 above shows that **60% of Malaysians felt that their expenses had outpaced their monthly income in the last 12 months.** Out of that group, 59% had to cut back on their spending or make do without some of the things they need, 47% had to draw on their savings and emergency savings, 43% had to find another source of income and 41% had to take advantage of the EPF withdrawal scheme to sustain themselves (Figure 18). Despite Malaysia's economy opening up in the post-pandemic phase, many Malaysians still struggle to sustain themselves financially and this was evident even before the real knock-on effects of inflation had been felt.

To put things into context, Malaysia's inflation rate rose from 2.3% in January 2022 to 3.8% in December 2022 on the back of higher food and transportation prices. This upward pressure was mainly driven by higher food prices (weights 30% in the CPI basket), which despite the ongoing price controls, has risen to an all-time high of 7.3% in November 2022.[29] The Producer Price Index (PPI), measured by the average change in price of goods and services sold by manufacturers and producers, also rose to a level higher than the 2008 global financial crisis, signalling a cost-induced inflation. Unlike demand-pull inflation, which is driven by consumer demand and economic expansion, cost-push inflation results in the increase in overall prices and decrease in aggregate supply.

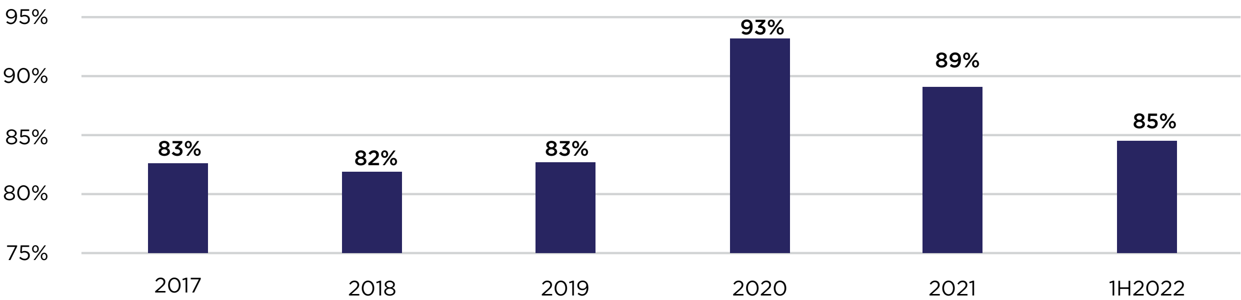
Figure 19:
Malaysia's Consumer Price Index



Meanwhile, in an attempt to curb inflationary pressures, BNM increased the Overnight Policy Rate (OPR) by a total of 100 basis points from 1.75% in May to 2.75% as of end year 2022 in a series of Monetary Policy Committee (MPC) meetings.

BNM's Financial Stability Review for 2021 highlighted that Malaysia's household debt stands at 89% (equivalent to RM1.37 trillion) in 2021, which is on the higher end compared to the regional economies such as Singapore (70%), Indonesia (17%) and Philippines (10%).

Figure 20:
Malaysia's Household Debt: % of GDP



29 Department of Statistics Malaysia (DOSM)

Out of the RM1.34 trillion, 60% or RM797.5 billion of the household debt was made up of housing loans. With 58% of the household loans being mortgages, the increase in interest rate implies that majority of the loan holders will be facing higher interest payment.

The survey, which was conducted prior to the sharp increase in inflation in June 2022, already indicated that 60% of respondents had their expenses outpace their income over the last 12 months. Now, sandwiched between higher costs of borrowing and higher inflation of food and oil prices, households will have even less discretionary income – which could increase one's level of vulnerability.

To sustain their living, especially those that are heavily indebted and in the lower income group, financing alternatives such as Buy Now Pay Later (BNPL) schemes serve as a double-edged sword which could potentially provide short-term financing solutions to households but may also create a vicious cycle of households spending more than what they earn and thus further increasing their debt.

Adding to that, an IPSOS poll in August 2022 indicated that Malaysians are tightening their belts as inflation eats into their income with close to 70% of Malaysians feeling the economic crunch- with 45% just getting by and 23% finding it difficult to manage their finances.[30]

Figure 21:
Impact of difficult events on perceived financial well-being

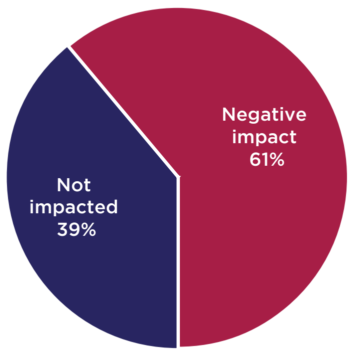
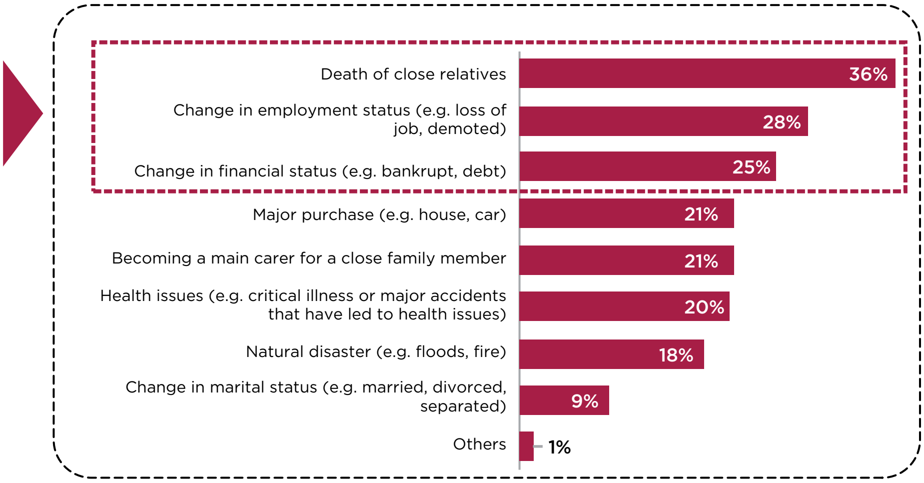


Figure 22:
Negative impact experienced by respondents



Note: Respondents were allowed to choose multiple answers, therefore the total adds up to more than 100% in the above chart

It gets more concerning when the issues on expenses and inflation is coupled with difficult life events, which appears to be the case for **61% of the respondents who were negatively impacted by difficult events that happened to them in the last 12 months** (Figure 21). Figure 22 below shows that 'death of close relatives' is experienced by most of the respondents and possibly a majority of these losses were due to COVID-19. Within this group, the impact of losing the main breadwinner would be

30 IPSOS press release (2022): Malaysians 'tighten their belts' as inflation eats into income

more severe and this impacted 36% of respondents. Changes in employment and financial status which mostly resulted from the lockdown and economic downturn due to the pandemic have also negatively impacted many of the respondents.

When we worked on identifying the impact of difficult events across different age groups, we found that 'death of close relatives' seems to affect those aged 55 – 75 years old the most compared to other groups. 'Change in employment and financial status' seems to cut across all ages below 55 while 'major purchases' were more prevalent in individuals between 18 – 30 than those above 55, indicating that the youth spending behaviour may have a negative impact on them. ICMR's past study on Millennials and Gen Z had shown that the younger group between ages 18 – 30 is more short-term goal oriented where the bulk of their savings is aimed at purchasing high-priced items.

Despite the popular belief that vulnerable individuals comprise the older generation, our study finds that notwithstanding age, changing life situations cause by the pandemic, changes in employment or even the impact of making a big purchase can cause individuals to feel more financially vulnerable. This coupled with the current state of economy further emphasises the impact of financial stress and scarcity mindset – contributing to poor financial decision making.

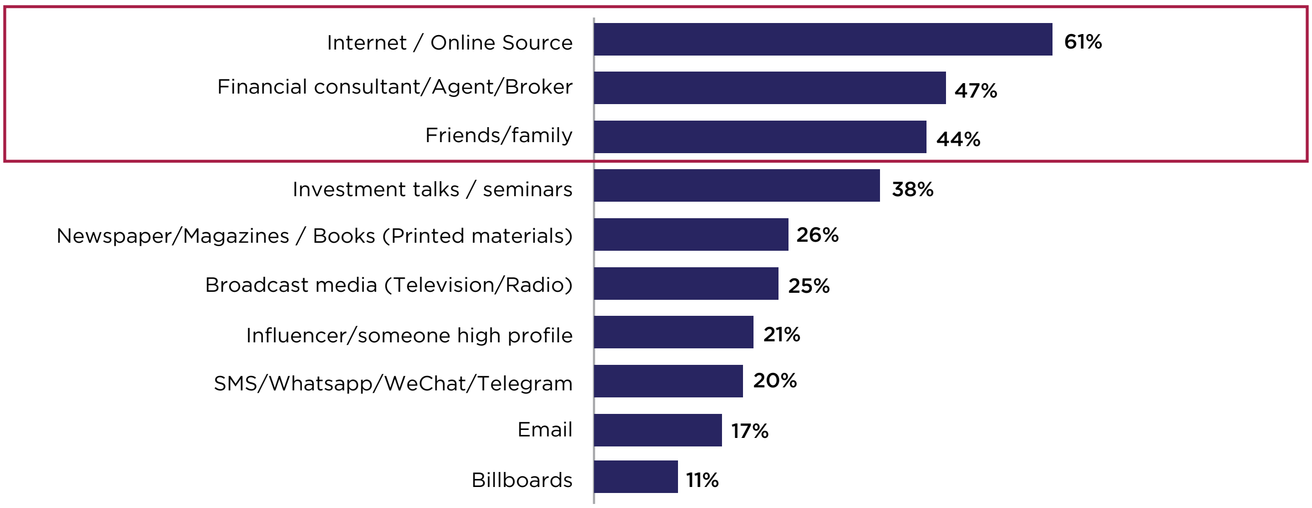
Industry-related Drivers

The final type of driver category we identified is ‘industry-related drivers’. The variables measured in this section include experiences surrounding (i) the actions of market or individual financial providers; (ii) firms that do not act with appropriate levels of care; (iii) products that are inappropriate for a particular client; (iv) inadequate / complex or misleading documentation / information; and (v) financial service providers that are not reachable after clients have subscribed to the product.

Vulnerability can play a role in investors’ experience with firms, financial products, and services at many different stages of their investment journey.[31]

While we wanted to understand investors’ experiences with firms and financial services, we also sought to understand investors’ preferences when seeking financial information and advice.

Figure 23:
Investors’ sources of financial information



Similar to our findings with Millennials and Gen Z last year, the **most popular source of information was the *internet/online sources* (61%)**. This finding is unsurprising given that the dominant age cohort is the youth in line with the rise of digitalization. Although the high rate of digitalisation is seen as a silver lining of the pandemic, digitalisation is a double-edged sword especially when it comes to financial behavior. Increasing reliance on non-traditional and unregulated sources of information means that investors need the right tools to discern what is accurate or applicable to them amidst

31 FCA (2014). Vulnerability exposed: The consumer experience of vulnerability in financial services

a plethora of available information and choice overload. Another concern of relying on internet and social media is that investors will be more susceptible to misinformation and herding behavior.

> **Herding behaviour and the Bandwagon effect**
>
> Refers to the habit of adopting certain behaviours or beliefs just because many other people are seen to be doing the same.

The second most popular source of information is *financial consultant/agent/broker* (47%). Although many respondents claimed to have referred to financial consultants, agents or brokers, upon further questioning we found that investors only referred to financial consultants who happened to be their friend or who were introduced by their family or friends. This correlates with our findings of 44% preferring to listen to friends and family for financial information.

> My unit trust agent is my good friend; I invest because I see my friends investing and they seemed to have a good lifestyle. But we don't know the reality and the reality is not as beautiful as you thought.
>
> **- Daniel, 39, self-employed**

Trust and relatability seemed to be important aspects influencing financial decision making. People are easily motivated to invest or jump on a financial bandwagon if they see that their family or peers are doing it as well. Without proper knowledge and guidance, herding behavior can cause one to fall into a financial pitfall. On this note, behavioural insights suggest that investors tend to be more susceptible to the bandwagon effect due to the following reasons:

1. The brain uses shortcuts ("heuristics")

   Shortcuts or heuristics allow decisions to be made quickly. In other words, we skip the long process of evaluating individually and rely on the opinion of others measured by popularity. It is a sign that many people are in favor of an idea or behavior, so we can safely decide to adopt it.[32]

2. Wanting to fit in and fear of being excluded ("social norms")

   Naturally, people seek a sense of belonging within their community and surroundings. Most of us have the fear of being excluded or to be the odd one out. With that, we conform to and adopt the choices, norms or attitudes of our peers or community and follow the trends in order to gain approval and fit in.[33]

3. Wanting to be on the winning side ("bandwagon effect")

   Very often, we believe that the majority hold the right answers and hence what the majority does, others follow. This act is done completely subconsciously as we unintentionally adopt the majority's opinions just to be on the winning side. It may be the case that we have evolved to instinctively support popular beliefs because standing against the tide represented by the majority can be disadvantageous at best and dangerous at worst.[34]

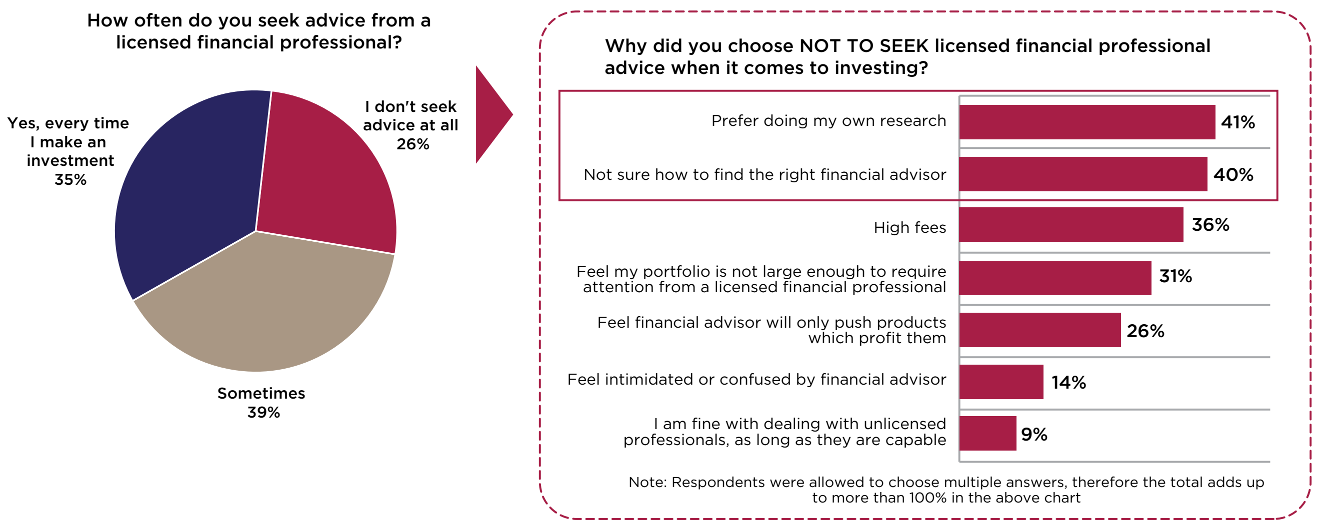
32 The Bandwagon Effect: Why People Tend to Follow the Crowd. (n.d.). Retrieved July 05, 2020, from https://effectiviology.com/bandwagon/

33 Cherry, K. (2020, April 28). The Bandwagon Effect Is Why People Fall for Trends. Retrieved July 05, 2020, from https://www.verywellmind.com/what-is-the-bandwagon-effect-2795895

34 Cherry, K. (2020, April 28). The Bandwagon Effect Is Why People Fall for Trends. Retrieved July 05, 2020, from https://www.verywellmind.com/what-is-the-bandwagon-effect-2795895

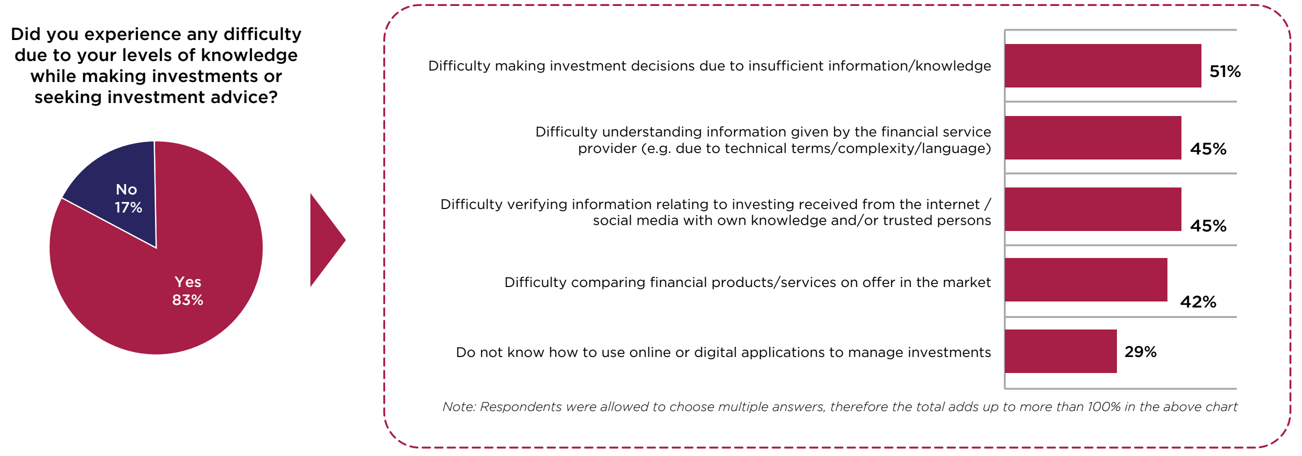
Nevertheless, although a majority claim to seek financial advice from a licensed financial professional, Figure 24 shows that 26% of the surveyed respondents do not seek advice and prefer to do their own research (41%); 40% on the other hand were not sure how to find the right financial advisor while 36% were discouraged by the high fees involved in engaging a professional financial advisor.

Figure 24:
Reason for not seeking for professional financial advice



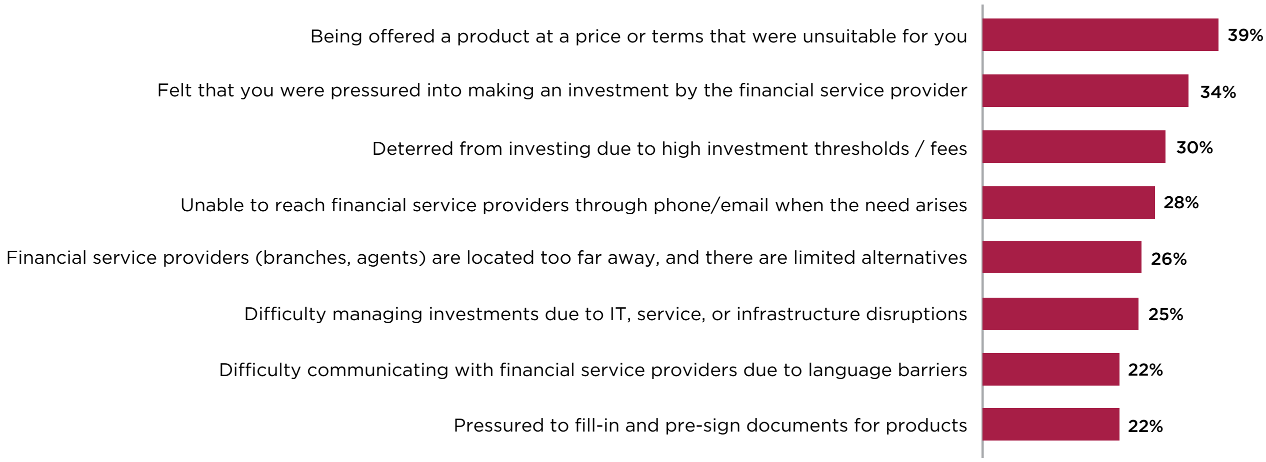
While a majority of respondents claim to seek professional advice, 83% of those who do seek professional financial advice claim to experience some difficulties especially due to insufficient information or knowledge (Figure 25). This correlates with our findings that those with low level of knowledge on the technicalities of financial products tend to also face difficulties in understanding the information given (45%), verifying information received from either social media or friends and family (45%) and comparing financial products/services offered in the market (42%).

Figure 25:
Difficulty faced when seeking financial advice



At the same time, **70% of those who engaged with financial service providers faced some level of misconduct** such as: (i) being offered a product at a price or terms that were unsuitable (39%); (ii) being pressured into making an investment (34%); (iii) being deterred to invest due to high fees (30%); (iv) unable to reach service providers when needed (28%); (v) difficulty managing investment due to technical issues (25%); (vi) language barriers (22%); and (vii) being pressured to fill-in and pre-sign documents (22%).

Figure 26:
Difficulties experienced when engaging with financial service providers



Note: Respondents were allowed to choose multiple answers, therefore the total adds up to more than 100%

This was further confirmed in our qualitative interviews where interviewees felt that all the documents and information given were too complicated and not easy to understand. Elderly folk and youths were most affected by the above. Recalling the Behavioural and Access driver section where we explained that majority of youths experience learning difficulties, this coupled with low financial knowledge will make understanding disclosure documents more difficult for these groups.

Difficulties in understanding disclosure documents were also highlighted by SIDREC during ICMR's closed-door Behavioural Workshop which was conducted in July 2022 with key stakeholders in the investment landscape. SIDREC shared that first time investors are susceptible to unsanctioned advice as they are not familiar with the product types. At the same time, those who are categorised as elderly as well as those who are young, who have any physical ailments or are mentally distressed, tend to struggle in their investments. It was also observed that the level of education does not play a major role, instead, it is investment experience that influences the ability to comprehend and understand complex investment documents in order to make sound decision making.

> The documents and disclosure are too complex and hard to understand. Only those with financial background could understand. I feel that the sales agent does not know the details of the product so the agent will just work to promote.
>
> **- Emma, 34, real estate consultant**

In their dispute resolution work, SIDREC discovered that investors often experience mental overload when reviewing financial documents. **These investors also tend to skip over thick regulation documents which lead people to pre-sign forms thus making them vulnerable. Since investors do not read the prospectus or even the product highlight sheets, they tend to miss out on the disclaimers. This also happens due to the complicated financial and legal jargon which is hard to understand and is time consuming to read through.** This leads investors to be easily exposed to misconduct and mishandling by financial consultants/agents. An example of this is seen in Mr Hussien's case below:

- Hussien - ***69 years old, highly educated man looking for investment for retirement income security***	*Invested in a structured product that is **not suitable for him** in the sense of **experience and net worth**. He is financially stable, but his FD return of 2.2% is not enough as an income to live on for the next 20-25 years in retirement. He was motivated to earn more from investment but did not read the documents and did not realize the products were not suited to him.*

Identifying potentially vulnerable investors is key to ensuring that appropriate advice and actions are taken. However, there may be a range of reasons as to why some investors are reluctant to disclose their vulnerabilities and why consultants/agents may not react to it appropriately.

1. Barriers to disclosure

   A study conducted by FCA on vulnerability revealed that people may struggle to accurately diagnose themselves as vulnerable, which then creates a barrier to disclosure. At the same time, people are also afraid to share any personal information especially on health or mental health issues that would reveal their vulnerability, fearing that they will be taken advantage of.

2. How agents/consultants react to disclosure

   Even when vulnerability is disclosed, people fear that financial consultants will not always take appropriate actions. Research (Mind, 2008[35] & 2011[36]) indicates that worries about how they will be treated often deter some customers from disclosing mental health problems. These concerns include the possibility that their disclosure would further limit their access to investments; feeling like they are not taken seriously; being treated unfairly or fear of being discriminated. It is important for financial firms and consultants to be sensitive to all these aspects.

3. Chasing Key Performance Indicators (KPI)s

   Trust and relatability are key, and therefore investors can get easily put off by agents or consultants who push products and act in a non-fiduciary manner without taking into consideration investors' needs and profiles. As such, financial advisors would need to adopt a more holistic clients-needs-based approach to advisory services. This is in line with ICMR's findings from our previous report 'The Evolving Business of Asset Management: Malaysia's Perspective'.

Trust or mistrust towards financial consultant/agent is an aspect that came up frequently in the qualitative interviews. Our interviews also indicated that many faced information overload, mis-selling of products & poor post-sales conduct.

Currently, many investors feel that financial services and products have been streamlined and designed based on the idea of a perfectly rational investor. Because of that, financial consultants and agents

35 Mind (2008). In the red: Debt and mental health. Retrieved from www.mind.org.uk/ media/273469/in-the-red.pdf

36 Mind (2011). Still in the red. Retrieved from www.mind.org.uk/media/273468/still-in-the-red. pdf

struggle to meet the needs of investors who do not fit into that idea of a perfectly rational investor.

"It is precisely this streamlining that has the potential to lead to negative experiences and consumer detriment" (FCA, Vulnerability Exposed, 2014)

> I think all these financial agents are mean and when I made a complaint, I felt like I have no consumer rights. One of my agents disappeared and a new agent asked me to withdraw my current Unit Trust investment and reinvest in another Unit Trust account within the same provider under him. He just wants the commission and expected me to pay the sales fees when I could just switch the funds.
>
> **- Zaimah, 50, retiree**

The above situation was also showcased in ICMR's closed-door Behavioural Workshop where the Federation of Investment Managers Malaysia (FIMM) shared some insights on vulnerabilities they have found amongst their investors and the types of misconduct observed.

Case study 1

An **elderly woman investor was misled** into taking a UTS funds where she was informed that the fund guarantees interest with Principal Protection similar to Fixed Deposits.

Case study 2

An investor alleged that a UTS Consultant **had collected RM70,000 in cash** from her son who is a Person with Disabilities (OKU) for an investment. Accepting cash from an investor is an offence under FIMM's Code of Ethics (COE).

Case study 3

An investor who only had primary level education was misinformed on how her UTS fund works. The fund that her agent made her sign up for was meant for sophisticated investors and she was clearly not qualified for such funds.

Vulnerability is often never fully disclosed. Instead, we catch glimpses of potential vulnerability. These glimpses provide opportunities to probe further, understand the situation, and offer investors support. (Fitch, 2014).[37]

Although not all vulnerable individuals face the same challenges, most tend to feel overwhelmed and unable to cope during certain vulnerable moments. When faced with these feelings, individuals find it difficult to prioritise, which leads to sub-optimal decision making. This results in them making decisions that further worsens their situations particularly when dealing with financial services firms.

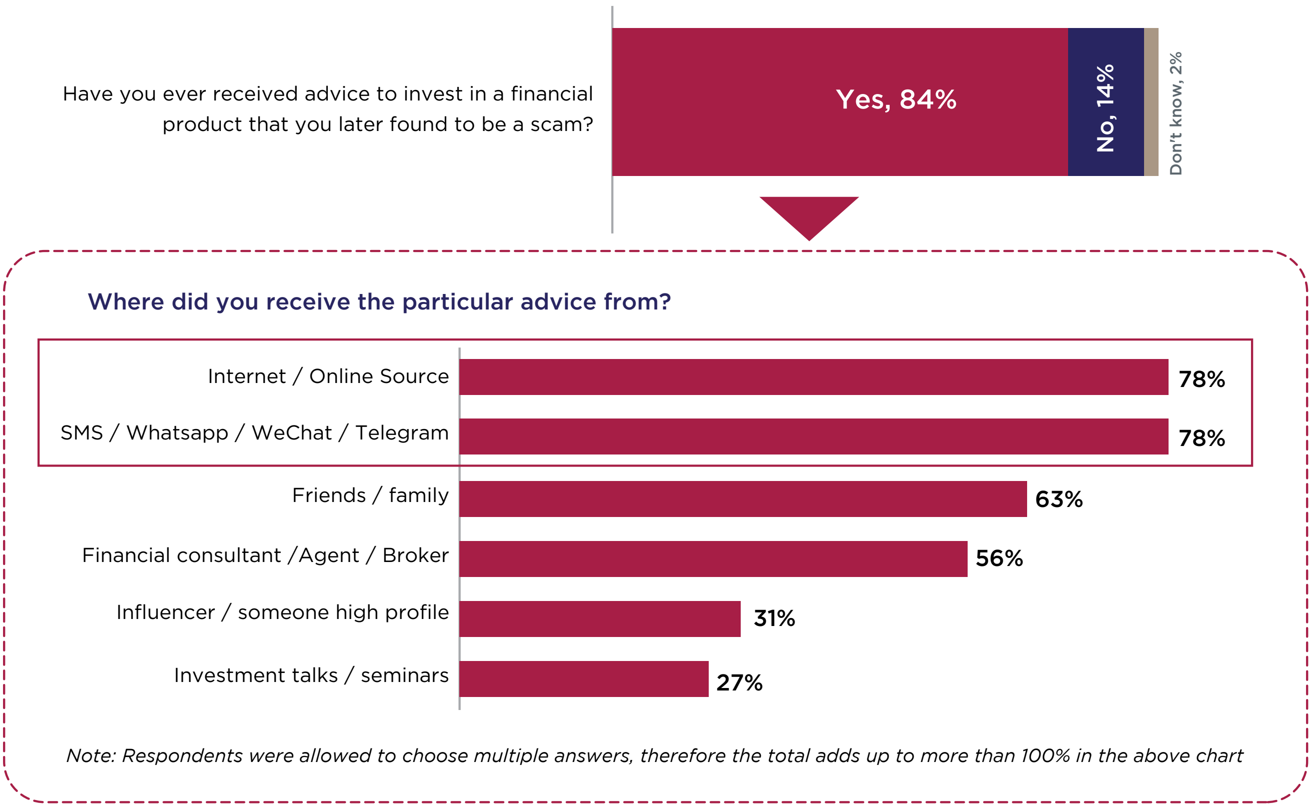
37 Fitch, C. (2014). Treating vulnerable customers fairly: three practical tools (and one definition).

Special Focus on Scams

Findings from the three vulnerability drivers show that an individual may experience overlapping vulnerable characteristics, which can then impair that person in their daily decision-making, especially financial decision-making. Financial stress, scarcity mindset, the shock of increasing prices as well as long-term effects of the pandemic have severely disrupted the level of financial resilience in Malaysia. This has made those with vulnerabilities even more susceptible to the allure of making fast money. While the general assumption- that those who are more susceptible to being financially cheated are those who are desperate for money, have low financial literacy, are from the lower income group or the elderly- may be true up to a certain point, our study found that there are other factors that come into play.

When we asked our respondents **if they had ever received advice to invest in a financial product that they later found out to be a scam, a big majority of 84% said yes**, and it is not surprising to see that most of them received this advice from the internet, social media or family and friends (Figure 27). This is further validated by our qualitative interviews where most who were scammed claimed to have gotten the advice from their friends or an agent that been introduced by family/friends.

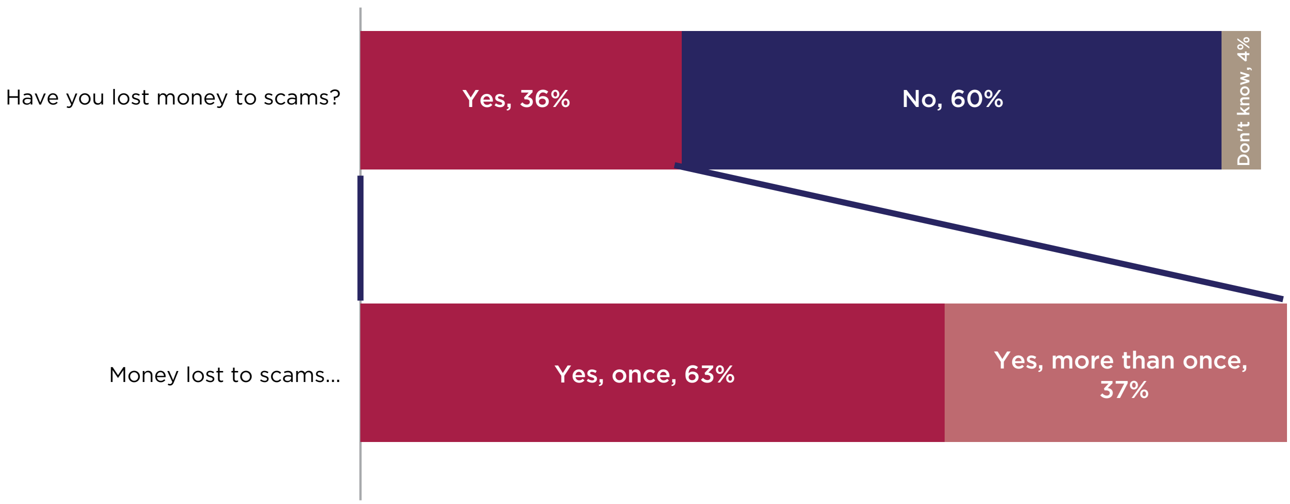
Figure 27:
Receiving advice to invest in a scam and the sources



What is surprising though is that **36% of the respondents surveyed fell for the advice to invest and lost their money to scams**. What is even more concerning is that out of that 36%, 37% lost money to scams repeatedly (Figure 28). This indicates that either the scams are getting more sophisticated or that for some people, losing money to scams might be a worthy risk to take in light of the chance to win big from the initial investment. The latter is a finding that was discovered in our qualitative interviews where some were aware that in certain fraudulent schemes, one might be able to reap some rewards from the investment in the first few months of its launch. Our interviewees shared that they would need to know when to exit before the scammers stop giving out dividends and that in the meantime, they could benefit from the first few returns.

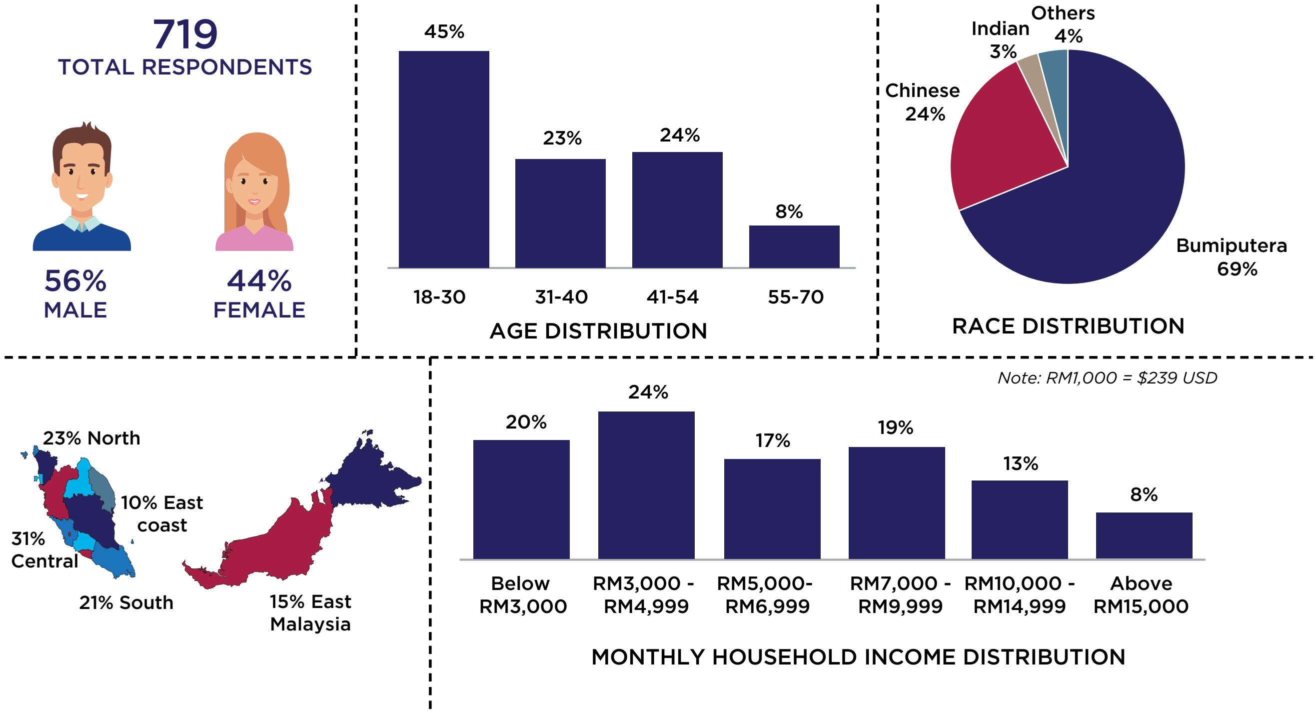
> Usually in the first stage, people will always get their money back, because if at first, they don't give you your money back, they wouldn't be able to recruit more people. Once they reach their target amount then that is when they will be quiet and run away with your money.
>
> **- Lim, 43, salesperson**

Figure 28:
Investing in a scam



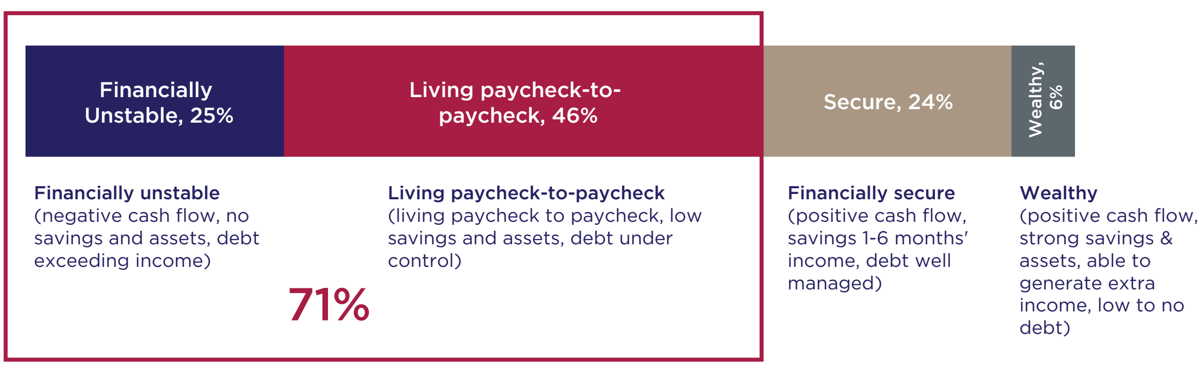
With that, we also tried to find out the demographics of the respondents that had been scammed before and what we found is that scammers do not discriminate as the demographic distribution cuts across the total respondent sample with a slight skew towards the younger age group (Figure 29).

Figure 29:
Demographic distribution of respondents who were scammed before



We also tried to understand this group's perception of their own financial status and found that a bigger majority of **71% from this group** (compared to 61% of the total respondents) feel that they are either financially unstable or living-paycheck-to-paycheck (Figure 30).

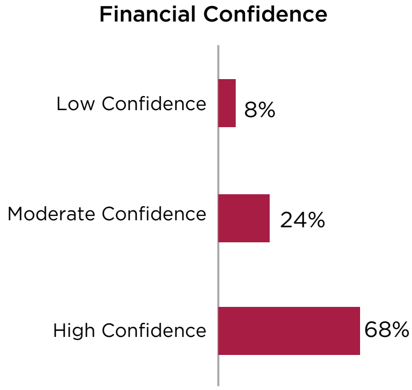
Figure 30:
Demographic distribution of respondents who were scammed before

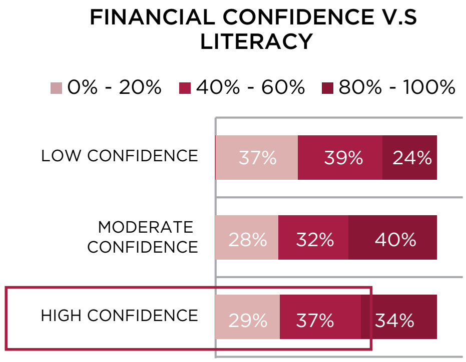


A similar trend can be seen with regards to their financial literacy. Figure 31 below shows that a greater percentage are overconfident, where 68% are highly confident despite only 35% scoring more than 4 out of 5 financial literacy questions correctly. This group is a prime example of how overconfidence could lead to unwanted risk taking and bad financial decisions.

Figure 31:
Financial literacy score and financial confidence rate

Financial Literacy score	% of respondents
0% - 20%	29%
40% - 60%	36%
80% - 100%	**35%**





In our efforts to dive deeper and understand the psyche of the victims of scam, we discovered that there are multiple behaviours or mindset that drive them to be susceptible to financial fraud. Some of the highlights were:

(i) Many are not aware of the financial authorities and their jurisdiction

During our qualitative interviews, we found that while many were aware of Bank Negara Malaysia (BNM) and the role BNM plays, many did not know about the Securities Commission (SC). This is an issue as a large percentage of respondents had claimed to conduct their own research before making an investment, but given that they are not even aware of who the relevant authorities are, it would indicate that they might not know where to source for the right information.

As a matter of fact, not knowing who the authorities are may make it easier for scammers to trap the victims. In a case shared by the SC, victims tend to believe a financial scheme is legit when the scheme claims to be licensed by *Suruhanjaya Syarikat Malaysia* (SSM), not knowing that SSM is not allowed to offer any financial scheme without the approval of BNM or the SC.
In another case we identified through our qualitative interviews, a victim had invested in a company which stopped giving her the promised returns and used the SC's name and authority as the reason that her dividends have been stopped.

> I invested RM10,000 in a company that locks my investment for 2 years for 2.5% return every month. I got my money back first few months, but it stopped. The company claimed it was because SC was freezing their activities. I don't even know what SC is. I am aware that the returns seem too good to be true. I was greedy and saw an opportunity to earn more returns.
>
> **- Annie, 40, home baker**

(ii) Peer pressure and herd mentality play a big role

Many who were involved in scams were referred to the agents or to the scheme by friends or families. As we had mentioned earlier, this is due to the high influence of herd mentality and how people generally feel the need to jump on the bandwagon when they see their friends or family benefiting from something.

> "I invested in a money game and lost money in few weeks. I know I was just being greedy. My friend invited me to join, and I felt guilty if I didn't follow my friend. If I entered early, I could have gotten returns in the first few months."
>
> **- Ken, 43, business owner**

It is understandable for individuals to follow the advice of family and friends when they are not knowledgeable in that subject. However, there are individuals who follow the advice even when they know that it is not the right path to take, yet they do it out of social pressure or to avoid conflict within the circle. **According to behavioural theory, people experience cognitive dissonance and will tend to change their attitude, beliefs, or actions just to avoid conflict or social tension.**[38] For example, one of our respondents felt pressured into investing in a scam because of his friend, despite knowing that the scheme he is investing in is illegal.

Cognitive Dissonance theory

Describes people who avoid having conflicting beliefs and attitudes because it makes them uncomfortable and who tend to reject truthful information or ignore new information to reduce social tension.

(iii) A '*kiasu*' mindset; fear of losing out or wanting to be ahead of others

Kiasu is a cultural trait more prominent amongst Asians that encompasses competitiveness and inconsideration in the aim to get ahead of others. Putting this into context, when it comes to investment opportunities, this type of mindset will drive a person to quickly jump on an investment to reap the rewards at the initial stage. These groups will also willingly recruit new members to join the investment schemes after them so that they might also benefit from the commission brought in by these members despite knowing that those who join later are potentially up for a loss.

(iv) Greed or the need to gain quick and high returns seems to be one of the main motivations

With the current rise in cost of living and the uncertain economic conditions, it is understandable for most people to seek out alternative methods to earn more income. A trend that we observe during our qualitative interviews with scam victims was that most respondents admitted that they fall for the scam out of greed and the idea of getting a high return in a short period of time was too hard to resist.

(v) Information avoidance is apparent even if the individual themselves are not aware of it

At ICMR's closed-door Behavioural Workshop, BNM and SC shared interesting insights with regards to complainants. Many of these individuals who came to lodge a complaint, to report or even to enquire about a financial scheme which happened to be a scam are not open or receptive to the fact that these schemes were illegal, and that they had been scammed. BNM and SC also shared that upon enquiring, many seemed resistant to the information that BNM and SC shared with regards to scams. Furthermore, complainants who came to report on scam activities are usually those who came after losing money to the scheme.

38 Festinger, L. (1957). A theory of cognitive dissonance. Stanford: Stanford University Press

The theory of behavioural economics posits that people do not always act rationally or consistently in the face of information, highlighting that information alone is insufficient to influence our decisions. While there is much research that focuses on how information affects decisions, there are also studies done on situations where individuals avoid information altogether.

Information avoidance in behavioural economics refers to situations in which people choose not to obtain knowledge that is already openly available (Golman et al., 2017). Some examples of information avoidance include inattention, biased interpretation of information (confirmation bias) and/or even forgetting information. For instance, behavioural finance research has shown that investors are less likely to check on their portfolio when the stock market is down compared to when the stock market is performing well, which has been termed as the ostrich effect (Karlsson et al., 2009). It is also reflected that people tend to only search for information once they have lost money from their investments or from scams.

Ostrich effect

A cognitive bias that describes how people often avoid negative information even if it is important for them. Instead of dealing with the situation, people often bury their heads in the sand, like ostriches. This avoidance can often make things worse, incurring costs that we might not have had to pay if we had faced things head-on.

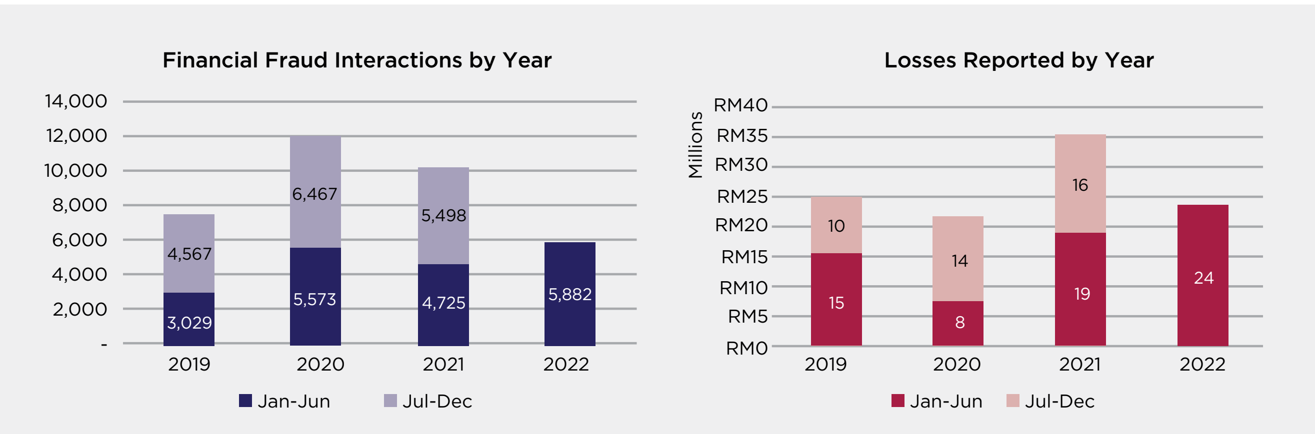
While information avoidance can sometimes be a strategic method to protect oneself from negative psychological consequences of knowing, it usually causes more negativity in the long term as it deprives individuals of potentially useful information for future decision-making.

(vi) Scams have become more advanced and sophisticated

With the rise of digitalisation, high reliance on the internet and social media, coupled with difficult financial constraints, scams have evolved to be more advanced and creative in trapping new victims.

During ICMR's closed-door Behavioural Workshop, BNM and SC also shared that there was an upward trend of reported scam cases.

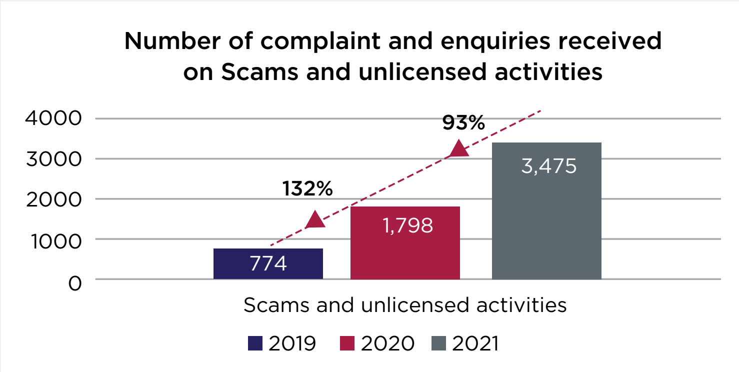
Figure 32:
Trend of financial fraud reported by BNM



Source: CRM and BNM

BNM reported that financial fraud interactions increased during the period Jan-May 2022 by 24% from the same period in 2021. The losses reported also increased by 25% for the period Jan-May 2022 from the same period in 2021.

Figure 33:
Trend of complaints and enquiries received on financial scams by the SC



Category of Scams	2019	2020	2021	1H 2022
Clone Firm Scams	0	56	132	84
Scam/Misuse of SC's name/Logo	5	18	52	41
TOTAL	**5**	**74**	**184**	**125**

Source: SC

The SC also shared that there had been a stark increase in scams reported to the SC during the pandemic. The types of scams varied from 'clone firm' scams to misusage of the SC name and logo, and most of the scams involved banking funds into mule accounts. An example of a case that the SC was investigating in 2022 was a type of clone firm scam involving an advance fee scheme. This clone firm scam targets investors who are looking to invest a relatively smaller sum of monies but searching for significant returns. In May 2022, SC disclosed their findings of its investigation of 10 clone firm scams, where the modus operandi typically involves using social media for advertisements, having a large base of "agents" to lure potential victims, and requesting victims to deposit money for their "investment schemes" into mule accounts. Most of the victims involved declined to cooperate with SC as they had only lost small amounts of monies. However, by reviewing the bank statements of at least 32 mule accounts that had being identified, SC estimated at least RM24.7 million to have flowed to the "masterminds" of such scams. Although the victims admit that they invested out of greed, through our findings we believe that other factors and drivers as mentioned in the earlier sections above play a collective role to drive and influence people to fall for scams. The feeling of not having enough, coupled with social pressures and the fear of missing out on a chance to earn a little extra income can drive a person to take risks and invest in such schemes.

Who Are Vulnerable Investors? - A Clustering Analysis

To better understand the prevalence and distribution of investor vulnerability, further empirical analysis was performed to identify clusters of respondents who share common characteristics and may be more likely to face harm. Given the multifaceted nature of investor vulnerability, several methods of analysing the data were utilized to achieve a more holistic view. This special focus thus briefly outlines the methodology and findings from a clustering analysis of the survey data.[39]

The previous section of the study focused on the potential **drivers** of vulnerability (behavioural & access, situational, industry-related), providing a landscape of what vulnerability could look like for today's investors. This special focus approaches vulnerability from a different angle, and looks instead at quantifying the **outcomes** of vulnerability, i.e., situations where vulnerable investors are more likely to face issues or harm.

In the nationwide survey, respondents were asked to indicate their experiences with regards to several common but conceptually different vulnerability outcomes in separate sets of questions. Being a vulnerable investor could mean being more likely to be solicited for and fall victim to scams, face long-term issues such as being unable to prepare adequately for retirement, or even everyday difficulties while investing. For the purposes of analysis, the study chose to focus on these three outcomes of investor vulnerability, i.e., (i) *scam susceptibility*, (ii) *retirement inadequacy*, and (iii) *exclusion & inaccessibility*.

How vulnerable are you? | *Assigning scores of vulnerability to each respondent*

Within each set of survey questions that relates to a vulnerability outcome, the respondents were asked to indicate whether they have experienced that particular form of vulnerability (e.g. "Have you ever lost money / invested in something as a result of scams?" or "Do you think your current savings and/or your EPF savings are insufficient for your retirement?"). If a respondent answered in the affirmative, they are assigned a score of "1" (or "0" otherwise) for that particular question. The scores to these questions are then summed up to obtain a vulnerability index for each respondent, where higher scores indicate a higher degree of susceptibility to the specific vulnerability outcome.

The same exercise is performed separately for each of the three vulnerability outcomes, resulting in each respondent being assigned three scores of vulnerability. As these scores are independent of each other (the question sets are mutually exclusive), a respondent could have a high score for a particular vulnerability outcome and a low score for the others, and vice versa. Finally, a *total vulnerability* score for each respondent is calculated by adding up the standardised scores across all three vulnerability outcomes.

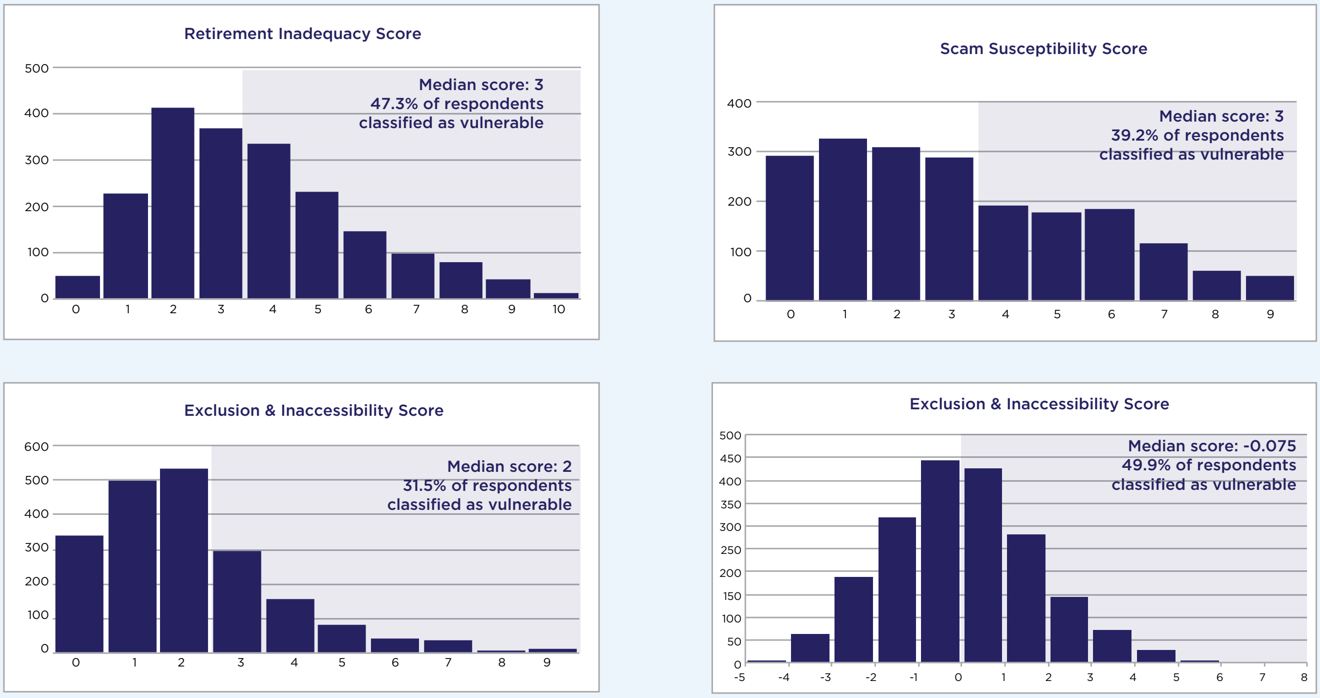
To illustrate, a respondent with a high *retirement inadequacy* score might have described – via the survey – their current financial health status as financially unstable with less than 1 week of emergency savings, and their current level of savings as being insufficient for retirement. Alternatively, a respondent with a high *scam susceptibility* score

39 A more detailed discussion of this empirical study, together with the econometric analysis, will be published in a forthcoming accompanying technical paper in 2023.

might have indicated that they had lost money to scams on multiple occasions, or would invest in scams disguised as legitimate investment opportunities.

Respondents are then classified as "vulnerable" if they score above the median for each vulnerability outcome. Figure 1 below shows the distribution of vulnerability scores across *scam susceptibility, retirement inadequacy, exclusion and inaccessibility,* as well as *total vulnerability*, and the percentage of respondents classified as "vulnerable" in each category.

Figure 1:
Distributions of vulnerability outcomes



Do the more vulnerable share certain characteristics? | *Clustering Analysis*

To identify if respondents which are vulnerable to the vulnerability outcomes share common demographic traits, clustering analysis was performed to group respondents into mutually exclusive clusters of similar characteristics. An example from the literature which adopted a similar approach could be found in the research findings of the 2018 OECD Economic Survey of the United States, where the authors undertook a clustering analysis to identify homogenous clusters of households which are financially vulnerable.[40]

An unsupervised machine learning method, k-means algorithm, was applied to obtain the clusters. The k-means algorithm assigns each respondent to a specific cluster based on its "distance" from the centre of the cluster, where the "distance" is a measure of similarity between two points for all "features" (i.e., the demographic characteristics of the respondents in this study).

As a result, respondents that are grouped in the same cluster share similar demographic characteristics,

40 Azzopardi, D., et al. (2019), "Assessing Household Financial Vulnerability: Empirical evidence from the U.S. using machine learning", in OECD Economic Survey of the United States: Key Research Findings.

which in turn differs from the other (mutually exclusive) clusters. The demographic traits used in this study include but are not limited to gender, age, ethnicity, geographical location, education level, employment status, digital and financial literacy, knowledge and experience of capital markets (CM), language proficiency, physical and mental health conditions, as well as emotional resilience.

The tables below show the clustering of vulnerable respondents for each of the vulnerability outcomes. As with all implementations of the k-means algorithm, the number of clusters is predetermined, in this case using the elbow method, and is not necessarily the same for each outcome. The defining demographic characteristics for each cluster are described in each table cell, whereby the highlighted characteristics are common to at least 75% of respondents in the respective clusters.

Table 1 Clusters of Vulnerable Respondents for Retirement Inadequacy
(47.3% of total respondents)

Cluster 1 – *13.4% of respondents* **Urban, married, post-SPM educated, employed full time** Digitally & financially literate, lower language barrier, average age 42	**Cluster 2** – 11.4% of respondents **Married, urban, low-income household** Bumiputera, lower digital and financial literacy, higher language barrier, average age 51
Cluster 3 – *11.0% of respondents* **Urban, single, working adults** Lower CM knowledge and financial literacy, lower emotional resilience, average age 32	**Cluster 4** – *6.1% of respondents* **Rural residents** Bumiputera, lower CM knowledge, lower digital and financial literacy, higher language barrier, average age 42
Cluster 5 – *2.8% of respondents* **Young, single, female, student** Lower CM knowledge, digital and financial literacy, average age 21	**Cluster 6** – *1.6% of respondents* **Urban, separated** Bumiputera, digitally literate, lower emotional resilience, average age 49
Cluster 7 – *1.1% of respondents* **Female, widowed, elderly, urban, low-income household** Bumiputera, low digital and financial literacy, high language barrier, average age 56	

For the *retirement inadequacy* vulnerability outcome (Table 1), the seven distinct clusters of vulnerable respondents range from married individuals living in urban areas who are educated at post-SPM levels and employed full time, to elderly widowed female individuals from low-income households in urban areas. This suggests that retirement inadequacy affects a spectrum of individuals from young to old, urban to rural, and is not specific to a particular demographic group.

Table 2 Clusters of Vulnerable Respondents for Scam Susceptibility (39.2% of total respondents)	
Cluster 1 – *13.0% of respondents* **Urban, married, post-SPM educated, employed full time** Digitally & financially literate, average age 38	**Cluster 2** – *11.6% of respondents* **Young, urban, single, post-SPM educated** Average age 27
Cluster 3 – *6.5% of respondents* **Urban, SPM educated** Lower digital literacy and CM knowledge, average age 35	Cluster 4 – 5.7% of respondents **Rural residents** Bumiputera, lower financial literacy, average age 30
Cluster 5 – *1.6% of respondents* **Urban, low-income household, did not complete SPM, poorer health** Lower CM knowledge & financial literacy, low emotional resilience, average age 31	Cluster 6 – *1.0% of respondents* **Married, urban, retirees** Bumiputera, low digital literacy, high CM knowledge, higher emotional resilience, average age 57

Similarly, a wide range of demographic groups are affected by the *scam susceptibility* vulnerability outcome (Table 2), including those with varying levels of age, digital and financial literacy, and income, as similarly noted in the section on special focus on scams. Nonetheless, there are still certain common characteristics that can be identified among respondents who are more susceptible to scams – **in particular, these respondents on average, had in common higher language barriers and lower knowledge and experience with the capital market, compared to the average profile of the total respondents.**

Table 3 Clusters of Vulnerable Respondents for Exclusion & Inaccessibility (31.5% of total respondents)	
Cluster 1 – *9.4% of respondents* **Urban, married, post-SPM educated, employed full time** Bumiputera, poorer health and emotional resilience, digitally and financially literate, average age 36	**Cluster 2** – *8.8% of respondents* **Young, single, low-income household** Bumiputera, lower CM knowledge and financial literacy, average age 25
Cluster 3 – *6.9% of respondents* **Urban, married, low-income household** Bumiputera, lower digital and financial literacy, higher language barrier, average age 49	**Cluster 4** – *6.5% of respondents* **Urban, post-SPM educated, employed full time** Chinese, financially literate, average age 34

Turning to the exclusion & inaccessibility outcome (Table 3), the number of distinct clusters of vulnerable respondents for this outcome are fewer compared to the other two, and appear to be more concentrated among urbanites. Those facing higher exclusion and inaccessibility also tend to experience higher language barriers, lower capital market knowledge, poorer health, and lower digital literacy compared to the average profile of the total respondents.

Table 4 Clusters of Vulnerable Respondents for Total Vulnerability* (49.9% of total respondents)	
Cluster 1 – *14.8% of respondents* **Young, urban, single, post-SPM educated** Low CM knowledge, poorer cognitive health, lower emotional resilience, average age 27	**Cluster 2** – *14.2% of respondents* **Urban, married, post-SPM educated, employed full time** Digitally and financially literate, poorer cognitive health, lower emotional resilience, average age 40
Cluster 3 – *10.8% of respondents* **Urban, married, low-income household** Bumiputera, lower digital and financial literacy, higher language barrier, average age 49	**Cluster 4** – *7.6% of respondents* **Rural residents** Bumiputera, lower CM knowledge, higher language barrier, lower financial and digital literacy, average age 35
Cluster 5 – *1.8% of respondents* **Urban, separated** Bumiputera, digitally literate, average age 45	**Cluster 6** – *0.8% of respondents* **Urban, widowed, female, low-income household** Bumiputera, low digital & financial literacy, higher CM knowledge, higher emotional resilience, average age 54

Finally, the clusters for total vulnerability (Table 4) reinforce the findings that vulnerability cuts across various demographic traits and is not concentrated among certain characteristics such as age or education levels. In particular, demographic groups which are potentially vulnerable on an aggregate basis are rather diverse, which include the single, educated and young urbanite cluster (14.8% of total respondents), married, full-time employed and educated middle-aged urbanite cluster (14.2% of total respondents), married low-income urban household cluster (10.8% of total respondents) as well as the rural resident cluster (7.6% of total respondents).

How These Findings Inform Our Understanding of Investor Vulnerability

These findings from the clustering analysis underscore the understanding that investor vulnerability is a multifaceted phenomenon. They also suggest that attempts to define investor vulnerability narrowly based on certain characteristics might not be sufficiently comprehensive. Instead, a principles-based or holistic approach by capital market players and intermediaries could perhaps be more effective in identifying potential vulnerability across a diverse range of investors.

While the clustering exercise has indicated high-level demographic groups which may be more vulnerable, a more robust method to identify specific drivers of vulnerabilities would be to perform regression analysis between the degrees of vulnerability and the demographics as well as personal characteristics of the respondents. Findings from this second part of the econometric study will be presented in a forthcoming technical paper in 2023.

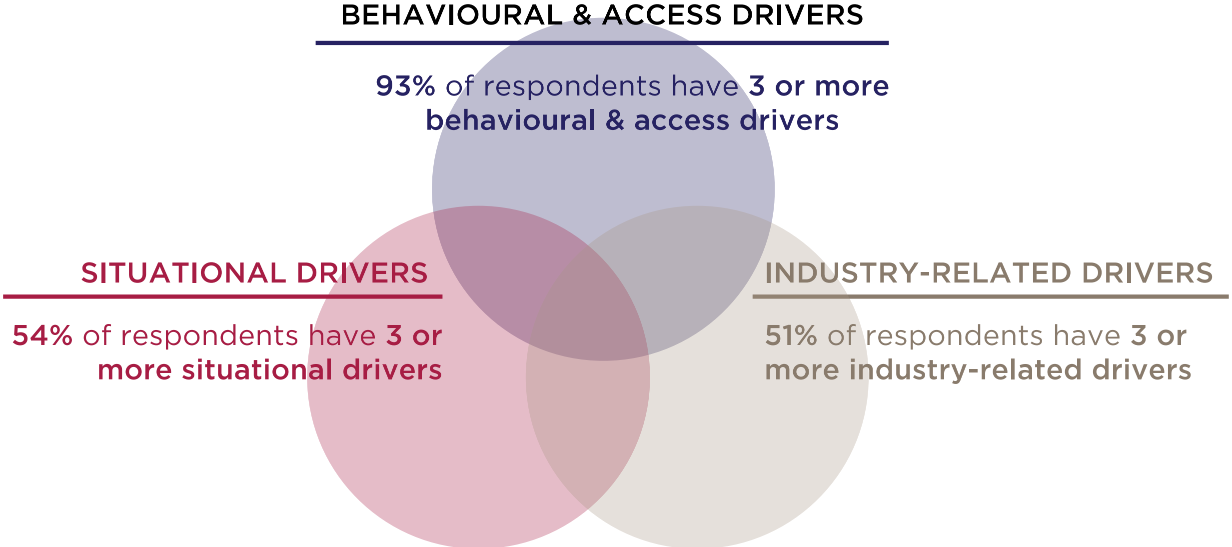
Chapter Four

Conclusions and Recommendations

Summary of Vulnerabilities found in Malaysia

Making good financial decisions is not an easy task for most people. It involves overcoming present bias and considering the satisfaction of short-term gains against the things that are beneficial for us in the long-term. But the challenges of making good financial decisions get even more difficult when factors such as stress, health and situations make a person vulnerable and hinders one from making optimal decisions with a sound mind. This is particularly evident from our survey findings where 93% of respondents reported to have experienced 3 or more behavioural and access drivers which could contribute to higher investor vulnerability (Figure 34).

Figure 34:
Summary of Vulnerabilities Drivers



Delving deeper into the distribution of vulnerability drivers by investing experience, we can see that there is a shift in the type of vulnerability drivers experienced by Groups A, B and C (Figure 35). Those in Group A who do not invest seemed to be more exposed to “Behavioural and Access” drivers. The exposure to “Behavioural and Access” drivers decrease in Group B and Group C who have more diverse investments. **This potentially indicates that those who have the means to invest could also be those who have better savings behaviour, are heathier, more financially literate and may be in a better financial state thus are not driven by vulnerability caused by behaviour and lack of access.**

Figure 35:
Distribution of vulnerability

GROUP A	GROUP B	GROUP C
DO NOT INVEST IN CAPITAL MARKET	INVEST ONLY IN ASB, ASNB & UNIT TRUST	INVEST IN VARIOUS CAPITAL MARKET PRODUCTS
26%	33%	41%
96% of respondents have **3 or more behavioural & access drivers**	94% of respondents have **3 or more behavioural & access drivers**	89% of respondents have **3 or more behavioural & access drivers**
47% of respondents have **3 or more situational drivers**	57% of respondents have **3 or more situational drivers**	56% of respondents have **3 or more situational drivers**
38% of respondents have **3 or more industry-related drivers**	50% of respondents have **3 or more industry-related drivers**	61% of respondents have **3 or more industry-related drivers**

Interestingly, "situational" drivers seem to be distributed evenly across all three groups while industry-related drivers have the highest impact on those in Group C. These findings are consistent as Group C individuals are more involved in investing and hence are directly impacted by the conduct of financial consultants/agent/advisors.

While the characteristics of vulnerabilities may cut across all three drivers, several key considerations have to be taken into account namely:

Overlapping vulnerabilities. Our research found that vulnerability is not easily categorisable and that different 'types' of vulnerability are frequently overlapping and closely interconnected in practice – meaning that distress and suffering (including financial difficulties) are not always easily attributable to a particular 'cause'. Some cases of vulnerability are more straightforward, yet even with these more straightforward cases, the experiences within each vulnerability category are often as diverse as the experiences of vulnerability across the group as a whole.[41]

Discretionary income may be a stronger barometer of vulnerability. Through our surveys, we observed that an objective measure such as household income is not the only determinant, but instead, discretionary income may matter more as it also impacts individuals' mental stress levels and influences their savings behavior. This was not only evident in B40 and M40 households, but also found in the T20 income group. This also shows that money problems and mental stress issues can have strong feedback loops where worsening finances can lead to health and mental stress and vice versa.

Malaysians lack good savings behaviour and habits. Contrary to economic fundamentals, the low-income group felt richer during the pandemic which has ultimately created a perception shift on the use of EPF accounts, where it is seen by some as a source of short-term emergency funds rather

41 FCA (2014). Vulnerability exposed: The consumer experience of vulnerability in financial services

than retirement savings. We also found that people, especially those from the lower income bracket tend not to allocate towards different savings goals but instead prefer to mentally place their savings in a single pool.

The pandemic has worsened retirement savings adequacy. In our interviews, 75% of those interviewed felt that their savings will not last 20 years and the majority of those who are older than 41 years old do not meet EPF's basic savings target. There is also a need for more post retirement financial products and guidance.

From a behavioural perspective, we found that those with **low financial literacy** tend to be the ones who are **overconfident**. Through our interviews, we observed that **only 39% scored more than 80%** in basic financial literacy test however, a resounding **67% were highly confident** of their financial understanding. Furthermore, the shift to online sources has also been apparent where **61% rely on internet / online sources** for information as **financial documents have been found to be too complicated for them to comprehend.**

In terms of the state of health, we found that the youth **face mental illness and learning difficulties** where **20% face severe health issues** that impact their day-to-day abilities while **29% youth faces learning difficulties** and **27% of youth have some form of mental illness.**

Situational events have also impacted a majority of respondents in which **60%** were **negatively impacted by their living expenses outpacing their income** and **61%** were **impacted by difficult situations** or changes.

Our findings also suggest that **industry standards need to be urgently reviewed** to quell the rise of vulnerable groups in Malaysia. In this case, **83% of those who sought advice have faced multiple difficulties** and **70% were exposed to misconduct** from their service providers. Given this, there is an urgent need to introduce **new guidelines on client servicing and in particular** should have more emphasis on **post-sales conduct**.

Lastly, we found that **scammers do not discriminate**. This is illustrated by the fact that **84% had received advice that turned out to be a scam** and **36%** of respondents **had lost monies to a scam and out of that, 37% lost money to scam repeatedly.** The scams have cut across **all groups of population** surveyed and those susceptible were driven greatly by **greed and herding behavior from family/friends' influence.**

The above circumstances have ultimately impacted one's mental capacity to make good and sound financial decisions.

Moving forward through a dual approach

Given the complexity of the challenges faced, ICMR is of the view that a dual and systematic approach is required to address investor vulnerability amongst Malaysians.

Firstly, there is a need to build financial resilience across the population. A lack of financial resilience cuts across all drivers of vulnerability identified in this report as it is predominantly linked to 'behavioural and access drivers' and is also an equally important factor when dealing with issues which are out of one's control, as is found in cases of 'situational drivers'. Additionally, the lack of financial resilience would make people less equipped and more prone and susceptible to 'industry-related drivers' of vulnerability. This requires addressing the intersectional vulnerabilities, which have been shown to be a multi-faceted phenomenon and includes addressing both structural and individual barriers to improve financial wellbeing and resilience.

Secondly, the building of financial resilience must then be complemented with a targeted approach to improve protection of vulnerable investors. Emphasis needs to be placed on the regulators, market intermediaries and agencies to better identify and manage vulnerable investors. Regulators then need to focus on the "duty of care" and provide guidance to market providers and firms on fair treatment of vulnerable customers coupled with investor protection measures.

Building financial resilience

- **Role of Government – consistent policies, structural issues**

It is crucial to acknowledge that there are underlying structural challenges that cannot be solved purely by market-based solutions. Some individual barriers faced by certain segments of the population to be able to save or invest, include structural constraints which are embedded such as sluggish wage growth, underemployment especially for youths, mismatch between labour demand and supply and lack of social safety nets.

A whole-of-nation approach which goes beyond the ambit of any single regulator or agency may be needed for holistic reforms which tackle both the structural and individual challenges. Policymakers and regulators will need to focus their efforts towards building financial resilience through strengthening the savings and investment habit among Malaysians to help them be better placed to weather financial vulnerabilities.

The government must also ensure consistent policies and messaging of policies so as to shape consistent behaviour across the population. A case in point is with regards to the role of EPF. While EPF has been mandated to hold one's savings for post-retirement, allowing EPF withdrawals during the pandemic has now led to many viewing EPF not as retirement savings but as a source of emergency funds. This shift in perception, especially for those with low financial literacy will have unintended consequences in the longer-term and exacerbate the retirement inadequacy challenge.

- **Tiered and nuanced approach**

There is no one silver bullet to address vulnerability, and policy actions need to be taken in a nuanced and tiered approach. A tiered approach was also recommended in our previous report on the Rise of Millennials and Gen Z where we felt that such an approach will help policymakers and industry players alike to cater for investors at different levels of readiness, be it from the perspective of income, financial knowledge, risk tolerance or financial confidence, among others. A tiered and nuanced approach including the review of incentive structures complemented with behavioural nudges can help shape the necessary savings and investment behaviours. It can also help to gradually ease investors from one stage to another.

Example of adopting a tiered approach to policy:

Group A

- Reach out to those who are uniformed & uninterested via mediums like TikTok
- Inculcate savings habit from a young age
- Discretionary income management/advisory
- Facilitate savings amongst lower / irregular income group via **save more tomorrow and sidecar initiatives**
- Enhance access to capital markets via **micro-investing**

Group B

- Continuous financial education with a focus on online platforms
- Encourage behavioural interventions that build investment habits like auto enrolment and defaults
- Leverage on peer influence to encourage desired financial behaviour
- Introduce products that are low-cost, low-risk and easy to understand
- Increase online presence & digital platforms

Group C

1. Broaden awareness of newer capital market products – ECF/ P2P/ DAX etc.
2. Increase products in ESG impact space
3. Move towards providing holistic financial advisory rather than agency model
4. Provide more products suitable for retirement e.g. reverse mortgages

Addressing this may require "nudging". Nudges are part of a wider toolbox consisting of education and training, economic incentives (subsidies, taxes), enablement or restriction, and environmental restructuring (physical or social context) that specifically focuses on using behavioural levers to achieve effects. The principle of a good nudge is that it should be simple to understand with low implementation cost.

Nudge

Nudge is a choice architecture that alters and influence people's behaviour and decision making by placing small, practical stimuli or "nudges" to guide people towards the decision that benefits them the most in the long term without forbidding any options or significantly changing their economic incentives.

Examples of 'nudge' initiatives that drive savings and investment by leveraging behavioural science include:

Save more tomorrow

Save More Tomorrow is a behavioural intervention pioneered by Richard Thaler and Shlomo Benartzi that is designed to make saving for retirement as easy and painless as possible. The intervention consists of three central components.

First, people commit now to saving more in the future. This helps them avoid present bias. Second, planned increases in savings rates are linked to future pay raises. This minimises the influence of loss aversion since take-home pay never decreases. Third, once employees are enrolled in the program, they remain in the program unless they opt-out. This makes good use of inertia.

By taking mental weaknesses into account, Save More Tomorrow helps us overcome them, allowing workers to make financial decisions closely aligned with their financial needs and long-term goals.

Sidecar savings

Sidecar savings is also a behavioural intervention to encourage saving for retirement. A sidecar account is an instant access savings account that is tied to a pension. A sidecar would allow account holders to access savings in the case of an emergency hence trying to create an optimal balance between liquid and illiquid savings.

There are different models of sidecar accounts. A two-account model is being trialed in the UK. Under a two-account model, a saver makes savings into a sidecar account up to a specified savings cap. Once the savings cap is reached, extra savings are then added on top of the normal pension contributions, thereby adding to pension savings. If a person withdraws money from the sidecar, they then begin saving again in the sidecar until the savings cap is reached again.

Micro- investing

Micro-investing is just like normal investing, only done on a much smaller scale. Instead of using a large amount of money as the collateral, micro investing is done with smaller amounts of money like your spare change.

Usually, the applications will make micro-investing easier. When you connect a debit card, some micro-investing apps can even round up your purchases to the dollar or make automatic transfers and invest your money for you. This helps build an investment habit.

Dealing with vulnerable investors

- **Better identification of vulnerable investors**

ICMR's study on the key drivers of vulnerability has identified several trigger points such as financial status with regards to one's discretionary income and perceived financial status, health status, level of retirement savings, level of financial literacy, impact of recent events, previous experience in making an investment and dealing with a service provider as well if one has been scammed before.

In order to be able to identify if a possible investor could be vulnerable, it is proposed that the current Know-Your-Client (KYC) process be further enhanced with introduction of these trigger points into the process. Also, this assessment should be done on a more regular basis preferably every 6-12 months as one's situation is not static and needs to be recalibrated accordingly.

- **Role of regulators to enhance duty of care and capital market intermediaries to strengthen their internal processes**

The jurisdictional study on regulatory approaches to investor protection for vulnerable investors found that most regulators have general rules of protection for all investors, including those who are vulnerable. These general guidelines for advice and financial services often already require that the service provider or professional appropriately considers the knowledge, experience, financial situation, and risk profile of the individual investor during service provision.

At the same time, several jurisdictions also employ unique strategies or targeted programs to specifically protect certain vulnerable groups and address the needs of particular investors such as senior investors, both through actions taken by the regulator and also guidance for firms. This targeted approach is distinct from the general rules of protection for investors as a whole and could include enhanced suitability assessments and regulatory oversight as well as educational and training programmes. The summary table below highlights some of the actions introduced by regulators globally to protect vulnerable investors.

Summary Table of Actions Taken to Protect Vulnerable Investors

Action by the regulator ***What existing regulators do for investor vulnerability***	**Guidance for firms** ***Types of existing guidance to protect vulnerable investors***
Training programs and procedures to strengthen client financial capability and firm skills **1. Public education and outreach informed by drivers (SEC, FINRA, NASAA)** **2. Train client-facing employees to recognise signs (SEC, FINRA, NASAA)** **3. Regulatory sandbox for innovations against fraud/scams, support financial resilience and access (ASIC)** **4. Use research, education, and regulatory tools to strengthen financial capability (FCA)** **5. Mystery shopper programmes (MAS, HKSFC)** **Segment outreach** **6. Identifying segments such as senior investors (SEC, FINRA, NASAA), indigenous and culturally and linguistically diverse communities (ASIC)** **Specific Acts or Provisions** **7. Delaying disbursements or notifying third parties if financial exploitation and vulnerability is suspected (SEC, FINRA, NASAA)** **8. Guidance for firms on fair treatment of vulnerable customers, circulars on investor protection measures (FCA)** **9. Enhanced frameworks for financial advisors (MAS,** HKSFC**), required cooling-off period (**HKSFC**)** **Enhancing supervisory oversight** **10. Focused examination of firms serving senior investors,** **11. Prosecution of scammers preying on vulnerable groups (SEC, FINRA, NASAA)** **12. Surveillance and review of products and markets (ASIC)** **13. Independent panel to review product recommendations made to vulnerable clients (MAS)**	**Know your customer and suitability assessments** • Understanding customer needs, vulnerability that exists in target market and customer base, impacts, harms, disadvantages, • Developing skills and capability, • Product and service design, • Customer service, communications (FCA) • Enhanced requirement, offence if no check on client vulnerability (MAS), enhanced assessment framework (HKSFC) **Trusted-third party** • Requirement for reasonable effort to obtain to obtain trusted third party if client triggers vulnerability concerns (SEC, FINRA, NASAA), trusted individual when investment recommendations are made (MAS), option to bring a companion or have another staff present (HKSFC) **Documenting contact** • In case of recall problems or misunderstandings, perform pre-transaction call-backs, audio recordings for clients, specific products with risk mismatch or complexity (SEC, FINRA, NASAA, MAS, HKSFC) **Develop escalation procedures** • To document and escalate immediately (to whom, when, trained to do this at the first sign of vulnerability) (SEC, FINRA, NASAA) **Controls and monitoring** • Monitoring and evaluation (FCA) • Enhancing supervisory oversight for accounts with vulnerable clients (SEC, FINRA, NASAA), independent unit to sample and review transactions involving higher risk clients (MAS)

As these examples show, regulators play a crucial role in advancing investor protection and overseeing the conduct of market intermediaries. In the survey, many respondents felt that they had experienced mistreatment at the hands of a financial service provider. A vulnerable investor's experience and outcomes of vulnerability can also worsen if a firm does not take an appropriate level of care when dealing with that investor. Evidently, there is a pertinent need for those in the business of giving financial advice and sales of capital market products to enhance their duty of care.

As such, it would be prudent for regulators governing the conduct of market intermediaries to consider and incorporate an understanding of investor vulnerability into policies for investor protection, whether in the form of formal guidelines, through training and supervision of financial service providers, or through enhanced education and awareness of investors themselves.

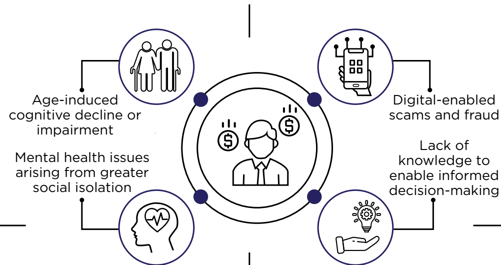
In Malaysia, financial regulators have certainly been vocal on issues affecting investors such as unlicensed activities and scams, retirement inadequacy, as well as the inclusiveness of capital markets for retail investors. Given the prevalence of challenges facing today's investors, considering how investor vulnerability may affect these outcomes would be beneficial for future policy and research.

In line with this, the SC in September 2021 launched the third Capital Market Masterplan (CMP3) which identified "enhancing focus on protecting investors against vulnerabilities" as a strategic consideration, with the "identification and assessment of vulnerable investors" being one of the priorities over the next five years, as illustrated in the diagram below.

The CMP3 recognises that the reasons for investor vulnerability is multifaceted, which may be driven by factors such as financial circumstances, age, geographical location, knowledge of financial products and investment experience, digital literacy and changing personal circumstances.

Securities Commission Malaysia - Capital Market Masterplan 3

Sets out the SC's vision for protection of vulnerable investors



Identifying vulnerable investors	Enhancing frameworks	Reducing harm
"Moving forward, the SC will place emphasis on the identification and assessment of vulnerable investors." (pg. 90)	"In the SC's assessment, ... the current framework does not consider the vulnerability of investors at different life stages, although such vulnerabilities may adversely affect their judgement when making investment decisions." (pg. 91)	"Growing complexities in investment products also expose investors, particularly those who are vulnerable and more susceptible, to exploitation, poor sales practices and misleading financial advice." (pg. 92)

"The underlying reason for the state of vulnerability can be multifaceted."

"...financial circumstance of investors, experience, age, education, literacy and socio-economic background, location, changing personal circumstances... can also be determining factors in increasing investors' susceptibility to fraud and malfeasance by unlicensed persons." (pg. 94)

In tandem with this, capital market intermediaries will also need to strengthen their own internal processes when dealing with potentially vulnerable investors.

Collaboration and Role of Behavioural Insights for more effective implementation of recommendations

Creating policies and initiatives alone may not be enough to address the rising issues of vulnerability. To ensure effective implementation of these initiatives, financial vulnerability must be viewed across the value chain. Our report has shown that vulnerability drivers can impact individuals at many different life stages, situations, health level, even different experiences with the industry. It is a combination of behavioural as well as structural issues which falls and cuts across the purview and jurisdictions of different agencies.

Behavioural insights should be incorporated into every stage of a policy cycle, from policy development all the way to post-implementation. While this may require embedding experimentation using a rigorous methodology such as a Randomized Control Trial (RCT) into the policy cycle, it could eventually reduce the need for corrective measures once a policy is at the implementation stage.

Randomized Control Trial (RCT)

RCT is a trial in which subjects are randomly assigned to either a treatment group or a control group. The treatment group receives the intervention being studied, while the control group receives either no intervention or a placebo. The effects of an intervention or treatment are measured by comparing outcomes between the groups.

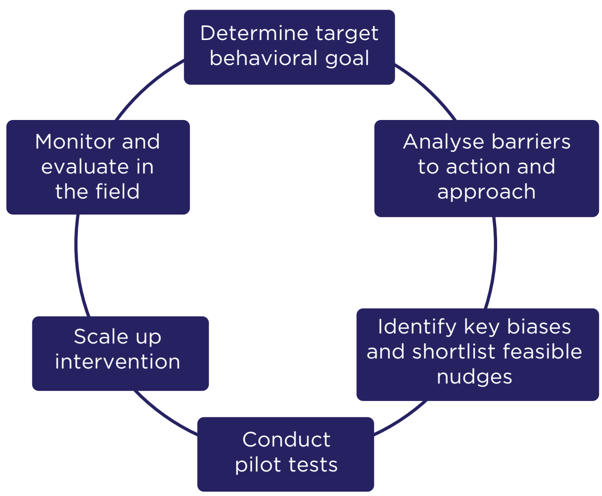
Policymakers can also leverage this understanding to evaluate the effectiveness of policy implementation and hone regulations accordingly. Behavioural insights can also capture the unintended consequences or knock-on effects of certain policies, which regulators may not have been measuring or looking out for in the first place. Correspondingly, policymakers should consider leveraging behavioural insights and behavioural nudging to mitigate any potential negative spill-over effects when designing incentive structures.

Before applying a behavioural intervention or nudge, a few processes are needed (Figure 36).

Policymakers will need to:

1) determine specifically the target positive behavioural goal,
2) identify and analyse possible barriers and the approach to overcome it,
3) identify main key biases and respective nudges to tackle each bias,
4) conduct a pilot test or RT,
5) scale up the intervention, and
6) finally monitor and evaluate the intervention or nudge in the field. Post evaluation would then decide if the interventions were effective, or if other types of nudging are required.

Figure 36:
Putting Nudges into Practice



Conclusion

The COVID-19 crisis was a defining moment in global history. We were already faced with multiple complex challenges pre-pandemic– from the impact of IR4.0 and climate change, to an ageing nation and rising inequalities. The pandemic has accelerated these challenges and to a large extent, has exacerbated vulnerabilities affecting households and individuals' levels of financial resilience.

While economies tend to put the burden of financial wellbeing on the individuals themselves, the COVID-19 crisis has led to the shifting nature of risks impacting the most vulnerable segments of society. In order to move forward beyond the crisis, responsible finance will require instead that policymakers and the financial industry treat individual's financial wellbeing as a shared responsibility.

Findings from this vulnerability study carried out in 2022 provides valuable input in analysing the type of vulnerabilities that Malaysians are faced with. Observations and findings from this study present an important opportunity for policymakers to further deepen the study within the state of vulnerability in Malaysia and form initiatives in assisting individuals to plan for and make lasting behavioural changes.

Also, as vulnerabilities in Malaysia are multifaceted, complex, frequently overlapping and tend to be interconnected, a dual and systemic approach is required to address the issues. Firstly, holistic reforms must be undertaken to build greater financial resilience through a whole-nation approach with government, policymakers and regulators tackling both structural and individual challenges. This then needs to be complemented with a tiered and nuanced approach to target different levels of investors and gradually ease investors to move up from one stage to another along the savings and investment curve.

Secondly, efforts must also be focused on better identification of vulnerable investors coupled with an enhanced duty of care by capital market intermediaries for these investors. There is also a need to consider applying behavioural insights for more effective implementation of any initiative or interventions to curb issues revolving vulnerabilities.

Given the delicate environment and crossroads of change, there is a dire need for both ongoing research into some of these structural and individual barriers as well as for policymakers to take proactive steps now while we still have the policy space to make reforms and improvements for the longer-term.

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Appendix I

IPSOS quotas – IPSOS **target sample** recruitment quota representative of the Malaysia distribution.

Group	Distribution % (census 2020)	Quota
TOTAL		**2,000**
Gender		
Male	52%	1040
Female	48%	960
Age group		
18 to 24	23%	480
25 to 34	24%	500
35 to 44	20%	420
45 to 54	14%	300
55 and above	19%	300
Ethnicity		
Malay	69%	1388
Chinese	23%	464
Indian/Others	7%	148
Stratum		
MC/Urban		1700
Rural		300
Region		
North	21%	420
Central	28%	560
South	19%	380
East Coast	14%	280
East MY	18%	360
MHHI		
1,999 and below	8%	156
2000 to 2999	15%	292
3000 to 3999	13%	268
4000 to 4999	12%	242
5000 to 5999	9%	186
6000 to 6999	8%	156
7000 to 7999	6%	126
8000 to 8999	6%	112
9000 to 9999	4%	86
10000 to 10999	3%	66
11000 to 11999	3%	52
12000 to 12999	2%	44
13000 to 13999	2%	36
14000 to 14999	1%	28
15,000 and above	8%	150

IPSOS quotas – IPSOS actual sample recruitment quota representative of the Malaysia distribution.

Group	Distribution % (census 2020)	Quota
TOTAL		**2,019**
Gender		
Male	52%	1046
Female	48%	973
Age group		
18 - 20	8%	160
21 - 25	19%	377
26 - 30	12%	252
31 - 35	12%	242
36 - 40	12%	239
41 - 45	9%	182
46 - 50	9%	188
51 - 55	6%	125
Above 55	13%	254
Ethnicity		
Malay/Bumiputera	69%	1375
Chinese	23%	488
Indian/Others	7%	156
Stratum		
MC/Urban		1719
Rural		300
Region		
North	21%	418
Central	28%	601
South	19%	368
East Coast	14%	276
East MY	18%	356
MHHI		
1,999 and below	8%	171
2000 to 2999	15%	225
3000 to 3999	13%	315
4000 to 4999	12%	233
5000 to 5999	9%	205
6000 to 6999	8%	159
7000 to 7999	6%	115
8000 to 8999	6%	119
9000 to 9999	4%	97
10000 to 10999	3%	95
11000 to 11999	3%	44
12000 to 12999	2%	37
13000 to 13999	2%	21
14000 to 14999	1%	32
15,000 and above	8%	151

Appendix II – survey questions

Financial Status question

1. Which of the following best describes your current financial health status?
   a. Financial instability (negative cash flow, no savings and assets, debt exceeding income)
   b. Financial conservation (living paycheck to paycheck, low savings and assets, debt under control)
   c. Financial security (positive cash flow, savings 1-6 months' income, debt well managed)
   d. Financial wealth (positive cash flow, strong savings and assets, able to generate extra income, low to no debt)

Financial Literacy questions

1. You place RM1000 into a NO FEE savings account with a guaranteed interest rate of 2% per year. How much would be in the account at the end of the first year, once the interest payment is made?
   a. RM1,000
   b. RM1,020
   c. RM1,050
   d. RM1,200

2. Project A will either deliver a return of 10% or loss of 6%
   Project B will either deliver a return of 20% or loss of 12%
   Which description matches Project B?
   a. Higher return and lower risk than Project A
   b. Same average return and lower risk than Project A
   c. Lower return and higher risk than Project A
   d. Higher return and higher risk than Project A

3. Mark currently has an income of RM60,000 a year and the inflation rate is at 4% per annum. What income does Mark need in the future to be able to maintain the same living standard?
   a. RM60,000
   b. Less than RM60,000
   c. More than RM60,000
   d. I do not know

4. Kent took a property loan of RM600,000 with an interest rate of 3% per annum for 30 years. Kelly took a property loan of RM 600,000 with interest rate of 3% per annum for 35 years.
   The most accurate statement on their situation would be...
   a. Kent's monthly payments will be lower than Kelly's
   b. Kent's monthly payments will be the same as Kelly's
   c. Kent's total interest payment at the end of his term will be the same as Kelly's
   d. Kent's total interest payment at the end of his loan term will be less than Kelly's

5. Please select the best example of a diversified portfolio.
   a. Owning shares in three public listed companies
   b. Owning shares, saving cash in banks and investing in properties
   c. Saving my monies in four different bank accounts
   d. Investing in residential and commercial properties