Gold Investment Risk Behaviour of Working Adults in Perak: An Exploratory Study

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Abstract. Despite being considered a safe haven against inflation, gold investment does not generate regular income, such as dividends or interest. Being heavily reliant on capital gains, gold investment can be considered a risky investment. Yet, the demand for physical gold remains robust among Malaysians. There is confusion about whether the investment decision is based on saving or consumption. Thus, this study was conducted to explore the influence of saving habits, spending habits, and financial literacy on gold investment risk behaviour. Financial literacy was included due to its importance in personal financial planning. The findings of this study can verify the interrelations of saving, consumption and investment in the Keynesian investment theory. A convenient sampling approach was employed. A total of 149 working adults in Perak participated in the online survey. SPSS statistics version 26 was used for Pearson's correlation and multiple linear regression analyses. The regression results show that respondents who prefer to invest in risky investments are more financially literate and have a higher tendency to spend. The findings of this study support the fact that investment is made by people who want to save for future consumption.

Keywords Gold Investment, Risk Behaviour, Saving Habits, Spending Habits, Financial Literacy

1   Introduction

The process of investment planning can be complicated as investors are individually different in the aspects of financial requirements and expectations, such as investment for income generation, wealth creation, or building a retirement fund. In other words, investment decision-making is primarily based on the investor's status quo rather than rational consideration of given options under uncertainty [1]. In times of high market volatility, rising inflation, and hikes in interest rates, investors would seek derivatives to hedge against losses from their underlying assets. One of the most popular alternative assets among investors is gold [2].

Gold has been known as an element of luxury and riches for centuries. The rule of thumb for a gold investor is to buy while the price is low and sell at a profit, otherwise wait for the gold price to rise [3]. There are four types of gold investments in Malaysia, such as purchasing investment-grade gold (i.e., coins and bars), investing in gold mining or jewellery-producing companies' stocks, opening a gold exchange-

traded funds (ETFs) account, and owning digitized gold. As of 2022, Malaysia's gold investment has reached the eighth-highest demand in the world with an escalation of 25%, from 14.9 tonnes in 2021 to 18.5 tonnes [4]. Specifically, demand for gold bars and coins increased from 4.4 tonnes in 2021 to 5.8 tonnes. Meanwhile, gold jewellery investment was recorded at 17.3 tonnes [5].

Given the uncertainty in the world of economy, the financial market views gold as a reasonable inflation hedge. The majority of individual and institutional investors incorporate gold in their portfolios in order to maintain a balance between tangible and intangible assets. It lowers volatility and improves the risk-return equation. The performance of gold investment during the COVID-19 pandemic has been investigated to bolster this claim. However, there were inconclusive findings.

A study has found that the variations in the price of gold have a large positive impact on stock volatility in Indonesia, demonstrating the cautious attitude of investors toward purchasing gold during the crisis [6]. In China, Europe and the United States, gold has been observed to be a safe haven asset throughout the pandemic [7]. Likewise, gold has also been found to mitigate the risks of Asian equity portfolios [8]. Their further findings revealed three key conclusions: (i) In Indonesia, the Philippines, Thailand, Vietnam, and Malaysia, gold is regarded as a diversifier; (ii) in China, Japan, India, Hong Kong, Pakistan, Taiwan, South Korea, and Singapore, gold serves as a strong hedge and; (iii) in Indonesia, China, Singapore, and Vietnam, gold is a strong safe haven but a weak safe haven in Pakistan and Thailand.

There is ambiguity on how people view investing, whether it is primarily for saving to build wealth and leave a legacy or for future consumption. Studies have shown it is difficult to precisely determine the investment motives. According to a conceptual paper on socially responsible investments (SRIs), investors' goals are either to take advantage of new financial opportunities, avoid potential risks related to sustainability in social and environmental spheres, or promote initiatives that enhance both society and the state of the environment [9]. Further research on environmental, social and governance (ESG) investment has shown that due to investor's commitment to upholding their moral and social standards, maximizing returns is never the primary goal [10]. Likewise, rather than profit expectations, the decision to invest in Bitcoin hinges on whether the investor has the information and skills necessary to effectively manage their investment [11].

A study on Indian investors during the pandemic has found that decisions to invest were mostly driven by a number of factors, including the returns' safety, the need to save for the future of one's children, the desire to receive tax advantages, income generation, and prior loss experience [12]. Meanwhile, the possibility of selling at a greater price is often considered to be the main justification for investing in initial coin offerings (ICOs) [13]. In conclusion, previous research demonstrates that investment motives rely on the characteristics of the investor and the type of asset invested. As per the aforementioned findings, gold may be viewed as a risky investment, a diversifier, a hedge, or a safe haven asset. By investigating the investors' saving habits and spending habits, this study is able to identify which type of investor has a high tendency to invest in risky gold investment.

Several startling facts concerning Malaysians' level of financial literacy were revealed in a report by the Financial Education Network in Malaysia National Strategy for Financial Literacy 2019-2023: (i) One in three Malaysians rate their financial

knowledge as being low; (ii) one in ten Malaysians think they lack financial discipline; (iii) 92% of Malaysians still prefer deposit products, and (iv) Malaysian investors tend to overestimate the potential returns from capital market investments. They also demonstrated a lack of understanding of the risks involved. Inevitably, a person's financial literacy is crucial to accomplishing his or her financial objectives. Saving money and building wealth, being able to handle unexpected expenses and income shocks, managing debt well, and borrowing responsibly are all impacted by financial literacy [14]. Could Malaysians' gold investment be influenced by their financial literacy? This question led to the inclusion of financial literacy in the study.

The following list illustrates the specific objectives of this study:

i.   To examine the relationship between saving habits and gold investment risk behaviour of working adults.

ii.   To examine the relationship between spending habits and gold investment risk behaviour of working adults.

iii. To examine the relationship between financial literacy and gold investment risk behaviour of working adults.

The structure of this study is as follows. Related theories and earlier research on investment behaviour are reviewed in the second section. The data, sampling method, and key variables are described in the third section. The regression results are discussed in the fourth section. The conclusion and implications are presented in the final section.

2   Literature Review

2.1   Keynesian Economics Theory and Theory of Planned Behaviour

Keynesian economics theory is frequently used to explain the relationship between saving, consumption and investment. In the review paper by Snippe [15], several key assumptions were concluded based on Keynes's views. First, no amount of actual investment, no matter how large, can deplete and exceed the supply of savings. In other words, the quantity of investment that may be made is not determined by people's intentions and hopes for their future savings. Second, Keynes said that saving levels are the outcome of people's free decisions after taking into account their current circumstances. Third, the decision to consume or invest is contingent on the individual's financial capability. Savings must always increase in tandem with investments; savings can never be made before investments. Lastly, the decision to invest is motivated by the demand for planned consumption expenditures.

When there is more uncertainty about the future direction of real and monetary income, saving tendencies rise [16-17]. Saving and consumption are inversely related, but when consumption increases, investment rises as well [17]. Further findings show that savings are used not just to build wealth but also to prepare for future expenditure in the event of fluctuating income and as a preventive measure during difficult financial times [18]. Another crucial Keynesian assumption is that saving by households does not free up money for investment; rather, investment is motivated by profit expectations and wealth maximization, which in turn encourage greater saving [19-20].

Besides the Keynesian economics theory, this study also refers to the theory of planned behaviour. The theory of planned behaviour is an expansion of the theory of reasoned action, which claims that a person's behaviour is decided by his or her willingness to carry it out, to deal with actions under volitional control [21-22]. Therefore, a person who is highly motivated to invest typically believes that he or she has the necessary knowledge and skills to participate in the investment (perceived behaviour control). Therefore, the theory is able to explain the influence of financial literacy on the gold investment risk behaviour of working adults.

2.2   Past Studies on Investment Behaviour

Only selected past studies are reviewed. Particularly, those that have looked into the effects of savings, consumption, and financial literacy on investment behaviour. The discussions of the research findings are presented in this section.

Savings and investing are discovered to have an inconclusive relationship. It should be emphasized that older studies serve as additional references. Nasiru and Usman [23] explored the relationship between saving and investment for Nigeria over the period 1980 to 2011. Only when investment is used as the dependent variable, do their results show a long-term positive relationship between these variables. It suggests that rising savings will lead to rising investment. Their research confirmed the conclusions made by Ang [24] in Malaysia over the period of 1965 to 2003. Any modifications to domestic savings will be strongly related to modifications to investment.

However, Ngulube and Seshamani's [25] study shows contradictory findings. They examined the relationship between domestic savings and investment in Zambia based on time-series data from 1980 to 2016. From their findings, savings and

investment do not have a long-term relationship, co-movement, or inclination to converge. Further analysis demonstrates that investment is independent of domestic savings.

An intriguing study discovered a relationship between American retail investors' tendency to trade lottery-type stocks (defined as equities with extreme historical daily returns as lottery-like) and their alcohol consumption (an indication of sensation-seeking behaviour) [26]. This relationship would, however, only be possible in states where drinking and gambling are permitted. It suggests that the behaviour of local communities has an impact on how their members behave in the stock market. An indication that individual's consumption habits affect their choice of investment securities.

Kappal and Rastogi [27] did a qualitative study to determine the factors that influence the investing behaviour exhibited by women business owners in India. The data indicate that the main reason they invest is to become financially independent and for retirement. These ladies are discovered to be long-term investors; they make sure that their savings are greater than their projected outlays. Lack of knowledge about investment instruments and reluctance to take on the risk of probable financial losses are the main barriers to investing in equity.

The results of a different study conducted in India by Raut [28] on the stock trading behaviour of investors show the significance of financial literacy in regulating investing behaviour based on knowledge and information about financial terms and the stock market. Additionally, financial literacy fosters the ability of investors to make thoughtful, considered decisions. In Indonesia, it has been discovered that financial literacy positively influences investment decisions in Generation Z and the millennial generation [29]. Academicians, employees, and students from Mercu Buana University make up the respondents. The quality of a person's investment decision-making improves with their level of financial literacy. Similarly, Alaaraj and Bakri [30] came to the conclusion that greater financial literacy aids South Lebanon investors in making better investment decisions due to the quality of information obtained, awareness of the investment sector, and rationality to choose in accordance with their capacity and needs. A study by Ahmed et al. [31] on individual investors of the Pakistan Stock Exchange (PSX) revealed that highly risk-tolerant investors are found to be financially savvy investors when engaging in trading activities.

In a review paper by Maharani and Saputra [32], motivation, knowledge, and capital all contribute to investment interest. A person must have a reason or goal for making an investment in order to meet his or her needs; this reason or goal may be to improve one's financial situation or to earn profits and income from the invested capital. In addition, having appropriate information and experience makes it easier to analyze the aspects to be invested, such as the investment objectives, risks, returns, investment securities, and the financial market, in order to make an informed decision. Finally, money is necessary for investors to make investments. To enter the trading market and engage in the buying and selling of investment securities, a person must have adequate money saved up.

Based on the review of past studies, the following research hypotheses and research framework are constructed as follows:

H1:   Saving habits have a significant influence on the gold investment risk be-
       haviour of working adults.
H2:   Spending habits have a significant influence on the gold investment risk
       behaviour of working adults.
H3:   Financial literacy has a significant influence on the gold investment risk
       behaviour of working adults.
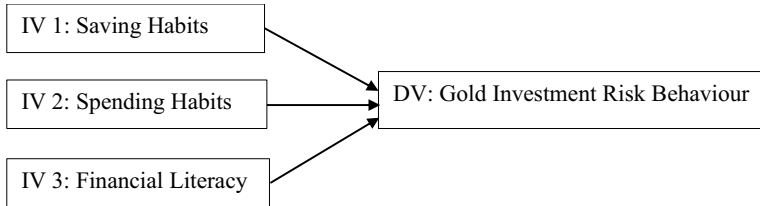
Fig 1. Research Framework

3   Research Methodology

3.1   Data Collection

The study's focus group was chosen to be Perak's working adults. Utilizing a convenient sampling technique, the data was gathered. A priori power analysis using G*Power version 3.1.9.2 revealed that for linear multiple regression, 119 respondents were needed to achieve 95% statistical power at the significance level of 0.05. The survey was created using a Google form. 160 working adults were contacted through social media platforms including Facebook and WhatsApp. Therefore, the number of respondents gathered was deemed sufficient. However, one incomplete response and ten unanswered questionnaires were found during data collection. As a result, only 149 data were used for further analysis.
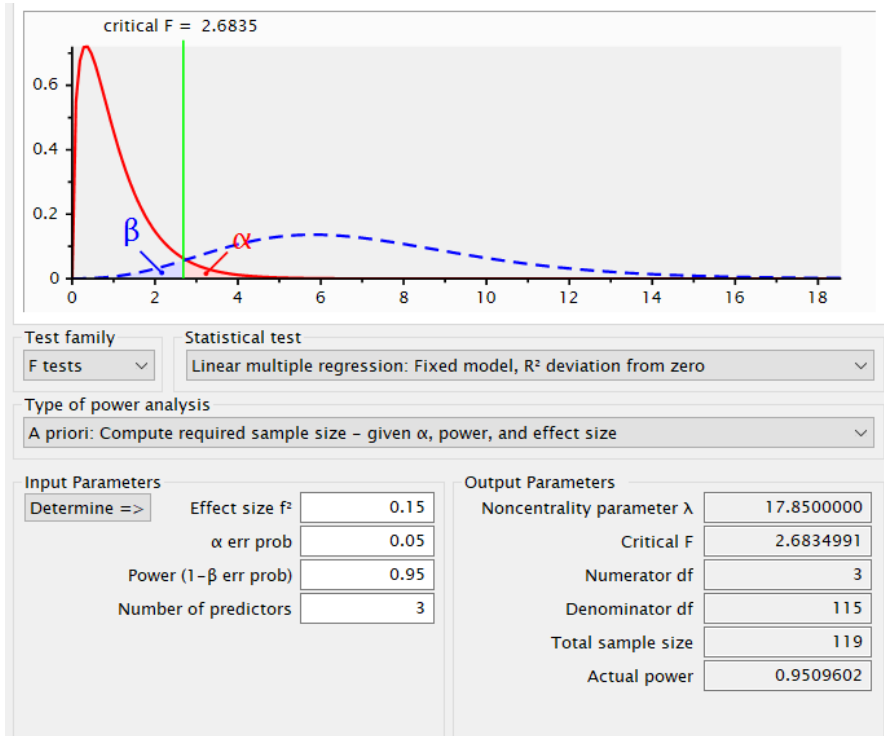
Fig 2. Power Analysis

3.2   Questionnaire Design

The questionnaire is divided into five sections. Questions about gold investment risk behaviour (4 items), saving habits (5 items), spending habits (6 items), and financial literacy (3 items) are found in the first to fourth sections, respectively. A five-point Likert scale (ranging from 1 strongly disagree to 5 strongly agree) was used to ask respondents whether they agreed or disagreed with each statement. The respondents were also required to provide some demographic information in the last section, including their age, marital status, gender, level of education, occupation, and monthly income. Research Procedure

3.3   Research Procedure

The statistical software for social studies (SPSS) version 26.0 was employed to conduct descriptive analysis, reliability test, factor analysis, Pearson's correlation analysis, and multiple regression analysis.

   Descriptive analysis was used to provide the respondents' overall demographic characteristics. Lee Cronbach developed Cronbach's alpha (or coefficient alpha) in 1951 to measure reliability or internal consistency [33]. Cronbach's alpha should be more than 0.6 to be considered good [34]. Principal Components Analysis (PCA) with varimax rotation was then used to conduct factor analysis. It is a technique for

figuring out how the data differs and is similar. Thus, it confirmed the pattern of the data and validated its measurements. The factor loading in the range of 0.45 to 0.50 is sufficient for a sample size of 149 to be statistically significant [35].

The direction and strength of a relationship between independent variables (saving habits, spending habits, and financial literacy) and dependent variables (gold investment risk behaviour) were determined using Pearson's correlation. The correlation coefficient's strength level is displayed in the table below.

Table 1. Interpretation of correlation coefficient

Range	Strength
±0.10 - ±0.39	Weak
±0.40 - ±0.69	Moderate
±0.70 - ±0.89	Strong
±0.90 - ±1.00	Very strong

Source: Schober, Boer, and Schwarte [36]

Prior to multiple regression analysis, a multicollinearity diagnostic test was conducted. If the value of Pearson's correlation coefficient is more than 0.8 and the variance inflation factor (VIF) is more than five, there is a possibility of a collinearity problem [37]. Next, multiple regression analysis was used to determine whether saving habits, spending habits, and financial literacy have significant influences on gold investment risk behaviour. The R-squared value provides the explanatory power and the F-test determines the significance of the estimated model. Its function is as shown below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where,
Y = Gold investment risk behaviour
β_0 = y-intercept (constant term)
β_1, β_2, β_3 = slope coefficients for each explanatory variable
X_1 = Saving habits
X_2 = Spending habits
X_3 = Financial literacy
ε = the model's random error term

4   Data Analysis

4.1   Demographic Profiles

The majority of respondents (49%) were between the ages of 18 and 29 years, followed by those who were between the ages of 30 and 39 years (20.1%), 40 and 49 years (13.4%), 50 and 59 years (12.8%), and lastly, those who were 60 years and over (4.7%). Based on marital status, respondents who identified as single had the highest participation rate in the survey, at 51.7%, followed by respondents who identified as married (41.6%), divorced (4.7%), and widowed (2%). Men made up 39.6% of respondents, compared to 60.4% of female respondents. Most respondents (55.7%) have a bachelor's degree, followed by those with a diploma (23.5%) and SPM/STPM leavers (12.8%). There were just 3 respondents with a doctorate (2%), and only 9 respondents (6%) had a master's degree. The private sector represented 43% of the respondents. Part-timers, self-employed, and respondents from the government sectors were at 22.1%, 20.1%, and 14.8% respectively. The respondents in the RM1,000 to RM1,999 monthly income group were 32.2%, followed by those in the RM2,000 to RM2,999 monthly income group (26.2%), RM3,000 to RM3,999 (19.5%), RM5,000 and higher (12.8%), and RM4,000 to RM4,999 (9.4%).

Table 2. Demographic profiles of respondents (n = 149)

Demographic	Frequency (respondents)	Percentage (%)
Age		
18 – 29 years	73	49.0
30 – 39 years	30	20.1
40 – 49 years	20	13.4
50 – 59 years	19	12.8
60 years and above	7	4.7
Marital status		
Single	77	51.7
Married	62	41.6
Divorce	7	4.7
Widowed	3	2.0
Gender		
Male	59	39.6
Female	90	60.4
Education level		
SPM/STPM	19	12.8
Diploma	35	23.5
Bachelor's degree	83	55.7
Master's degree	9	6.0
Doctorate degree	3	2.0
Occupation		
Private sector	64	43.0
Government sector	22	14.8
Self-employed	30	20.1
Part-time worker	33	22.1
Income		
RM1,000 – RM1,999	48	32.2
RM2,000 – RM2,999	39	26.2
RM3,000 – RM3,999	29	19.5
RM4,000 – RM4,999	14	9.4
RM5,000 and higher	19	12.8

4.2   Reliability Analysis

All of the variables' Cronbach's alpha values are in the range between 0.802 and 0.850, as presented in the table below. Therefore, the results show that risk behaviour, saving habits, spending habits, and financial literacy have good internal consistency.

Table 3. Reliability Analysis

Variables	Number of items	Cronbach's alpha
Risk behaviour	4	0.850
Saving habits	5	0.835
Spending habits	6	0.829
Financial literacy	3	0.802

4.3   Factor Analysis

The Kaiser-Meyer-Olkin value of 0.838 and Bartlett's Test of Sphericity reach statistical significance, indicating the suitability of the data for factor analysis. Four components with eigenvalues greater than one are found using principal components analysis. Risk behaviour, the first component, has an eigenvalue of 1.447, which accounts for 8.0% of the variance. Saving habits, the second component, has an eigenvalue of 3.179, which accounts for 17.7% of the variance. Spending habits, the third component, has an eigenvalue of 5.594, which accounts for 31.1% of the variance. Financial literacy, the final component, has an eigenvalue of 1.351, which accounts for 7.5% of the variance. Meanwhile, the factor loadings for individual items range from 0.545 to 0.831. These results confirm the validity of the items in measuring the four variables.

Table 4. Factor Analysis

Items	Descriptions	Factor loadings
Risk behaviour		
RB1	While making a gold investment decision, I generally prefer risky alternatives.	0.831
RB2	If I were going to make a gold investment, I would consider risky investment alternatives.	0.829
RB3	The likelihood of buying risky gold investments is high.	0.733
RB4	My willingness to buy risky gold investments is high.	0.732
Eigenvalue		1.447
Percentage of variance		8.041
Saving habits		
SH1	I usually spend more than my income.	0.771
SH2	I usually spend about as much as my income.	0.697
SH3	I save whatever is left over at the end of the month. (No regular saving plan.)	0.735
SH4	I save the income of one family member and spend the other.	0.766
SH5	I spend my regular income and save other income.	0.751
Eigenvalue		3.179
Percentage of variance		17.659
Spending habits		
SPH1	Before I buy something I carefully consider whether I can afford it.	0.545
SPH2	I am prepared to risk some of my own money when saving or making an investment.	0.735

SPH3	I keep a close personal watch on my financial affairs.	0.703
SPH4	I set long-term financial goals and strive to achieve them.	0.801
SPH5	I had a weekly or monthly budget that I followed.	0.715
SPH6	I set money aside for saving.	0.775
Eigenvalue		5.594
Percentage of variance		31.079
Financial literacy		
FL1	I have a good understanding of investing my money in gold.	0.760
FL2	I have the ability to maintain my financial records for my income and expenditure.	0.790
FL3	I have little or no difficulty in managing my money.	0.763
Eigenvalue		1.351
Percentage of variance		7.508
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)		0.838
Bartlett's Test of Sphericity		1208.364
df		153
Sig.		.000

4.4   Correlation Analysis

Table 5 shows that saving habits, spending habits, and financial literacy are positively and significantly related to gold investment risk behaviour. Saving habits is the only variable with a moderate correlation at r = 0.510. Meanwhile, spending habits (r = 0.216) and financial literacy (r = 0.342) have weak correlations. There is no collinearity problem because all Pearson's correlation coefficient values are less than 0.8.

Table 5. Correlation Analysis (n = 149)

		Risk behaviour	Saving habits	Spending habits	Financial literacy
Risk behaviour	Pearson correlation	1	0.510**	0.216**	0.342**
	Sig (2-tailed)		0.000	0.008	0.000
Saving habits	Pearson correlation	0.510**	1	0.130	0.282**
	Sig (2-tailed)	0.000		0.115	0.000
Spending habits	Pearson correlation	0.216**	0.130	1	0.503**
	Sig (2-tailed)	0.008	0.115		0.000
Financial literacy	Pearson correlation	0.342**	0.282**	0.503**	1
	Sig (2-tailed)	0.000	0.000	0.000	

**Correlation is significant at the 0.01 level (2-tailed).

4.5   Regression Analysis

Regression analysis was used to perform another multicollinearity test. The results show that the VIF values for each variable in the model are 1.087, 1.339, and 1.430, respectively. Thus, it is confirmed that there is no collinearity problem. Besides that, the estimated model is also found to be statistically significant, $R^2 = 0.306$, $F(3, 145) = 21.294$, and p-value = 0.000.

Table 6. Estimated regression model (n = 149)

	B	Std. Error	Beta	t-value	Collinearity Statistics	
					Tolerance	VIF
(Constant)	0.551	0.358		1.540		
Saving habits	0.490	0.079	0.450	6.233	0.920	1.087
Spending habits	0.080	0.096	0.066	0.829	0.747	1.339
Financial literacy	0.186	0.084	0.182	2.203	0.699	1.430

Goodness of fit of estimated model:
$R^2 = 0.306$
F ratio = 21.294
SEE = 0.7497

Dependent variable: Risk Behaviour

Saving habits (B = 0.490, p-value = 0.000) and financial literacy (B = 0.186, p-value = 0.029) are found to have a positive and significant influence on gold investment risk behaviour. Intriguingly, working adults with bad saving habits are more likely to invest in gold. This would suggest that rather than conserving money, the majority of respondents are more willing to buy gold to keep as an asset. In support of Kappal and Rastogi's [27], and Maharani and Saputra's [32] studies, investment decisions are made depending on the investor's motivations, which is the opposite of previous studies' conclusions [23-24] that saving increases investment. Among the possible motives could be to reach financial independence, retire, and build wealth.

Additionally, working adults who have a solid understanding of gold investment and the capacity to handle their finances efficiently typically make gold investments. In other words, more financially savvy investors would include gold in their portfolios. The findings are consistent with the claims made by Raut [28], Rosdiana [29], Alaaraj and Bakri [30], and Ahmed et al. [31], that financial literacy promotes investing activity.

However, spending habit is not a significant factor. The desire to invest in gold is not noticeably higher among those with more attentive and responsible financial habits. This result contradicts Lee, Pantzalis, and Park's [26] findings that people's consumption habit influence their investing choices. A possible explanation is that thrifty people might think gold is too expensive and could make better financial decisions with other, less expensive assets.

In sum, H1 and H3 are accepted. Meanwhile, H2 is rejected.

5   Conclusion and Discussion

Despite having the drawback of concentrating on working adults in Perak, this study provided additional evidence in support of the investment practices of investors. This study has indicated that gold is regarded as an alternative method of saving. However, it does not apply to people who are frugal with their money. Another possible indicator is that gold is a luxury asset. In short, the choice to buy gold among working adults in Perak is consistent with the Keynesian economic theory that claims investing is made prior to saving. Besides, the results of this study also

provide further proof that financial literacy is one of the key factors in promoting investment activity. People who believe they have good control over their financial decisions are more inclined to buy gold, which is consistent with the theory of planned behaviour.

Even if buying gold investments in Malaysia is easy and convenient, only a select few people find it appealing. Therefore, there is a need to raise financial literacy in order to stimulate more investment. Individuals would be considerably better at allocating money for saving, spending, and investment if they had more financial education. The findings of this study demonstrated the importance of maintaining efforts to foster knowledge about sensible financial planning, particularly in the current difficult economic environment. After all, gold may be one of the best investments someone can make because of its potential to increase in value over time.

However, this study has its own limitations. Only one state is included in the study. A bigger sample size and more diverse places, such as other states with various levels of household income, could be included in future research to verify and generalize the findings. When the types of assets invested are taken into account, it is possible that different investment behaviours will emerge. Therefore, comparative research can be very intriguing. To keep up with the shifts in investor behaviour brought on by various economic conditions, more research on investment behaviour should be done. After all, the development of a country is influenced by investment.

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