



# Will Perceived Behavioural Control Influence Malaysian Generation Y and Z to Join in Stock Market?

Chee-Pung Ng<sup>1\*</sup>, Lok-Tin Cheong<sup>2</sup>, Poh-Kiong Tee<sup>3</sup>, Kim-Yew Lim<sup>4</sup>, Sam Toong Hai<sup>5</sup>, Wong Chee Hoo<sup>6</sup>, Alex Hou Hong Ng<sup>7</sup>

## Abstract

The act of exchanging finance, effort, and time to generate beneficial outcomes was widely known all around the world. Stock market investment is one of the most popular and widely accessible types of investment in Malaysia, while the younger generation seems to be less attracted to it. If this worrying issue persists, the future economy of Malaysia might be stagnant or the worst-case scenario decline. As citizens of Malaysia, do we care about the future economy of our country? The answer is obvious as we all love our motherland. Therefore, this study was being carried out to understand whether perceived behavioural control will influence the Malaysian Generation Y and Z to invest in the stock market. The famous Theory of Planned Behaviour had inspired us to construct a framework to facilitate this study. Several literature gaps have been identified to ensure that this study is worth to be carried out and will deliver value creation opportunities. A quantitative approach of the study had been conducted with a questionnaire survey being sent to 385 youth respondents around Malaysia. The age range used was 18 to 30 years old, where it includes Generation Z who reached the minimum age to be eligible to trade in the stock market and the younger half of Millennials, Generation Y.1. SPSS software and Microsoft Excel had been utilized to perform analysis on the data collected. On top of that, the assumptions of the regression had been confirmed through diagnostic checking. The respondents were accurate to Malaysia's gender ratio even considering the 3<sup>rd</sup> gender, most of the respondents were in their mid-youth and are working employees. The data were confirmed to be reliable and had proven the results finding out that the perceived behavioural control had a positive significant effect on the investment behaviour. The Generation X and Y overall had a higher level of risk appetite. On top of that, the energetic and aggressive nature of the youth drives their investment participation rate further. Young generation were believed to have a fear of losing out mindset. Other than that, they think as individuals or as a group they can do more compared to others, especially the older generation. This study urges and increases awareness of Generation Y and Z to know themselves better. Besides, the government should take this as an opportunity to foster stock market participation among youth. For future studies, a more diverse ethnicity that includes the Generation Y and Z from all regions of Malaysia and more respondents are suggested. The current tested factor should be retested to enhance the reliability and consistency of findings while introducing more factors that are not studied in this study to explore more on the influences of the stock market investment intention and behaviour.

60

**Keywords:** Perceived Behavioural Control, Investment Behaviour, Malaysia, Generation Y, Generation Z, Regression methodology.

**DOI Number:** 10.14704/nq.2022.20.6.NQ22007

**NeuroQuantology 2022; 20(6):60-70**

## Introduction

Investment is a widely known process around the world which is also known as an action of making

use of both physical and non-physical resources which includes money, energy, and time to produce beneficial outcomes (McIntosh, 2013).

**Corresponding author:** Chee-Pung Ng

**Address:** <sup>1,4,5,6,7</sup>Faculty of Business and Communications (FOBC), INTI International University, Persiaran Perdana BBN, Putra Nilai, Nilai, Negeri Sembilan, Malaysia; <sup>2</sup>Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, Kampar, Perak, Malaysia; <sup>3</sup>Asia Pacific University of Technology & Innovation, Technology Park Malaysia Bukit Jalil, Kuala Lumpur Malaysia.  
E-mail: <sup>1\*</sup>cpng101@hotmail.com

According to The Credit Counselling and Debt Management Agency (2018), stock market



investment is one of the various investments available in Malaysia which can be accessed at ease by investors. Despite being easily accessible, it was found that some qualified Malaysians are unwilling to set up their trading account in order to participate in the stock market. The participation of the stock market is among the factors of one country's economic growth. Therefore, the lack of stock market participation will leave the country's future economic growth to be at risk. This study will be looking at the youth's participation in the stock market.

From the study of The FLY: Malaysia Research Department's (2017), the Malaysian youth were found to have minimum interest towards stock trading and investment. Internal and external supplies will impact the investors or potential investors in their decision to participate in the stock market. The unavailability of funds has a significant effect towards youth's intentional behaviour (Weiss, 2016). The education development of Malaysia has enabled the young ones to pursue secondary and tertiary education to aid the younger generation to achieve higher disposable income. However, even with the additional and higher income of the youths now, their participation in the stock market is relatively low. Consequently, this study looks into investigating the perceived behavioural control of the youths.

In this study, the question relates to how the perceived behavioural control of Malaysian youth will affect the actual behaviour of them investing in the stock market. The objective of this study is to understand the relationship between the Malaysian youth's perceived behavioural control and the actual investment behaviour in the stock market.

The youth in Malaysia in this study are people with age between 18 and 30 which is determined by the minimum age to invest in the stock market and the maximum age to constitute a youth according to the Youth Societies and Youth Development (Amendment) Act (2019). The results of the study will enable deeper understanding of Malaysian youth to open up more useful information to industry players in order for them to encourage more youth participants in the stock market.

The next section of this paper covers the literature review regarding the theoretical and conceptual framework that were being studied formerly in order to arrive at a conceptual framework to be used for this research. Furthermore, the methodology that had been used to gather and process the data for this study had been discussed to verify that the data were valid and reliable. Next, the data had been processed to become information to identify the relationship between perceived behavioural control and investment behaviour. The last section of this paper is the conclusion and discussion on the studied matter.

### Literature Review

The Theory of Planned Behaviour (TPB) is created as a theoretical framework that revolves around the approach of a person to make a decision proposed by Ajzen (1985). The independent variables included in the framework were attitude, subjective norm and perceived behavioural control, with moderating variable of behavioural intention and dependent variable of actual behaviour. This framework has considered the social and psychological factors that can affect a person in making their decision.

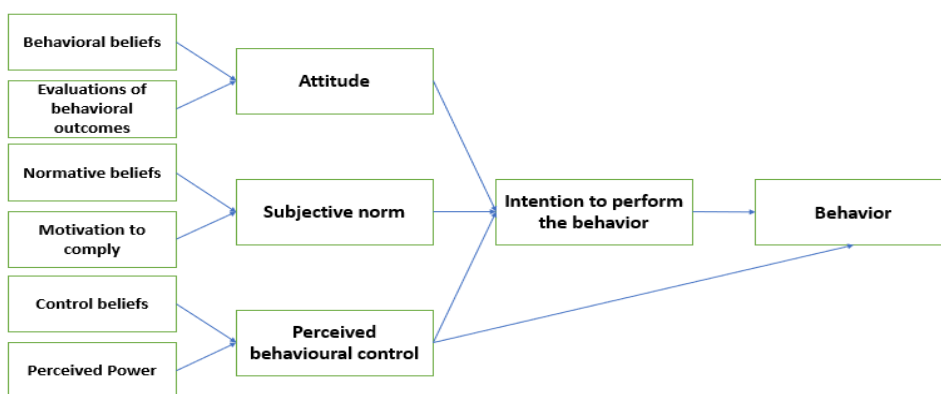


Figure 1. The Theoretical Framework of Theory of Planned Behavior  
 Source: DeNicola et al. (2016)

TPB has been broadly utilized in many studies with different research discipline like human behavior in



general (Kobbeltvedt& Wolff, 2009; Perugini&Bagozzi, 2001), informatics (Shih & Fang, 2004; Gopi & Ramayah, 2007; Lee, 2009), marketing (King et al., 2008; Yaghoubi& Bahmani, 2010), medicine (Conner et al., 2002; McEachan et al., 2011) and tourism (Quintal et al., 2010; Han, 2015). Most past studies' results have supported the TPB's proposition or the positive relationship between the theory's independent variables, moderating variable and dependent variable.

Financial studies that have used TPB however are still limited. The TPB was applied in Shih and Fang's (2004) examination of the respondent's intention to adopt internet banking in Taiwan. The use of TPB in evaluating the intention to trade online and utilize online banking are studied by Cucinelli et al. (2016); Gopi & Ramayah (2007); Lau et al. (2001); and Lee, (2009). In a study related to

investment decisions, East (1993) had enriched the TPB and with an additional variable, past behavior that might influence the intentional behavior. The past behavior variables had been examined by Bentler and Speckart (1979) and Bagozzi (1981). In East's (1993) study, the result shows that the respondent's intention was explained by the three TPB variables and the additional variable.

Based on the study of Alleyne and Broome (2010), TPB was also used in investigating the factors that are affecting the investment intentions. Risk propensity was proposed by Sitkin and Weingart (1995) and had been tested in Alleyne and Broome's (2010) study. The additional variable indeed has added value to the TPB model as the variable had significantly related to the dependent variable, investment intention (Alleyne and Broome, 2010).

### Conceptual Framework



Figure 2. Research Conceptual Framework

The focus of this study was mainly on the perceived behavioural control being the independent variable and with the actual behaviour as the dependent variable with no moderating variable. This conceptual framework was adapted from the TPB, shortened to become a catalyst for this study. Here, we predict that the Malaysian youth's perceived behavioural control will have an effect on the actual investment behaviour in the stock market. This assumption had past studies supporting the stand of the relationship between these two variables.

According to the study of Godin and Kok (1996), perceived behavior control played a role in strongly and positively affecting both the behaviour intention and as well as the actual behaviour of an individual. In the context of the research, it was found that the actual behaviour has more impact from perceived behavior control rather than the behaviour intention (Godin & Kok, 1996). In other words, perceived behavior will be worth studying on its relation directly with the actual behaviour bypassing the mediating variable of behaviour intention.

In the research from Kautonen et al. (2013),

perceived behaviour control was concluded to have a significant positive relationship as a predictor in affecting the actual behaviour both directly and indirectly. The scope of the research being carried out was referring to entrepreneurial behaviour specifically through the model of TPB. Findings as such gives more support to perceived behaviour control on it being an important variable in determining the actual behaviour of an action.

In the context of investment, Adam and Shauki (2014) had concluded in their study quoting that perceived behaviour control is insignificant to the actual behaviour of socially responsible investment. This opens up the question of the reliability of perceived behaviour control in actually having any relation with the behaviour. According to Warsame and Ileri (2016), it was found that perceived behavior control had a positive significant impact on investment instruments namely Sukuk. On the other hand, according to Paramita et al. (2018) they had found contradicting findings of perceived behavioural control were insignificant and had no effect on the behaviour.

Numerous past studies are supporting perceived behavior control in influencing the actual



behaviour positively although there are some contrast findings. The majority are proving that perceived behavior control will be a worthy predictor. Therefore, this study anticipates that perceived behavior control will have a positive relationship with the actual behaviour of stock market investment. Consequently, the following will be the hypothesis for this study.

H1: The perceived behavioural control towards stock market investment affects the actual behaviour of Malaysian youth to invest in the stock market positively.

### Research Methodology

This study had used a quantitative approach to obtain the data needed to perform statistical analysis which was in line with the past studies of different research disciplines such as finance, marketing and human behaviour. The targeted respondents of the study are the youth residing in Malaysia (age 18 to 30). The snowball sampling was being utilized in order to gather the raw data. Questionnaire surveys were given to the local youths through digital and physical forms. Thereafter, they recommend the survey to the people that they know that are fitting in the category of youth in this study. According to the World Population Review (2020), Malaysia has estimated about 9.6 million youth. To ensure that the result of the study has a confidence level of 95%, the sample size was set at 385 respondents.

The questionnaire contains the measurement items for the studied variables that were being adapted from past studies. The data being collected from the questionnaire were then tested descriptively and inferentially. The demographic data were summarized to enable more understanding of the respondents' overall demographic profile in view of central tendency measures. Inferential analysis was performed to confirm the hypothesis of this study. Reliability tests were done to ensure that all the measurement items related to their corresponding variable were consistent. This was proved by Cronbach's alpha score ( $\alpha$ ) needed to be 0.6 and above to be acceptable (Ursachi et al, 2015).

Correlation of the variables were then tested to identify any relationship between the two variables. According to Gogtay (2017), positive correlation shows that there is a positive relationship between the two tested variables and negative correlation means a negative relationship while correlation coefficient of 0 determines that the two variables are unrelated to each other.

Simple linear regression analysis had been conducted to test the causal relationship of the independent and dependent variable. Adjusted R-squared value has been used to determine the percentage of dependent variable is being affected by the independent variable. The ANOVA test was checked to ensure the p-value is  $<0.05$  to show significance of linear relationship between the variables. T-test was done to confirm the independent variable affects the dependent variable at a 95% confidence level.

After that, the assumption of linear regression analysis has been tested. The homoscedasticity assumption has been tested to ensure it is not violated by having a random spread of residuals in the scatter plot. Next, linearity of the independent and dependent variable has been proven by a line of best fit. Other than that, normality assumption has been tested with normal probability plot requiring the plots to be as close to the straight line. Lastly, the independence of observations assumption has been tested with the Durbin-Watson score of between 1-3 to ensure that this assumption was acceptable.

The simple linear regression equation has been constructed for this study:

$$Y = a + bX \pm e$$

Where,

Y: Actual behaviour to invest in stock market

a: Constant Value

b: Regression coefficient of X

X: Perceived behavioral control

e: Residual Variance/Error

When gathering the raw data from the respondents, ethical clearance had been obtained and all data were used strictly for the purpose of this study only. All private information and identity were protected and not leaked. All respondents were being explained about the purpose of this study before handling out the questionnaire to them.

**Data Analysis**  
*Descriptive Analysis Results*

**Table 1.**Demographic Profiles

Demographic	Groups	Frequency Number	Frequency Percentage	Cumulative Percentage
Gender	Male	195	50.6	50.6
	Female	187	48.6	99.2
	Others	3	.8	100.0
Age	15-20	76	19.7	19.7
	21-25	192	49.9	69.6
	26-30	117	30.4	100.0
Ethnic	Malay	149	38.7	38.7
	Chinese	164	42.6	81.3
	Indian	64	16.6	97.9
	Others	8	2.1	100.0
Education Level	PMR/PT3	15	3.9	3.9
	SPM/SPV	25	6.5	10.4
	STPM/Pre-university/Matriculation/Foundation Studies	39	10.1	20.5
	Diploma	77	20.0	40.5
	Undergraduate Degree	170	44.2	84.7
	Postgraduate Degree	35	9.1	93.8
	Professional Degree	24	6.2	100.0
Occupation	Employed	264	68.6	68.6
	Self-employed	29	7.5	76.1
	Unemployed	18	4.7	80.8
	Student	74	19.2	100.0
Household Income (monthly)	RM4,849 and under	153	39.7	39.7
	RM4,850 - RM10,959	168	43.6	83.4
	RM10,960 and above	64	16.6	100.0

In Table 1, the gender spread of the respondents matches Malaysia’s actual gender ratio according to the Department of Statistics Malaysia (2020), indicating no gender bias is present. Half of the respondents (49.9%) were in the mid youths. Respondents were heavily contributed by Chinese ethnic (42.6%) as the initial starting point of the survey was being given out in Ipoh, a town which

has majority Chinese (49.72%) (The Star, 2018). Most respondents (44.2%) were found to be qualified with undergraduate degrees indicating a high level of education. The spread of the household income after rounded off was consistent with the Department of Statistics Malaysia (2020) mentioned three groups of Bottom 40%, Middle 40% and Top 20%.

**Table 2.**Central Tendency Measures

	N		Mean	Median	Mode
	Valid	Missing			
IV: Perceived Behavioural Control	385	0	3.2909	3.7500	5.00
DV: Actual Behaviour	385	0	3.0545	3.5000	4.25
a. Multiple modes exist. The smallest value is shown					

In Table 2, the mean for the IV and DV were 3.29 and 3.05 respectively. Median of the IV is 3.75 while for DV is 3.5. Lastly, the mode for Perceived

Behavioural Control and Actual Behaviour were 5.00 and 4.25 respectively. Indicating the majority of the respondents were siding on the positive side.



**Inferential Analysis Results**

**Table 3.** Reliability Test

Variable	Cronbach's Alpha Score	No of Items
IV: Perceived Behavioural Control	.963	4
DV: Actual Behaviour	.897	4

The Cronbach's Alpha Score for both the variables were more than 0.6. Perceived Behavioural Control has the score of 0.963 while Actual Behaviour has the score of 0.897. This test proved that the measuring items were very reliable to be used to reflect their respective variables.

**Table 4.** Correlation Test

	IV: Perceived Behavioural Control	DV: Actual Behaviour
DV: Actual Behaviour		
Pearson Correlation	.858**	1
Sig. (2-tailed)	.000	
N	385	385

In Table 4, the independent variable was found to have  $R < 0.05$  which determines that there is correlation between the Perceived Behavioural Control and Actual Behaviour. Besides, the Pearson Correlation score is 0.858 which indicates a very strong positive correlation.

the hypothesis that supports the independent variable having a linear relationship with the dependent variable. The Mean Square 0.474 will be the residual variance.

**Simple Linear Regression**

**Table 5.** Summary Output

Regression Statistics	
Multiple R	0.858261333
R Square	0.736612516
Adjusted R Square	0.73592482
Standard Error	0.688337364
Observations	385

Based on Table 5, the Adjusted R Square of 0.736 was found and this shows that Perceived Behavioural Control makes up about 73.6% variation of the Actual Behaviour. The remaining 26.4% can be explained by untested factors that are not used in this study.

**Table 6.** ANOVA Table

	df	SS	MS	F	Significance F
Regression	1	507.5109563	507.511	1071.131	0.0000
Residual	383	181.4685892	0.473808		
Total	384	688.9795455			

In Table 6, the p-value of the linear regression was shown to be below 0.05. This essentially means that the result rejects the null hypothesis and accepts

**Table 7.** Coefficient Table

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.29742031	0.091255664	3.259198	0.00121717
PBC	0.837800458	0.025598778	32.72814	0.0000

Referring to Table 7, the y-intercept of the regression formula was found to be 0.297 while the Perceived Behavioural Control has the coefficients of 0.838 in the linear regression formula. Besides, the p-value is lower than the significant level of 0.05 which makes the independent variable being a significant predictor to the dependent variable. The hypothesis of this study was being confirmed as for every 1 unit of Perceived Behavioural Control increases, the Actual Behaviour will increase by 0.838 unit, being a positive significant predictor. This had enabled the simple linear regression formula to be completed.

Below is the regression equation:

$$\text{Actual Behaviour} = 0.297 + 0.838(\text{Perceived Behavioural Control}) \pm 0.474$$



### Assumption Testing

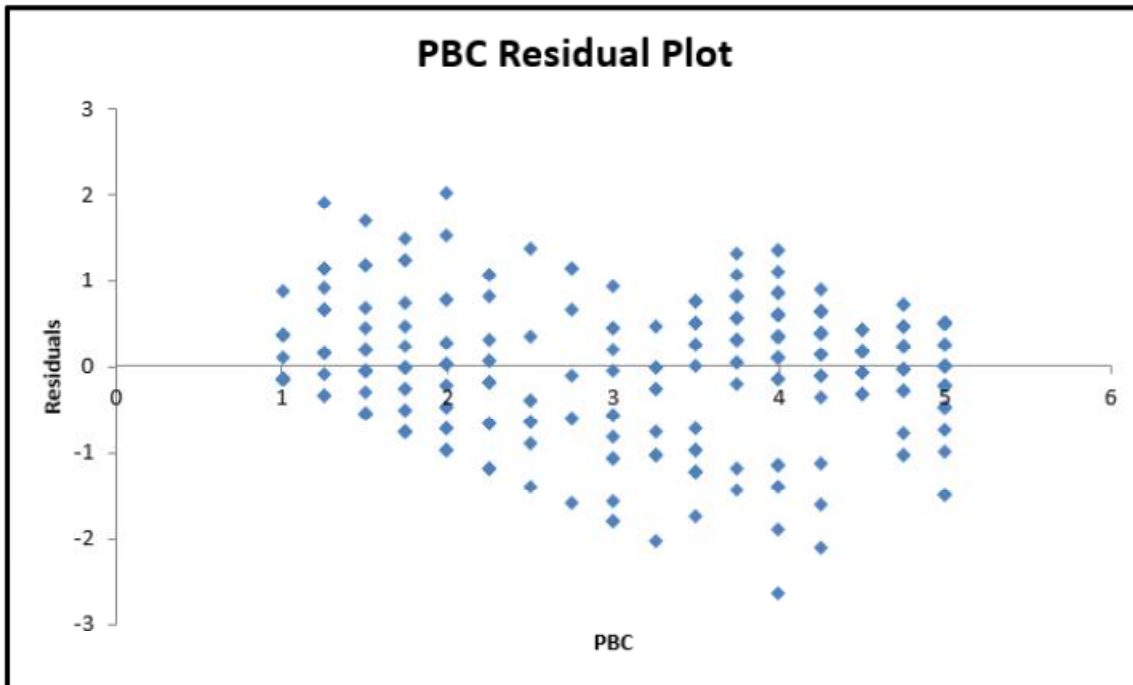


Figure 3. Perceived Behavioural Control Residual Scatterplot

From Figure 3, the scatter plot does not show any obvious pattern. This indicates that the random regression equation assumption was not being violated by the scatterplot proves that the homoscedasticity

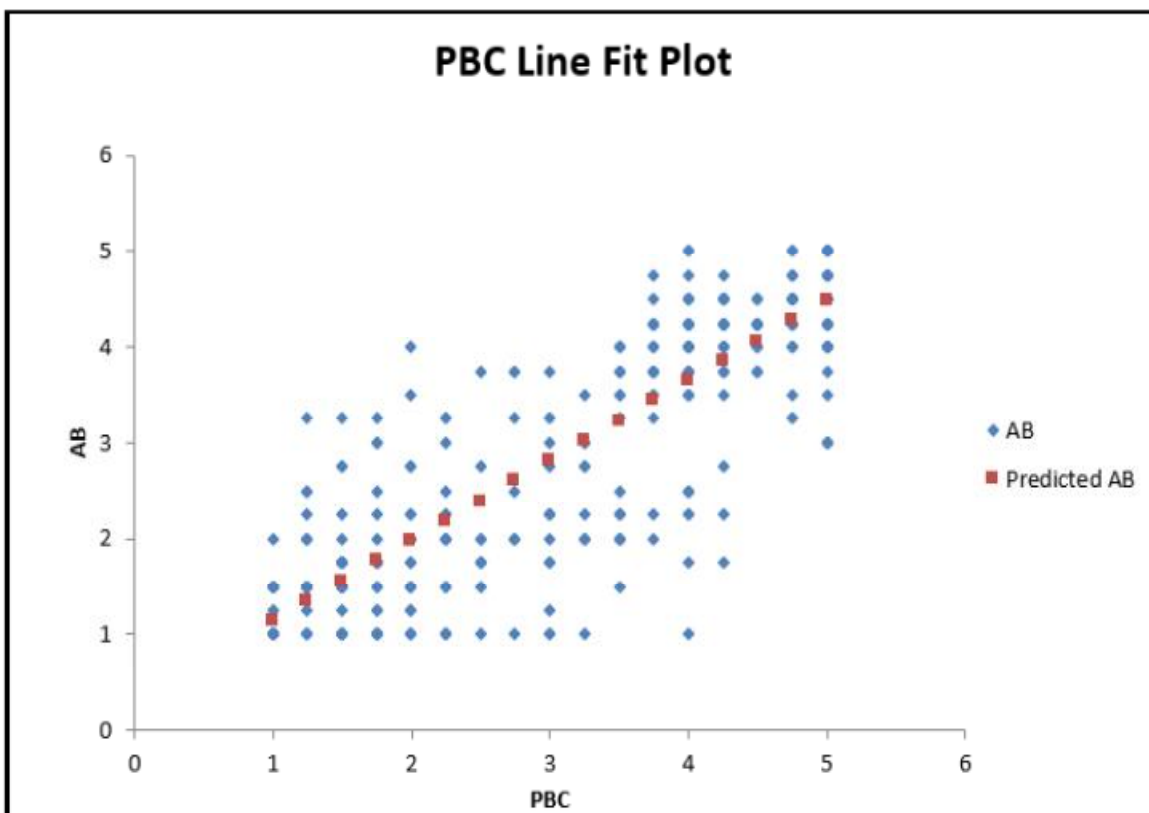


Figure 4. Line of Best Fit Plot



In Figure 4, the line of best fit can be formed. This has successfully proved the linearity of the relation between the independent variable and the

dependent variable. The linearity assumption has not been violated in this regression equation.

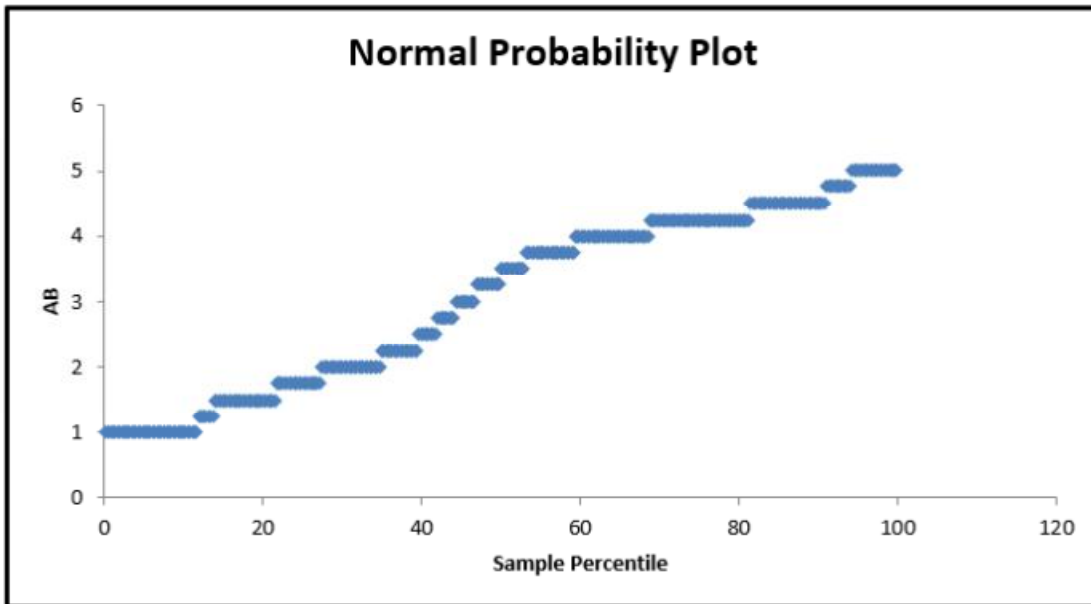


Figure 5. Normal Probability Plot

According to Figure 5, data forming the shape of a straight line can be found in the normal probability plot. This had brought the meaning of the inputs of Perceived Behavioural Control being normally distributed. This complies with the linearity assumption of the regression equation.

It was found that the tested independent variable of Perceived Behavioural Control had positive significant correlation with the dependent variable of Actual Behaviour. Thus, accepting the hypothesis formed for the purpose for this study. Simple linear regression had been carried out to prove the correlation. The assumptions for regression had been tested to ensure that the results were reliable to be used.

Table 8. Durbin-Watson Table

Number of Observation	Sum of Squared Difference of Residual	Sum of Squared Residuals	Durbin-Watson Statistic
385	295.2318366	181.4685892	1.626903245

In Table 8, the Durbin-Watson score was found to be 1.627 which is within the range of 1 to 3. The Durbin-Watson value must be as close to 2 as possible to be deemed independent of residuals. This proved that the independence of observation assumption was not violated.

### Conclusion and Discussion

This study had successfully investigated the relationship between the Perceived Behavioural Control of Malaysian youth and the actual investment behaviour to participate in the stock market. This study had been conducted with a sample size of 385 respondents for the survey and the spread of the data gathered were quite close to real representation of Malaysia.

Perceived Behavioural Control having strong direct relation to Actual Behaviour in this study can be explained by the risk-taking nature of the younger population. According to Duell et al. (2017), younger people especially late adolescents are the ones who are willing to take more risk compared to anyone. In general, youth are much more aggressive rather than passive. In the study of Tjiptono et al. (2020), Gen Z is found to be very daring as well.

These show that the youth think they can perform something and will turn those thoughts into action by performing the actual behaviour. They might also influence their peers to invest in the stock market together too, boosting the actual behaviour to invest in the stock market more as they might be afraid of losing out compared to the others. Hence, these can imply that the relationship of perceived behavioural control is affecting the actual behaviour positively and significantly.





This study has enabled society in general to understand youth much better, realizing the higher risk tolerance mindset and daring nature of the youth. This gives an advantage for these youth to identify their potential strengths and weaknesses more. In a sense, the youth can push themselves to achieve more and protect themselves from taking risky decisions.

For industry players, namely government bodies, companies and market analysts, this study will give insight on the solution of the low stock market participation from the youth segment. This will help facilitate these players to accelerate the solutions to the problem. If this problem can be solved timely, the future economic growth of Malaysia can be secured.

In achieving the results of this study, it was carried out during COVID-19 pandemic. This had given rise to some limitations, especially in the process of gathering raw data where questionnaire distribution was restricted. Therefore, the ethnic spread of the respondents was closely related to the residence of Ipoh instead of the entire Malaysia. This study had only focused on investment particularly in the stock market, whereas there are numerous investments available in Malaysia. The results of this study can only support the actual behaviour of Malaysian youth to invest in the stock market rather than investments in general. Besides, the tested independent variable in this study is solely on the Perceived Behavioural Control.

For future recommendations, researchers look into more types of investments and add more factors that might be the predictors for the Actual Behaviour. Other than that, the data should be gathered from all over Malaysia to ensure that the collective data will reflect as close as possible to the entire Malaysia rather than a particular city or state.

## References

- Adam, A.A., &Shaui, E.R. (2014). Socially responsible investment in Malaysia: behavioral framework in evaluating investors' decision making process. *Journal of Cleaner Production*, 80, 224–240. <https://doi.org/10.1016/j.jclepro.2014.05.075>
- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. *Action Control*, 11–39. [https://doi.org/10.1007/978-3-642-69746-3\\_2](https://doi.org/10.1007/978-3-642-69746-3_2)
- Alleyne, P., & Broome, T. (2010). An exploratory study of factors influencing investment decisions of potential investors. *Central Bank of Barbados Working Paper*. <http://www.centralbank.org.bb/Portals/0/Files/An%20exploratory%20study%20of%20factors%20influencing%20i>

vestment%20decisions%20of%20potential%20investors.pdf

- Bagozzi, R.P. (1981). Attitudes, intentions, and behavior: A test of some key hypotheses. *Journal of Personality and Social Psychology*, 41(4), 607–627. <https://doi.org/10.1037/0022-3514.41.4.607>
- Bentler, P.M., &Speckart, G. (1979). Models of attitude-behavior relations. *Psychological Review*, 86(5), 452–464. <https://doi.org/10.1037/0033-295x.86.5.452>
- Conner, M., Norman, P., & Bell, R. (2002). The theory of planned behavior and healthy eating. *Health Psychology*, 21(2), 194–201. <https://doi.org/10.1037/0278-6133.21.2.194>
- Cucinelli, D., Gandolfi, G., &Soana, M.G. (2016). Customer and advisor financial decisions: the Theory of Planned Behavior perspective. *International Journal of Business and Social Science*. [https://www.ijbssnet.com/journals/Vol\\_7\\_No\\_12\\_December\\_2016/12.pdf](https://www.ijbssnet.com/journals/Vol_7_No_12_December_2016/12.pdf)
- DeNicola, E., Aburizaize, O.S., Siddique, A., Khwaja, H., & Carpenter, D.O. (2016). Road Traffic Injury as a Major Public Health Issue in the Kingdom of Saudi Arabia: A Review. *Frontiers in Public Health*, 4. <https://doi.org/10.3389/fpubh.2016.00215>
- Department of Statistics Malaysia. (2020a). Department of Statistics Malaysia Official Portal. [https://www.dosm.gov.my/v1/index.php?r=column/ctheMeByCat&cat=120&bul\\_id=TU00TmRhQ1N5TUxHVWN0T2VjbXJYZz09&menu\\_id=amVoWU54UTl0a21NWmdhMjFMWwcyZz09](https://www.dosm.gov.my/v1/index.php?r=column/ctheMeByCat&cat=120&bul_id=TU00TmRhQ1N5TUxHVWN0T2VjbXJYZz09&menu_id=amVoWU54UTl0a21NWmdhMjFMWwcyZz09)
- Department of Statistics Malaysia. (2020b). Department of Statistics Malaysia Official Portal. [https://www.dosm.gov.my/v1/index.php?r=column/ctheMeByCat&cat=155&bul\\_id=OVByWjg5YkQ3MWFZRTN5bDJiaEVhZz09&menu\\_id=L0pheU43NWJwRWVVSZklWdzQ4TlhUUT09](https://www.dosm.gov.my/v1/index.php?r=column/ctheMeByCat&cat=155&bul_id=OVByWjg5YkQ3MWFZRTN5bDJiaEVhZz09&menu_id=L0pheU43NWJwRWVVSZklWdzQ4TlhUUT09)
- Duell, N., Steinberg, L., Icenogle, G., Chein, J., Chaudhary, N., Di Giunta, L., Dodge, K.A., Fanti, K.A., Lansford, J.E., Oburu, P., Pastorelli, C., Skinner, A.T., Sorbring, E., Tapanya, S., Uribe Tirado, L.M., Alampay, L.P., Al-Hassan, S.M., Takash, H.M.S., Bacchini, D., & Chang, L. (2017). Age Patterns in Risk Taking Across the World. *Journal of Youth and Adolescence*, 47(5), 1052–1072. <https://doi.org/10.1007/s10964-017-0752-y>
- East, R. (1993). Investment decisions and the theory of planned behaviour. *Journal of Economic Psychology*, 14(2), 337–375. [https://doi.org/10.1016/0167-4870\(93\)90006-7](https://doi.org/10.1016/0167-4870(93)90006-7)
- FLY: Malaysia Research Department. (2017). The Lack of Retail Investors Amongst Youths in Malaysia. FLY Malaysia. <https://www.flymalaysia.org/lack-of-retail-investors/>
- Godin, G., & Kok, G. (1996). The Theory of Planned Behavior: A Review of its Applications to Health-Related Behaviors. *American Journal of Health Promotion*, 11(2), 87–98. <https://doi.org/10.4278/0890-1171-11.2.87>
- Gogtay, N.J. (2017). Principles of Correlation Analysis. *Journal of Association of Physicians of India*, 65.
- Gopi, M., &Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online. *International Journal of Emerging Markets*, 2(4), 348–360. <https://doi.org/10.1108/17468800710824509>
- Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism Management*, 47, 164–177.



<https://doi.org/10.1016/j.tourman.2014.09.014>

Kautonen, T., Van Gelderen, M., & Tornikoski, E. T. (2013). Predicting entrepreneurial behaviour: a test of the theory of planned behaviour. *Applied Economics*, 45(6), 697–707. <https://doi.org/10.1080/00036846.2011.610750>

King, T., Dennis, C., & Wright, L.T. (2008). Myopia, customer returns and the theory of planned behaviour. *Journal of Marketing Management*, 24(1–2), 185–203. <https://doi.org/10.1362/026725708x273993>

Kobbeltvedt, T., & Wolff, K. (2009). The Risk-as-feelings hypothesis in a Theory-of-planned-behaviour perspective. *Judgment and Decision Making*, 4(7), 567–586. <https://www.sas.upenn.edu/~baron/journal/9811/jdm9811.pdf>

Lau, A., Yen, J., & Chau, P. (2001). Adoption of on-line trading in the Hong Kong Financial Market. *Journal of Electronic Commerce Research*, 2(2). [http://www.jecr.org/sites/default/files/02\\_2\\_p02.pdf](http://www.jecr.org/sites/default/files/02_2_p02.pdf)

Lee, M. (2009). Understanding the behavioural intention to play online games. *Online Information Review*, 33(5), 849–872. <https://doi.org/10.1108/14684520911001873>

McEachan, R.R.C., Conner, M., Taylor, N.J., & Lawton, R.J. (2011). Prospective prediction of health-related behaviours with the Theory of Planned Behaviour: a meta-analysis. *Health Psychology Review*, 5(2), 97–144. <https://doi.org/10.1080/17437199.2010.521684>

McIntosh, C. (2013). *Cambridge Advanced Learner's Dictionary with CD-ROM* (4th ed.). Cambridge University Press.

Paramita, R.A.S., Isbanah, Y., Kusumaningrum, T.M., Musdholifah, & Hartono, U. (2018). Young Investor Behavior: Implementation Theory of Planned Behavior. *International Journal of Civil Engineering and Technology (IJCIET)*, 9(7), 733–746. <http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=9&IType=7>

Perugini, M., & Bagozzi, R.P. (2001). The role of desires and anticipated emotions in goal-directed behaviours: Broadening and deepening the theory of planned behaviour. *British Journal of Social Psychology*, 40(1), 79–98. <https://doi.org/10.1348/014466601164704>

Quintal, V.A., Lee, J.A., & Soutar, G.N. (2010). Risk, uncertainty and the theory of planned behavior: A tourism example. *Tourism Management*, 31(6), 797–805. <https://doi.org/10.1016/j.tourman.2009.08.006>

Shih, Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3), 213–223. <https://doi.org/10.1108/10662240410542643>

Sitkin, S.B., & Weingart, L.R. (1995). Determinants of Risky Decision-Making Behavior: A Test of the Mediating Role of Risk Perceptions and Propensity. *Academy of Management Journal*, 38(6), 1573–1592. <https://doi.org/10.5465/256844>

The Credit Counselling and Debt Management Agency. (2018). Types of investments in the market. Borneopostonline. <https://www.akpk.org.my/news/1205-types-investments-market#:~:text=Cash%20investments%20are%20the%20most,so%20they%20are%20very%20secure>

The Star. (2018). 14<sup>th</sup> General Election Malaysia (GE14 / PRU14) - Perak. The Star Online. <https://election.thestar.com.my/perak.html>

Tjiptono, F., Khan, G., Yeong, E.S., & Kunchambo, V. (2020). Generation Z in Malaysia: The Four 'E' Generation. *The New Generation Z in Asia: Dynamics, Differences, Digitalisation*, 149–163. <https://doi.org/10.1108/978-1-80043-220-820201015>

Ursachi, G., Horodnic, I.A., & Zait, A. (2015). How Reliable are Measurement Scales? External Factors with Indirect Influence on Reliability Estimators. *Procedia Economics and Finance*, 20, 679–686. [https://doi.org/10.1016/s2212-5671\(15\)00123-9](https://doi.org/10.1016/s2212-5671(15)00123-9)

Warsame, M. H., & Ireri, E. M. (2016). Does the theory of planned behaviour (TPB) matter in Sukuk investment decisions? *Journal of Behavioral and Experimental Finance*, 12, 93–100. <https://doi.org/10.1016/j.jbef.2016.10.002>

Weiss, J. (2016). Here's why millennials aren't investing. CNBC. <https://www.cnbc.com/2016/04/01/heres-why-millennials-arent-investing.html>

World Population Review. (2020). Malaysia Population 2020 (Demographics, Maps, Graphs). World Population Review. <https://worldpopulationreview.com/countries/malaysia-population>

Yaghoubi, N.M., & Bahmani, E. (2010). Factors Affecting the Adoption of Online Banking-An Integration of Technology Acceptance Model and Theory of Planned Behavior. *International Journal of Business and Management*, 5(9). <https://doi.org/10.5539/ijbm.v5n9p159>

Youth Societies and Youth Development (Amendment) Act (2019). The Youth Societies and Youth Development Act 2007 [Act 668]. Parliament of Malaysia. [https://www.parlimen.gov.my/files/billindex/pdf/2019/D.R%2012\\_2019%20-%20eng.pdf](https://www.parlimen.gov.my/files/billindex/pdf/2019/D.R%2012_2019%20-%20eng.pdf)

**Appendix: Questionnaire**

**Section A**

For our statistical purpose, please tick the appropriate information about yourself. Please note that your personal details will be kept private and confidential.

Gender :  Male  Female  Others

Age (years) :  15-20  21-25  26-30

Ethnic :  Malay  Chinese  Indian  Others



Highest educational qualification attained or currently pursuing:  Diploma  Undergraduate Degree  Postgraduate Degree  
 Professional Degree  Others, please specific \_\_\_\_\_

Occupation:  Employed  Self-employed  Unemployed  Student

Household Incomes: (monthly)  RM4,849 and under  RM4,850 – RM10,959  RM10,960 and above

**Section B**

*Part 1*

For each of the statements, please tick (√) in the blank which you feel the best to describe your perception.

No	Item Statements	Strongly Disagree to Strongly Agree				
		1	2	3	4	5
<b>Perceived Behavioral Control</b>						
1.	I would be able to invest in the stock market.					
2.	I have the resources to invest in the stock market.					
3.	I have the knowledge to invest in the stock market.					
4.	I have the ability to invest in the stock market.					

*Part 2*

For each of the statements, please tick (√) in the blank which you feel the best to describe your perception.

5.	<b>Actual Behavior</b> Have you ever invested in stock market? <input type="checkbox"/> Never <input type="checkbox"/> Yes
6.	I invest in stock market because it's the best option for me to save my money. <input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly Agree <input type="checkbox"/> Neutral
7.	How long have you been using stock market? <input type="checkbox"/> Never <input type="checkbox"/> Within 3 to 5 years <input type="checkbox"/> Less than 1 year <input type="checkbox"/> More than 5 years <input type="checkbox"/> Within 1 to 3 years
8.	Stock market is a reliable platform for me to take care of my personal investments. <input type="checkbox"/> Strongly Disagree <input type="checkbox"/> Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly Agree <input type="checkbox"/> Neutral

