An Empirical Analysis of the Decision-Making Style of Millennials on the Choice of Financial Products

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Abstract

Purpose : The millennial generation was brought up in the digital age, so they were expected to have a different decision-making style than their previous generation. Understanding their psychology was vital for the financial services sector to segment them and develop efficient marketing strategies. Hence, this study aimed to determine the impact of investment decision-making styles on the choice of stock investments among millennial investors in India.

Design/Methodology/Approach : A structured questionnaire was adopted to collect responses from millennial investors through snowball sampling. The validity and reliability of the data were tested. Further, the measurement and structural models were analyzed using partial least squares SEM with the help of Smart PLS 3.0 to observe the impact of investor decision-making styles on the choice of stock investments.

Findings : Confused by over-choice, impulsiveness, and novelty consciousness styles were found to have a significant positive relationship, whereas brand loyalty and hedonism had a negative impact on the choice of stock investments among millennial investors.

Research Limitations/Implications : The study was conducted among millennial investors. Therefore, future research can focus on other generations as independent or comparative studies to get more insights.

Originality/Value : To the best of our knowledge, our study is the first to explore the decision-making style of millennial investors in the context of stock market investments with specific reference to emerging markets.

Keywords : **brand loyalty, choice of stocks, confused by over-choice, decision-making styles, hedonism, impulsiveness, millennials, novelty consciousness**

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In recent years, there has been an increase in the number of retail investors participating in the stock markets (Calvet et al., 2016). Enormous usage of technology through smartphones, the launch of new financial products, and high returns earned from equities pushed retail investors to switch from traditional investments to equity markets. Compared to last year, the number of new Demat accounts has jumped to 63%, and individuals have begun to trade online (Sethuraman, 2022). Interestingly, about 80% of the new Demat accounts were opened by millennials from tier 2 and tier 3 cities who plan for their financial security (Sethuraman, 2022). Despite the

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increase in the number of millennials entering the stock markets, only 4% of millennials invest in stocks (Goel, 2019).

On the other hand, extant literature demonstrates the differences in the investment behavior of millennials and other generational cohorts. For instance, Bulsara and Vaghela (2022) elucidated that millennials in the adulthood stage spend more cash, invest in stocks, and are less likely to seek the advice of financial advisors (Zick et al., 2012). Thus the priorities and preferences of this millennial generation are distinct from that of generation X (Bulsara & Vaghela, 2022; Pasricha et al., 2020). Thus, with the increasing pressure on working millennials to plan for their financial security (Larson et al., 2016), research is required to analyze the decision-making styles of millennials in the choice of stock investments through the lens of the consumer characteristics approach and generation theory.

The consumer characteristics approach (decision-making styles) has been tested across countries (Coothoopermal & Chittoo, 2017; Klein & Sharma, 2018), and it has also been applied among Indian consumers under various contexts (Islam & Chandrasekaran, 2020; Sarkar et al., 2020). However, the application of this model in the context of stock investments is very scarce. For instance, McLachlan and Gardner (2004) applied seven factors of decision-making style to measure the willingness toward ethical investment products and found that socially responsible investors follow a perfectionist style than conventional investors. Apart from this, none of the studies, to our knowledge, have used consumer decision-making styles to measure the decision-making behavior of millennials in the choice of stock investments, especially in an emerging market like India.

Thus, to address this gap, the following research questions were formulated :

- ***RQ1 :*** Do millennials prefer to stay brand loyal in their stock investment decisions?
- ***RQ2 :*** Are they confused by over-choice in selecting the company's stocks?
- ***RQ3 :*** Do they invest hedonistically to gain rewards while investing?
- ***RQ4 :*** Are they impulsive while picking stocks?
- ***RQ5 :*** Do they prefer new companies in their stock options?

Moreover, there are considerable implications in understanding the investment style of millennials as they are the largest population segment across the globe (Marwaha, 2021), thereby establishing a tremendous market segment for financial service providers (Larson et al., 2016).

Literature Review

Generation Theory and Millennial Cohorts

The generation theory, proposed by Mannheim (1952), suggests that socio-economic, historical, and political events impact individuals, leading to a distinct characteristic among generational cohorts. These generational cohorts differ not only by age group but also in their behavior due to the similar life events they experienced during their formative years (Mannheim, 1952). Thus, every cohort is defined by a different time of birth. However, there is no precise time interval to define this category of individuals (Larson et al., 2016). Most studies specified that millennials/Generation Y are those born between 1980–2000 (McLendon, 2016), attained adulthood in the millennium, and are digitally connected throughout their lives (Semente & Whyte, 2020).

Profile of Indian Millennials

India is the youngest country in the world (Singh et al., 2021) and has a millennial population of about 440 million (Sharma, 2021) with a median age of 29 years (Singh et al., 2021). The ability to connect with people through mass media and the enormous usage of the internet and technology (Arora et al., 2018; Tanwar et al., 2021) reveal that they are distinct from their previous generational cohorts (Bulsara & Vaghela, 2022). They express their views about various products and services on social media through reviews, blogs, and tweets (Arora et al., 2018). They are the largest labor force in India ("India's millennials to drive," 2017). By 2026, the millennial working population will be around 0.8 million of India's population, with a working-age group of 15–64 years (Raina, 2017). They are the chief wage earners of the family and will contribute around 70% of the household income ("India's millennials to drive," 2017). Wealth creation is the top priority among millennials (Mehta, 2018). They receive surplus funds from their parents by inheritance, giving them more investment opportunities (Collinson, 2017), and their spending power is very high (Heo & Muralidharan, 2019).

Consumer Decision-Making Styles and the Choice of Stock Investments

Consumer decision-making style is a mental orientation that aids in understanding consumer behavior in choosing products and services (Sprotles & Kendall, 1986). It includes eight dimensions: brand consciousness, brand loyalty, confusion by over-choice, hedonism, impulsiveness, novelty consciousness, perfectionism, and value for money (Sprotles & Kendall, 1986).

Based on the suggestions of Kasper et al. (2010), we have measured brand loyalty and consciousness as a single factor. Secondly, an investor always searches for a better financial product (i.e., perfectionism) and estimates the value of the money invested in making sound investment decisions (Coothoopermal & Chittoo, 2017; McLachlan & Gardner, 2004). Thus, we have excluded the three factors, namely perfectionism, value for money, and brand consciousness, and considered only brand loyalty, confused by over-choice, hedonism, impulsiveness, and novelty-conscious styles in our study.

Brand Loyalty

Brand loyalty is an inclination to purchase products or services repeatedly, despite the availability of alternative and cheaper products (Santhosh Kumar & Menon, 2017). Further, it is also an intention created through psychological bias or emotional commitment toward a specific product (Grisaffe & Nguyen, 2011). Fournier (1998) classified brand loyalty into behavioral and attitudinal loyalty. Behavioral loyalty refers to the intention to repurchase products consistently (Panigrahi et al., 2021), whereas attitudinal loyalty refers to the commitment toward a specific brand for a long time (Chaudhuri & Holbrook, 2001).

Research on consumer decision-making, such as purchasing products and services, and investment decision-making, such as investing and holding stocks, have been considered different (Aspara, 2009). However, research evidence proved that consumers loyal to any specific product or service tend to hold stocks of the same companies (Aspara, 2009). In a study to investigate the portfolio choice of employees, Cohen (2009) elucidated that employees prefer investing their pension funds in their own company's stock due to their emotional attachment and loyalty to their company. Similarly, Lee and Wang (2010) revealed that the benefits derived from financial products increase the behavioral loyalty of the consumer, leading to the intention of repurchasing the products. However, it was found that brand loyalty among millennials is comparatively less than their previous generation cohorts (Klein & Sharma, 2018), and hence, we hypothesize that:

↳ **H01 :** Brand loyalty does not impact the choice of stocks among millennials.

↳ **Ha1 :** Brand loyalty positively influences the choice of stocks among millennials.

Confused by Over-Choice

This style characteristic reveals the confusion among consumers in the choice of products and services (Sprotles & Kendall, 1986). More options, information overload, and access to ambiguous information distract consumers from making optimal decisions (Alavi et al., 2016; Sethi-Iyengar et al., 2004). In a study to investigate the decision-making behavior of employees in the preference towards 401(K) retirement plans, Sethi-Iyengar et al. (2004) found that increased retirement savings options and information overload led to a decrease in the choice of a new savings plan. Chioveanu and Zhou (2013) elucidated that different companies follow different strategies to offer the same product in the market, which eventually confuses the consumers. Hence, they fail to compare the products in different scenarios, leading to confusion in the choice of stock investments.

Coothoopermal and Chittoo (2017) emphasized that confusion in terms of promotional aspects and complexity in understanding the terms and conditions of the financial product confuses young investors. In addition, Mclachlan and Gardner (2004) observed that young investors are more confused than older investors as they spend more time and effort analyzing the available information before making investments. Similarly, Thangavel et al. (2021) discovered that enormous usage of the internet and social networks confuses millennials in selecting the right products on e-commerce websites. Thus, we propose the following hypotheses:

↳ **H02 :** Confusion by over-choice does not impact the choice of stocks among millennials.

↳ **Ha2 :** Confusion by over-choice positively influences millennials' choice of stock investments.

Hedonism

Hedonism is the desire to gain excitement or pleasure (Sprole & Kendal, 1986). Individuals who are high in hedonistic behavior prefer to invest in highly risky investments such as stock market instruments (Singla & Hiray, 2019). Sekścińska et al. (2018) discovered that young Polish samples choose risky options like mutual funds or stocks instead of less risky investments. Leonard et al. (2019) explored the impact of time perspective on the financial well-being of middle-aged consumers. They observed that people with great hedonistic behavior allocated more financial resources to risky investments to earn high returns. Barton and Wiseman (2014) witnessed that nearly two-thirds of corporate executives displayed hedonistic behavior to acquire short-term gains in the stock markets. Therefore, we hypothesize that :

↳ **H03 :** Hedonism does not impact the choice of stock investments among millennials.

↳ **Ha3 :** Hedonism positively influences the choice of stock investments among millennials.

Impulsiveness

Impulsive consumers make unplanned purchases and make spontaneous decisions without much thought (Sprotles & Kendall, 1986). Using a sample of retail investors from the Warsaw Stock Exchange, Rzeszutek (2015) observed that individuals with high impulsivity traits were more prone to immediate gratification and displayed highly risky behavior. Ceravolo et al. (2019) found that Italian students were impulsive, spent less time reading critical investor information, and made financial decisions without much thought. Conlin et al. (2015) found that Finnish Gen X investors were impulsive and preferred to invest in stock market instruments. Further, Weaver et al. (2013) established that men exhibited impulsive behavior under uncertainty and preferred to take a high risk to gain immediate returns. Thus, we propose that :

- **H04 :** Impulsivity does not impact the choice of stock investments among millennials.
- **Ha4 :** Impulsivity positively influences the choice of stock investments among millennials.

Novelty-Seeking

Novelty-seeking refers to the inherent desire to search for new information and products in the market (Hirschman, 1980). Using the data from the cryptocurrency market in the United States, Novotný (2018) observed that the novelty-seeking style motivates investors to invest in crypto assets, as it is a new place to invest compared to stock markets. Likewise, by exploring the Bitcoin community, Bohr and Bashir (2014) elucidated that the desire to search for new financial products stimulated young investors to be more prone to bitcoin investments than older investors. Finally, using the data from a survey of consumer finance, Bonaparte (2021) analyzed the portfolio choice of millennials and their intention to participate in stock markets and found that millennials preferred to invest in cryptocurrency and equities as part of their investment portfolio. Thus, the intention to gain experience and motivation to adopt new products and services influenced millennials to be novelty seekers (Parment, 2013), and hence, we propose the following hypotheses:

- **H05 :** Novelty consciousness does not impact millennials' choice of stock investments.
- **Ha5 :** Novelty consciousness positively influences the choice of stock investments among millennials.

Methodology

Research Design

A descriptive research design was adopted to test the hypothesized model (Figure 1). Accordingly, a structured questionnaire was employed through the survey method (a quantitative technique) to collect the cross-sectional data from a sample of millennial investors. The questionnaire consisted of two sections, with the first part capturing the demographic profile of the investors (Table 1) and the second part measuring the decision-making styles and choice of stock investments adopted from the past literature (Table 2). Further, the questionnaire was shared with three domain experts to check the content validity, who suggested changes. Those changes were incorporated, and the questionnaire was pilot-tested among 50 individual investors.

Sampling and Data Collection

The sampling frame for our study is the individual investors who invested in stock markets. However, we focused on millennial investors who are residents of India and have prior experience in investing in stock markets. The data were collected through online and offline modes. Since we did not have a previous list of millennial investors, we used the snowball method of sampling, which is a non-probability sampling technique (Kalra Sahi & Pratap Arora, 2012). This sampling method helped us reach out to the respondents through the references made by other study participants (Heckathorn, 2002). The data were collected from August 2020 – February 2021.

The sample size for our study was determined based on the millennial population with a 95% confidence interval. Further, we followed the recommendations of Kline (2011), who suggested that the sample size could be determined by allocating 10 responses per item. The questionnaire comprised of 18 items (18 items * 10 responses per item = 180 samples were required). Out of 450 invitations, about 243 responses were received. During the data screening process, 17 responses were discarded due to incompleteness. The remaining 226 responses (response rate of 75%) were utilized for the study, which satisfied the above criteria for sample size.

Measures

We preferred to use the consumer style inventory, as it is a robust scale and was found to be an established parameter in capturing the purchase behavior of consumers (Klein & Sharma, 2018; Thomas & Mathew, 2021). Among the independent variables, hedonism, confused by over-choice, and impulsiveness had four items each, and brand loyalty and novelty consciousness contained three items each. This selection was due to the high-reliability value possessed by these items in various pieces of research. Further, the items associated with the consumer-style inventory were rephrased to fit into the context of stock investments. Among the items in the independent variable, two items from confusion by over-choice and one each from impulsiveness and novelty consciousness were discarded due to poor factor loading.

Similarly, we adapted four items from Kasilingam and Jayabal (2010) to measure the dependent variable. Finally, we had only 18 items to measure the hypothesized model. The respondents were asked to rate the items using a 5-point Likert scale, with 1 as *strongly disagree* to 5 as *strongly agree*.

Intended Analysis & Software Used for the Study

Multivariate normality was assessed using Mardia's coefficient, for which a critical value of less than five is acceptable (Bentler, 2006). However, our sample revealed a critical ratio greater than seven, which is above the threshold limit, thus indicating the non-normality of the data. Therefore, we analyzed the model through partial least square structural equation modeling (PLS-SEM) using Smartpls 3 Software, as it did not require the data to satisfy the conditions of normality and large sample size. Further, the model was analyzed using a two-step approach suggested by Anderson and Gerbing (1988) by examining the measurement and structural models.

Data Analysis and Results

The demographic profile of the respondents is displayed in Table 1.

Table 1. ***Demographic Profile of the Respondents***

Variables	Labels	Frequency (*N*)	Percentage
Gender	Male	134	59.29
	Female	92	40.71
Age (in years)	28.0 – 30.0	43	18
	31.0 – 33.0	85	38
	34.0 – 36.0	74	33
	37.0 – 39.0	24	11
Education	Post Graduate	124	54.87
	Professional Degree	102	45.13
Income (per month)	Less than 1 lakh	25	11
	1,00,000 – 2,00,000	74	33
	2,00,001 – 3,00,000	71	31
	3,00,001 – 4,00,000	24	11
	Above 4 Lakhs	32	14
Marital Status	Married	168	74

	Unmarried	58	26
Investment Experience			
(in years)	0 – 2	42	19
	2.1 – 4	37	16
	4.1 – 6	43	19
	6.1 – 8	43	19
	8.1 – 10	41	18
	More than 10	20	9

Common Method Bias

The self-reported survey and quantitative studies in behavioral and social science research are susceptible to the problem of common method bias, which inflates the correlation among constructs and, thus, affects the validity and reliability of the latent constructs (Podsakoff et al., 2003). In our study, the dependent and the independent variables were collected from the same respondent; thus, they are self-reporting, which may lead to common method bias. Based on the suggestions of Reio (2010), adequate measures were taken while designing the questionnaire by mixing the items of the dependent and independent variables. Additionally, a statistical control method, i.e., Harman's single factor test, was performed using exploratory factor analysis in SPSS. All the items were included with no rotation. We found that the first factor in the exploratory factor analysis revealed 18% of the variance, which is within the threshold limit of 50% (Podsakoff et al., 2003). Hence, the result shows that our study may not have an issue of common method bias.

Measurement Model

The first step in estimating the outer model is to test the reliability of the constructs using Cronbach's alpha and composite reliability, which help to measure the internal consistency of the individual items forming the constructs (Hair Jr et al., 2014). Further, Cronbach's alpha greater than 0.70 (Cronbach & Meehl, 1955) and composite reliability greater than 0.60 (Rigdon et al., 2010) are considered the threshold limit for reliability. The results of our study satisfied the above criteria for all the constructs except novelty, for which, Cronbach's alpha was 0.63 (Table 2).

Convergent Validity

The next step is to assess the validity of the constructs through convergent and discriminant validity. In our analysis, the outer loadings of the reflective indicators, which were above the threshold of 0.7, were retained in the model to ensure that they explain a minimum of 50% of the variance among other constructs (Hair Jr et al., 2014). However, certain items were removed from the constructs due to poor loading. Thus, the standardized loadings for all the constructs were above the threshold limit of 0.7 (Rigdon et al., 2010), except for one item in hedonism (*HED2* = 0.66) and one item in novelty consciousness (*NC2* = 0.65), satisfying the above criteria. Further, the average variance extracted (AVE) by the latent constructs lies between 0.6 to 0.9, which is above the threshold limit of AVE > 0.5 (Hair Jr et al., 2014). Thus, our results satisfied the assumptions of convergent validity (Table 2).

Table 2. ***Validity, Reliability, and Factor Loadings of the Latent Constructs***

Construct	Items	λ	α	CR	AVE
Choice of Stock Investments (*CSI*) (Kasilingam & Jayabal, 2010)	The terms and conditions of the financial product are very simple and easy to understand. (*CSI1*)	0.88***	0.91	0.94	0.8
	I always choose financial products which provide safety and security for the money invested. (*CSI2*)	0.91***			
	Consistency of returns is more important than earning more than the market returns. (*CSI3*)	0.87***			
	I choose financial products which provide me with regular returns. (*CSI4*)	0.90***			
Brand Loyalty (*BL*) (Sprotles & Kendall, 1986)	I have favorite investment options, which I buy over and over. (*BL1*)	0.88***	0.82	0.89	0.73
	Once I find an investment I like, I stick with it. (*BL2*)	0.90***			
	I always prefer to invest in well-known financial products rather than unknown products. (*BL3*)	0.77***			
Confused by Over Choice (*COC*) (Sprotles & Kendall, 1986)	I often feel confused with so many financial products to choose from. (*COC1*)	0.95***	0.89	0.94	0.9
	The more I learn about financial products, the harder it seems to choose the best. (*COC2*)	0.94***			
Hedonism (*HED*)	Investing is not a pleasant activity for me. (*HED1*)	0.88***	0.84	0.88	0.65
(Sprotles & Kendall, 1986)	Investing in risky assets wastes my time. (*HED2*)	0.66***			
	I invest in risky financial products just for the fun of it. (*HED3*)	0.92***			
	Investing is one of the enjoyable activities of my life. (*HED4*)	0.72***			
Impulsiveness (*IMP*)	I am impulsive when investing. (*IMP1*)	0.90***	0.78	0.85	0.66
(Sprotles & Kendall, 1986)	I take the time to invest carefully for the best investments. (*IMP2*)	0.77***			
	Often I make careless investments I later wish I had not. (*IMP3*)	0.75***			
Novelty Consciousness (*NC*) (Sprotles & Kendall, 1986)	I usually have one or more financial products of the very newest options. (*NC1*)	0.97***	0.63	0.81	0.68
	I invest in different financial products and choose different sectors to get variety. (*NC2*)	0.65***			

Note. *** $p < 0.001$, λ – Factor loading ; α – Cronbach's alpha; CR – Composite reliability ; AVE – Average variance extracted.

Discriminant Validity

Discriminant validity aims to identify whether the constructs under study are distinct from each other and can be assessed through Fornell and Larcker criterion and cross-loading criterion (Hair Jr et al., 2014). According to Fornell and Larcker's criterion, the construct's indicators and other constructs share more variation than the construct itself, which means the diagonal values in the construct should be greater than the intercorrelated values of other constructs (Fornell & Larcker, 1981). The results of our study satisfied the criteria above for all the constructs (Table 3). Further, discriminant validity is also tested using the cross-loading criterion, which states that each indicator has larger cross-loadings on its construct than on other constructs (Henseler et al., 2009). Our findings reveal that the outer loading of the indicators with their respective latent construct is greater than the indicator loadings of other constructs, thus satisfying the discriminant validity between the constructs.

Table 3. ***Discriminant Validity : Fornell – Larcker Criterion***

Constructs	*CSI* [a]	*BL*	*COC*	*HED*	*IMP*	*NC*
Choice of Stock Investments	**0.894**[(b)]					
Brand Loyalty	–0.208	**0.856**				
Confused by Over-choice	0.156	0.164	**0.949**			
Hedonism	–0.117	0.512	0.267	**0.808**		
Impulsiveness	0.251	–0.191	–0.095	0.017	**0.815**	
Novelty Consciousness	0.256	0.273	0.23	0.359	–0.023	**0.829**

Note. [a.] CSI– Choice of stock investments; BL–Brand loyalty ; COC–Confused by over-choice ; HED–Hedonism ; IMP–Impulsiveness ; NC – Novelty consciousness.

[b.] The diagonal values in the table represent the squared correlations between the latent variables. The values highlighted in the diagonal represent the average variance extracted for each latent construct.

Structural Equation Modeling Using PLS-SEM

The next step is to examine the hypothesized relationship (using PLS-SEM) between constructs and assess the predictive ability of the model (Hair Jr et al., 2014). Before proceeding with the analysis, we tested the model for multicollinearity issues (using SPSS software version 21), as it may threaten the validity of the findings (Podsakoff et al., 2003). Further, path coefficients, predictive accuracy, predictive relevance, and effect size were calculated to estimate the quality of the structural model.

Test for Multicollinearity

The degree of correlation among the predictor variable is assessed through the multicollinearity test. Variance inflation factor (VIF) less than 10 (Henseler et al., 2009) is considered acceptable. Our study results satisfied the above criteria with brand loyalty (1.45), confused by over-choice (1.112), hedonism (1.537), impulsiveness (1.068), and novelty consciousness (1.188). Thus, there is no issue of multicollinearity in our model.

Test for Predictive Accuracy (R^2)

The values of R^2 can determine the predictive accuracy of the model. R^2 value helps us understand the combined effect of independent variables with that of the dependent variable, and it lies between 0 to 1, where 1 represents the overall predictive accuracy of the model (Hair Jr et al., 2014). Further, R^2 values of 0.25, 0.50, and 0.75 represent weak, moderate, and high predictive accuracy, respectively (Hair Jr et al., 2014). Our findings reveal an R^2 value of 0.239, which implies a weak predictive accuracy of the model. Thus, it is evident that decision-making styles are not the only predictor of the choice of stock investments.

Predictive Relevance (Q^2)

The predictive relevance of the structural model is assessed through a sample re-use technique and a value greater than zero for an endogenous construct signifies a favorable predictive relevance of the path models (Hair Jr et al., 2014). The value of $Q^2 = 0.171$ in our study reflects a high predictive relevance in the endogenous construct, i.e., choice of stock investments.

Results of the Hypothesis Testing : Path Coefficients

The PLS-SEM algorithm helps estimate the path coefficients and validate the hypothesized relationships between the exogenous and endogenous constructs. Further, the significance of the relationship between constructs (*t*-statistics) was ascertained through bootstrapping with 5,000 re-samples (Hair Jr et al., 2014). From Table 4, it is evident that the hypothesized relationships in the structural model are significant. The results reveal that novelty consciousness ($\beta = 0.341$; $t = 6.028$; $p < 0.001$), impulsivity ($\beta = 0.244$; $t = 3.974$; $p < 0.001$), and confused by over-choice ($\beta = 0.184$; $t = 3.107$; $p < 0.05$) have a significant positive influence on the choice of stock investments.

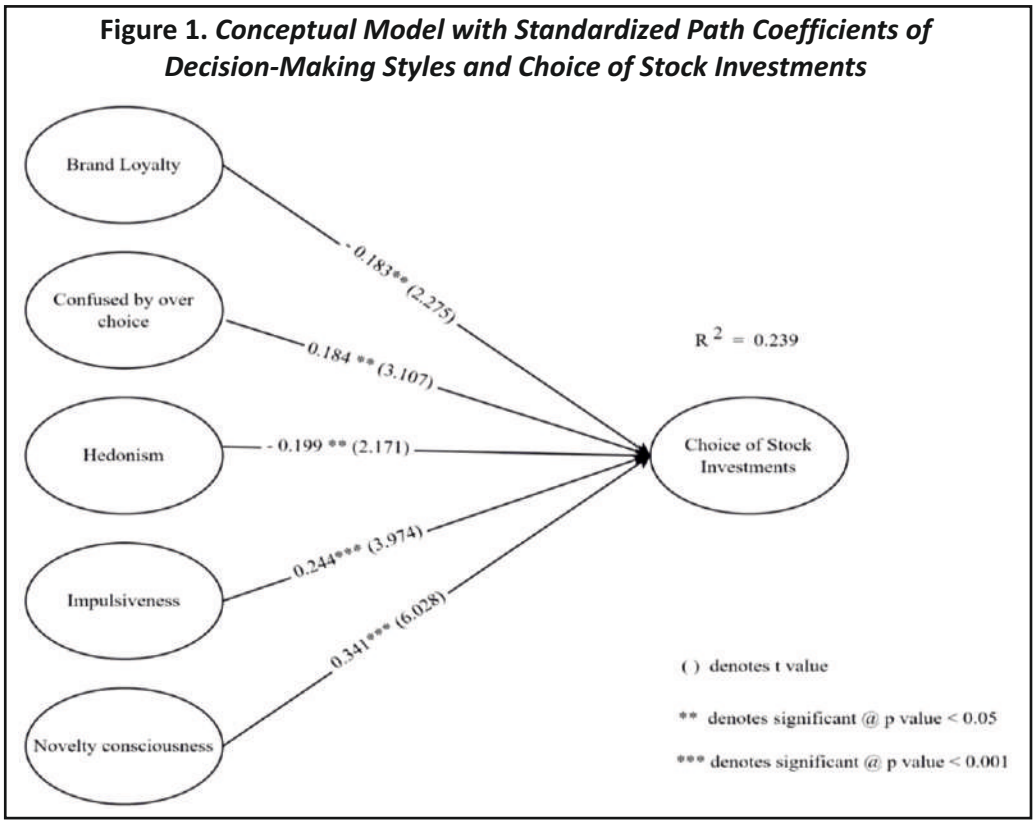
Table 4. ***Summary of the Findings***

S.No.	Hypothesis	Path Coefficients	*t* - statistics	Results	(f^2)	(q^2)
H1	Brand Loyalty -> Choice of Stock Investments	–0.183	2.725**	Not Supported	0.03	0.433
H2	Confused by Over Choice -> Choice of Stock Investments	0.184	3.107**	Supported	0.04	0.524
H3	Hedonism -> Choice of Stock Investments	–0.199	2.171**	Not Supported	0.034	0.417
H4	Impulsiveness -> Choice of Stock Investments	0.244	3.974***	Supported	0.073	0.333
H5	Novelty Consciousness -> Choice of Stock Investments	0.341	6.028***	Supported	0.129	0.188

Note. **significant @ *p* value < 0.05, ***significant @ *p* value < 0.001.

Effect size : 0.02–Small ; 0.15–Medium ; 0.35–Large.

Figure 1. ***Conceptual Model with Standardized Path Coefficients of Decision-Making Styles and Choice of Stock Investments***



However, brand loyalty (β = – 0.183; $t = 2.725$; $p < 0.05$) and hedonism (β = – 0.199 ; $t = 2.171$; $p < 0.05$) have a significant negative influence on the millennials' choice of stock investments. After calculating the significance of the model, it is vital to calculate the effect size of the path model to provide better managerial implications (Hair Jr et al., 2014).

Effect Size (f^2)

Cohen's (f^2) is calculated to determine the effect size of the path model, which depicts the influence of a specific independent variable on the dependent variable. And q^2 represents the effect size of the predictive relevance. Based on the recommendations of Cohen (1992), it is suggested that f^2 values of 0.02, 0.15, and 0.35 are considered to have a low, moderate, and high effect size, respectively. The findings of our study reveals an effect size (Table 4) for brand loyalty ($f^2 = 0.03$; $q^2 = 0.433$), confused by over-choice ($f^2 = 0.04$; $q^2 = 0.524$), hedonism ($f^2 = 0.034$; $q^2 = 0.417$) impulsiveness ($f^2 = 0.073$; $q^2 = 0.333$), and novelty consciousness ($f^2 = 0.129$; $q^2 = 0.188$). Thus, it indicates an adequate effect size of explanatory variables on the outcome variable.

Discussion

Based on the hypothesis testing, it is found that brand loyalty has a significant negative impact on the choice of stock investments among millennials. Our results are consistent with the findings of Klein and Sharma (2018), who found that generation Y consumers are disloyal toward any brand and prefer diverse, innovative products to satisfy their utility (Parment, 2013). Thus, hypothesis Ha1 is rejected. On the other hand, confused by over-choice has a significant positive influence on the millennials' choice of stock investments. The findings of our study are consistent with Sethi-Iyengar et al. (2004). They found that an increase in the number of choices increased confusion among young investors, as they have to spend more time and effort analyzing the information before making investments (McLachlan & Gardner, 2004). Further, confusion in terms of promotional aspects (Coothoopermal & Chittoo, 2017) and availability of similar investment options with identical features (Schwartz et al., 2002) also create confusion in the choice of financial products. Thus, the hypothesis Ha2 is accepted.

However, the path coefficient for hedonism reveals a significant negative impact on the choice of stock investments. Our results are contrary to Singla and Hiray (2019), who reported that hedonism significantly positively influenced individual investors' preference for stock market instruments. Thus, hypothesis Ha3 is rejected. Furthermore, impulsivity has a significant positive influence on the millennials' choice of financial products, which is in line with Ceravolo et al. (2019). They stated that young consumers have a low attention span for details and are very impulsive. As a result, they pay little attention to the information. Thus, hypothesis Ha4 is accepted. Likewise, we found that novelty consciousness has a significant positive relationship with the millennials' choice of investments, which is similar to the findings of Bohr and Bashir (2014) and Bonaparte (2021). They found that young investors are much more prone to choosing novel financial products like cryptocurrencies. Thus, hypothesis Ha5 is accepted.

Theoretical Implications

Our study utilizes the consumer characteristics approach and the generation theory to examine the decision-making style of millennials in the choice of stock investments, which has not been explored earlier, especially among the millennial sample. Further, this will help marketers understand millennials' investment patterns to create better marketing strategies.

Managerial Implications

The findings of our study lead to some useful managerial implications. First, based on the observations, we found that millennials are not brand loyal to any financial product and are confused by over-choices. This confusion may arise due to many financial products and an enormous amount of information to process. Therefore, marketers should offer financial products with greater transparency and reduce the number of options. Further, they can also direct the consumers to websites that provide better investment information.

Similarly, we found that millennials prefer novelty in their choice of stock investments. Hence, marketers should focus on introducing new innovative products in the same brands to satisfy their needs. Further, our findings revealed that millennials are impulsive, so marketers should develop better investment strategies to focus on the impulsive trait of the consumers. They can also include color as an additional dimension to depict the financial products' risk and return nature, which can help the consumers choose the products based on their risk profile (Ceravolo et al., 2019). Moreover, we observed that millennials do not display hedonistic behavior while investing in stock markets. Hence, marketers should focus on the time perspective of the individual consumers, which would reveal their risk preference toward stock investments.

Limitations of the Study and Scope for Future Research

Our study has focused only on five dimensions; hence future research can focus on all eight dimensions with millennials from various sectors and compare them with their previous generation cohorts. Secondly, our study reveals a low *R*-squared value. Therefore, including more behavioral variables, such as framing, anchoring, mental accounting, and self-attribution bias, will help improve the model. Furthermore, loyalty-based stock ownership, discount-seeking and quality-seeking behavior of hedonistic consumers, and application of the consumer decision-making style in the context of Bitcoin investments and comparing among Gen X and Gen Y consumers could be an area of research in the future.

Authors' Contribution

T. N. Mahalakshmi conceived the idea, developed a quantitative design to undertake the empirical study, extracted research papers with high repute, filtered these based on keywords, generated concepts and codes relevant to the study design, collected the data, performed the analysis, and wrote the manuscript. Dr. Shanmugam Munuswamy verified the study method and supervised the study, providing valuable comments to improve the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or an entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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