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CHARACTERIZING INVESTMENT BEHAVIOR AMONG BUSINESS STUDENTS IN SOUTHERN MINDANAO, PHILIPPINES

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Abstract:
The purpose of this study is to characterize the investment behaviors of college students taking Business-related programs in Mindanao, Philippines. This includes determining their awareness of investing and whether the identified measures of investment behavior would pose a likelihood of appropriate investment decisions. The study is a sequential-exploratory mixed method research design, implemented in three phases: qualitative approach in the first phase and quantitative approaches in the second (data reduction procedure) and third (regression procedure) phases. A total of 300 college students taking Business programs in the College of Business Administration Education and College of Accounting Education of the largest university in Mindanao, Philippines participated in the survey, where they were asked to respond to the 35-item financial behavior scale developed in the first phase. Exploratory factor analysis was able to trim the 35-item scale into 29 items which loaded in ten dimensions: information/random walk, negative investor mindset, expert influence, investor's awareness, publicity, financial capacity, stock market orientation/literacy, risk appetite, interest, and venture capital. Regressing these ten dimensions with students' demographic variables revealed that Business students are cautious in investments and rely on expert advice before proceeding to invest but at a later time. Implications are discussed.

JEL: E22; F21

Keywords: investment, Business students, college students, exploratory factor analysis, multinomial logistic regression, Philippines

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1. Introduction

Investment choices are more important than ever in the modern world. Investment location selection should not only be understood by business leaders and corporate tycoons, but also begin at the level of individual learning. Like this, a potential investor needs to thoroughly understand their available investment options because each one offers a different sort of return and degree of risk (Ainia & Lutfi, 2019). Many investors invest to increase their income, and risk is the primary element that influences their decision to invest, indicating that most investors are risk-averse (Ansari & Moid, 2013). Likewise, an investor needs to know the investment choices rigorously because each option presents different types of return and risk levels (Mendonça, Ferreira, Cardoso & Martins, 2020. The majority of investors invest for additional and growth of income (Murithi, Narayanan & Arivazhagan, 2012), and the major factor that assesses their investment decision are risk factors, which means that investors mostly are risk-averse (Ansari & Moid, 2013). While students pursuing business-related degrees are expected to demonstrate a higher level of financial literacy (Tomlinson, 2008), such is not always the case.

Young people's university learning experiences should also be enabling aspects for their decision-making since, if they are initially informed on topics like financial planning, forecasting, and risk simulation, there is a chance that their investment will succeed (Bradbury, Hens & Zeisberger, 2016). The ability to accomplish one's personal life goals is another thing that college students envisage, conceptualizing it even as they struggle to earn their degrees. This is made possible by financial freedom, which requires maximizing the value of the money one has through essential means (Brigham, 2016), such as working a job and engaging in microbusiness ventures. Additionally, the learning experiences of young individuals in universities should be enabling factors for their decision-making, since if they are initially informed on matters like financial preparations, forecasting and risk simulation, the likelihood of investment success would be possible (Bradbury, Hens & Zeisberger, 2016). However, students—college students in particular—generally have a fear of making future investments (Alleyne, 2011; Arianti, 2018; Cho, Xu & Kiss, 2015), which leads them to fall back on the old idea that finding work would satisfy their own requirements. Ironically, younger people should be educated enough to understand how to invest (Padil et al., 2021), even in a modest start-up fund. Additionally, younger people misinterpreted investment in the sense that it can also be linked to the commitment of a person's funds to generate future income, regardless of how modest they are (Kevin, 2015).

Numerous studies on investment have been conducted all around the world, but they only consider the macroeconomic levels. Investment in young people is very rare in the social fabric of the Philippines. Many people can gain significant knowledge from learning how to invest. The main driver of investment motivation and a significant influence on how people perceive risk and investment is their level of awareness (Sasirekha & Jerinabi, 2016). Finally, no research has been done in Davao City to identify

the constructions or factors that define investment behavior among college students majoring in business-related disciplines, or to evaluate whether these elements affect a student's propensity to engage in investment. Therefore, the goal of this study is to ascertain how business students invest, how conscious they are of investing, and how likely it is that they will invest even at this early point of their academic career.

2. Literature Review

A significant turning point in every student's life is college. To develop sound and practical long-term financial well-being, students must understand how different financial events and decisions may ultimately affect their long-term goals and possibilities. Understanding the behavior of individual investors could also be very helpful in explaining stock market oddities and in assisting policymakers, investment agencies, academics, as well as management of enterprises, in being better prepared to deal with an investor's fluctuating moods (Kaur & Vohra, 2012).

According to Phan and Zhou (2014), a person's investment intention is highly influenced by his investing attitude, subjective norm, and perceived behavioral control. In addition, they offered solid evidence for the existence of psychological elements that support the theory that four psychological characteristics (overconfidence, excessive optimism, psychology of risk, and herd behavior) have a substantial impact on the attitude of persons toward investment. Taking the time to make prudent decisions regarding banking, credit, insurance, and revolving debt will enable college graduates to emerge on firm financial footing, providing the groundwork for achieving their long-term objectives with minimal financial strain (Gordon & Brown, 2016).

Moreover, according to Huang (2016), the majority of specialists placed a greater emphasis on risk and convenience, whereas the majority of students placed a greater emphasis on profit. One probable explanation for this phenomenon is that students have a greater demand for material pleasures, and hence require more money. In addition, because students lack knowledge in the financial industry, they may overlook the intricate procedures. Experts, on the other hand, have more expertise and knowledge of the potential negative consequences of risk and operational convenience's benefits; hence, they favor investments with constant returns and low risk over those with high returns and high risk.

Bhushan (2014) discovered that college students have a high degree of awareness regarding traditional and secure financial products, but the population has a low level of awareness regarding modern financial products. In turn, this causes people to invest in traditional and secure financial vehicles. The results as a whole indicate that individuals must be made more aware of new investing alternatives on the market. They must be well educated on new financial items on the market so they can make bigger returns. In addition, they will not be duped by sales professionals since they will be aware of the fees charged by a company selling financial products, and they will only invest in

financial products after considering the risk-return characteristics of the financial products.

In addition, Arrow and Lind (2014) asserted that risk is a crucial factor that must be considered while making investments. Investment risk refers to the unpredictability of future investment income and the potential for revenue or capital losses. This lends credence to claims that, in recent years, a great deal of anxiety has grown regarding the complexities of the financial markets, which tend to necessitate greater individual accountability (Letkiewicz & Fox, 2014). Moreover, various economic variables can affect an individual's finances; therefore, personal budgeting is necessary to restrict daily spending and conserve money (Maharesi & Hermawati, 2014).

In a similar vein, Malviya and Pandey (2015) noted that the inclination of investors is skewed toward investment options that offer security, safety from theft, withdrawal capability, market acceptability, planned return, good ROI (return on investment), and preservation of money's worth. Thus, marketers have the potential to build securities that match the needs and expectations of investors. There are several investment choices accessible on the market, but investors are ignorant of them, which is a major problem; thus, the firm markets its instruments effectively so that everyone may enjoy the security characteristics.

Sound financial understanding is highly associated with fiscal responsibility. Financial knowledge is associated with exhibiting good financial behavior, and the findings also indicated that financial knowledge had the greatest influence on financial behavior, suggesting that equipping households with financial knowledge could lead them to practice commendable financial behavior, which could improve their financial position (Zakaria, Jaafar & Marican, 2012). Raza (2014), on the other hand, argued that investors' perceptions do have a strong and significant impact on their financial decision-making, implying that behavioral finance challenges conventional financial modelling and is therefore an important emerging field of financial decision-making that needs to be studied further.

Young and educated individuals are more drawn to new hazardous investment alternatives and wish to participate in these instruments, but they hesitate due to limited resources, a dearth of investment opportunities, and the absence of investment returns (Bashir et al., 2013). It was discovered that a relationship exists between a young person's personal epistemology, such as locus of control, and the stock market decision-making mechanism (Sunitha, 2013). The financial decisions of a person are impacted by his or her personal epistemology. For instance, most employees are aware of investments in securities, but they do not invest in them because they perceive them to be risky (Bhardwaj, Sharma & Sharma, 2013).

In a similar vein, Pellinen et al. (2011) found that attitudes towards the use of money, such as spending and saving, impact financial skills and competence, which are based on financial knowledge and comprehension. Financial skills and competence are knowledge that manifests itself in daily and long-term financial management practices and habits. Financial literacy was found to be highest among professionals, companies,

and farm owners, as well as high school and college graduates. The lowest levels of financial literacy were observed among the jobless, those with low levels of schooling, and non-English speakers (Chinen & Endo, 2014).

3. Material and Methods

This study utilized a mixed method type of research starting with a qualitative research design and being followed by a quantitative exploratory type of research. Qualitative research is "*a form of systematic empirical inquiry into meaning*" (Shank, 2002). This design uncovered the perceptions, opinions, and beliefs of the students about the phenomenon or concept being asked. In the present study, determinants of investment behavior of business students were explored through narrative experiences and these experiences of fourth-year Business students were examined through individual interviews. The quantitative phase was then used in the manner of running exploratory factor analysis to discriminate items that do not pass the statistical tests, with the remaining items to be considered as measures of investment behavior among fourth-year Business students.

The study was conducted involving fourth-year Business Administration, Accountancy, Accounting Technology, Real Estate Management, Entrepreneurship, and Legal Management students as the respondents of the study. The first phase involved key informant interviews involving 10 students to gather relevant responses which were used as items in the data-gathering instrument. The second phase involved the computation of the final sample size based on the population through a sampling method known as stratified random sampling. This is to give every fourth-year student a chance to be selected, given that involving all students will be economically-taxing for the researchers. The 300 respondents met the requirements of Hatcher (1994) for studies using factor analysis, recommending that the number of subjects should be larger than 5 times the number of variables, since 35 items multiplied by 5 requires 175 respondents.

Factor structure of investment behavior was explored through narrative experiences of n=10 fourth-year college students through individual interviews. The first group was five students enrolled in BSA and BSAT and the second group was five students enrolled in BSBA. They were asked on the things all about their views on investing through KIIs. The discrete responses which were yielded from two interviews with these students were the preliminary basis for the questionnaire to be used in the second phase. The questionnaire which was developed in the second phase was content validated with the help of three research experts in related fields. A pilot test involving 15 college students was done to ensure the reliability of the instrument. The instrument was a 35-item scale containing items from the qualitative phase, which are discrete statements of investment behavior towards the stock market. The 35-item scale is rateable using a 5-point Likert type scale with the semantic pairing of Strongly Agree (5) and Strongly Disagree (1).

In the interpretation and analysis of the data gathered, exploratory factor analysis was used to ascertain the factors or components that characterize the investment behavior

of fourth year Business students, while multinomial logistic (MNL) regression analysis was used to determine which of the factors or components of investment behaviour predict the fourth year Business students' extent of investing. All statistical computations were done via IBM-SPSS version 20.

4. Results and Discussion

Table 1 shows the distribution of respondents from the College of Business Administration Education (CBAE). As seen in the table, in terms of gender, 66.7% of the respondent BSBA students are females, while 33.3% of the respondents are males. Moreover, in terms of specialization, Financial Management students represent 40.7% of the overall BSBA respondents followed by Human Resource Management (29.3%), Marketing Management (23.3%), while there were a few who represented Legal Management (2%), Real Estate Management (2%), Business Economics (1.3%) and Entrepreneurship (1.3%). Likewise, as to economic status, BSBA students who belong to the low-income family were found to be the highest representation (32%), followed by those who belong to poor families (29.3%), lower middle-class family (24.7%), middle class family (9.3%), rich family (2.7%), upper middle-class family (1.3%) and the upper income family (0.07%). Lastly, the result shows that the mean age of BSBA students is 20.88 meaning most of the BSBA students who answered were 21 years old.

Table 1: Distribution of respondents from College of Business Administration Education

Variable	Indicator	f	%
Gender	Male	50	33.3
	Female	100	66.7
Course	Marketing	35	23.3
	Financial	61	40.7
	Human resource	44	29.3
	Legal	3	2.0
	Business economics	2	1.3
	Real estate	3	2.0
	Entrepreneurship	2	1.3
Economic Status	Poor	44	29.3
	Low income	48	32.0
	Lower middle	37	24.7
	Middle class	14	9.3
	Upper middle	2	1.3
	Upper income	1	0.7
	Rich	4	2.7
Valid		150	100

Table 2 shows the distribution of respondents from the College of Accounting Education (CAE). As seen in the table, in terms of gender, 73.3% of the respondent CAE students are females, while 26.7% of the respondents are males. Moreover, in terms of specialization, Accountancy and Accounting Technology is equally divided. Likewise, as

to economic status, CAE students who belong to the low-income family were found to be the highest representation (40%), followed by those who belong to lower middle families (24.7%), poor family (20.7%), middle class family (9.3%), rich family (2.7%), upper middle-class family (0.7%) and the upper income family (0.7%). Lastly, the result shows that the mean age of CAE students is 21.3, meaning most of the CAE students who answered were 21 years old.

Table 2: Distribution of respondents from College of Accounting Education

Variables	**Indicator**	**f**	**%**
Gender	Male	40	26.7
	Female	110	73.3
Course	Accountancy	75	50.0
	Accounting technology	75	50.0
Economic status	Poor	31	20.7
	Low income	60	40.0
	Lower middle	37	24.7
	Middle class	18	12.0
	Upper middle	1	0.7
	Upper income	1	0.7
	Rich	2	1.3
Valid		150	100

Table 3 reveals the measures used to determine if the 35-item scale is appropriate for the conduct of factor analysis. The Kaiser-Meyer-Olkin (KMO) measure was to be found 0.826, which is higher than the required 0.60 (Kaiser & Rice, 1974). This means that the data was adequate and acceptable for the conduct of factor analysis. Also, Table 3 illustrates the test value of 2.270 under the degree of freedom (df) of 595 and the level of significance is 0.000, which is lower than the required 0.05. This means that the responses for the scale were significant and deemed appropriate (Williams, Onsman & Brown, 2010).

Table 3: KMO and Bartlett's Test Result for Combined Data

Test Statistic		**Value**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.826
Bartlett's Test of Sphericity	Approximate x^2	2,270
	df	595
	Sig.	0.000

The standard result of exploratory factor analysis can be identified using the latent roots criterion by getting the total value of the variances explained. Total variance explained shows the result by identifying the value of the eigenvalues of the factors and the variance of each factor. Results of the latent root criterion in Table 4 reveal that ten factors can be extracted from the set of items submitted for factor analysis. These ten dimensions or factor structures explain 66.463 percent of the variations in the data. The data were subjected to principal component analysis to determine the factor structure. Principal

component analysis (PCA) is employed to determine whether certain items measure common factors. In addition, factor rotation simplifies the rows and columns of the factor matrix and maximizes a variable's loading on a single factor to facilitate interpretation (Hair et al., 2006). An orthogonal rotation (VARIMAX) and an oblique rotation (OBLIMIN) are normally used to explain the computed factor matrix. In this study, VARIMAX rotation technique was used and has produced a clearer structure in terms of the content validity of the factors. The coefficient of the factor analysis is set at +0.50.

Table 4: Latent roots criterion showing the factors extracted

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	9.570	27.342	27.342
2	2.691	7.689	35.031
3	2.038	5.822	40.853
4	1.615	4.616	45.469
5	1.551	4.432	49.901
6	1.320	3.771	53.672
7	1.204	3.439	57.111
8	1.176	3.359	60.470
9	1.072	3.063	63.533
10	1.026	2.930	66.463

In Table 5, all the ten factors have significant loadings above ±0.50, which is the standard coefficient value, using the VARIMAX method. Of the 35 items subjected to factor analysis, only 29 were retained and loaded into the ten-factor structures or attributes. The six items that were suppressed upon rotation did not pass the coefficient values set; thus, they are eliminated from the analysis. Looking at the commonality of the items loaded into their respective factors, the factors are then labelled accordingly to the nature of each of the items in one structure.

Information/Random Walk is the first factor that explained 27.432% of variance which includes the items "*Company performance affects financial stability*", "*Broadcast news has an influence the on decision to invest*", "*Expert opinions affect stock price*" and "*Unstable share of the stocks is caused by the news*". The concept behind the Random Walk Hypothesis was all about the unpredictability of stock prices wherein today's stock prices reflect the performance of the firms affected by external noises like broadcast news and tomorrows' stock prices reflect the performance of the firms tomorrow. The unpredictability of happenings within the country makes stock prices random and unpredictable means that prices fully reflect all known information under an efficient market. By this, uninformed investors have an equal advantage over informed investors (Murcia & Tamayo, 2015).

Table 5: Factor loadings of combined data

Item	Component									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Item33	.768									
Item32	.740									
Item35	.729									
Item34	.687									
Item17		.774								
Item19		.710								
Item29		.663								
Item3		.556								
Item4		.555								
Item18		.535								
Item24			.735							
Item23			.732							
Item27			.556							
Item26										
Item25										
Item30				.718						
Item16				.640						
Item31				.638						
Item15										
Item13					.718					
Item12					.699					
Item11										
Item8						.809				
Item6						.635				
Item9						.555				
Item7										
Item21										
Item14							.704			
Item28							.528			
Item1								.834		
Item2								.764		
Item22									.583	
Item20									.500	
Item5										.824
Item10										.518

Note: Items in red are removed from the analysis.

Negative Investor Mindset is the second factor that explained 7.689% of variance which includes the items "*I don't know how to be involved in stock investing*", "*Stock market is only done by rich*", "*Stories about their investment are a failure or being scammed worries me*", "*Investing in the stock market is a short-term investment and like a gambling*" and "*Stock market investing required bigger capital*". Many young investors believed that a stock market is a risky place where they rather hold their money in cash instead of placing it in the market; and is unlikely to invest in the stock market due to lack of knowledge (Taylor, 2012). The mindset with which investors approach their investment analyses likely varies with their

investment horizon (White, 2012). Also, Patel (2012) found out that investors' investment decisions are positively correlated to their economic optimism, even though there are macroeconomic conditions. He also suggested that investors not only consider their forward-looking economic optimism in making investment decisions, but also put greater attention to it when fund-specific information seems unproductive and less valuable.

Expert Influence is the third factor that explained 5.822% of variance which includes the items "*They have friends, supervisor, boss, colleagues who influence them to invest in stock market*" and "*Inflation rate is the main consideration*". Singh (2006) studied that investment decisions making done by the majority of investor were based on recommendations from professionals and financial advisors. Personal investment advice is the most frequent request made by the public. Success stories of peers affect an individual's decisions. Peer outcomes may influence individual actions: extrapolative expectations and selective communication with relative wealth concerns (Kaustia & Knüpfer, 2012).

Investor Awareness is the fourth factor that explained 4.616% of variance which includes the items "*They like to know the impact of economic issues on the stock market*", "*Some knowledge about stock market might help them to take an investment*" and "*Stock market is an investment for the future*". Financially aware is one an investor must consider. An investor needs to be properly educated in terms of the new investment opportunities available in the market. Also, it is important from the perspective of financial service providers to have an insight into the awareness level and investment preferences of potential investors so that accordingly financial products can be developed. For a financial education program design to be effective, the current awareness level as well as investment behavior of individuals towards financial products must be known (Bhushan, 2014).

Publicity is the fifth factor that explained 4.432% of variance which includes the items "*Stock market is frequently aired in the news*" and "*I usually read investments on the internet*". Eisend and Kuster (2011) defined publicity as an "*editorial space in media for advancement purposes wherein it does not identify the message sponsor*". Its objective is to create awareness, change investors' attitudes and influence behavior (Cameron, 1994). Research has recognized publicity as an efficient and credible means of marketing communication, exerting greater influence on perceived credibility and purchase intention than advertising (Loda & Coleman, 2005).

Financial Capacity is the sixth factor that explained 3.771% of variance which includes the items "*Rich people are involved in stock markets*", "*Stock market is a big business*" and "*Investment requires a big amount of money*". Investing is encouraged for all income levels. An investor is not required to be rich to begin investing; however, they must have a proper understanding of basic investment products and their risks and rewards. Investment offers a lot of opportunities for anyone who wants to be wealthy (The Basics of Saving and Investing: Investor Education, 2020)

Stock Market Orientation/Literacy is the seventh factor that explained 3.439% of variance which includes the items "*Investing in the stock market is a do-or-die situation*" and

"*It is taught in a business course*". College students have inadequate knowledge of personal investment basics. The findings suggest that investment illiteracy among college students must be addressed (Volpe, Chen & Pavlicko, 1996).

Risk Appetite is the eight-factor that explained 3.359% of variance which includes the item "*To achieve higher returns, you must play higher risk*". Arrow and Lind (2014) stated that when making investments, the risk is a critical factor that deserves consideration. Risk appetite was defined as the willingness of investors to bear risk wherein it depends on both the degree to which investors dislike such uncertainty and the level of that uncertainty. In 2007, Bruhin, Fehr-Duda and Epper explained that risk plays a role in almost every important economic decision. An investor considers his or her risk appetite when choosing from a range of investment options presenting different risk/return trade-offs (Bennet & Cusick, 2007). Moreover, to determine which point on this risk/return trade-off provides either: the lowest level of volatility to meet financial needs and goals, the highest return gave the investor's tolerance for risk, or some intermediate point that maximizes utility is a challenge for an individual investor.

Interest is the ninth factor that explained 3.063% of variance which includes the items of: "*I am interested in the stock market because of my degree*" and "*I will invest if I have cash or financial support*". Investor rationality is defined as being reasonable and making decisions that are in their best interest (Chandra & Kumar, 2008).

Venture Capital is the tenth factor that explained 2.930% of variance which includes the items: "*They want their capital to be productive and not in a stagnant area*" and "*Putting a capital on something to bring profit in the future*". Jain, Abdul, Murty, Vamsee and Hemantha (2012) found out that investors were attracted to the importance of liquidity, quick gain, capital appreciation and safety in equity investments compared to others.

Table 6 illustrates the descriptive results of the ten generated factors. Among the factors, Venture Capital is the highest among the factors, with a mean of 4.32 (*SD*=0.611), which means that this factor is the most appreciated factor in terms of investment. This is followed by risk appetite with a mean score of 4.25 (*SD*=0.662), investor's awareness with a mean score of 4.03 (*SD*=0.594), stock market orientation/literacy with a mean score of 3.97 (*SD*=0.667), financial capacity with a mean score of 3.92 (*SD*=0.665), information/random walk with a mean score of 3.89 (*SD*=0.687), interest with a mean score of 3.88 (*SD*=0.718), publicity with a mean score of 3.70 (*SD*=0.847), and negative investor mindset with a mean of 3.49 (*SD*=0.696). On the other hand, the expert influence was found to be the least-related determinant of investment behaviour of business students, with a mean score of 3.46 (*SD*=0.852), which means that this factor has the least contribution to the investment decision of Business students.

Table 6: Extent of truancy of stock market-related factors among Business students

Extracted Factors	Mean	SD	Descriptive Level
Information/random walk	3.89	0.687	High
Negative investor mindset	3.49	0.696	High
Expert influence	3.46	0.852	High
Investor's awareness	4.03	0.594	High
Publicity	3.70	0.847	High
Financial capacity	3.92	0.665	High
Stock market orientation/literacy	3.97	0.667	High
Risk appetite	4.25	0.662	Very High
Interest	3.88	0.718	High
Venture capital	4.32	0.611	Very High

Table 7 illustrates the distribution of investment decisions among college students. The decision of investing later was the most predominant decision (*f*=144, 48%), followed by those who will invest but have some questions about investing (*f*=120, 40%). A fair few (*f*=32, 10.67%) responded that they can invest immediately while very few expressed otherwise (*f*=4, 1.33%).

Table 7: Distribution of investment decisions of business students

Variables		f	%
Decision	No, I won't invest.	4	1.33
	Yes, but not now.	144	48
	Yes, but I have some questions	120	40.0
	Yes, I will invest immediately	32	10.67
Valid		300	100

In Table 8, a multinominal logistic regression procedure was used to determine the factors influential to the investment decision of the business students at the University of Mindanao. The procedure involves the entry of students' characteristics as factors and the generated factors of investment behavior as covariates, while investment decision was represented on actual decisions (to invest immediately, willing to invest but not now, willing to invest but have some questions and not to invest). Because investing immediately attained the highest frequency, the models were set to invest immediately as the reference category.

The estimate of the factor *Expert Influence* is on the negative, having a coefficient of -1.158 (Wald = 3.191, $p < 0.05$). This means that Expert Influence pulls down the odds that Business course students would invest in the stock market. In a recent study, investors are making a decision based on family and friends' opinions and Individual investor's decision is strongly affected by the broker's advice (Akhter, & Ahmed, 2013). Moreover, the investment decisions made by some of these early investors might serve as valuable signals of the quality of the investments under consideration which help mitigate the risks faced by the less experienced investors (Lin et al., 2013).

Table 8: Multinomial logistic regression showing the determinants of investment behavior of Business students

Decision		B	SE	Wald	df	Sig.	Exp(B)
No, I won't invest.	(Intercept)	.122	23.07	.000	1	.996	
	Age	-.158	.299	.279	1	.597	.854
	Information/random walk	-.223	1.281	.030	1	.862	.800
	Negative investor mindset	1.771	1.130	2.455	1	.117	5.875
	Expert influence	-1.336	.963	1.92	1	.165	.263
	Investor's awareness	.415	1.403	.088	1	.767	1.5
	Publicity	-.120	.924	.017	1	.897	.887
	Financial capacity	-.866	1.120	.599	1	.439	.420
	Stock market orientation/literacy	1.476	1.131	1.70	1	.192	4.38
	Risk appetite	-1.664	1.158	2.07	1	.151	.189
	Interest	-1.384	1.091	1.61	1	.205	.251
	Venture capital	.805	1.237	.424	1	.515	2.24
	Male	-.951	1.363	.487	1	.485	.386
	Female	0[b]	.	.	0	.	.
	Poor	5.046	10.02	.254	1	.614	155.47
	Low income	4.759	10.00	.226	1	.634	116.64
	Lower middle	4.035	10.04	.162	1	.688	56.564
	Middle class	7.426	10.36	.514	1	.473	1.67E3
	Upper middle	-432.7	.000	.	1	.	1.2E-18
	Upper income	1.812	29.96	.004	1	.952	6.120
	Rich	0[b]	.	.	0	.	.
Yes, but not now	(Intercept)	.317	11.23	.001	1	.977	
	Age	-.037	.182	.041	1	.840	.964
	Information/random walk	-.395	.815	.235	1	.628	.674
	Negative investor mindset	.842	.648	1.685	1	.194	2.320
	Expert influence	**-1.158***	**.648**	**3.191**	**1**	**.074**	**.314**
	Investor's awareness	.748	.967	.599	1	.439	2.114
	Publicity	-.280	.569	.242	1	.623	.756
	Financial capacity	.247	.774	.102	1	.750	1.280
	Stock market orientation/literacy	.638	.692	.851	1	.356	1.893
	Risk appetite	-.938	.888	1.115	1	.291	.391
	Interest	-.364	.708	.264	1	.607	.695
	Venture capital	.234	.885	.070	1	.791	1.264
	Male	-.504	.804	.392	1	.531	.604
	Female	0[b]	.	.	0	.	.
	Poor	**3.308***	**1.841**	**3.230**	**1**	**.072**	**27.334**
	Low income	2.475	1.731	2.044	1	.153	11.879
	Lower middle	2.195	1.733	1.604	1	.205	8.979
	Middle class	**5.631***	**2.991**	**3.544**	**1**	**.060**	**278.82**
	Upper middle	-419.71	.000	.	1	.	5.2E-18
	Upper income	3.907	12.80	.093	1	.760	49.726
	Rich	0[b]	.	.	0	.	.
Yes, but I have some questions	(Intercept)	6.912	10.56	.428	1	.513	
	Age	-.148	.188	.619	1	.431	.863
	Information/random walk	-.880	.835	1.110	1	.292	.415
	Negative investor mindset	**1.388****	**.679**	**4.182**	**1**	**.041**	**4.006**

	Expert influence	**-1.127***	**.667**	**2.850**	**1**	**.091**	**.324**
	Investor's awareness	.769	.990	.604	1	.437	2.158
	Publicity	-.321	.583	.303	1	.582	.726
	Financial capacity	-.026	.785	.001	1	.974	.975
	Stock market orientation/literacy	.797	.719	1.229	1	.268	2.218
	Risk appetite	-1.212	.901	1.809	1	.179	.298
	Interest	-.335	.728	.212	1	.645	.715
	Venture capital	.443	.894	.245	1	.620	1.557
	Male	-.334	.818	.167	1	.683	.716
	Female	0[b]	.	.	0	.	.
	Poor	2.317	1.639	2.000	1	.157	10.148
	Low income	1.767	1.530	1.333	1	.248	5.853
	Lower middle	1.042	1.531	.463	1	.496	2.835
	Middle class	3.034	2.964	1.048	1	.306	20.783
	Upper middle	-435.51	.000	.	1	.	7.2E-19
	Upper income	-.333	13.94	.001	1	.981	.717
	Rich	0[b]	.	.	0	.	.

The estimation for the choice of not investing over investing immediately based on the multinominal logistic regression procedure shows that none of the generated factors was found to significantly influence a Business student to prefer not investing over investing immediately. Based on Wald statistics, none are significant both at the 90 percent and 95 percent confidence level. This means that there might be other factors that can better explain Business students' preference of not investing over investing immediately that are not accounted for in the model. Meanwhile, the estimation for the choice of willing to invest but at a later time over investing immediately based on the multinomial logistic regression procedure shows that expert influence was found to be a significant covariate towards willing to invest but at a later time over investing immediately. Based on the Wald statistics of 3.191, df=1 with a significance value of 0.074 which is significant at 90 percent confidence level. The exponentiated beta value of 0.314 implies that the chances of business students to invest at a later time investing immediately are nearly one time in consideration of the expert influence of investing immediately. Success stories of peers affect an individual's decision. Peer outcomes may influence individual actions: extrapolative expectations and selective communication with relative wealth concerns (Kaustia & Knüpfer, 2012).

Finally, the estimation for the choice of willing to invest but raise some questions over investing immediately shows that *expert influence* was found to be a significant covariate towards willing to invest but raise some questions over investing immediately, based on the Wald statistics of 2.850, df=1 with a significance value of 0.091 which is significant at 90% confidence level. The exponentiated beta value of 0.324 implies that the chances of business students to invest but have some questions over investing immediately are nearly one time in consideration of the expert influence of investing immediately. Success stories of peers affect an individual's decision. Peer outcomes may influence individual actions: extrapolative expectations and selective communication with relative wealth concerns (Kaustia & Knüpfer, 2012). Also, a negative investor

mindset was found to be a significant covariate towards on willing to invest but raises some questions over investing immediately, based on the Wald statistics of 4.182, df=1 with a significance value of 0.041 which is significant at 95 percent confidence level. The exponentiated beta value of 4.006 implies that the chances of business students to invest but raise some questions over investing immediately are nearly one time in consideration of the negative investor mindset of investing immediately.

5. Recommendations

In the light of the findings and conclusions derived from the study, the foregoing recommendations are offered:

1) Higher education institutions and universities, through the programs/departments that are related to Business, may come up with investment literacy program for the students so that they will be able to know the importance of having an investment for their future security. University professors may help in educating students about the latest national and international trends for they are just less motivated in terms of investing.
2) Business firms and entities may offer investment opportunities for college students that will help them to be open-minded on investing that may help them increase their passive income in the future. They can consider the investment behavior measures to come up with specific programs that will inform students on financial and investment products that they can start with within the budget.
3) The government may help student investors by implementing policies and regulations that will assist them as well as their investment security. The study could become a basis for specific government agencies and financial institutions to improve their policies and promote their marketability to the student demographic.
4) Fellow researchers are encouraged to conduct similar studies incorporating and exploring new variables.

6. Conclusion

The study was able to identify ten factors or components that influence a business student to invest: *information/random walk*, *negative investor mindset*, *expert influence*, *investor's awareness*, *publicity*, *financial capacity*, *stock market orientation/literacy*, *risk appetite*, *interest*, and *venture capital*. These dimensions may be considered determinants of the investment decision of college students taking any Business program.

Moreover, two regressors were found to positively contribute to the chance of Business students deciding *to invest but at a later time* and *to invest but with questions*: students classified as *poor* and students being in the *middle class*. In addition, the factors of *negative investor mindset* and *expert influence* were both found to significantly reduce the likelihood of immediate investment. This means that students in the middle class and

those who are poor are more likely to invest but are found to be more conscious of their investments. This cautious behavior is seen in the students' behavior in two modalities – those who have a negative mindset on investment and those who rely on expert advice before engaging in risky investment plans.

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Conflict of Interest Statement
The authors declare no conflicts of interest.

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