

Influence of Culture on Investment Decisions: A Cross-Sectional Study of Ghanaian Population

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Abstract: This study seeks to explore the influence of culture on the investment decisions of Ghanaians. It is motivated by the perception that Ghanaians show no enthusiasm for long-term investments or life insurance products. To explore this problem, we used a random sampling, quantitative cross-sectional technique to administer a set of questionnaires to a cross-section of 120 Ghanaians residing in the City of Columbus, Ohio, U.S.A. Hofstede's five cultural dimensions were used as the theoretical framework to guide the study. The results showed that Ghanaians prefer short-duration risk-free investments to long-duration risky investments. Ghanaian investors are not aggressive in gathering and analyzing financial information before making investment decisions. Their investment decisions are influenced by others, intuition, comfort and security, and their belief systems, rather than rational analysis of information, and risk-reward relationships derived from financial models. The use of intuition and information passed on from relatives, family members and others in making investment decisions paves the way for cultural factors to influence investment decisions. We conclude that cultural values have significant influence on the investment decisions of Ghanaians. The study seeks to motivate investors to examine and broaden their cultural awareness to enable them develop financial plans to achieve their investment goals. We recommend that to overcome negative cultural influence on investment decision making, financial education should be vigorously pursued to broaden financial literacy.

Keywords: *Cultural dimensions, cultural factors, investment decisions, investment theories, Ghanaian cultural values.*

1. Introduction

One of the goals of financial markets is to mobilize savings and long-term investments to accelerate economic development although there are different types of financial markets, in Ghana the most common ones are capital markets and money markets. The money markets deal with raising short-duration investments ranging a year or less, whereas capital markets deal with long-duration investments of over two years. The Ghana Stock Exchange (GSE) was established to promote long-term investments from individual and institutional investors to accelerate economic development. However, the average individual investment on the GSE is very small and declining. As much as 75% of individual portfolio investment is less than \$5,000, (Osei, 1998). This seems to confirm a long-standing perception that Ghanaians show no enthusiasm for long-term investments and life insurance products. This lackadaisical attitude towards financial investments may be attributed to cultural factors. Although cultural factors have not been intensively studied in the finance literature, they are extremely important in investment decision-making process. Modern investment theories ignore cultural factors and focus only on economic factors, which deal with rational analysis of information, and risk-return relationships.

For example, capital asset pricing model (CAPM) suggests that individuals select investments using cognitive processes and the efficiency of the markets to maximize returns at a given level of risk (Sharpe, 1964). Despite the weakness of CAPM, it has become one of the best-known models for determining risk and return relationships in the finance literature (Fama and French, 2004). Behavioral finance emerged recently to deal with some of the psychological factors that affect individual investment decisions. Currently a new body of knowledge is emerging in the literature, which shows that people approach financial decisions differently due to their cultural values and belief systems (East, 1993; Grinblatt and Keloharju, 2001; Lee, 2012). Even in modern corporations, organizational culture affects investment and financing decisions as well as corporate governance practices (Lee, 2012; see also Zhao, 2014). There are several studies that show that cultural values have some influence on individual investment behaviors. Some of the studies used the theory of planned behavior in the context of individual investment decision making to indicate how social norms,

cultural beliefs, subjective norms, and behavioral intentions affect investment behavior (East 1993; Rafiee and Sarabdeen, 2012; Sondari and Sudarsono, 2015).

Problem Statement: Recently, there has been the emergence of various financial schemes, such as 'Susu' and microfinance activities, in Ghana, which have received great patronage without any apparent reason (Boye, 2005). Conversely, the capital market has not been able to attract such a patronage from individuals (Osei, 1998). Despite the patronage of the financial schemes, they collapse within few months of operations, causing major financial losses to these investors (Boye, 2005). Subsequent interviews with affected investors indicated that their investments in those schemes were mainly due to advice and influence of relatives and friends, who encouraged them to do so (Kesse, 2018). The schemes promised guaranteed high rate of returns, and emphasized liquidity, easy access to funds, and no investment risk, to lure investors (Amoah, 2018; Boye, 2005). Investment selection of such schemes has had many adverse effects on the victims, and the economy of Ghana. The most obvious effects are financial loss of lifetime savings, and economic impairment of affected investors. The question that arises is why people should risk their hard-earned money to invest in financial schemes they are not familiar with, without collecting and analyzing any information on them. Do cultural factors have any influence on investment behavior of Ghanaians?

Objective of the Study: Many Ghanaian investors seem to believe that investment recommendations from relatives, friends and others are favorable investments with less risk and high expected returns. Although the capital asset pricing model assumes that risk and expected returns are positively correlated, many investors behave as if the correlation is negative, expecting higher returns with minimum level of risk. The primary objective of the study is to explore and document how the investment decisions of Ghanaians are made, and to consider the factors affecting their selection of investment products. The interest is not on the impact of cultural factors on their investment performance. We sought to study why investment decision is made without collecting and analyzing information from reliable sources, and Ghanaians' attitude towards investment risk. The secondary objective is to encourage further research on cultural influences affecting Ghanaian investment decisions to close the wide gap that exists in the literature.

2. Review of Literature

Investment decisions involve the setting of investment objectives including risk tolerance levels, gathering and analyzing information from varied sources, and selecting assets to achieve the stated objectives (Reilly and Brown, 2003). Hofstede's cultural dimensions have also been used in the literature to provide the theoretical framework of analyzing culture and investment behavior in different national cultures (Khairullah and Khairullah, 2013; Leonard, Slaubaugh, and Wang, 2010). In this paper, we use Hofstede's (1980) cultural model to explore how culture influences investment decisions of sampled Ghanaians living in the United States. The decision-making process requires information that is timely, complete and relevant. Based on the gathered information and its analysis, an investor should be able to determine the expected return, at a given level of risk. Although there is no one accepted approach to analyze investments, fundamental and technical analyses are considered the most popular in the finance literature (Suresh, 2013). Fundamental analysis considers economic, industry and company specific information, whereas technical analysis focuses on the use of statistics such as past prices and trading volumes obtained from market activity to make decisions (Reilly and Brown, 2003, pp. 198-200; Suresh, 2013).

Several investment theories, including the theory of risk tolerance (Govind, Chapman, and Domian, 2000; Grable and Lytton, 1999), random walk and efficient market theory (Fama and French, 1993; Malkiel, 1973), modern portfolio theory (Markowitz, 1991), and Behavioral Finance (Tversky and Kahneman, 1974), help explain the factors affecting investment decision making process. This literature review would consider some of these theories and how they influence investment choices. The Theory of Risk Tolerance: The theory of risk tolerance holds that individuals invest in financial assets based on their ability and willingness to bear risk (Govind et al., 2000; Grable and Lytton, 1999). Accordingly, individual investors are classified as aggressive, conservative, or moderate. Aggressive investors have high risk tolerance level as they are willing to bear higher risks to grow their assets. Aggressive investors are expected to have a large proportion of their assets

in risky assets including stocks, long-term corporate bonds, real estates and financial derivatives. Conversely, conservative investors have low risk tolerance levels as they are willing to bear less risk to preserve their assets. Such investors would have large proportion of their capital in short duration money market securities. Moderate investors fall between aggressive and conservative investors and are willing to take some level of risk to sustain their asset growth.

The Theory of Planned Behavior: Ajzen (1985, 1991), proposed the theory of planned behavior from the original theory of reasoned action (Fishbein and Ajzen, 1975) to predict an individual's intention to engage in a specified behavior. Bierman (1997) explained that investment horizon, short-duration or long-duration, is positively related to investment risk short-duration financial assets are thus considered less risky than long-duration financial assets. Ibarra (2013) showed that long-duration assets tend to over perform short-duration assets across different periods in international markets. This is consistent with the investment principle that the higher the risk, the greater the expected return. This theory suggests that investors with low risk tolerance levels would select a large proportion of short-duration investments in their portfolios and vice versa. The theory of planned behavior seeks to link an individual's behavior to his beliefs, rather than to risk tolerance levels. It holds that a person's behavior is influenced by attitudes, behavioral intention, social norms, perceived power, and behavioral control.

Ajzen (1985) explained that attitude is the tendency to pursue a behavior because of the expected outcomes resulting from such a behavior, whereas behavioral intention considers the motivational factors that influence a given behavior. According to Ajzen (1985), social norms refer to how a behavior is affected by actions and attitudes of a group of people in a cultural context. Subjective norms relate to how the social environment accepts or rejects such behavior. Perceived power involves factors such as knowledge, and availability of resources that would help facilitate the performance of the behavior. Perceived control behavior deals with the ability and the autonomy to carry out the behavior. Although the theory was meant for psychology and life applications, it has been used in studying financial investment decisions. East (1993) and Sondari & Sudarsono (2015) used the theory of planned behavior independently to study individual investment choices, and concluded that investment decision is influenced by availability of funds, perceived outcome of profitability, security of the investment, and group behavior including that of friends and relatives, past behavior, attitude towards the investment, and subjective norms.

Random Walk Theory: The random walk theory implies that knowledge and perceived outcomes of profitability are less relevant in investment analysis. The theory holds that security performance cannot be predicted because prices reflect all available information, which is consistent with the efficient market hypothesis (Malkiel, 1973). The theory stipulates that it is impossible to consistently outperform the market because it is efficient. Thus, investors cannot accurately determine the perceived outcomes of their investment based on their perceived power or knowledge. The theory suggests that investors would do better by investing in passive and low-cost portfolios. Thus, the craze of selecting securities using technical and fundamental analyses is costly, time consuming, and less productive because the market is efficient. Behavioral finance, however, questions the efficiency of the financial markets and holds that individuals are not that rational and are biased when it comes to processing of investment information.

Theory of Behavioral Finance: The theory of behavioral finance combines economic models and cognitive psychological theories to explain why individuals make irrational financial decisions (Tversky and Kahneman, 1974). The theory holds that individuals are prone to heuristics-driven biases such as overconfidence in their abilities, and conservatism. Baker and Nofsinger (2002) explained the cognitive and emotional biases of investors, such as feeling of overconfidence in their abilities, conservatism, decision-regret, anchoring to initial decisions, representativeness, and confirmation bias. Conservatism is the tendency for individuals to hold on to their old beliefs even if new information is available. Individuals also tend to make decisions to avoid emotional pains and regrets in the event of an unfavorable outcome. Decision regret influences individual investors to invest in known and familiar assets. Representativeness means that under uncertainty, investors tend to believe that the past performance of a given investment is a true representation of its future performance. Confirmation bias holds that people generally think that they are good decision-makers and will seek information to confirm their beliefs.

Modern Portfolio Theory: Modern portfolio theory seeks to overcome the psychological and emotional biases that result in investor mistakes. The theory contends that risk-averse investors can construct efficient and optimal portfolios that maximize their return at a given level of risk (Markowitz, 1991). The theory quantifies the benefits of diversification, in which investors construct their portfolios from multiple uncorrelated asset classes. The investment behavior of optimizing investments would result in economic equilibrium of a capital asset pricing model. The model assumes that investors are risk averse and would rationally prefer less risky portfolios to risky portfolios and would assume higher risk only if they are compensated by a higher return. Although all the theories of investment considered in this paper explain very well the economic, psychological, social and cultural factors that affect investment decision-making, we focus greatly on the theory of planned behavior because of its emphasis on social and cultural factors (Ajzen, 1991). Consistent with theory of demand, Aregbeyen and Mbadiugba (2011), and Rahimi, Mousai, Azad, and Syedaliakbar (2014) showed that economic, social, psychological, and cultural factors affect the demand for investment products and services. Cultural factors cited by Aregbeyen and Mbadiugba (2011) include the following:

- Persuasion of friends and family members
- Investing culture of the family
- Awareness of prospects of investing
- Exposure to investing
- Environmental influence
- Social class and status

Other cultural factors cited by Rahimi et al. (2014) include:

- Values and beliefs
- Cultural training, as well as habit and opportunity.

Despite these cultural factors affecting behavior, the influence of culture on investment decisions has not been fully explored in the literature. This could be attributed to the complex nature of culture as each culture is unique. We use cultural models found in the literature to guide our study.

Cultural Models: There is no single acceptable cultural model that precisely defines culture. There are various definitions of culture in the literature. However, only two definitions are considered here. According to Lederach (1995), "Culture is the shared knowledge and schemes created by a set of people for perceiving, interpreting, expressing, and responding to the social realities around them" (p. 9). Hofstede (1984) defined culture as "the collective programming of the mind which distinguishes the members of one category of people from another" (p. 51). Culture is a set of ideas that coordinate actions and construct the meanings of a group of people. Rafiee and Sarabdeen (2012) explained that cultural values are passed on from one generation to another such as from parents to their children, teachers to their students, peers to friends, leaders to followers, and institutions to members. People from different cultures differ in behaviors, social interactions, and communications. Grinblatt and Keloharju (2001) documented that language and other cultural attributes affect how investors own, sell or buy stocks. Nazemi, Rahimnia, Lagzian, and Ghayour (2012), also shared same view when they reported that cultural values, facilities, and behavior have an impact on investment decisions. Schwartz (2012) explained that cultural values are beliefs, desirable goals, which help to set standards and guide individual actions. Various cultural models have been used to study different cultures and their impact on international business. Notable among them are models by Hofstede (1980, 1984), Schwartz (1992), and Trompenaars and Hampden-Turner (1997).

Hofstede's (1980) cultural model has been widely used in the literature to analyze cross-cultural differences and their impact on financial decision making (Khairullah, and Khairullah, 2013; Leonard, Slaubaugh, and Wang, 2010; Zhao, 2014). Hofstede's (1980) described five cultural dimensions of power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, and long-term versus short-term orientation. We will discuss briefly the assertion of each dimension. Power distance refers to how

people view or accept power distribution among cultural groups. In power distance cultures, power is centralized in the hands of a few people, usually based on age, education, social class, income, position, or family roles. In high power-distance cultures, decision making is in the hands of those in authority, without the participation of less powerful in society. Schwartz (2012) included social status, prestige, and cultural dominance over people and resources in power distance cultures. Uncertainty avoidance describes how people deal with future uncertainties and stressful situations. According to Hofstede (1980), strong uncertainty avoidance cultures have tendency to avoid risk and stress. In such cultures, members like to maintain the status quo, ensure safety, and ensure the stability of society, relations and self (Schwartz, 2012). Members prefer to deal with people they know and trust and show less tolerance for different ideas and opinions. This culture is also characterized by lack of individual decision-making and initiatives, as members prefer to act in same way as majority of members of the group.

Individualism/collectivism indicates the degree at which individuals are related to other members and group goal. In individualistic cultures, the focus is on personal success and achievement, whereas in collectivist cultures, the focus is on group goals, benevolence, and preservation and enhancement of the welfare of others to promote supportive social relations (Schwartz, 2012). Masculinity/ femininity explain how the society views sex roles, aggressiveness, achievement, materialism, and performance. In masculine cultures, people are aggressive and there is much focus on money, materialism, status and achievements. Conversely, in feminine cultures the focus is on modesty, cooperation, care for others, and strong inter-personal relationships. Long-term/short-term orientation considers how different cultures view time management, present, past, and future. In long-term oriented cultures, the focus is on the future rather than present or the past. Long-term oriented cultures value time and spend much efforts and resources to achieve future-oriented goals. Such cultures encourage thrift, savings and long-term investments to enhance and improve future lifestyles.

On the contrary, short-term oriented cultures focus much efforts and resources on activities to achieve short-term benefits. Such cultures do not value time management and there is lack of commitment to long-term goals. In short-term oriented cultures people have tendency to prefer small payoffs now compared to larger payoffs in the future. Hofstede (1984) computed national average indexes to measure the degree of the cultural dimensions. According to Hofstede, developing countries (including Ghana) scored high on a power distance index (PDI), low on an individualism index (IDV), low on a masculinity index (MAS), high on an uncertainty avoidance index (UAI), and low on a long-term orientation index (LTI). Thus, Ghanaian society falls under a high power-distance, collectivist, feminine, high uncertainty avoidance, and short-term oriented culture. Using the theoretical cultural framework created by Hofstede, we integrate and synthesize cultural beliefs of Ghanaians regarding the five cultural dimensions to examine the relationships between them and investment decisions.

Figure 1: Framework of Cultural Values on Investment Decision-Making



Based on the theoretical framework in Figure 1, we propose the following hypotheses:

H₀: Ghanaian financial investment decisions are not influenced by others.

H₁: Ghanaian financial investment decisions are influenced by others.

H₀: Ghanaian individual investors do not have any investment preference.

H₂: Ghanaian individual investors have investment preference.

H₀: Ghanaian individual investors do not use investment information in making decisions.

H₃: Ghanaian individual investors use investment information in making investment decisions.

H₀: Cultural factors do not affect investment decisions.

H₄: Cultural factors do affect investment decisions.

3. Methodology

We employed a quantitative cross-sectional design approach for this study. We used the survey technique to collect data. Data were collected by means of a 20-item questionnaire. The items included both open-ended and closed-ended questions like 'how would you spend a gift of \$200,000', 'are you aware of activities of the stock market', 'which of these assets do you consider most or less risky', and so forth. The closed-ended questions asked the participants to choose from pre-defined responses such as "aware" or "not aware". Other questions asked for demographic information such as income levels, level of education, and employment status. Similar studies in the past have used cross-sectional study and inferential statistics to explore cultural factors and decision making in various countries (Aregbeyen & Mbadiugha, 2011; Boye, 2005; and Khairullah

& Khairullah, 2013). The sample was drawn from an estimated adult working Ghanaian population of about 3,000, residing in Columbus, Ohio (www.africafocus.org)¹. We determined a sample size of 109 using a priori G*power statistical test analysis (see Table 1). A two-tailed *t*-test was used to estimate the sample size. The input parameters were set at 0.05 alpha level, 0.90 power, and 0.3 effect size. Table 1 shows a detailed analysis of the test.

Table 1: Calculation of Sample Size Using G*Power Analysis

Alpha (α)	Power (1 - β)	Effect size (d)	Critical <i>t</i>	Sample size
0.05	0.90	0.3	1.9824	109

The survey items were randomly administered to 120 participants to provide each potential participant equal opportunity in the study. However, 96 individuals, constituting 80.0% of the participants returned valid responses to the research questions. All participants were Ghanaians by birth and had resided in the United States for at least 5 years. The Statistical Package for the Social Sciences (SPSS) 24.0 was used to analyze the data. We used frequency distribution tables and Analysis of Variance (ANOVA) to summarize the results of the study. Table 2 presents the category of participants used in the study. The participants were adult workers, self-employed, and working students.

Table 2: Participant Demographic Characteristics

Variables	Categories	Frequency	Percentage
Sex	Male	69	71.9%
	Female	27	28.1%
Employment Status	Adult Workers	78	81.2%
	Self-Employed	2	2.1%
	Working Students	16	16.7%
Education	Graduate	40	41.7%
	College	39	40.6%
	High School	17	17.7%
Income	less than 50,000	57	59.4%
	50,000 - 100,000	26	27.1%
	100,001-150,000	8	8.3%
	150,001- 200,000	4	4.2%
	200,001- 250,000	1	1.0%

Table 2 illustrates the characteristics of participants including their age, sex, employment status, education, and income. Age wise, participants were between 22 and 55 years old. Male participants constituted 71.9% while female participants constituted 28.1%. On employment status, 81.2% were full-time adult workers working for various employers, 2.1% were self-employed individuals while 16.7% were students who worked full-time. The majority (41.7%) of the participants had graduate degrees (undergraduate plus some other course, e.g. nursing; not necessarily masters or doctorate), 40.6% had graduated from college or had

¹**Source:** U.S. Census Bureau, 2008-2012 American Community Survey. Five-year estimates, retrieved from <http://www.africafocus.org/docs14/migr1410.php>, show the Ghanaian population in the United States between 2008-2012 was 120,785 with 8.0% (approx. 9,663) living in Ohio. The average population growth rate of Ohio is estimated at 1.4% per year. About 30.0% of Ghanaian immigrants in Ohio live in Columbus (google search). We estimated the population as of 2017 to be 9,663 (1.014)⁵ =10,359 and 0.3 *10,359 =3,108.

college diploma, while 17.7% were high school graduates or had at least secondary education. Participants' income distribution is also illustrated in table 2. Most participants (59.4%) earned less than \$50,000 per year. Individuals with income between \$50,000 and \$100,000 per year represented 27.1% of the participants. Only 8 individuals, representing 8.3% of the participants, earned between \$100,001 and \$150,000 per year. Four participants (4.2%) earned between \$150,001 and \$200,000 per year, while 1 person (1.0%) earned between \$200,001 and 250,000 per year.

Questionnaire Items: We developed the questionnaire items to collect data from the following areas:

- Cultural attributes; belief and value systems and how they impact investment choices,
- Awareness of the stock market and investment opportunities,
- Financial literacy,
- Influence of family members/inheritance and successful business mentors,
- Kinds of investments and their risk levels,
- Beliefs about sources of wealth,
- Vii) How to spend \$200,000 gift.

Other questionnaire items were aimed at obtaining responses from participants' investing experience, sources of investment information, and pension plans. To explore our research topic, we chose descriptive statistics and used analysis of mean variance (ANOVA) to help us better understand the cultural value systems that influence investment behaviors.

Limitation (s) of the Study: We admit that there are some limitations to our research. First, the survey data were collected from Ghanaians residing in the United States and may not be a true representation of Ghanaians in the home country. Therefore, we cannot be very sure of the generalization of our findings. Second, although our survey design may be reliable in providing attitudes of the general population, it is generally weak in validity and respondents may act differently in real life than what they stated on the questionnaire (Babbie, 2014). In addition, our sample size was less than the sample size determined using the G*power analysis. This did not create room for high expected non-response rate. Nevertheless, these limitations were less likely to invalidate the results of the study since the cultural characteristics of non-respondents did not materially differ from the respondents. The following responses were achieved. While 57.3% indicated they were being influenced by other factors when it comes to long-term decisions such as pension plans, 25% indicated that their short-term investment decisions were influenced by other factors. Also, understanding culture and its influence on financial decision making is researchable despite the above limitations.

4. Statistical Results

This section of the study comprises statistical display including descriptive statistics, and analysis of variance (ANOVA) of survey variables. See tables 3, 4, 5 and 6 below:

Table 3: Descriptive Statistics

Descriptive Statistics							
	Stock Market Awareness	Investment Preference	Level of Risk	Sources of Information	Sources of Wealth	Influence of Others	Effect of Cultural Factors
N	96	96	96	96	96	96	96
Mean	1.38	1.22	1.22	3.53	1.64	1.6	1.53
Std. Deviation	0.67	0.42	0.46	1.00	0.71	0.77	0.88
Kurtosis	0.88	-0.29	2.94	1.82	-0.78	-0.83	1.31

Std. Error of Kurtosis	0.48	0.48	0.48	0.48	0.48	0.48	0.48
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The descriptive statistics show that the mean statistic of participants' awareness of the stock market is 1.38 (standard deviation = 0.67) whereas their average (mean) investment preference is 1.22 (SD = 0.42). The mean of participants' investment risk tolerance level is 1.22 with a SD of 0.46. Furthermore, while the mean static of participants' sources of investment information is 3.53 (SD= 1.00), the mean static of their sources of wealth is 1.64 (SD = 0.71). The influence of others on investment decisions has a mean of 1.60 with a SD of 0.77. In addition, the effect of cultural factors on investment decisions recorded a mean statistic of 1.53 and a SD of 0.88. Thus, less than 2.00 Kurtosis statistics indicate a normal univariate of data distribution.

Test of Mean Differences: Analysis of Variance (ANOVA) was used to test the mean differences of the participants. The results of the F-tests used to test the differences of means are presented in Tables 4 through 6. Tables 4, 5, and 6 display results of significant tests of participants' stock-market awareness, investment preference, sources of investment information, risk-tolerance level, source of wealth, influence of other factors, and effect of cultural factors.

Table 4: Test of Significance Using Analysis of Variance

<u>Stock Market Awareness</u>						
	Sum Squares	of	DF	Mean Square	F	Sig.
Between Groups	0.7		2	0.35	0.78	.463
Within Groups	42.03		93	0.45		
<u>Investment Preference</u>						
	Sum of Squares		DF	Mean Square	F	Sig.
Between Groups	1.72		2	0.86	5.25	.007
Within Groups	15.23		93	0.16		

Stock Market Awareness: There was no significant difference in stock market awareness, $F(2, 93) = 0.78, p = .463$. The null hypothesis is retained.

Investment Preference: There was a significant difference between the groups of Ghanaian investors, $F(2, 93) = 5.25, p = .007$. The null hypothesis is rejected.

Table 5: ANOVA Results

<u>Sources of Information</u>						
	Sum Squares	of	DF	Mean Square	F	Sig.
Between Groups	0.93		2	.47	.46	.636
Within Groups	94.97		93	1.02		
<u>Level of Risk</u>						
	Sum of Squares		DF	Mean Square	F	Sig.
Between Groups	0.33		2	0.16	.76	.471
Within Groups	20.62		93	0.22		

Sources of Information: There was no significant difference in stock market awareness among Ghanaian investors, $F(2, 93) = .46, p = .636$. The null hypothesis is retained.

Level of Risk: There was a significant difference among Ghanaian investors about their attitude towards level of risk, $F(2, 93) = .76, p = .471$. The null hypothesis is rejected.

Table 6: ANOVA Results

<u>Sources of Wealth</u>						
	Sum Squares	of	DF	Mean Square	F	Sig.
Between Groups	16.16		2	8.08	23.63	.001
Within Groups	31.79		93	0.34		
<u>Influence of Others</u>						
	Sum of Squares		DF	Mean Square	F	Sig.
Between Groups	4.034		2	2.02	3.54	.033
Within Groups	52.92		93	0.56		
<u>Effect of Cultural Factors</u>						
	Sum of Squares		DF	Mean Square	F	Sig.
Between Groups	1.86		2	0.93	1.21	.304
Within Groups	72.03		93	0.77		

Sources of Wealth: There was a significant difference between the groups of Ghanaian investors on sources of wealth $F(2, 93) = 23.63, p = .001$. The null hypothesis is rejected.

Influence of Others: There was a significant difference between the groups of Ghanaian investors, $F(2, 93) = 3.54, p = .033$. The null hypothesis is rejected.

Effect of Cultural Factors: There was a significant difference between the groups of Ghanaian investors, $F(2, 93) = 1.21, p = .304$. The null hypothesis is rejected.

Survey Analysis: We present here the analysis of the results of our survey questions. On the question of participants' stock-market awareness and its role in economic development, 71.9% indicated they had knowledge of the stock market, while 17.7% indicated they had little or no knowledge of the stock market and its activities but had heard about its existence, and 10.4% indicated they were unsure of the stock-market existence and its activities. On participants' preference for investment products, 77.1% indicated they preferred short-term to long-term investments while 22.9% indicated they preferred long-term investments to short-term investments. Our results also indicated that participants were more prone to investment risk than an average investor. While 79.1% of participants indicated that there is more risk involved when it comes to investment especially long-term investments, 18.8% believed real estates and small businesses are risky, and 2.1% admitted short-term investments were risky. Additional question was asked whether other factors other than cultural factors influenced participants' investment decisions.

Because information is considered very important in making investment decisions, we sought our participants' source of information for making their investment decisions. Surprisingly, 10.4% indicated that they relied on their financial advisors for investment information, 6.3% of the few educated participants indicated they used accounting information including ratio analyses and annual reports, while 3.1% indicated they used companies' websites and other sources to gather financial information. Also, 80.2% indicated they relied on self-knowledge and intuition, friends, and other unknown sources to make investment decisions. We also investigated how likely cultural factors impacted participants' investment decisions. Approximately 68% believed that cultural factors such as the environment, investment culture of family members, beliefs about wealth creation, value systems, and social status influence their investment decisions while 16.67% did not indicate such factors as basic investment influence. Also, 10.4% were unsure if culture had any effect on their actions, while 5.2% did not know if cultural factors affected their decisions.

Discussion

The first hypothesis postulated that Ghanaian investor's decision-making is influenced by others. The null hypothesis suggests that investors would engage in thorough mean-variance investment analysis that weighs risk factors against investment returns to make investment decisions. Also, 17.7% of the participants believed that they made their own decisions without any known influence from others. Asked about what brings about wealth, participants indicated different qualitative variables such as hard work, effective planning, and risk taking. Statistically, while 49% attributed wealth to hard work, 37.5% indicated wealth comes as a result of good planning, and 13.5% believed risk taking was the key to financial success. However, our findings show that investment decisions are influenced by friends, relatives and others. Boye (2005) reported that investment decisions of Ghanaian investors are mostly influenced or approved by others, such as superiors, friends, groups, or cultural logic. Similar studies in Asia had also reported results that support our findings. For example, Lee (2012), and Khairullah & Khairullah (2013) conducted similar studies in Korea and China respectively. Both studies found that subordinates acknowledge those in authority to make decisions, and it would be disrespectful to ignore opinions and views of those in authority.

Although, Lee (2012) and Khairullah & Khairullah (2013) did not specifically address financial decisions at investor level as they considered managers' decisions regarding projects of multinational corporations, their findings nevertheless fit well into and supported our study. Hypothesis Two postulated that Ghanaian investors have preference for short-duration, less-risky investments compared to long-duration investments. We found that a great number of investors seemed to prefer short-duration investments to long-duration investments. Arshad and Ibrahim (2019) studied the investment behavior of Pakistani investors and found that risk avoidance and uncertainty avoidance significantly influence investment choices. They explained that Pakistani investors tend to estimate the financial loss they may incur as a result of their decisions and develop strategies to reduce or avoid the risk. The strategies they cited included gathering more information and investing in interest bearing account rather than stocks. This finding is consistent with our findings and that of earlier studies of Boye (2005), and Khairullah and Khairullah (2013). We defined short-duration investments to include interest bearing or savings account, money market funds, government-issued treasury bills, and negotiable certificate of deposits issued by commercial banks.

These securities are considered risk-free or less risky than long-term securities such as stocks. Several reasons including safety, flexibility, and the ability to see tangible results quickly, could influence the preference of short-duration investments (Arshad and Ibrahim, 2019; Boye, 2005). When viewed against the background of the responses on investment type preference, we could deduce that lack of awareness of capital markets, need for liquidity and easy accessibility of funds when needed, were the major factors affecting short-duration investment selection. Khairullah and Khairullah (2013) stated that the Chinese cultural values of harmony and uncertainty avoidance make them choose safer and less risky investments. According to them, the philosophy in China is "*Live with it don't try to change*". They found that Chinese workers are passive and do not like to take initiative to avoid risk. The current finding is, however, inconsistent with that of Yeboah's (2014) study though. Yeboah (2014) found that uncertainty avoidance does not affect the risk-taking behavior of Ghanaian small-business entrepreneurs. The differences in the findings suggest some difficulty in classifying entrepreneurship.

In our study, we found that Ghanaians considered wealth from entrepreneurship as hard working rather than risk-taking. The third hypothesis sought to determine the sources of information used in making investment decisions. We wanted to know if participants had access to and/or relied on common sources of investment information such as financial newspapers, company websites, financial advisors, leading economic indicators, and released financial reports, to make investment decisions. The results overwhelmingly indicated that majority of Ghanaians did not rely on these investment information sources when making financial decisions. The reasons could possibly range from time and cost of collecting and analyzing the information to lack of financial knowledge to lack of trust in the information sources. We admit that analyzing and evaluating the

reliability and usefulness of such information could be very difficult, especially for nonprofessional investors. This is not surprising because Hofstede (1980) asserted that in feminine cultural societies such as Ghana, people are less aggressive and more modest when making decisions. Our finding is consistent with the results of Boye (2005) and that of Dawuda and Azeko (2015).

Dawuda and Azeko (2015) explained that lack of accounting knowledge, inability to quantify the value of financial information, lack of financial education, and limited access to information may account for this reason. However, our finding disagrees with the findings of Arshad and Ibrahim (2019) who reported that Pakistani investors gather and analyze more information as a strategy to reduce risk. Li, Masuda, and Russel (2014) also echoed similar findings with Arshad and Ibrahim in their study of online financial decision-making process of East Asian and North American countries that Hong Kong Chinese, compared to European Canadians, spend time to parse through information before making financial decisions. Hypothesis four sought to determine whether cultural factors affect investment decisions. The results indicated that cultural factors do affect the investment decisions of Ghanaians. Cultural factors were defined to include beliefs about wealth creation and risk, value systems and social norms, environment, and the investment culture of family members and friends.

Our findings tend to corroborate the results of similar studies by Aregbeyen and Mbadiugba (2011), Nazemi et al. (2012), and Rahimi et al. (2014) who studied cultural factors and its impact on economic decision-making in power distance cultures. They found that cultural factors, including environmental factors, habits and upbringing play significant roles in financial decision-making process especially concerning what to buy and how to spend money. They all agreed that cultural factors do affect the proper understanding of financial decision-making process, and selection of investment products. We did not as yet come across any study in the literature either at micro or macro level that plays down on the importance of culture in decision-making process. Intuition and personal preferences are shaped by cultural values and belief systems. We also conclude that Ghanaians are less aggressive in collecting and analyzing information from varied reliable sources before making investment decisions.

5. Conclusion and Recommendations

From this research, it seems very clear the importance of culture in financial decision-making. We conclude that there is a significant reliance on intuition and the influence of others in the investment decisions of Ghanaians. There is adequate evidence from the survey results and analysis that Ghanaian investors rely on friends, family members, and others they trust to make such decisions. And their investment preference is geared towards short-duration investments. These conclusions are consistent with Hofstede's (1980) cultural dimensions of power distance, uncertainty avoidance, feminism, and short-term orientation, as well as findings of earlier studies. This range of cultural factors, not accounted for in the traditional economic models of "rational investor" behavior, plays a major role in investment decisions. We believe that undertaking investment projects without analyzing relevant information and preferring short-duration investments to long-duration and other alternative investments can lead to suboptimal portfolios and excessive risk-taking that reduce portfolio performance. Erosion of capital is possible because of too much emphasis on short-duration investments. Such investments pay lower rate of return than that of long-duration investments. Furthermore, short-duration investments can lose value after adjusting for inflation.

Because of lack of diversification of the investment portfolio, total risk of the investment increases and rate of return decreases. We, therefore, recommend that investors seek advice from investment professionals who can provide them with financial information and analysis before investing. Consistent with the theory of risk tolerance and modern portfolio theory, we also recommend that investors invest in a mix of short and long-duration assets to diversify their portfolio and stick with it to meet their financial goal. Financial investments should not be considered as a get-rich-quick tactic that could be held for a short period of time with the expectation of earning a significant rate of return. It is a long-term process that needs patience, commitment, self-control, and discipline. By understanding cultural values and investment decision making process, investors may be able to improve their investment outcomes. To overcome any negative cultural influence on

investment decision-making, financial education should be vigorously pursued to broaden financial literacy. Admittedly, the findings of our study do not speak for all cultures, environments or financial systems and therefore, renders us incapable of making an exhaustive generalization. To fill the gap that our study might have left, we recommend further study of the topic. Future studies may increase the sample size and look at the impact of these cultural factors on investment performance of Ghanaians or people from other cultural settings.

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