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FACTORS AFFECTING INVESTMENT DECISIONS AMONG LISTED FIRMS IN THE NAIROBI SECURITIES EXCHANGE

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Abstract:
The importance of investment decision-making cannot be overstated since many of the factors that result in a firm's success or failure are directly tied to the choices of decisions made. When wrong investment decisions are made, they are not easily reversible and if the firm persists or reverses them, they may lead to bigger losses. It is for this reason that this research sought to investigate factors affecting investment decisions among listed firms in the Nairobi Securities Exchange. The study focused on the following factors: financial market information, investment risk, investor's financial knowledge, and firms' profitability to establish whether they influence investment decisions. The study employed a descriptive survey design and targeted 178 finance managers of the 67 firms listed on the NSE. Stratified and purposive sampling techniques were adopted in this study and a questionnaire was used to collect data. The researcher employed descriptive and inferential statistics to analyze data collected from the study. The results were analyzed and presented using tables. Based on the results, the researcher concludes that the four independent variables; financial market information, investment risk, firms' profitability and investor's financial knowledge significantly influence investment decisions of firms listed on the NSE.

Keywords: Investment Decisions; Nairobi Securities Exchange; Kenya.

1. Introduction

Baker and Noinger (2010) opined that investment today has become a dynamic field. Effective investment decisions are highly correlated with the level of an investor's financial literacy and experience. Financial literacy refers to the scope to which an individual possesses the knowledge of basic financial concepts which includes the confidence and the ability to make an appropriate range of investments (short and long term) while keeping in mind the consistently changing nature of the economic conditions (Nye, Pete & Cinnamon, 2013).

The decision to invest typically starts with determining the required rate of return or the minimum return expected on a given investment. Most investments have listed market prices and expected

cash flows. An investor then forecasts the amount expected for a given investment to establish whether the market price is adding up with the intrinsic value (Reilly & Brown, 2006). Usually, investors would decide to invest or not after a complete analysis of the investment proposal. A significant factor to consider when making this decision is determining the level of risk that is associated with the given investment project. This risk is present because it is unknown to investors whether the amount of capital invested will be recovered and that profits will be earned (Avram, 2009).

A tradeoff is an essential finance principle that exists between risk and return which is crucial for making sound investment choices. Simply, the amount that is expected as return on investment relies on the level of risk incurred. Murunba (2012) infers that return is an important factor that is directly linked to the final measures of an investment project. The decision to invest is usually a daunting process of action that involves identifying what to invest, analyzing risk, assessing future performance, and deciding whether to commit or not depending on some standard requirements adopted at a company level (Baker & Filbeck, 2013).

An investment plan is an important component to consider when deciding to invest and can be hindered by several factors; some of the organizational factors which affect an investment plan include the size of a firm. Buonanno (2005) strongly debated the significance of this factor with his associates when conducting an investment plan. The researcher held that different investment strategies should be employed in different industries and firms. The proponent added that there should be a direct relationship between the size of the organization and the total number of firms that conduct a similar investment plan. Lastly, the researcher argued that there should be senior management backing which is an important factor that helps with the implementation of a successful investment plan.

According to the International Economic Conference by Rusu (2013), the decision to invest is generally as a result of an investor's prior earning experience and the prospects of profit opportunities. Investment decision-making is typically an uphill battle for investors, particularly in this changing environment where there are a variety of options to choose from. These decisions cannot be made in isolation by relying on personal assets and sophisticated financial models alone. Investors must have the right information and remain focused if they are to achieve the desired goals (Farooq & Sajid, 2015).

In the UK, Souza and Aste (2019) researched the composition of financial market information on social-media and the ways it can be used to effectively predict investment results. This was done by putting together financial information found in the past with sentimental social-media information based on an experiment. The findings indicated that the views on social media are less reliable compared to the financial market composition. The study further indicated that financial market composition presented higher performance when compared to the challenges of predicting social view structure using the available financial information.

A study on risk disclosure and investment choices in the United States by Hung, Heinberg and Yoong (2010) revealed that the provision of risk information affects an individual's confidence and his perception of risk. The proponents argued that the correlation between these and the change of behavior is not strong. They found that there is little evidence that the provision of this

information differently helps or hurts individuals who are less financially educated. The researchers concluded that risk information disclosure suggested an important tradeoff. While summary risk-ratings were found to be more appealing to consumers, they may also be the least straightforward to provide, requiring an explicit formula. Osabutey and Okoro (2015) researched the influence of political risk and foreign direct investment in Africa. They identified various elements of political risk and analyzed their impacts on the inflows of FDI into the Nigerian communications sector for the period between the years 2002 – 2011. The findings revealed that minimizing political risk by people in authority brought about an increase in the FDI net inflows into the Nigerian communications industry.

In Zambia, Kefela (2010) discovered that investor's financial knowledge is strongly related to self-beneficial financial performance. Thus financial knowledge is crucial for making sound investment decisions and making the right choices. The researcher argued that financial education should be taught in schools including the basics since the lack of knowledge of financial principles and concepts would lead to the making of uninformed financial decisions. In the words of Kefela, individuals who are less financially literate are more likely to face challenges with incremental debt, high cost of mortgages and lack of savings and are therefore more likely to make poor investment decisions.

In Kenya, Makori and Jagongo (2013) examined the relationship between working capital management and profitability using survey data of firms listed on the NSE between the years 2003 – 2012. Their findings showed a strong positive relationship between what the firms earn in return, the period of inventory, and disbursement. Nevertheless, the researchers discovered opposing relationships between profitability, the time it took for accounts receivable and also the period for converting investment into inventory. The researchers concluded that the increase in sales, the scope and size of a company and fiscal leverage profoundly influence firms' profitability.

The Nairobi Securities Exchange has provided major incentives to listed firms such as the expansion of the scope of foreign investment, the introduction of incentives for capital markets by the government, the facilitation of tax-free capital funds, the exclusion of capital gains tax and licensing of listed companies to improve market liquidity favoring investments (NSE annual report, 2013). In spite of this, individual investors have been cautious of investing through them – challenging the premise that improved market performance should attract new investments. As a result, the only entrants into these investment networks are corporates and high net worth individuals (CMA annual report, 2014). The following hypotheses were tested.

H_{01}There is no significant relationship between financial-market information and investment decisions among listed firms in the Nairobi Securities Exchange
H_{02} There is no significant relationship between investment risk and investment decisions among listed firms in the Nairobi Securities Exchange
H_{03}There is no significant relationship between firms' profitability and investment decisions among listed firms in the Nairobi Securities Exchange
H_{04} There is no significant relationship between investor's financial knowledge and investment decisions among listed firms in the Nairobi Securities Exchange

2. Theory and Hypothesis

This study is underpinned by three finance theories that are important to the research. They include the Efficient Markets Hypothesis, the Capital Asset Pricing Model and the Modern Portfolio Theory as summarized below.

2.1. Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) was pioneered by the American economist Eugene Fama (1970). This theory holds that in markets with significant information asymmetries (the security market), the equilibrium prices aggregate information efficiently. Therefore, an investor can easily gather all that he desires to know about other information simply from monitoring other prices (Laffont & Maskin, 1990). When the market produces new information, such news spreads rapidly and is immediately captured into the prices of stocks without delay. The technical or the fundamental analysis cannot guarantee the prospects of the investor earning much more than what would normally be attained by holding an arbitrarily selected portfolio of stocks and assets with almost the same risk levels (Kamuti & Omwenga, 2017).

According to Kofarbai and Zubairu (2016), the EMH fully reflects all available information in the stock market. This implies that it is almost impossible to outperform the market on a regular risk-adjusted basis. This is because prices in the market should only respond to new and existing information. The EHM correlates well with this study, particularly the first objective – financial market information. Financial market information guides investors on when to trade financial securities as well as other commodities such as gold or agricultural produce and other valuables with low transaction costs, but still reflects the underlined principle of EMH (Pilbeam, 2018). Financial-market information, therefore, enables investors to make informed investment decisions about investment choices at their disposal.

2.2. Capital Asset Pricing Model

The Capital Asset Pricing Model promulgated by Sharpe and Lintner (1964 – 1965) forms the basis for the growth and development of the asset pricing theory. The model is used to gauge the performance of a managed portfolio and determines the capital cost and evaluates the overall value of a firm. The model gives investors the tool and intuition to predict risk satisfactorily and determine the correlation between the expected return and its related risk (Fama & French, 2004). The CPM is fundamentally built on the theory of portfolio choice by Harry Markowitz (1959).

Investment firms face risk in about everything they do. Therefore, assessing risks are essential tasks financial managers perform regularly. The understanding of the different types of risk, their measurement and the various approaches used to reduce or compensate risk could mark the difference between success and failure. Risk cannot be avoided entirely – that is why investors must make sure that the expected return justifies the assumed risk. The CAPM guides financial managers in understanding the risk-return relationship, the appraisal of managed portfolio, the determinant of cost of capital and the evaluation of firms' performance which are crucial to the overall success of firms (Kaplan & Mikes, 2012).

2.3. Modern Portfolio Theory

The Modern Portfolio Theory was proposed by Markowitz (1952). This theory holds that individual investors are rational and risk averse. The implication of this is that when faced with two investment opportunities with the same expected returns, an investor would intuitively prefer the one that has lower risk. Therefore, an investor who desires a higher return must agree to a higher risk as a tradeoff. This is usually the same for all shareholders and investors, although different investors would measure the trade-off differently depending on individuals' appetite for risk. The modern portfolio theory is crucially important for financial decision making in economics and in the field of finance and investment.

The main idea behind the MPT is that the selections of assets must not be based on the characteristics that are unique to the assets. Instead, investment managers must establish the correlation of each security in a given arrangement of assets. The correlations of assets are crucially significant because they facilitate the construction of an investment portfolio that produces the same expected return with lower risk. This is not the same for a collection of assets that are not correlated (Elton & Gruber, 1997).

2.4. Empirical Literature Review

2.4.1. *Financial Market Information*

The challenges in the global business environment have increased firms' demand concerning information on financial performance, corporate governance and the prospects of sustainable growth (Frias, Rodríguez & Garcia, 2014). Bình (2012) revealed that companies' annual reporting should be about providing relevant, useful, and reliable financial information to investors, shareholders and concerned parties regarding the financial performance and position of a company as well as its future directions that would help investors make more informed decisions. Using full data of individual investors, Lawrence (2013) concluded that individual investors invest in companies with full financial disclosure.

Goldstein and Yang (2017) assessed information disclosure in the financial markets in Indonesia. The analysis identified important factors relating to the availability of information in the money market that hamper the quality of the marketplace, the kinds of information provided and the effectiveness and protection of market participants. The study showed that there are some factors to consider when establishing the efficiency in which information is revealed. The researchers revealed several factors that can be presented analytically to understand the financial market and the role of information.

2.5. Investment Risk

Sachse, Jungermann and Belting (2012) showed that the two ways of mitigating investment risks are by providing enough information about the structure of the financial market and the measuring of risk derived from statistics. The process of identifying the sources of investment risks and treating them in a timely fashion are important for the success of an investment project as much as expected returns are concerned. The proponents argued that providing sufficient information about

the risks of various investment proposals would require a thorough understanding of risk itself. Therefore, for an investment to yield a better result, the different kinds of risk must be understood for better risk treatment.

Erkekoglu and Kilicarshan (2016) established whether political risk affects foreign-direct investment inflows to the host country. The study enclosed the years from 2002 – 2012 and collected sample data from 91 countries. The researchers employed various methods of inferential statistics to analyze the collected data. The findings revealed that the rise of political risk, the instability of politics, the lack of normalcy and effectiveness of government lead to a decline in the foreign direct investment. However, foreign investment accelerates when goods, people and services are carried across or exported.

2.6. Firms' Profitability

Popa and Ciobanu (2014) studied the factors that affect small and medium enterprises in Romania between the years 2009 – 2012. The researchers investigated the relationship between firms and profitability. The analysis was significant for the most part and the regression models were valid with a coefficient of determination of 60%. The objective was to find out the factors affecting SMEs' operations and the driving force behind firms' profitability. The results showed that decisions made by management affect the earning prospect of SMEs, especially during the time of economic hardship. The study revealed that SMEs in Romania represent about 99% of the total firms in the country contributing to nearly one-half of the county's gross domestic product.

Afrifa and Padachi (2016) researched the alternative investment market and focused on the listed small medium enterprises between the years 2005 – 2010. The proponents examined the maximum level of working capital at which firms maximize profits and also investigated whether changes made in working capital lead to a decrease in firm's profitability. The study showed a dip between working capital employed and profit made by firms. Further analysis revealed that for firms to maximize profits, working capital employed must be at equilibrium level.

2.7. Investor's Financial Knowledge

In South Africa, Roberts, Struwig, Gordon, Viljoen and Wentzel (2012) researched the level of financial knowledge of South Africans – results of a baseline national survey. They used a sample of 2,972 adult South Africans (16 years and above). The study employed a statistical multivariate regression to analyze the relationship between the set of variables (dependent and independent). The findings indicated that having control over finances, making effective monetary decisions, and choosing the right choices of investment had no relationship between men and women as far as financial literacy is concerned. The study concluded that financial success purely relies on informed individuals who understand the financial environment and can adjust quickly as per market demands

3. Research Methodology

3.1. Research Design

This study adopted a descriptive survey design because it is economical and facilitates the gathering of huge data from a larger population at a lower cost. This method is also convenient for collecting qualitative data which can be analyzed numerically. Therefore, the descriptive research design was used to examine the underlined factors affecting investment decisions among listed firms in the NSE.

3.2. Target Population

The study population consisted of 178 senior, middle and lower level management in the various finance and investment departments of the 67 firms listed in the NSE. From this research population using the Yamane's formula, a sample of 123 was extracted as a representative to the study population.

3.3. Data Collection Procedure

Before commencing the fieldwork, a letter of authorization for the study was obtained from Kenya Methodist University and the National Commission for Science Technology and Innovation (NACOSTI). A letter of introduction was accompanied by the questionnaires. In this study, strict confidentiality, anonymity, right of withdrawal and correct data handling procedures were followed. Participation was made voluntary. The researcher avoided any activities which could result in physical or emotional harm to the participants. The objective of the study was revealed to the participants before answering the questionnaires.

3.4. Reliability Analysis

The study employed Cronbach's alpha coefficient to establish the internal consistency of the research instrument. This was instituted by measuring whether certain factors within the parameter measure the same construct validity as expected. Kothari (2004) opined that for research to be reliable and consistent, the alpha value thresholds must be at least 0.7. The below table 1 shows that the entire five scales surpass the 0.7 point of reference. This demonstrates that the instrumentation used in this research was reliable enough for further analysis and for making a conclusion.

Table 1: Reliability Analysis

Determinant	No of items	Cronbanch's	Verdict
Financial Market Information	5	.734	Reliable
Investment Risk	5	.976	Reliable
Firms' Profitability	5	.893	Reliable
Investors' Financial Knowledge	5	.925	Reliable
Investment Decisions	6	.781	Reliable

Source: Research Data (2019)

The above Cronbach's Alpha results indicate that the data collection instrument had consistency because all values are above the threshold value of 0.7. This finding confirms that the instrument was reliable.

3.5. Methods of Data Analysis

The filled questionnaires in this study were reviewed for completeness and consistency. Responses obtained were grouped into various categories and then coded. A computer application (SPSS version 23.0) was used to generate the required information for analysis. Mean, standard deviation and ANOVA were used to analyze the study results and regression analysis was also employed to examine the relationship between the dependent and independent variables. Results were summarized and presented using tables.

4. Results and Discussion

This study used descriptive analysis to establish the results obtained from the questionnaires. Mean, standard deviation and correlation analysis were employed to summarize the responses gathered which were presented using tables.

4.1. Response Rate

The study targeted 178 top, middle and lower-level finance managers who work in the various finance and investment departments of the 67 firms listed on the NSE. From the sample of 123 questionnaires presented to the selected managers, a total of 86 were filled and returned – giving a response rate of 69.91%.

- **Gender Distribution of the Respondents:** The study established the gender proportion of the responding managers. The outcomes were summarized and presented in table 2 below.

Table 1: Gender of the Respondents

Gender	Frequency	Percentage
Male	58	67.44
Female	28	32.56
Total	86	100

Source: Research Data (2019)

Table 2 shows that the percentage of male response rate was 67.44%, while the percentage of female response rate was 32.56%. This infers that male managers are in the majority in the *listed firms on the NSE* hence gender disparity is still an issue.

- **Age Brackets of The Respondents:** The study examined the age variation and distribution of the responding managers. Table below summarizes the results.

Table 2: Age Brackets of the Respondents

Age Brackets	Frequency	Percentage
21-25 years	9	10

26-30 years	36	42
31- 36 years	28	33
37-42 years	5	6
Above 42 years	8	9
Total	86	100

Source: Research Data (2019)

The age bracket which was most represented was between the ages of 26 – 30 years were 42%. Those in the age bracket of 31 – 36 years were 33%, while 21 – 25 years were 10%. The age bracket of 37 – 42 years was 6%, and above 42 years were 9%. This implies that the majority of senior management position in the *listed firms on the NSE* was above thirty years.

- **Working Experience in the Company:** The study established the duration and years of work experience of managers in their respective firms. Their responses were summarized and presented in table 4 as shown below.

Table 3: Working Experience in the Company

Age Bracket	**Frequency**	**Percentage**
Below 2 years	14	16
2-6 years	46	53
7-10 years	24	28
Above 10 years	2	3
Total	86	100

Source: Research Data (2019)

The analysis in table 4 suggests that 53% of the responding managers have functioned in their respective firms between 2 and 6 years, 16% of them have worked for their respective firms below 2 years, while 28% of them have worked for their respective firms between 7-10years, 3% have worked for their respective firms for above 10 years. Thus, the majority of the respondents (84%) have worked over two years which should be long enough to be conversant with factors affecting investment decisions.

- **Education Level:** The responding managers were asked to specify their highest level of education. The results were summarized and presented in table 5 below.

Table 4: Education Level

Qualification	**Frequency**	**Percentage**
Diploma	15	17
Bachelors	46	53
Masters	22	26
PhD	3	4
Total	86	100

Source: Research Data (2019)

The analysis in table 5 implies that 53% of the responding managers had bachelor's degrees as their utmost degree, 17% had diplomas, and 26% had a master's degree, while 4% of the

respondents had a doctoral degree. This infers that the responding managers were well educated to understand and respond to the research objectives accordingly.

- **Level of Management:** The respondents were asked to indicate their current management positions. The results were analyzed and presented in table 6 below.

Table 6: Level of Management

Management Position	Frequency	Percentage
Lower	37	43
Middle	23	27
Senior	26	30
Total	86	100

Source: Research Data (2019)

The results show that 43% of the responding managers were in the lower level of management, 30% were in the senior level of management, and 27 were at the middle neck of management. This infers that the study participants were representative to air out their views and opinions on the research objectives.

- **Working Experience in the Current Position:** The researcher ascertained the length of time the respondents have worked in their respective firms. The results were analyzed and presented in table 7 below.

Table 7: Working Experience in the Current Position

Age brackets	Frequency	Percentage
Below 5 years	20	23
5-10 years	42	49
11-15 years	17	20
Over 15 years	7	8
Total	86	100

Source: Research Data (2019)

The above table 7 infers that 49% of the responding managers have functioned in their current position between 5 – 10 years, 23% of them have functioned for their current position below 5, while 20% have worked for their respective positions between 11 – 15years, 8% of them have functioned for their respective firms for over 15 years. The results imply that the responding managers have functioned for a lengthy time in their respective positions and were conversant with the factors affecting investment decisions among listed firms on the NSE*:* therefore, they provided reliable information for the study.

- **Investment Decisions:** The researcher gauged the level of agreement of the responding managers with the statements relating to investment decisions. The results were analyzed and presented in table 8 below.

Table 8: Descriptive Statistics for Investment Decisions

	N	Mean	Std. Deviation
Availability of accounting information influences investment decisions	86	3.80	1.566
Future prospects of profit opportunities influence investment decisions	86	4.32	.956
Handiness of capital from banks and other borrowing agents influences investment decisions	86	4.50	1.062
A positive net present value (NPV) of an investment influences investment decision	86	4.29	1.246
The development of technology enhances investment decisions making	86	4.75	.477
Return on investment affect investment choices	86	3.81	.642
Valid N (list wise) – Overall Mean	**86**	**4.245**	**.9915**

Source: Researcher Data (2019)

The analysis in table 8 infers that there was general agreement on all the six statements relating to investment decisions. In particular, the analysis shows that the responding managers most strongly agreed that development in technology contributes to investment decisions (with highest mean of 4.75 and lowest standard deviation of 0.477). This was closely followed by managers agreeing that the availability or handiness of funds from borrowing agents influence investment decisions (with mean of 4.50 and standard deviation of 1.062). The next agreement by the target respondents was that the prospects for profit opportunities influence investment decisions (with mean of 4.32 and standard deviation of 0.956). The responding managers also agreed that a positive NPV of an investment influences investment decisions (with mean of 4.29 and standard deviation of 1.244). This was followed by the agreement that return on investment affects investment choices (with mean of 3.81 and standard deviation of .642). Finally, the least strong agreement was that the availability of accounting information influences investment decisions (with mean of 3.8 and standard deviation of 1.566).

4.2. Influence of Financial Market Information on Investment Decisions

The researcher established the level of agreement of the target respondents with the statements concerning the influence of financial market information on investment decisions. The results were analyzed and presented in table 9 below.

Table 9: Influence of Financial Market Information on Investment Decisions

	N	Mean	Std. Deviation
The decision to invest must be accompanied by the right sources of information.	86	4.39	.867
Efficient capital allocation is heavily dependent on the flow of information.	86	4.30	1.094
Investors require information regarding share prices and the general performance of the market before investing	86	4.68	.543

Investment firms require reliable sources of information to combat rivals.	86	3.93	1.319
Investment firms require accounting information from companies of interest to establish whether to invest in them or not.	86	4.45	.971
Overall Mean	**86**	**4.35**	**.9538**

Source: Research Data (2019)

Table 9 indicates that there was general agreement on all the five statements relating to financial market information. In particular, the breakdown shows that the responding managers agreed most strongly that investors require information regarding share prices and the general performance of the market before investing (with highest mean of 4.68 and lowest standard deviation of 0.543). This was closely followed by managers agreeing that investment firms require accounting information from companies of interest to establish whether to invest in them (with mean of 4.45 and standard deviation of 0.971). The next agreement by the responding managers was that the decision to invest must be accompanied by the right sources of information (with mean of 4.39 and second-lowest standard deviation of 0.867). This was followed by the agreement that efficient capital allocation is heavily dependent on the flow of information (with mean of 4.30 and standard deviation 1.094). Finally, the least strong agreement was that investment firms require reliable sources of information to combat rivals (at the lowest mean of 3.93 and highest standard deviation of 1.319).

4.3. Influence of Investment Risk on Investment Decisions

The researcher gauged the level of agreement of the responding managers with the statements relating to investment risk. The results were analyzed and presented in table 10 below.

Table 10: Influence of Investment Risk on Investment Decisions

	N	Mean	Std. Deviation
Investment managers reduce risk by diversifying investments among various financial instruments and industries	86	4.93	1.234
Risk assessment of investment opportunity has an effect on investment performance.	86	4.57	1.386
To avoid risks, investors require information regarding share prices and the general market performance before investing.	86	4.07	1.248
A firm will only invest in projects if the expected rate-of-return exceeds the related cost.	86	3.23	1.584
To avoid a steady decline in the value of the security, interest rate should be taken into account.	86	3.57	1.463
Overall Mean	**86**	**4.074**	**1.333**

Source: Research Data (2019)

The above table 10 implies that there was complete agreement on all the five statements relating to investment risk. Most specifically, the breakdown shows that the target respondents most strongly agreed that investment managers reduce risk by diversifying investments among various financial instruments and industries (with highest mean of 4.93 and lowest standard deviation of

1.234). This was closely followed by managers agreeing that risk assessment of investment opportunity affects investment performance (with mean of 4.57 and third-lowest standard deviation of 1.386). The next agreement by the responding managers was that to avoid risks, investors require information regarding share prices and the general market performance before investing (with mean of 4.07 and standard deviation of 1.248). This was followed by the agreement that investors avoid a steady decline in the value of securities by ensuring that interest rate is taken into account (with mean of 3.57 and fourth-lowest standard deviation of 1.463). Finally, the least strong agreement was that firm should only invest in projects if the expected return exceeds the related cost (with lowest mean of 3.23 and highest standard deviation of 1.584).

4.4. Influence of Firms' Profitability on Investment Decisions

The researcher gauged the level of agreement of the responding managers with the statements relating to firms' profitability. The results were analyzed and presented in table 11 as specified below.

Table 11: Firms' Profitability on Investment Decisions

	N	Mean	Std. Deviation
Investors seek profit or return as compensation or reward for taking a risk	86	3.1311	1.28420
Return on investment is directly correlated to the level of risk an investor is willing to incur.	86	3.8033	.74877
Profit is a determinant factor that is directly linked to the final measure of investment.	86	4.8311	.61848
Profit is as well dependent on the nature of investment that is being considered.	86	4.5492	.86460
To maximize return, the estimated cost of an investment must be lower than the expected return.	86	4.5492	.69345
Overall Mean	**86**	**4.1728**	**.8419**

Source: Research Data (2019)

Table 11 suggests that there was full agreement on all the five statements relating to firms' profitability. In particular, the breakdown deduces that the responding managers most strongly agreed that profit is a determinant factor that is directly linked to the final measure of an investment (with mean of 4.8311 and lowest standard deviation of .61848). This was followed by managers agreeing that to maximize investment return the estimated cost of an investment must be lower than the expected return (with mean of 4.5492 and second-lowest standard deviation of .69345). The next agreement by the responding managers was that profit is dependent on the nature of investment that is being considered (with mean of 4.5492 and fourth-lowest standard deviation of .86460). This was followed by the agreement that return on investment is directly correlated to the level of risk an investor is willing to incur (with mean of 3.8033 and third-lowest standard deviation of .74877). Finally, the least strong agreement was that investors seek higher returns as compensation or reward for taking a risk (with lowest mean of 3.1311 and highest standard deviation of 1.28420).

4.5. Influence of Investors' Financial Knowledge on Investment decisions

The researcher measured the level of agreement of the responding managers with the statements relating to investors' financial knowledge. The results were summarized and presented in table 12 below.

Table 12: Influence of Investor's Financial Knowledge on Investment decisions

	N	Mean	Std. Deviation
Financial planning helps investors in ensuring a reasonable balance between outflow and inflow of funds	86	3.60	1.129
Investors use budget to enable them to know what they can afford to buy and invest in.	86	3.78	1.081
Working capital represents firm's net investment in current assets necessary to support its everyday business	86	3.36	1.183
Investor has to be knowledgeable enough in making informed investment decisions	86	4.60	1.114
Deciding whether to invest short-term or long-term depends on an investor's financial knowledge and experience.	86	4.86	1.147
Overall Mean	**86**	**4.04**	**1.1308**

Source: Research Data (2019)

The breakdown in table 12 shows that there was general agreement on all the five statements relating to investor's financial knowledge. In particular, the study reveals that the respondents most strongly agreed that deciding whether to invest in short-term or long-term depends on an investor's financial knowledge and experience (with mean of 4.86 and fourth-lowest standard deviation of 1.147). This was closely followed by managers agreeing that investors use budget to enable them to know what they can afford to buy and invest in (with highest mean of 4.6 and second-lowest standard deviation of 1.114). The next agreement by the target participants was that investors use the budget to enable them to know what they can afford to buy and invest (with mean of 3.78 and lowest standard deviation of 1.081). This was followed by respondents agreeing that financial planning assists investors to ensure that there is a reasonable balance between the amount that is coming in and the amount that is going out so that firmness is observed in the firm (with mean of 3.60 and third-lowest standard deviation of 1.129). Lastly, the least strong agreement was that working capital represents a firm's net investment in current assets necessary to support its everyday business (with lowest mean of 3.36 and highest standard deviation of 1.183).

4.6. Inferential Statistics

The study adopted inferential statistics as a basis of establishing the generalizability of the results to the entire population. The inferential statistics applied in this section include the following: multiple linear regression analysis, reliability analysis, and correlation analysis.

4.7. Correlation Analysis

The Pearson correlation analysis was utilized in this study to show a linear association between the predicted and outcome variables. Correlation analysis helped in determining the strengths of association in the model between the predictor and outcome variables.

Table 13: Relationship between Independent Variables

		Investment Decision	Investment risk	Investment Return	Investors financial Knowledge	Financial market Information
Investment Decision	Pearson Correlation					
	Sig. (2-tailed)					
	N					
Investment risk	Pearson Correlation	.858**				
	Sig. (2-tailed)	.000				
	N	86	86			
Firms' Profitability	Pearson Correlation	.835**	.110**			
	Sig. (2-tailed)	.000	.000			
	N	86	86	86		
Investors financial Knowledge	Pearson Correlation	.805**	.107**	.137**		
	Sig. (2-tailed)	.000	.000	.000		
	N	86	86	86	86	
Financial market Information	Pearson Correlation	.771**	.114**	.126**	.128**	
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	86	86	86	86	86

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

Table 13 shows that investment risk (r=0.858, P<0.000) is having a stronger and significant correlation with investment decisions in the firms listed on the NSE than all other study variables. The research also established that firms' profitability (r=0.835, p<0.000), investor's financial knowledge (r=0.805, p<0.000), and financial market information (r=0.771, p<.000) have strong positive relationships on investment decisions in the listed firms on the NSE. These results are significant at (p-value<0.05).

4.8. Regression Analysis

The researcher adopted a computer-based application known as the Statistical Package for Social Sciences (SPSS version 23.0) for data analysis. The findings were summarized and presented in the following tables below.

Table 14: Model Summary

Model Summaryb				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.876a	.767	.746	.230

a. Predictors: (Constant), Financial market Information, Investment risk, Investment Return, Investors financial Knowledge
b. Dependent Variable: Investment decisions

The coefficient of determination is the rate of change in the dependent variable (investment decisions) that is explained by all the four independent variables (Financial market Information, Investment risk, Firms' Profitability, investor's financial Knowledge). In this research, the four independent variables that were investigated explain (76.7%) of the variation in the investment decisions as denoted by the R2. This implies that other elements not considered in this study constitute (23.3%) of the variance in the dependent variable.

Table 15: Relationship between Independent Variables

ANOVAa						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	7.876	4	1.969	65.633	.000b
	Residual	2.392	80	.03		
	Total	**10.268**	**84**			

Source: Research data (2019)
a. Dependent Variable: Investment decisions
b. Predictors: (Constant), financial market information, investment risk, firms' profitability, and investors' financial Knowledge

The probability value of p<0.00 suggests that the regression affiliation was highly significant in predicting how financial market information, investment risk, firms' profitability, and investors' financial knowledge influence investment decisions of listed firms on the NSE.

Table 16: Relationship between Dependent and Independent Variables

Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	2.931	.229		12.800	.000
	Investment risk	.388	.096	.705	4.042	.000
	Financial market Information	.222	.087	.576	2.567	.013
	Firms' Profitability	.324	.088	.358	3.681	.000
	Investors financial Knowledge	.176	.085	.167	2.071	.024

Source: Research data (2019)
a. Dependent Variable: Investment decisions

From the data in the above table the established regression equation was;

$Y = 2.931 + .388; X1 + .222X_2 + .324X_3 + .176X_4 + \varepsilon$

The above regression equation in Table 16 shows that investment risk, financial market information, firms' profitability and investor's financial knowledge to a constant zero, investment decisions of firms listed in the NSE would stand at 2.931; a unit increase in investment risk would lead to an increase in investment decisions of firms listed in the NSE by a factor of .388; a unit increase in financial market information would lead to an increase in investment decisions of listed in the NSE by a factor of 0.222; a unit increase in firms' profitability would lead to an increase in investment decisions of firms listed in the NSE by a factor of 0.324 and unit increase in investor's financial knowledge would lead to an increase in investment decisions by a factor of 0.176. These results show that the independent variables had significant influence on investment decisions since they all had a significant p-value ($p\text{-value} < 0.001$).

5. Conclusions and Recommendations

To investigate the factors affecting investment decisions among listed firms in the Nairobi Securities Exchange, the study established that financial market information greatly influences investment decisions based on the results of the correlation analysis which was found to be statistically significant. These results are similar to investment risk, firms' profitability and investor's financial knowledge which had strong influences on investment decisions as per the correlation analysis. This conclusion is supported by past research findings which revealed that financial market information influences investment decisions and so too for investment risk, investor's financial knowledge and the firm's profitability. Therefore, the study concluded that if firms are to make informed investment decisions, they must have sufficient and adequate information that would enable them to do so. In addition, the adoption of a strong risk management strategy could lead to the greatest increase in firms' investment performance. Moreover, an appropriate strategy for investment decision-making would lead to a profound increase in firms' profitability. Finally, investment managers must have the right skills and knowledge that will help them make sound investment decisions. With the right kind of financial education and experience, an investor is more likely to succeed. Therefore, the results of this study would enable investment firms, researchers, policymakers, shareholders, financial managers and investors to develop appropriate strategies that would help them in making smart and informed investment decisions to minimize risks thereby maximizing investment returns.

Considering the importance of financial market information for making investment decisions, there is a need for investment companies to continue to provide current market information to the public. This would facilitate investors' decision-making since investors often decide from a point of knowledge. In addition, the Nairobi Securities Exchange should continue to share market information on listed firms. This would positively influence the investment decisions of individuals and firms. The information acquired would assist them to make more informed decisions. Moreover, analytical tools such as the structural-equation modeling and the factor-analysis (instead of the regression analysis) should also be explored to research on those factors that affect investment decisions.

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