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RELATIONSHIP BETWEEN EQUITY AND DERIVATIVES: A CASE STUDY ON INVESTORS IN INDORE CITY

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Abstract

The enhanced technology and innovative ways in the external environment has resulted in two different types of investment avenues in India. The investors have a number of options when it comes to select the Investment Avenue but the investors shall be wise to select the avenue that they aspire to opt. Investing in different types of Assets and Investment Avenue is quite an interesting activity that tends to attract a number of people from all the measures of life irrespective of their economic status, occupation, family background and education. An investor always tries to strike a balance between the shortcomings and the benefits of different modes of investment before initiating investment in them. Investment results into Savings and savings are a significant part of the economy of a nation. Equity and derivatives are two such investment avenues that provide option of savings to the investors. The major focus of the present research paper is to establish a relationship between equity and derivatives on a sample of 300 investors in Indore city.
Index Terms: equity, derivatives, risk, returns and investment.

I. INTRODUCTION

Investment refers to the employment of additional funds in the investment avenues with an objective to earn capital appreciation on income on that. There are two major attributes of investment that are risk and return (Wang, 2012). Time is also an invisible factor affecting the risk and return in investment activity. It is certain that an investor with sacrifice money today that be written on that is uncertain in future. This uncertainty of return in the future is a risk factor in the investment (Acharya & Richardson, 2009). This is why; an investment is a commitment of the funds at present with an expectation to earn the returns. To gain the return on the investment in the future is the major motivation for the investors to take the risk at

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present (Vashishtha & Kumar, 2010). Risk is associated with all the investment avenues including equity and derivatives.

In the present era of competitiveness, an investor is having a number of investment avenues. Some of the investment avenues are zero risk while some avenues have high risk. As a matter of fact the investment in corporate securities like preference shares and equity shares might also involve the risk of capital loss but investment in debentures and bonds guarantee the income of interest every year (Aren & Aydemir, 2015). This is also the case with derivatives.

Equity refers to the investment of money in the shares of a company and this can be done by opening Demat or trading account with a share broker. This means that, if the investors are good in selecting the stock to be invested in equity shares, they can earn great returns (Sathya, 2015). The most significant point to be noted here is that it is important to keep an eye on the changes.

A derivative derives its value from the underlying assets. This becomes a contract and bounds the buyer to purchase the assets for a fixed price on a fixed date. Commodities like oil, gasoline and gold are most often used as derivatives. Most often the US dollar is also an asset in derivatives (Bandivadekar & Ghosh, 2003). Derivatives also tend to make the future cash flow very much predictable. Most of the derivatives trading in India are done by hedge funds.

II. RESEARCH OBJECTIVES

The present research study aims at establishing a relationship between equity and derivatives. The primary objective of this research paper is to study the impact of equity market on derivatives market. To compare the equity and derivatives 14 variables have been used. The objectives of present research study are as under:

- To study and understand the relationship between equity and derivative markets
- To study the impact of equity market on derivatives market
- To identify the factors that establishes a relationship between equity and derivatives markets.

III. RESEARCH PROBLEM

Indore city has been emerged as an investment and economic hub in Madhya Pradesh. The level of awareness for investment has increased tremendously in the city during past few years. A handful of studies have taken place during the past decade on the perception of investors, factors affecting investment behaviour and different investment avenues. But there is no research study that compared and contrasted equity and derivatives. Equity and derivatives are the two most important instruments of Investments for a developing city like Indore. This makes it very important to establish a relationship between equity and derivatives and identify the factors that established this relationship. This is the major focus and the problem area of the research study.

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IV. REVIEW OF LITERATURE

Equity and derivatives are the two major parts of future markets in India. A number of factors are there that are associated with the risk and return linked with equity and derivatives (Sahadevan, 2002). The growing diversity in the financial market has also increased interest rates, commodity prices, etc. At that time hedging becomes a very important in life saving options for the organisations. This is the major reason why big investors choose hedging to reduce the risk of transactions (Sah & Omkarnath, 2005).

A study was conducted to analyse the preference of investors and the needs of investors towards equity. This study was based on convenience sampling (Roztocki & Weistroffer, 2004). It was identified that the reason behind choosing equity is that it tends to provide higher returns to the investors. The investors found equity to be a very strong Investment Avenue when it comes to the return factor (Pandian, 2011).

it is identified in a research study that the market value of derivatives keep on changing with respect to the underlying variables. In addition to managing the risk, derivatives are also useful in trading purposes (Nelson et al., 2005). The Financial Institutions like Life Insurance Corporation, investment managers in banks prefer derivatives. It is also identified that the commodity futures are positively related to the changes in the expected inflation and un-expected inflation in the financial market. These are also the factors affecting the perception of investors when it comes to investment in equity and derivatives (Kumar & Pandey, 2009).

In a research study it was identified that derivatives are not very popular mode of investment in Indian financial market (Edquist, 2015). But the perception of investors has also changed because of the improvement in communication facilities. This has resulted into enhancing the volume of derivative contracts. In addition to that the investors also earn more return by taking more risk (Ikhar, 2014). The derivative Market in India is more regulated and standardized and this tends to provide a controlled environment to the investors.

The investors chase for safety, liquidity and capital appreciation and this is something that has been identified from the research study (Hall, 1992). The study has also identified that investment in equity serves this purpose and due to that the investors prefer to invest in equity. A survey on Indian investors reported that safety and liquidity were the most significant factor for determining the choice of investment avenues.

It is identified in a recent study that derivatives are considered to be suitable for big investor. The perception of small investors is such that they do not prefer to invest in derivatives (Karthikeyan, 2014). Due to the lack of knowledge, they assume that derivatives are only suitable for large and big organisations. On the other hand the perception of investors towards equity is not that (Sasi Kumar & Vikkraman, 2010). The investors also perceive that investing in equity is easy and more comfortable than investing in derivatives. These are the two contrasting findings with respect to the investment decision in equity and derivatives (Bhatt & Bhatt, 2012).

Derivatives are also considered to be quite complex end is a new financial product this is also a major reason why the investors perceive it to be suitable only for large investors (Booth, 1999).

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In contrast to that equity is a traditional mode of investment in this is the major reason why it is considered suitable for small investors as well.

It is further identified that the role of stock exchange and SEBI is very significant in investment decision making (Reddy & Sebastin, 2008). In a research study it was identified that the investors was satisfied with the role of stock exchange and SEBI in India. It was also identified that satisfactory support and security is provided to the investors by SEBI (Chawla, 2014). If an investor carefully go through the guidelines of SEBI then there is no constraint regarding security.

Equity market is less speculative then derivatives market as per the perception of the investors (Kathuria & Singhania, 2010). It is considered that speculation in derivatives is lesser. But this study is also matter of great criticism. Some research studies have also asserted that there is more speculation associated with derivative market (Booth, 1999). This suggests that speculation for equity and derivatives is a great matter of concern and is a debated topic.

Brokerage, safety and risk are also three major constraints related to equity and derivatives market. It is identified that investors preferred to invest in the investment avenues for which brokerage fees are considerable (Saravana, 2010). The investment avenues with high brokerage fees are not considered to be suitable by the investors. It was also identified that the brokerage fees for equity is higher than derivatives. But at the same time derivatives are considered to be unsafe by the investors while equity is considered to be safe.

V. RESEARCH METHODOLOGY

Sources of data

There are two sources of data that are primary data and secondary data. The present research study has collected data using primary sources. The primary sources are the sources that are already established. For collecting the primary data for the present research study, there is pressure has used a structured questionnaire. The questionnaire was sent to the respondent electronically. The researcher has used simple random technique to select the respondents for the questionnaire. The sample size for the research study is 300 respondents.

Data Analysis tool

The objective of present research study is to establish a relationship between equity and derivatives. Keeping in view the objective of the study correlation analysis is used. The correlation analysis will establish relationship between equity and derivatives.

Data Analysis

The correlation analysis is run on SPSS software. Table 1.1 depicts the results obtained from correlation analysis.

There were fourteen variables in the study. Out of these fourteen variables, eight variables were related to derivatives and seven were related to equity. Following is the summary of the correlation analysis:

Correlation Matrix[a]

		VAR00001	VAR00002	VAR00003	VAR00004	VAR00005	VAR00006	VAR00007	VAR00008	VAR00009	VAR00010	VAR00011	VAR00012	VAR00013	VAR00014
Correlation	VAR00001	1.000	.525	.364	.089	.169	.279	.548	.791	.525	.224	.090	.154	.208	.509
	VAR00002	.525	1.000	.476	.220	.294	.350	.630	.400	1.000	.263	.180	.251	.289	.596
	VAR00003	.364	.476	1.000	.146	-.069	.113	.441	.278	.476	.701	.190	-.092	.045	.414
	VAR00004	.089	.220	.146	1.000	.327	.036	.167	.083	.220	.085	.781	.313	.037	.179
	VAR00005	.169	.294	-.069	.327	1.000	.214	.048	.136	.294	-.100	.233	.884	.156	.043
	VAR00006	.279	.350	.113	.036	.214	1.000	.385	.217	.350	.036	.072	.177	.806	.367
	VAR00007	.548	.630	.441	.167	.048	.385	1.000	.413	.630	.257	.167	.021	.308	.948
	VAR00008	.791	.400	.278	.083	.136	.217	.413	1.000	.400	.242	.094	.125	.165	.412
	VAR00009	.525	1.000	.476	.220	.294	.350	.630	.400	1.000	.263	.180	.251	.289	.596
	VAR00010	.224	.263	.701	.085	-.100	.036	.257	.242	.263	1.000	.163	-.110	.092	.268
	VAR00011	.090	.180	.190	.781	.233	.072	.167	.094	.180	.163	1.000	.245	.040	.163
	VAR00012	.154	.251	-.092	.313	.884	.177	.021	.125	.251	-.110	.245	1.000	.103	.057
	VAR00013	.208	.289	.045	.037	.156	.806	.308	.165	.289	.092	.040	.103	1.000	.310
	VAR00014	.509	.596	.414	.179	.043	.367	.948	.412	.596	.268	.163	.057	.310	1.000

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a. This matrix is not positive definite.

Table 1.1: Summary of correlation analysis

Variables of the study

Variables	*Questions*
Variable 1	Derivatives are complex and new financial products
Variable 2	It is only suitable for big investors of institutes
Variable 3	It is unsafe and risky
Variable 4	Brokerage fees is very low
Variable 5	It is less speculative than equity market
Variable 6	Investors protection measures are sufficient
Variable 7	Role of SEBI and Stock exchange is satisfactory
Variable 8	Equity is easy and traditional mode of investment
Variable 9	Anyone can comfortably invest inequity
Variable 10	It is safe and less riskier
Variable 11	Brokerage fees is high
Variable 12	It is more speculative than derivatives
Variable 13	Investors protection measures are sufficient
Variable 14	Role of SEBI and Stock exchange is satisfactory

Table 1.2: Variables of the study

It is identified from the analysis that the variable is highly positively correlated. Variable 2 and variable 9 are highly correlated with each other as seen in the table. The correlation value of these two variables is 1.000. In addition to that variable fourteen and variable seven are also highly positively correlated. These two variables are correlated at 0.948. Similarly all the variables have correlation value above .700 that denotes a high positive relationship.

Anyone can comfortably invest in equity and derivative is only suitable for big investors. This denotes that equity is suitable for both small as well as big investors but derivatives are not. Role of SEBI and Stock exchange is satisfactory for equity and derivatives and these are variables 7 and 14. It is identified that there is also a high positive relationship between these two variables. In this manner the relationships between all the variables are significant and positive.

Following is the summary of the correlated variables identified from the study:

Variables	Summary
Variable 2 and 9	It is only suitable for big investors of institutes Anyone can comfortably invest inequity
Variable 7 and 14	Role of SEBI and Stock exchange is satisfactory Role of SEBI and Stock exchange is satisfactory
Variable 1 and 8	Derivatives are complex and new financial products Equity is easy and traditional mode of investment
Variable 5 and 12	It is less speculative than equity market It is more speculative than derivatives
Variable 6 and 13	Investors protection measures are sufficient Investors protection measures are sufficient
Variable 4 and 11	Brokerage fees is very low Brokerage fees is high
Variable 3 and 10	It is unsafe and risky It is safe and less riskier

Table 1.3: Correlation between the variables

VI. DISCUSSION

It is identified from the research study that there is high positive correlation between all the variables of the study. The correlation justifies the utility of equity and derivatives as well. The result denotes that derivative is suitable for big investors and equity can be suitable for anyone. These two variables are correlated to each other. This means that investors in Indore city are divided into two broad categories that are small investors and big investors. The result also denotes that derivatives are complex and new financial products while equity is easy and traditional mode of investment. This also links with the finding that derivatives are not preferred by small investors due to their complexity. In addition to that the research study also revealed that derivatives are complex and new financial products while equity is easy and traditional mode of investment. This also correlates when it is taken into consideration that derivatives are also considered complex by the investors in Indore city. The investors of Indore city also opined that derivative is speculative than equity market while equity is more speculative than derivatives. In this manner the results obtained from the present research study are completely sensible.

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The results obtained from the research study also links with the findings in the literature. It is identified in a recent study that derivatives are considered to be suitable for big investor. The perception of small investors is such that they do not prefer to invest in derivatives (Karthikeyan, 2014). The present research study has also identified this with respect to the Indore region. On the other hand the perception of investors towards equity is not that (Sasi Kumar & Vikkraman, 2010). The investors also perceive that investing in equity is easy and more comfortable than investing in derivatives. These are the two contrasting findings with respect to the investment decision in equity and derivatives (Bhatt & Bhatt, 2012). The present research study has also identified that investment in equity is considered to be easier by the investors than that of derivatives.

In literature it is also identified that the role of stock exchange and SEBI is very significant in investment decision making (Reddy & Sebastin, 2008). The present research study has also identified that SEBI is very important in investment decision making. The investors in Indore city also perceive the same. In a research study it was identified that the investors were satisfied with the role of stock exchange and SEBI in India. It was also identified that satisfactory support and security is provided to the investors by SEBI (Chawla, 2014).

The present research study has also identified that equity market is perceived to be less speculative than derivatives market. The literature also revealed that equity market is less speculative than derivatives market as per the perception of the investors (Kathuria & Singhania, 2010). The literature also identified that investors preferred to invest in the investment avenues for which brokerage fees are considerable (Saravana, 2010). The investment avenues with high brokerage fees are not considered to be suitable by the investors. The present research study also identified that high brokerage is also a matter of great concern.

VII. CONCLUSION

The present research study has achieved all the objectives of the research. The study has understood the relationship between equity and derivative markets. The relationship between equity and derivatives market is found to be positive. The impact of equity market on derivatives market is also positive. It is identified that when equity is considered less complicated then derivatives are considered complicated. This makes investors prefer equity over derivatives. Likewise for other factors like security, risk, etc. the equity is preferred rather than derivatives. All the factors of the study establish a relationship between equity and derivatives markets. The factors involved in the study like traditional and novel, complex and easy, role of SEBI, safety and risk, protection of investors and brokerage fees are enabling a positive relationship between equity and derivatives. In this manner the perception of the investors in Indore city regarding equity and derivatives has a strong positive correlation.

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