
A Study of Impact of Behavioural Factors on ESG Investment

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Abstract

Purpose of the Study: The main aim of the study is to analyze the behavioural factors affecting ESG investments in India.

Methodology: The study is based on primary data. Data is collected through a well-structured questionnaire. The respondents are drawn by means of convenient sampling method. The sample of 219 Respondents was collected for the study.

Findings: It is found that the Behavioral aspect is dependent on ESG factors.

Practical Implications: Through this study, it is expected to get significant result and suggestions which could benefit the investors.

Originality / Value: To the best of the authors' knowledge, this manuscript is the only research which uses the Regression Model with reference to ESG in India.

Keywords: ESG, Behavioral aspects, ESG Model, Investors, Sustainability

I. Introduction

ESG investment refers to the practice of investing in companies and funds that meet certain environmental, social, and governance (ESG) criteria. ESG criteria are used to evaluate the sustainability and ethical impact of investments, with the goal of creating a positive impact on society and the environment, as well as delivering financial returns.

Environmental factors refer to the impact of a company's operations on the natural world, including their carbon footprint, resource consumption, and waste management. Social factors consider a company's impact on society, including its relationships with employees, customers, and communities, as well as human rights and labor practices. Governance factors assess the way a company is managed, including its leadership structure, policies, and transparency.

ESG investing has grown in popularity in recent years, driven by increasing awareness of environmental and social issues, and a desire among investors to align their investments with their values. ESG funds and products are now widely available, and many investors are seeking out companies that meet ESG criteria, both for the potential financial returns and the positive impact they can have on the world.

ESG (Environmental, Social, and Governance) investing is a type of investment strategy that takes into account not only the potential financial returns of a company or asset but also its impact on the environment, society, and corporate governance. Behavioral aspects play an important role in the ESG investment decision-making process, as investors are influenced by their beliefs, values, and biases when making investment decisions.

Here are some ways in which behavioral aspects can impact ESG investment:

- **Beliefs and Values:** An investor's beliefs and values about environmental and social issues can influence their investment decisions. For example, an investor who values environmental sustainability may be more likely to invest in companies that have strong environmental policies and practices.
- **Social Norms:** Social norms can also influence an investor's decision to invest in ESG funds. As ESG investing becomes more widely accepted, social norms may encourage investors to consider ESG factors when making investment decisions.
- **Confirmation Bias:** Confirmation bias is the tendency to search for and interpret information in a way that confirms one's pre-existing beliefs. This bias can lead investors to overemphasize or underemphasize certain ESG factors based on their existing beliefs.
- **Herd Mentality:** The herd mentality is the tendency to follow the actions of a larger group of people. In the context of ESG investing, this could lead investors to follow the trend of ESG investing without considering the specific ESG factors of the companies they are investing in.
- **Loss Aversion:** Loss aversion is the tendency to prefer avoiding losses to acquiring gains. In the context of ESG investing, this could lead investors to avoid companies with poor ESG practices out of fear of negative consequences, rather than seeking out companies with strong ESG practices for potential positive returns.

Overall, understanding the impact of behavioral aspects on ESG investment decision-making is important for investors and financial professionals who are interested in incorporating ESG factors into their investment strategies. By recognizing and addressing these biases, investors can make more informed investment decisions and potentially achieve better financial and ESG-related outcomes.

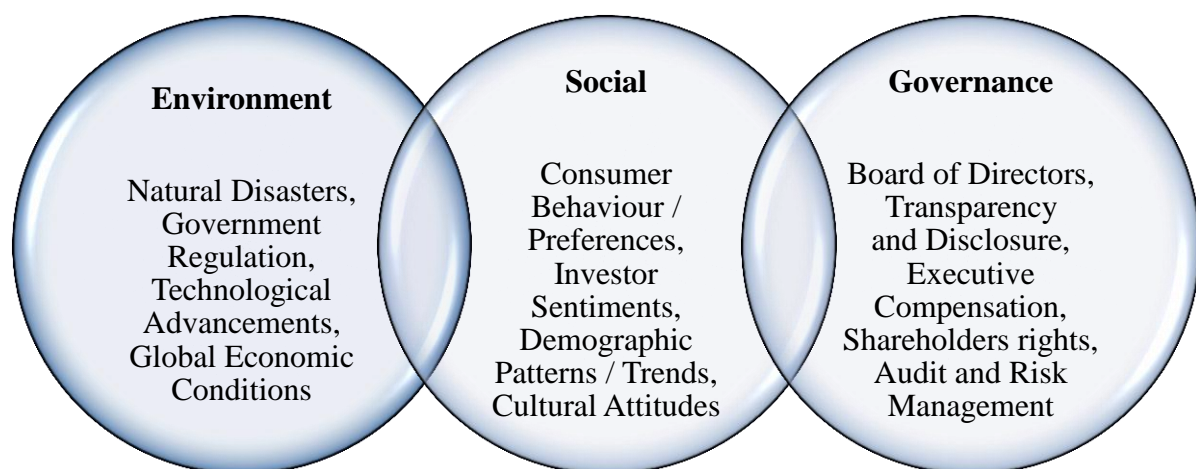


Figure 1: ESG factors affecting on investment decisions

The researchers have studied various environmental, social and governance factors affecting on investor decisions in detail. The theoretical framework helps us to understand the significance of ESG factors in investment decisions.

II. Literature Review

The Brundtland Report, also known as Our Common Future, first introduced the idea of sustainable development in 1987. As per report sustainable development is defined as "progress that fulfils the requirements of the present without compromising the ability of future generations to satisfy their own needs." The Sustainable Development Goals (SDG) list consists of 17 goals and 169 targets. The following categories serve as a breakdown of

these aims: social development (five goals), poverty alleviation (two goals), economic growth (two goals), and environmental sustainability (seven goals) (one goal).

Corporate ESG disclosures, which are associated with the SDGs, provide details on how an organization conducts its business in terms of governance, social responsibility, and the environment. As a result, when developing various ESG frameworks, the SDGs and the Paris Agreement are taken into account. For instance, Stakeholder Capitalism Metric connects each of the SDGs to a pillar of its ESG framework (World Economic Forum 2020) Examples of how the governance pillar connects to these goals are Goal 12 (Responsible consumption and production), Goal 16 (Peace, justice, and strong institutions), and Goal 17. (Partnerships for the goals). Similar to this, the climate change category of the planet pillar is guided by the Paris-aligned GHG emission objectives. Corporate ESG adoption and ESG disclosure laws are mostly driven by the UN. According to a 2019 UN PRI statement, PRI signatories are obligated to share the PRI climate indicators on four categories: governance, strategy, risk management, and measurements. The UN PRI was the first important organisation to mandate the inclusion of ESG data in reports. The European Union (EU) became the first economic region to embrace ESG criteria through the implementation of the EU Regulation on Non-Financial and Diversity Information. Only large companies with more than 500 employees, at least 30 million euros in assets, and/or 400 million euros in net sales were subject to the original EU legislation.

There are several factors that influence corporate ESG adoption, as well as anticipated results. The first option is for management to view the adoption of ESG as a strategic choice. Sustainable business practises can increase a company's value and promote sustainability (Freeman 1984), add differentiation and cost savings (Porter et al. 2019), have a positive impact on employee work engagement (Agarwal et al. 2012), and enhance employee productivity and customer loyalty (Park 2020). (Kim and Park 2017).

Second, implementing ESG may aid in managing risk and opportunity, which benefits management, staff, participants in the supply chain, and clients. According to Nam et al. 2020, corruption is a survival danger to recently founded businesses and can adversely affect their profitability and stock values (Thakur et al. 2019). A proactive strategy for enhancing corporate sustainability might include dealing with hazards (Jo and Na 2012). Costs are reduced when management can fix issues or prevent them from recurring again. (Swanson 1999). Corporate reputation should be included in risk management. Even more than operating offences, news reports about criminal activity have a detrimental influence on business revenues (Song and Han 2017).

Franco (2020) looked into how the performance of stocks and portfolios was affected by ESG-related scandals and discovered that portfolios with serious ESG disputes or reduced ESGs performed relatively poorly. Recent studies have shown that highly sustainable businesses are more resilient to turbulence and have relatively low downside risks. According to research by Hoepner et al. (2019), companies' involvement in ESG lowers their downside risk. According to Ilhan et al. (2021), businesses with poor ESG profiles and large carbon emissions are more likely to experience tail risks. Financial and non-financial U.S. enterprises with high ESG ratings performed better than others during the global financial crisis, according to studies covering that time period (Cornett et al. 2016).

Thirdly, embracing ESG is a company's responsibility as a member of society, regardless of whether doing so is required by law or regulation. The corporation would not become ethical by adopting ESG disclosures alone, but it would become more ethically selective when making pertinent decisions. ESG rating companies and other financial lenders can be thought of as altering agents themselves by evaluating company practises (Escrig-Olmedo et al. 2019).

The ESG framework's standardisation is made challenging by the variety of models. Therefore, it is necessary to first create the universal standards for measuring ESG-related non-financial elements before applying ESG specificities by country, industry, and enterprise. Stakeholder Capitalism Metric (World Economic Forum 2020), SASB (2020), Refinitiv (2021), MSCI (2020), and S&P Global are the five most dependable ESG information suppliers (2021). Due to their standardisation (SASB), industry recognition, and leadership in ESG (Stakeholder Capitalism Metric), all five ESG information providers were selected (Refinitiv, MSCI, and S&P Global). After the 2020 World Economic Forum (WEF) annual meeting, the International Business Council (IBC) released the Stakeholder Capitalism Metric, which was created by Deloitte, EY, KPMG, and PwC. The Metric makes use of the recommendations made by the world's foremost producers of ESG standards, including GRI (Global Reporting Initiative), TCFD (Task Force on Climate-related Disclosures), SASB, OECD Oslo manual, UN guiding principle, and others. Along with GRI, CDP (formerly the Carbon Disclosure Project), and IIRC, another information source, SASB, is a well-known ESG standard body (Hazelton and Perkiss 2018). The most widely used sources of information for economic and financial indices and ratings are S&P Global, MCSI, and Refinitiv (SustainAbility 2020). The factors shared by these five typical ESG frameworks, which capture the same ESG aspects, should form the basis of ESG. 2019 (Escrig-Olmedo et al.).

Setting a new category (E, S, and G, choosing the most general form), then reclassifying elements from the preexisting categories is necessary to drive commonality from the chosen framework. The four pillars of the shareholder capitalism metric are governance principles, the earth (which stands for E), people (which stands for social), and prosperity. Depending on their themes, the sub-criteria for the prosperity category are moved into E, S, or G.

For instance, the reclassification of employment and wealth creation into S since it includes the rate of employment, economic contribution, and monetary contribution to society. The primary categories of the SASB framework are environment, social capital, human capital, business model and innovation, leadership and governance. Based on their connection to E, business models and innovation are recategorized into E, S and G.

III. Research Objectives and Hypothesis

After review of literature, the researchers have formulated the following research objectives:

1. To study the extent of behavioral aspects of ESG related investment.
2. To analyze the factors affecting on investment decisions towards socially responsible investment.
3. To establish the relationship between Behavioral factors and ESG investment.

Objective 1: To study the extent of behavioral aspects of ESG related investment.

H0: Behavioural aspect is not dependent on Environmental, Social and Governance Factors

H1: Behavioural aspect is dependent on Environmental, Social and Governance Factors

IV. Research Methodology

This study is based on primary data. Questionnaire is used for the purpose of data collection on Likert scale basis. The data collected from 219 respondents. The regression model is used to test the hypothesis formulated for the study. For this study, Environmental, Social, Governance factors taken as dependent variables whereas; Behavioral factors are taken as independent variables.

V. Data Analysis & Results:

Multiple Regression Model: For this research paper, hypotheses’ testing has been carried out using multiple regression:

Objective 1: Environment, Social and Governance are taken as independent variables and Behavior is taken as dependent variable.

Multiple regressions also allow to determine:

- 1) The overall fit (variance explained) of the model and
- 2) The relative contribution of each of the predictors to the total variance explained.

In order to apply Multiple Regression, summated average of items under both independent and dependent variables was calculated. Average of four items under Environment and five items under Social, Governance respectively was computed for input into regression model as independent variables. Average of five items under Behavior was computed for input into regression model as dependent variable. These have been named as EMean (Environmental Average); SMean (Social Average); GMean (Governance Average) and BMean (Behavior Average)

Table 1: Model Summary of Regression Analysis

a. Dependent Variable: BMean				
b. All requested variables entered.				
Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.575 ^a	.330	.321	.6016134
a. Predictors: (Constant), GMean, EMean, SMean				

Multiple *R* is a measurement of how accurately the given model predicts or forecasts the collected data. Consequently R^2 can be interpreted as the quantum of variation in the dependent variable that is responsible for by the independent variables in the model. It may be stated that 32.1% of variation in Behavior is due to the variables employed in the regression model (Environment, Social and Governance). ANOVA is calculated to understand if the model is significantly more accurate at predicting / forecasting the result than employment of mean or average as a ‘best guess and most appropriate measure.

Table 2: Results of ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.696	3	12.899	35.638	.000 ^b
	Residual	78.451	217	.362		
	Total	117.237	220			
a. Dependent Variable: BMean						
b. Predictors: (Constant), GMean, EMean, SMean						

The F-ratio, here F is 35.638, which is significant at $p < .001$ (because the value in the column labelled Sig. is less than .001). The overall prediction of regression model of Behaviour is significantly accurate.

The simple regression model is expressed in the form of an equation of a straight line $y = a + bx$; where in y is the dependent variable, 'a' is the y Intercept and b is the slope of the independent variable. In case of multiple regressions the equation transforms into $y = a + b_1 x_1 + b_2 x_2 + \dots$

where in y is the dependent variable, 'a' is the y Intercept, b_1 is the slope of 1st independent variable, b_2 is the slope of 2nd independent variable and so on and so forth. Therefore for this model the multiple regression equation can be stated as

$$Y (\text{Behaviour}) = a + b_1 (\text{Environment}) x_1 + b_2 (\text{Social}) x_2 + b_3 (\text{Governance}) x_3$$

Table 3: Regression Analysis

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.755	.120		6.319	.000
	EMean	.220	.067	.231	3.295	.001
	SMean	.191	.067	.207	2.837	.005
	GMean	.221	.060	.254	3.709	.000

From the model, it is evident that standardized beta values b_1 (EMean) is 0.231, b_2 (SMean) is 0.207 and b_3 (GMean) is 0.254. EMean (Environment), GMean (Governance) and SMean (Social) are significant at 0.05 level of significance.

Thus the Regression Equation can be written as,

$$Y (\text{Behaviour}) = a + 0.231 (\text{Environment}) x_1 + 0.207 (\text{Social}) x_2 + 0.254 (\text{Governance}) x_3$$

Thus H_0 for Environmental, Social and Governance is rejected and therefore it is concluded that:

- 1) Behavioural aspect is dependent on Environmental Factors
- 2) Behavioural aspect is dependent on Social Factors
- 3) Behavioural aspect is dependent on Governance Factors

VI. Findings and Implications

- 1) From the Data analysis done above, it can be seen that Behavioral aspect is significantly dependent on Environmental, Social and Governance Factors.
- 2) This implies that Investment decisions are not taken in isolation. They are a resultant combined product of Environmental, Social and Governance factors. These factors may affect investment decisions either in positive or negative ways. Therefore it is imperative that administrators, regulators and government officials create conducive atmosphere in their region (Country, State or City) through better policies and systems to encourage effective and highly profitable investments through sound investment decisions by the investors.

VII. Conclusion & Recommendation

This present study focuses on the impact of behavioral aspects of investors towards ESG contributing to sustainable investments in India. In addition to identifying institutional investors' perspectives of ESG variables, this study also proposes ESG model based on the statistical analysis. Based on the regression model it is observed that current investors prefer if a corporations that are meeting expectations for ESG standards for investment decisions. The behavioral aspects including risk and return, social influence, market sentiments and peer influence is deeply influencing the investor's decision while investing in ESG related products.

The researchers have recommended that as the investment in the ESG products is influenced by the behavioral factors, emphasis must be laid on creating the awareness of financial products so that the social and peer influence will not affect on investment decisions. The industry must set standards and bring the benchmarks for the ESG products.

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