Investor Sentiment and Market Dynamics in Nepal's Hydropower Sector

Madan Kandel

Nepal Commerce Campus, Tribhuvan University

Email: kandelmadan15@gmail.com

ORCID: https://orcid.org/0009-0009-6103-227X

Jagat Timilsina

Central Department of Management, Tribhuvan University

Email: jtimilsina027@gmail.com

ORCID: https://orcid.org/0000-0002-0617-6686 (Corresponding Author)

Ushant Gautam

Nepal Commerce Campus, Tribhuvan University

Email: ushaant.gautam12@gmail.com

ORCID: https://orcid.org/0009-0005-5020-1307

Abstract

To the author's best knowledge, it was the first study of variables determining the investor opinion on hydropower equity in Nepal, encompassing economic, social, environmental, and technological aspects. Therefore, with the employment of the structured questionnaire and statistical analysis, the question to be answered was: which of the specified factors determine the investor opinion regarding hydropower industry the most? It appears that economic aspects were the most critical variable, while ROI and government incentives indeed affected the likelihood of a favorable opinion. Social variables, community acceptance, and corporate social responsibility relevantly grew in the existing literature, which is consistent with SRI trend. Nevertheless, it could be posited that environmental factors -practices or compliance- represent the most paramount factor. Similarly, investor perceptions are minimally affected by consideration of technological factors since integration is still at an infancy stage in the Nepal hydropower industry, hence why technological factors do not appear to have an impact. The study revealed that economic stability, social responsibility and sustainability are significant considerations in establishing investor perceptions whilst technological factors are not a significant characteristic at this stage. Overall, the implications arising from these findings are substantial for investor investors and stakeholders, including policy makers or those potentially interested in attracting investor investment into hydropower projects.

Keywords: *Investor Perception, Hydropower, Stocks, Investment, Corporate Social*

Responsibility. ***JEL Classification:*** *G11, G14, Q42*

Introduction

Hydropower is integral to Nepal's economy and stock market; this is unsurprising as Nepal is endowed with significant water availability and a focus on developing sustainable energy sources. With Nepal's growing dependence on hydropower to meet its growing domestic electricity requirements and to secure its energy future, hydropower equities have become one of the key components of Nepal's stock market that has attracted both local and foreign investors. This section examines the multitude of factors that influence investors' perceptions of hydropower equities, specifically with respect to the stock market, economy, and regional factors in Nepal.

Nepal's economy is significantly reliant on hydropower with its role as the largest energy source and one of the top sectors on the stock exchange. Hydropower stocks are very important in seeking domestic as well as foreign investment in the Nepal Stock Exchange (NEPSE) as Nepal has approximately 83,000 MW of potential hydropower (Shrestha, 2019; Khanal, 2022). There is active trading in hydropower stocks in Nepal's financial market since the government provides subsidies as well as favorable taxation and policy (Aryal, 2022). Several factors impact investment in this sector, as they are related to variations in the economy combined with government legislations and environmental legislations as well as technological advancements (Dhakal & Acharya, 2023).

A key determinant of investor attitudes towards hydropower in Nepal is its economic viability. The attractiveness of hydropower equities is determined by the project construction costs, expected returns, and the accessibility to financing. To facilitate investments in the sector, the government of Nepal has introduced a number of incentives including tax incentives, financial assistance, and reduced regulatory barriers. However, if some investors find the overall startup costs of construction, in addition to the ongoing operating risks, to be a disincentive, the ROI still matters, and hydropower investments are deemed more secure when cash flows are steady and backed by long-term energy contracts. To continue attracting investments towards hydropower, it will need to remain competitive with respect to other renewable energy technologies such as solar and wind.

The attitudes of investors rely heavily on economic factors. According to Bhatta (2021), there was considerable investment in hydropower equities because of financial incentives related to feed-in tariffs and government-subsidized lending. Investors' confidence in hydropower equities fluctuates depending on uncertain interest rates and inflation and the resulting unpredictability in the economy (Chalise, 2020). The market value of the hydropower stocks is greatly influenced by the attraction of capital from international investors via foreign direct investment (FDI) policies and bilateral treaties (Koirala & Sharma, 2024).

Investor market sentiment is highly dependent on environmental and social factors in addition to economic factors. Hydropower facility development arises multiple environmental issues that include deforestation and habitat destruction, and the relocation of the people living there (Venus et al., 2020). The development of sediment management systems and fish-friendly turbines demonstrate how technology respond to environmental risks and promote sustainability (Gurung and Adhikari, 2023). The viability of investment in hydropower projects is heavily aided by public perceptions of these projects and local community support (Poudel, 2021).

The investors' market sentiment is greatly affected by environmental and social factors along with economic factors. The establishment of hydropower plants creates multiple environmental problems that lead to deforestation, the destruction of habitats, and the displacement of nearby residents (Venus et al., 2020). Gurung and Adhikari (2023) state that the development of environmentally friendly fish turbines, sediment management systems, and other technology-based solutions demonstrate the manner in which technology addresses environmental problems and promote sustainability. The communities' perception of these activities and their degree of support are important to the viability of investments in hydropower (Poudel, 2021).

Market conditions and regulatory policies heavily influence the attractiveness of investments in hydropower projects. Government policy through price controls, in addition to legal frameworks, influence the prospect of capital investment in hydropower projects (Shakya, & Tiwari, 2022). The financial prospects associated with these securities are directly impacted through trade agreements in hydropower and ultimately, by the geopolitical relations with Nepal and India, and China (Rai, 2023).

In light of the fast-growing hydropower expansion in Nepal, an examination of investor perceptions factors becomes important if Nepal is to sustain an investment climate. The study will consider the interface of economic factors and environmental factors, social contexts and technological market development and how these factors influence investor confidence in Nepalese hydropower stocks and provide strategic guidance for future investment and policy development. A general objective of this research is to consider the different aspects that triangulate investor perceptions on hydropower stocks in Nepal, while focusing specifically on investors who are current or potential investors in the Nepalese stock market, in particular those who are investing in hydropower stocks. The focus of the study is an examination of social, economic, environmental, and technological factors that specifically influence investor decision-making. In addition, the analysis will include an examination of the underlying factors

impacting confidence in investor decision-making regarding investing in hydropower stocks in Nepal.

This research seeks to address the fundamental dilemma of the limited understanding of the specific concerns that contribute to investor perception of hydropower stocks. Economic performance, market behavior, and environmental sustainability are seen to be significant, but we do not have a coherent understanding of what actually determines investor sentiment and behavior when it comes to investing in hydropower. Without this understanding, it is problematic for hydropower companies to attract investment and develop the hydropower sector.

Literature Review

The hydropower sector constitutes one of the primary sectors in Nepal's stock market for share trading activities and has emerged as one of the principal sectors enhancing the overall market engagements. Hydropower companies are one of the famous listings and investors buy and sell investments in the Nepal Stock Exchange (NEPSE). Unprecedented interest in hydropower stocks is largely due to Nepal's potential for developing hydroelectric power through its abundant water resources. The hydropower sector has a vital role in the electricity supply but also has a significant impact in employment, economic development and national development (Aryal, 2022).

Shrestha (2018) researched the dynamics of factors contributing to the investment decision of Nepalese investors in the stock market. The research identified key factors that drive investor perception and decisions with respect to hydropower stocks as to include the performance of a company, the state of industry information, the media, advocate recommendation, accounting information, and the similarity in self-image/firm image.

According to Jamasb et al. (2019), The renewable energy market has investments decisions that respond strongly to economic factors such as inflation or exchange rate fluctuation and interest rates. Investors see hydroelectricity stocks as long term assets which strengthen the need for policy stability to maintain confidence in the market.

Browne et al. (2021) investigated the role of environmental, social, and governance (ESG) criteria with respect to investment in hydropower projects. Their results indicate that investors prefer hydropower projects that follow sustainable guidance because they alleviate reputation risk as well as long-term financial returns. Gatzert and Kosub (2022) evaluated how energy policy at the global level effects renewable energy project investments. Their research shows that policy uncertainties specifically in developing countries, are preventing developing-country investors from committing to long-term investments in hydropower. Environmental management technologies are also very important to increase investor confidence. Sustainable innovation is shown by environmental management systems which reduce the ecological footprint of hydropower plants with fish-friendly turbines or sediment management systems. These technologies correspond with the increase demand from investors for projects that mitigate the environmental footprint of hydropower while satisfying ESG criteria. Dhakal et al. (2023) argues that projects with environmental management technologies will draw investors who care to create sustainability in addition to making money.

Hydropower firms represent a significant proportion of the market capitalization in the NEPSE and are among the most frequently traded stocks. This recognition points to the increased desire of investors to profit from Nepal's abundant hydropower potential, which is viewed as a major component of the country's renewable energy potential. Hydropower stocks are now a central focus of investors who wish to capitalize on demand for sustainable energy options (Khanal, 2022).

Research conducted by Chaudhary (2022) also highlights stock market investor behaviour with a focus on risk-taking, return, and outside influences on investing decisions. It further highlights the role of market fluctuations affecting investor confidence whilst reinforcing the need for informed decision-making to achieve financial objectives. The research provides beneficial information for both individual and institutional investors. Foreign Direct Investments (FDIs) are attracted to Nepal due to its business-friendly environment, low taxation regime, and flexible foreign investment policy especially in hydropower, manufacturing, services, tourism, construction, agriculture, and minerals. The potential of hydropower combined with Nepal's rich soils, the influx of tourists from China and India, and the outsourcing along with medical tourism industry means attracting investment is highly favorable.

Venus et al. (2020) explored the factors that determine public acceptance of hydropower, which are indirect determinants of investor confidence. The research identifies the following main factors to be important to understanding public acceptance: economic costs and benefits, quality of life impacts, ecological impact, public participation, energy policy, and individual preferences for energy.

Understanding these factors is important for investors to determine the social license and potential risks associated with hydropower project.

Economic Factors:

The evaluation of hydropower stocks by way of investors relies heavily on economic factors, including ROI calculations, market direction and financial benefits. As long as investors see reasonable financial returns, the hydropower project will be more appealing to them, along with government incentives, such as tax breaks and subsidies, that can also improve this project attractiveness (Aryal 2022). The measure of investor confidence is somewhat related to the financial market climate, including interest rates, as well as more general stability in economic performance, as stated by Khanal (2022).

Social Factors

The social components that influence investment attraction include community acceptance levels and stakeholder engagement and CSR activities. Public perception is vital when making investment decisions because Investor trust is heightened when stakeholders are engaged (Chaudhary, 2022). Hydropower facilities that engage community stakeholders and are design with sustainable practices through CSR initiatives will attract more investor interest.
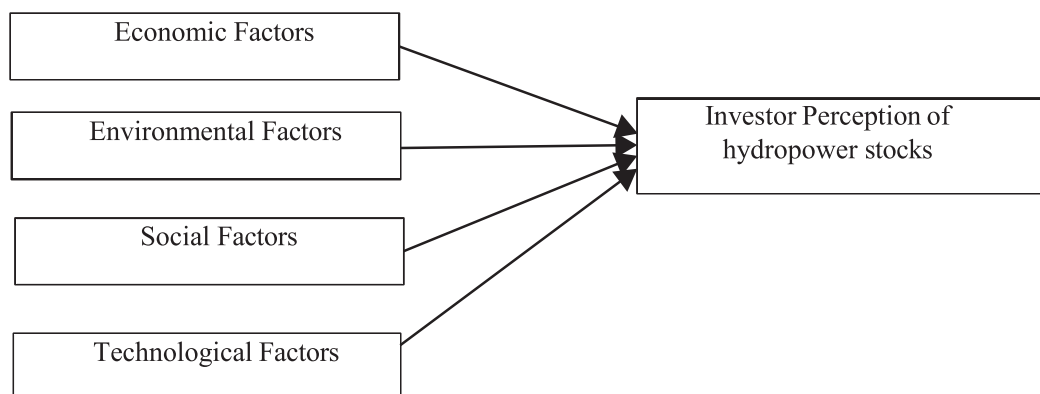
Environmental Factors:

Investors' evaluations of hydropower stocks are based upon the environmental attributes of the platform that includes sustainability practices and regulation compliance standards. When investors assess projects, they give priority to ecologically sustainable initiatives because environmental risks cause both monetary damage and regulatory enforcement. The study by Venus et al. (2020) revealed that ecosystem effects in combination with public engagement and governmental regulations strongly affect investor trust in hydropower investments.

Technological Factors:

The combination of power-efficient technical developments and smart grid connections creates higher confidence among stock investors in hydroelectric energy businesses. According to Dhakal and Acharya (2023) sustainability gets boosted through fish- friendly turbine technology alongside sediment management systems that improve the appeal of investing in hydroelectric plants. Investor confidence for long-term project feasibility grows because of automation integration with advanced monitoring systems.

Conceptual Framework

H1: There is a significant relationship between economic factors and investor perception of hydropower stocks in Nepal.

H2: There is a significant relationship between social factors and investor perception of hydropower stocks in Nepal.

H3: There is a significant relationship between environmental factors and investor perception of hydropower stocks in Nepal.

H4: There is a significant relationship between technological factors and investor perception of hydropower stocks in Nepal.

Methodology

A descriptive and explanatory research design was adopted in this study to examine the relationship between various independent variables and the dependent variable—investor perception of hydropower stocks. The study primarily relies on primary data, which was gathered from the perspectives of investors. For this purpose, a structured questionnaire was developed and distributed through online platforms, mainly targeting respondents within the researcher's personal network. The conclusions have been drawn based on the findings from the analysis of research and appropriate recommendations has been made accordingly. Both primary well as secondary sources have been used while doing this study. The questionnaire contained close-ended questions in order to eliminate burden regarding lengthy and time-consuming response. Five points Likert-scales has been used for most of the close-ended questions so that the responses are easy and unbiased. The scores for measurement in Likert scales vary from a low of 1 indicating Strongly Disagree to a high of 5 indicating Strongly Agree. The questionnaire method is used in the current study keeping in mind the method is quicker, less time consuming and cheaper than other methods and is also easy to use in case of a large sample. Hence, making questionnaire tools is thought to be more preferable in this type of research. The study's results are solely based on the data and information provided by the sampled respondents (Taherdoost, H. 2022). The target population for this study consists of investors actively participating in the Nepalese stock market, particularly those investing in hydropower stocks. According to Hair et al. (2011), a sample size of 100-200 is sufficient for social sciences research. Therefore, the sample size 119 is taken for the purpose of study. The outcome generated from the sample is then analyzed through SPSS. Economic factors, Environmental factors, Social Factors and Technological factors are taken as independent variable whereas investment perception in hydropower stocks is taken as dependent variable for the research for which, Linear and multiple regressions have been used in the study to determine their influence on one another. As, regression analysis provides detailed insights into the slope of relationship, same has been utilized to explain the characteristics of the relationship and establish a certain prediction. The regression equation for this study is:

$$IP = \alpha + \beta_1 EF + \beta_2 ENF + \beta_3 SF + \beta_4 TF + e_j$$

Where, ID = Investor Perception

α = Constant Term

β = Coefficient of Independent Variables

EF = Economic Factors

ENF = Environmental Factors

SF = Social Factors

TF = Technological Factors

e_j = Error Terms

Results and Discussion

For the purpose of study, 119 investor answers in total were gathered. Verifying the validity of each questionnaire item is crucial before doing a thorough analysis. Model summary, descriptive, correlation, and ANOVA will be conducted for additional analysis.

Respondent's Profile Analysis

The respondent's profile analysis shows a brief about the demographic features of the investor studying about the key variables such as gender, age, education level and investment experience, determining the composition of the sample. Understanding participant characteristics and responses within the context of the study relies on the demographic data collected through profile analysis. It helps in refining insights and drawing meaningful conclusions about their perceptions and experiences. Total of 119 sample taken for the study presents a diverse population across various demographic categories and is show in in table 1. The table presents the demographic data of 119 respondents among which 71 are male representing 59.7% and 48 are female representing 40.3% of total population. The large group of population falls in between 20-30 (48.7%) followed by 31-40 (24.4%). It was observed that the population hold bachelor degree (52.1%) while 20.2 % has master's degree or higher. In terms of investment experience, the population have relatively limited experience as it shows 37.8% has experience between 1-3 years followed by 33.6% has less than 1-year experience in investing. The response has shown that there is significant investment in the hydropower as 83.2% has been investing in hydropower. The high percentage of investors in hydropower sectors reflects the growing interest and confidence in the market.

Table 1: Respondents' profile

Category	Subcategory	Frequency	Percentage
Gender	Male	71	59.7
	Female	48	40.3
Age	Below 20 years	28	23.5
	20-30 years	58	48.7
	31-40 years	29	24.4
	Above 40	4	3.4
Education Level	Intermediate or below	33	27.7
	Bachelor	62	52.1
	Masters and above	24	20.2
Investment experience	Less than 1 year	40	33.6
	1-3 years	45	37.8
	4-7 years	34	28.6
	More than 8 years	0	0
Investing in Hydropower	Yes	99	83.2
	No	20	16.8
Total		121	100

Source: questionnaire response

Reliability statistics

Reliability statistics measures the consistency of response in a dataset which ensures the survey instruments such as questionnaires produce stable and consistent results one of the most commonly used reliability measures is Cronbach's Alpha, which will assess the internal consistency of a set of items in survey. A Cronbach's Alpha value of 0.70 or higher is generally considered acceptable, suggesting that the items within the scale consistently measure the underlying construct (Field, 2013).

Table 2: Reliability Test

Cronbach's Alpha	N of Items
.953	5

Source: SPSS Software

The reliability test yielded a Cronbach's value of 0.953 for 5 items. The value of 0.953 indicates a very high level of internal consistency among the item. A value above .90 is generally considered excellent, suggesting that the items are highly consistent in measuring the construct.

Descriptive Statistics

Descriptive statistics shows the deviation of values from their mean values. To determine the true picture of the data, it is important to perform a descriptive analysis of each variable included in the study. The dataset includes responses from 119 participants, examining five variables. The mean score of 3.3235 suggest that the investor perception is moderately positive. The standard deviation of 0.90218 suggests a moderate level of variability. The investors generally have a slightly positive perception. The economic factor mean is 3.4118 which is the highest among all the variables. It indicates that investor has the greatest importance on financial and economic consideration when making investment decisions. The standard deviation is 0.84972 shows the response are relatively consistent with less variation compared to other factors. Social factors mean is 3.3193 and standard deviation of 0.86230 which is moderately influential in shaping investment perceptions. Environmental factors have a mean of 3.3319 and standard deviation of 0.87582. It indicates a moderate level of importance among investors. It shows the variability in response as it shows investor prioritizing environmental sustainability practices. Technology factors have the lowest mean (3.2710) among all the variables. It shows the technology is perceived as slightly less influential compared to economic or environmental factors. The standard deviation of technological factors has (0.91630) which shows greater variability in responses.

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Investor perception	119	1.00	4.75	3.3235	.90218
Economic	119	1.50	4.75	3.4118	.84972
Social	119	1.00	4.75	3.3193	.86230
Environmental	119	1.00	5.00	3.3319	.87582
Technological	119	1.00	5.00	3.2710	.91630
Valid N	119				

Source: SPSS Software

Correlational Analysis

Correlation is the statistical technique that is used to determine the relationship or association between two variables. The value of coefficient of correlation ranges from +1 to -1. The direction of the relationship is indicated by the sign of the coefficient; a positive sign indicates a positive relationship and a negative sign indicates a negative relationship.

Table 4: Correlational Analysis

		Investor perception	Economic	Social	Environmental	Technological
Investor perception	Pearson Correlation	1		.789**	.767**	.801**	.744**
	Sig. (2-tailed)		.000	.000	.000	.000
Economic	Pearson Correlation	.789**	1	.812**	.850**	.824**
	Sig. (2-tailed)	.000		.000	.000	.000
Social	Pearson Correlation	.767**	.812**	1	.796**	.845**
	Sig. (2-tailed)	.000	.000		.000	.000
Environmental	Pearson Correlation	.801**	.850**	.796**	1	.802**
	Sig. (2-tailed)	.000	.000	.000		.000
Technological	Pearson Correlation	.744**	.824**	.845**	.802**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

The above table shows the correlation analysis between variables. This study reveals the relationships between various factors influencing investor perception of the hydropower stock. Economic factors shows the strongest positive correlation with the investor perception (0.789) which indicates the financial consideration significantly impact investment decisions. Social factors (0.767) and environmental factors (0.801) exhibits strong positive correlation. It shows that investors consider social and environmental aspects when making the investment choices. Technological factors also show positive correlated with the investment perception. It highlights the role of technological advancement in shaping investor confidence

Model Summary
The model summary shows a framework of how dependent variables are explained by an independent variable in regression analysis. The model summary provided in the table outlines the results of a regression analysis. It shows the relationship between a dependent variable and one or more independent variables. The R value represents the correlation coefficient. The R value is 0.839 which suggests a strong positive correlation which means that as the independent variable increase the dependent variable tends to increase as well. The adjusted R Square of 0.693 indicates that 69.3% of the variance in the dependent variable is accounted by the independent variables. This provide a more accurate measure of the proportion of variance in the dependent variable that is explained by the independent variables. The standard error of the estimate value measures the standard deviation of the residuals or prediction errors in the regression model. A lower standard error indicates the model predication are closer to actual values. The R Square Change of 0.704 for model shows a significant improvement in the model's explanatory power when the predictors are included. The F change value tests whether the inclusion of independent variables significantly improves the model compared to a model with no predictors. The significant F change value of .000 shows that the model is statistically significant which means that the independent variables collectively have a significant impact the independent variable.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.839a	.704	.693	.49961	.704	67.693	4	114	.000
a. Predictors: (Constant), Technological, Environmental, Social, Economic									

Source: SPSS Software

ANOVA
A statistical technique called ANOVA (Analysis of Variance) compares the means of two or more groups to see whether there are any notable differences between them. Examining variation among groups aids in analyzing how one or more independent factors affect a dependent variable.

Table 6: Anova Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.588	4	16.897	67.693	.000b
	Residual	28.456	114	.250		
	Total	96.044	118			
a. Dependent Variable: Investor perception						
b. Predictors: (Constant), Technological, Environmental, Social, Economic						

Source: SPSS Software

The Regression Sum of Squares is 67.588, which represents the variation explained by the regression model. The Residual Sum of Squares is 28.456 which represents the unexplained variation or the error term showing how much of the variation is not explained by the model. Df shows the degree of freedom where Regression (4) is the

number of independent variable and Residual df (114) means total number of observations minus the number of predictors minus 1. The regression Mean square is 16.897 which is the average amount of variation explained by the predicators. The F statistics is 67.693, it is the ratio of the explained variance to the unexplained variable. A higher F-value indicates a better fit of the model suggesting that the independent variable explains the dependent variable well. The significance value is 0.00 which indicates the p- value. It is less than 0.05 suggesting that the regression model is significant between independent variables and dependent variable.

Regression Coefficient

Regression coefficient provides detailed information about the influence of each independent variable on the dependent variable in a regression model. The Table displays both unstandardized and standardized coefficients and statistical tests that assess the significance of each independent variable.

Table 7: Regression coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.202	.197		1.025	.307
	Economic	.269	.118	.253	2.275	.025
	Social	.242	.110	.231	2.195	.030
	Environmental	.372	.108	.361	3.440	.001
	Technological	.049	.107	.050	.458	.648
a. Dependent Variable: Investor perception						

Source: SPSS Software

The B in unstandardized coefficients represents the change in the dependent variable for every one-unit change in the independent variable, while keeping other variable constant. The constant (0.202) is the intercept representing the predicted value of investor perception when all independent variable is zero (not statistically significant. P=0.307). Economic factors (0.269) show a positive effect on investor perception with a p-value of 0.025 making is statistically significant. Social factors (0.242) also have a positive effect with a p-value of 0.030 making it statically significant. The Environmental (0.372) has the largest effect with a p-value of 0.001 confirming its high statistical significance and strong positive influence on investors perception. The technological factor (0.049) has a small effect with a p-value of 0.648 indicating it is not statistically significant. The Beta values in the standardized coefficients show the relative importance of each independent variable. The highest Beta value is for Environmental (0.361) which means it has the strongest effect on investor perception. The T-value tests whether each coefficient is significantly different form zero. Higher t-values indicates stronger relationships. The Sig values indicate the statistical significance of each predictor. A p-valueless than or equal to 0.05 means the predictor significantly affects the investor perception. The analysis shows that environmental, social and economic factors significantly influence investor perception, with the Environmental factors having the strongest effect while Technological Factors do not significantly impact investor perception in this model.

Discussion and Conclusion

Discussion

The research investigated what elements determined Nepalese investors' attitudes toward hydropower stock purchasing with special attention given to economic and social aspects along with environmental concerns and technological considerations. Investor perception
towards hydropower stocks in Nepal depends heavily on economic elements and social aspects as well as environmental factors but technological considerations have proven insignificant.
Investors base their view of hydropower stocks in Nepal on economic return on investment (ROI) and marketplace dynamics together with government support. Similar to Aryal (2022) and Khanal (2022) studies the hydropower

sector requires financial returns and economic stability to draw investor investments. The study findings show how economic factors with a positive link of (0.789) demonstrate that market performance together with financial incentives determine investment decision-making. Investor reactions to social factors are determined by how the community perceives projects and how companies implement corporate social responsibility efforts.

The results match those presented by Chaudhary (2022) who showed that public engagement alongside stakeholder interaction determines how investors choose their targets. The upward association between 0.767 demonstrates that financiers now inspect how hydropower initiatives affect society because social investment trends are expanding. Investors hold the strongest perceptions regarding environmental aspects including sustainability practices and regulatory compliance. Venus et al. (2020) proved environmental risks alongside public engagement as vital influences that impact investor confidence levels. Investor interest was highest in projects that had the greatest amount of environmental criteria because this criteria would lower operational risks while enhancing project sustainability.

The regression analysis also verified investor perception is more heavily influenced by environmental, economic, and social factors in comparison to technological factors that weigh less statistically. This doesn't mean investors removed technology from the decision-making process, but technology is not the primary lenses. After analyzing from an ANOVA perspective, results suggest there is a strong model fit and also adds validity to the analysis validity.

Conclusion

This research explored what affects investor perceptions toward hydropower stock purchases in Nepal through its examination of economic aspects and social elements and environmental

aspects and technological elements. The research indicates economic variables together with social elements and environmental criteria greatly affect investor perception but technological aspects produce no notable effects. Economic factors gained the highest weight because return on investment (ROI) and how market conditions and government incentives   influence investment decisions.

Social factors together with community acceptance, and corporate social responsibility (CSR) practices demonstrate a significant role in investment decisions because they represent the growing trend of socially responsible investing. Investor perceptions strongly correlate with environmental factors that cover sustainability practices and regulatory compliance requirements because they guarantee project sustainability.

Investor perception towards technology innovations showed no significant change because Nepalese hydropower sector's technological advancement remained primitive. Investors do not appear to make their decisions based on technology features at present.

The research demonstrates that investors fundamentally base their perception on three critical elements including economic stability and social responsibility as well as environmental sustainability. The attraction of more investments depends on policymakers and industry stakeholders who should implement improved financial schemes and maintain local community relations while maintaining strict environmental standards. Research focusing on investment perception shifts because of technological advancements should be conducted to understand the maturation process of this sector.

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