

# The relationship between social responsibility and public acceptance in local communities of mines, with the mediating role of environmental responsibility and the value of mines

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## Abstract

The purpose of the current research was to investigate the relationship between social responsibility and general acceptability in the local communities of mines, with the mediating role of environmental responsibility and the value of mines. Therefore, in terms of the purpose of this research, except for applied research, and in terms of collecting findings, it was done with the correlation method based on structural equations. The statistical population of this research included the employees of Asfij Coal Company in 2024. Several 189 people were selected as the research sample based on the table of Karjesi and Morgan by random sampling method. The research findings were collected using social responsibility questionnaires of Mignagni and Ferrell [22], the social acceptance of Carroll [8], the environmental responsibility of Carroll [9] and organizational values of Cameron and Quinn [7]. The validity of the questionnaires was calculated using confirmatory factor analysis and their reliability was calculated using Cronbach's alpha test. The research data were analyzed using descriptive and inferential statistics, structural equation modelling and the Sobel test in the environment of SPSS and SmartPLS software. The findings of the research showed that the effect of the variable value of mines on public acceptability ( $F = 0.61$ ), the effect of the variable of social responsibility on the value of mines ( $F = 0.454$ ), on environmental responsibility ( $F = 0.288$ ) and public acceptability ( $F = 0.350$ ) and the impact of the environmental responsibility variable on the value of mines ( $F = 0.519$ ) and public acceptance ( $F = 0.150$ ) is positive and significant. In addition, Sobel's statistics showed that the indirect effect of social responsibility on public acceptability was equal to ( $\beta = 0.301$ ) due to environmental responsibility and ( $\beta = 0.287$ ) due to the value variable of mines. Therefore, it shows that these effects are positive. According to the findings of this research, it is suggested that Asfij Coal Company should always emphasize its environmental and social responsibility towards local communities to gain public acceptance and maintain the value of its mine.

Keywords: social responsibility, public acceptance, local communities of mines, environmental responsibility, value of mines, Asfij Coal Company  
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## 1 Introduction

Industrialization with a technocratic approach in mining areas leads to one-sided development, which, although it seems exciting and attractive at first, but over time, the damage caused by ignoring various aspects of development

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and sustainable development. It is evident [6]. Local communities and the environment are the two groups that have suffered the most damage from unbalanced development, and the negligence of unbalanced development has put their environment at risk. Biological and social instabilities are important consequences of incomplete industrial development [23]. Economic development is the engine of development and can facilitate the achievement of other aspects of development and sustainable development. But this is possible if the development plans take into account the fact that other aspects of development are as important as economic development. One of the aspects of development is Social Acceptability, and in today's world, one of the main requirements for the development of industries is to achieve a suitable position among public opinion. This is considered a key and vital issue in the case of mining industries, because in general, the development of mining activities, along with its positive economic effects, can have many negative consequences for the environment and the lives of the people of the region. In fact, industries that operate in local communities must have social acceptance. According to Hübner et al [15], social acceptability is a personality trait that is known by the ability to accept a person in society or interpersonal communication; Social acceptance means that a person has an important role among his peers. Social acceptability in mining companies is the result of a process in which stakeholders jointly create sufficient conditions so that a project can harmoniously integrate into a natural and human environment at a given time [5]. With these interpretations, social acceptability depends on the stakeholders' understanding of the project's benefits and nuisances. Whether the terms expressed by the stakeholders are acceptable to the project developer or not is of little importance; Sometimes some minimum conditions can be contrary to the basics of the project. This can lead to the project being abandoned or the need to push for it to continue. If necessary, setting up an early consultation method with the involved stakeholders can reduce the economic losses caused by the lack of agreement on the basis of the project. Adequacy and social acceptability are the basis on which expectations for future interactions with others are formed [28]. Based on that, people develop an understanding of their behaviour. Therefore, it can be said that every mining company must consider two basic factors in order to achieve this goal; Considering the common interests of the stakeholders and secondly considering the benefits and disadvantages of the project for the local context, which can be attributed to the social responsibility of the mines. Therefore, one of the variables that may affect the social acceptability of local mines is the social responsibility of mining companies. Corporate social responsibility shows that your business cares about local social issues, not just those that affect the company's bottom line. This will attract customers who share the same values as you. Therefore, operating in a way that is good for the environment makes good business sense [24]. Cramer's research [10] shows that in the globalized economy, profit is no longer the only concern. Companies that operate globally must increasingly be accountable for their social responsibilities towards employees, local communities, and the environment. Corporate social responsibility specifies the purpose of companies to achieve their relationships with customers, suppliers, and governments, as well as the effects that their products and services have on other people [26, 31]. In addition, social responsibility includes principles such as; Treating customers with respect [12] providing assistance to those most in need [25] reaching underserved populations and minimizing the negative impact of a product or service on the local, cultural and environmental context [27, 17] which affect the common management practices of companies and their markets, in various fields related to ethical business behaviour. The mentioned items are the requirements of social responsibility of companies, which should be included as part of the main values and procedures of the company and should be taken into consideration over time [3].

It has a positive or negative effect on the natural environment and surrounding communities. Therefore, it is vital to deal with mining activities with a sense of responsibility towards the environment and society. Environmental and social responsibility in mining, ensuring that mining activities are carried out sustainably, in a way that minimizes environmental degradation and maximizes positive socio-economic impacts. Environmental responsibility reflects behaviour that harms the environment as little as possible or even benefits it [13]. As the mining industry is dedicated to environmental responsibility, mining companies must work hard to incorporate sustainability into every aspect of their processes [30]. For example, in Australia, federal and state governments have regulations to reduce the environmental impact of mining activities. The Environment Protection and Biodiversity Conservation Act is the central part of the Australian government's environmental legislation, while state and territory governments have their own laws and regulations. These laws cover a wide range of issues including waste management, air and water pollution, land reclamation, biodiversity protection and indigenous rights [21]. Acknowledging the need for environmental and social responsibility, many mining companies have started implementing sustainability plans. For example, some companies are investing in renewable energy sources for their operations, thereby reducing their reliance on fossil fuels and reducing their carbon footprint. Others are implementing strict water management practices to conserve water and prevent pollution [32]. Interaction with local communities is an important part of social responsibility in mining. Mining operations can bring significant socio-economic benefits to local communities, including job creation, infrastructure improvements and increased local business opportunities. However, if not managed responsibly, they can lead to social disruption and inequality. Therefore, it is essential for mining companies to build strong and respectful

relationships with local communities, ensure the equitable distribution of the benefits of extraction, and address any adverse social impacts [16].

Various researches have investigated why and how social responsibility plays a role in increasing social acceptability and, accordingly, environmental responsibility. In their research, Masoudi et al [20] found that there is a direct and relatively strong relationship between environmental behaviour and the social responsibility of citizens. Dana et al [11], reached these conclusions that there is a significant positive relationship between social responsibility and environmental protection behaviours and between cultural capital and environmental protection behaviours. The studies of Haghghatian et al [14] showed that the relationship between the social class variables, environmental knowledge and cultural capital with the environmental degradation variable is weak and inversely estimated. While the relationship between the variables of consumerism and the level of religiosity with environmental destruction is moderate, weak and direct respectively. Kalantari et al [16] showed that bivariate relationships between environmental values, the experience of connection with nature, environmental socialization and religiosity with belonging to nature can be confirmed and generalized. Agustin et al [2], showed that corporate social responsibility has no effect on financial performance to some extent, environmental performance affects financial performance, corporate social responsibility, managerial ownership, audit committee, board of commissioners and environmental performance simultaneously. It affects financial performance. Lacny and Ostrega [18] stated that corporate social responsibility policy is widely used by mining companies as a tool for public acceptance. However, applying CSR activities does not guarantee gaining social acceptance, which is crucial for sustainable mineral extraction and project development. This study, which is based on the case of one of the leading copper producers in the world, shows that despite the large financial costs allocated for the development of the local community, mining companies are struggling to obtain a full social license to operate. The hierarchy of factors affecting the perception of mining activity can help companies prioritize the areas that need a deeper dialogue with the local community. The success of mining projects depends on the correct understanding of the local community's attitude towards mining. Findings show that successful implementation of corporate social responsibility strategy should be done with extensive analysis of social conditions to meet stakeholders' expectations. The research of Ndemena and Qutieshat [24] showed that several concerns about corporate social responsibility simultaneously address social and environmental issues while also increasing competitiveness. Shabbir and Wisdom's research [27] shows that there is a positive and significant relationship between internal environmental investments and the company's financial performance. Also, a positive but weak relationship is found between external environmental investments and financial performance of the company. In addition, t-tests showed that there is a significant difference between the profitability of environmentally aware companies and environmentally unaware companies. The findings of this study explain that companies that have higher environmental investments have a higher level of profitability than companies that are not environmentally conscious.

In recent years, the development of the mining industry has become one of the important and determining factors in the economic growth of countries due to significant employment generation and high profitability. The development of these industries, in addition to its positive effects, also results in harmful results for the natural and social environment of the regions, which include occupying a large area of the region for extraction operations, significant water consumption for processing operations, disposal of chemical waste, in some cases of acid leachate production, dust production and noise caused by explosions and heavy cars were mentioned. On the other hand, the increase in these activities has created numerous health and environmental problems for many people and ecosystems around the mines.

In many countries, mining companies think that by following some points such as creating job opportunities for natives, paying taxes, etc., they can achieve a good position in the society and among the people of the region. But are these measures alone enough to achieve acceptance among the native people of the region? Opinions about the advantages and disadvantages of mining activities vary. In some cases, even if companies provide the basis for increased employment, income, and infrastructure improvements, tensions may still occur between local communities, companies, and at the macro level. In order to identify all the weak points and prevent these types of tensions or reduce them, mining companies by following strategies in the field of social acceptability, have been able to achieve appropriate results in minimizing damages and challenges to improve interactions and relationships with local communities. This component establishes a general framework for evaluating the performance of a mining company in the context of considering social, environmental and economic issues. According to the mentioned materials, the aim of the current research was to investigate the relationship between social responsibility and general acceptability in the local communities of mines, with the mediating role of environmental responsibility and the value of mines in the Asfij coal mine. Therefore, the assumptions of this research are compiled and examined based on Figure 1.

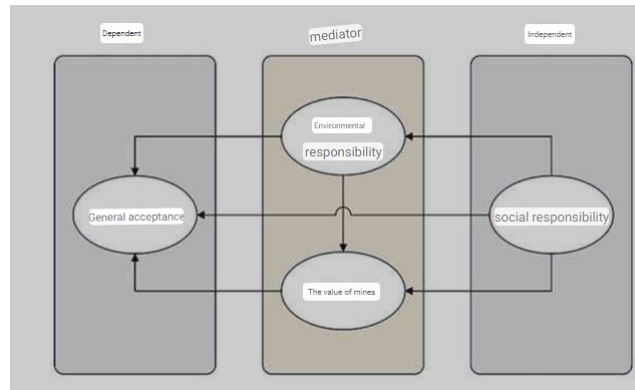


Figure 1: Conceptual model of the research. Source: Researcher's findings

## Research Method

The current research aimed to investigate the relationship between social responsibility and general acceptability in the local communities of mines, with the mediating role of environmental responsibility and the value of mines. Therefore, this research was conducted in terms of the applied research goal and in terms of the method of gathering findings with a quantitative approach and correlation method, based on equation modelling. The statistical population of this research included the employees of Asfij Coal Company located in Asfij village, Bahabad City, Yazd Province in 2024. 189 people were selected as the sample of this research based on the table of Karajesi and Morgan by random sampling method. The findings of this research were collected using four standard questionnaires as follows:

### 1. Social responsibility questionnaire

The social responsibility questionnaire was designed and validated by Mignagni and Ferrell [22], this questionnaire includes 33 closed-ended items based on the five-point Likert scale, and the questionnaire evaluates four economic, legal, ethical and humanitarian dimensions, in the study. To obtain the validity of the questionnaire, the opinions of the supervisor and several other professors specialists and experts have been used, and they were asked about the relevance of the questions, the clarity and comprehensibility of the questions, and whether these questions are suitable for the research questions. He evaluates them, you will have an opinion. Its reliability was calculated using Cronbach's alpha test of 0.85, which shows high reliability.

### 2. General acceptability questionnaire

Carroll's Social Acceptance Questionnaire [8] is one of the famous questionnaires to measure social acceptability. This questionnaire contains 33 questions that are answered correctly and incorrectly, and after correcting the questionnaire, the acceptance rate is interpreted according to the received score. The interpretation of the results is that those whose test scores are between 0 and 8 have low general acceptance, 9 to 19 average general acceptance and those whose scores are 20 to 33 have high general acceptance.

### 3. Environmental responsibility questionnaire

To evaluate the environmental responsibility variable, the environmental responsibility questionnaire of Carroll Company [9] was used. This questionnaire has 24 items and has six dimensions social responsibility of employees, social responsibility of customers, social responsibility of investors, social responsibility of the company in society, social responsibility of the company in the environment and social responsibility of the supplier. which is scored based on a five-point Likert scale.

### 4. Mining value questionnaire

The organizational values questionnaire was designed and compiled by Cameron and Quinn [7] to measure organizational values. The questionnaire of organizational values has 24 questions and 6 components of outstanding characteristics of the organization, organizational leadership, management of employees, organizational glue (organizational binders), emphasis on strategy and success criteria, and based on the five-point Likert spectrum with questions such as measuring organizational values will pay. In the research of Beiginia et al [4], the content validity of this questionnaire was confirmed and its reliability was calculated using Cronbach's alpha test of 0.81.

Table 1: Mean indices and standard deviation of the variables

Variables	Average	standard deviation	Normality indices		Kolmogorov-Smirnov test		Result
			skewness	kurtosis		sig	
social responsibility	78.51	5.31	-0.559	1.937	confirmation	0.687	confirmation
General acceptance	96.45	4.04	-0.561	1.511	confirmation	0.581	confirmation
Environmental responsibility	49.41	4.02	-0.556	1.837	confirmation	0.689	confirmation
The value of mines	78.31	5.68	-0.568	1.645	confirmation	0.781	confirmation

## 2 Research findings

The description of the research variables is important because the results of the research hypothesis test are extracted based on them and the indicators of these variables. The research data have an interval scale. To describe the variables of the research, centrality and dispersion indices have been used, which are discussed below. As can be seen in Table No. 1, in the social responsibility variable, the mean and standard deviation are 78.51 and 5.31, respectively, in the general acceptability variable, 45.96 and 4.04, respectively, in the biological responsibility variable. The environment is 41.49 and (4.02), respectively, in the value variable of mines, the mean and standard deviation are 31.78 and (5.68), respectively. In the table above, the skewness and kurtosis index in the research variables indicate that they are in the range of -2 to 2, so the data distribution in the research variables follows the normal distribution. In addition, the results of the Kolmogorov-Smirnov test are given to check the normality of the distribution of scores. Based on the results listed in the table, the significance level of the calculated statistics for all variables is greater than 0.05, so the assumption of normal distribution of scores is accepted.

### 2.1 Inferential analysis of findings

Confirmatory factor analysis is one of the oldest statistical methods used to investigate the relationship between hidden variables (main variables) and observed variables (questionnaire items) and it represents the measurement model. Factor analysis is based on two types exploratory factor analysis and confirmatory factor analysis. In exploratory factor analysis, the researcher tries to discover the underlying structure of a relatively large set of variables, and the initial assumption is that each variable may be related to each factor. In other words, the researcher does not have any initial theory in this method. In confirmatory factor analysis, the basic assumption is that each factor is related to a specific subset of variables. The minimum necessary condition for confirmatory factor analysis is that the researcher has a certain presupposition about the number of factors in the model before performing the analysis, but at the same time, the researcher can also express his expectations based on the relationships between variables and factors. Enter analysis. To evaluate the validity of the measurement models, we calculated the following values and if the conditions listed in Table 2 are met, we can claim that the measurement model has appropriate and favourable conditions.

Table 2: conditions for establishing reliability and validity

Indicator	Limit	Source
Reliability	Composite reliability and Cronbach's alpha should be above 0.70.	Josep et al (2016)
Convergent validity	Factor loadings should be significant ( $t > 1.96$ ).	
	Standard factor loadings should be greater than 0.4.	
	CR > AVE	
	AVE > 0/5	
Divergent validity	Rho_A > 0/6	
	AVE > MSV, HTMT < 0/9	

Figure number 2 shows the multilevel confirmatory factor analysis model and structural equations in standard coefficient estimation mode.

According to the drawn model, the variable of social responsibility with four dimensions of economic, legal, ethical and humanitarian responsibility is an independent role and the variable of general acceptance is a one-dimensional role of a dependent variable and variables of environmental responsibility with six dimensions, social responsibility of employees, social responsibility of customers, the social responsibility of investors, the social responsibility of the company in the community, the social responsibility of the company in the environment and the social responsibility of the supplier and the value variable of mines including six dimensions, outstanding characteristics of the organization, organizational leadership, employee management, organizational glue (organizational binders), emphasis Strategy and

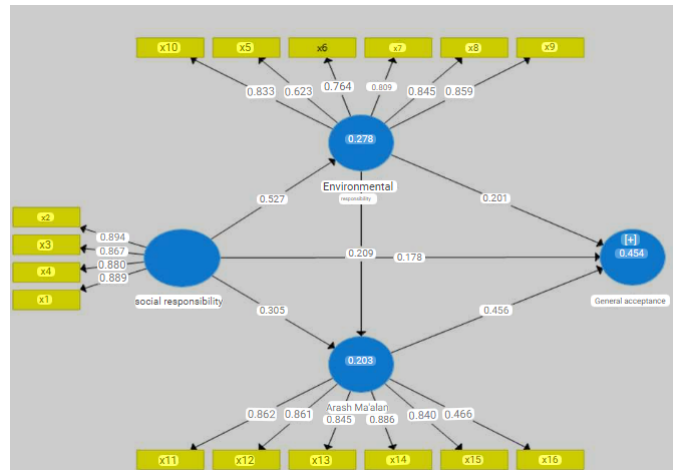


Figure 2: Model in standard coefficient estimation mode

success criteria play the role of mediating variables in this research. According to this model, the coefficients that arise from the relationships between the main variables (oval) and their dimensions (rectangle) are called factorial and the coefficients between the main variables are path coefficients or structural equations.

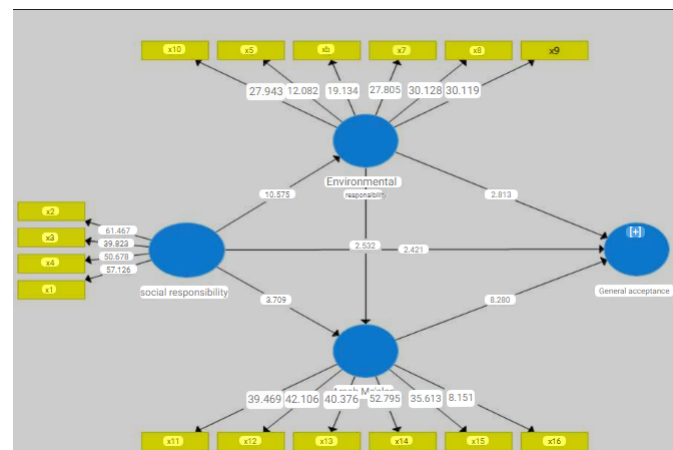


Figure 3: The model in the mode of estimating significant coefficients

Figure 3 tests all measurement equations (factor loadings and path coefficients) using T-statistics. Based on this model, the factor load of all research variables is significant at the 95% confidence level considering that the value of T statistic is outside the range of -1.96 to 1.96.

The factor load indicates how much of the variance of the indicators is explained by its hidden variable. In examining external models, three criteria of reliability, convergent validity and divergent validity are used. In the reliability section, it is necessary to examine the reliability at the level of the indicator and the latent variable. The reliability of the indicator was evaluated by measuring the factor loadings and the reliability of the hidden variables was evaluated by composite reliability. Reliability at the indicator level is the square power of the factor loadings of the items, which should be at least 0.05 and it means that at least half of the variance of the index is explained by the hidden variable. Therefore, factor loadings greater than 0.7 are desirable and loadings below 0.4 should be removed. Factor loadings between 0.4 and 0.7 can be removed if the value of convergent validity (AVE) increases by removing them. Based on the results of table number 3 for all hidden variables, all indicators have a factor loading greater than 0.7 and significant at the 95% confidence level ( $t > 196$ ), and the results indicate that all variables have They are reliable.

When Cronbach's alpha of any construct is higher than 0.6, it can be said that that construct has good reliability. According to the results of Table No. 2, where the Cronbach's alpha coefficient of all research variables is higher than 0.6, it can be claimed that all dimensions of the model have good reliability. The results of the table show that all

Table 3: Factorial calculation of variables and dimensions entered into the model

Variables	Dimensions	Factor Loadings	Error	T-statistic	Significance Level	Result
social responsibility	Economic	0.894	0.015	6.147	0.000	Confirmed
	legal	0.867	0.012	3.933	0.000	Confirmed
	moral	0.880	0.013	5.020	0.000	Confirmed
	philanthropy	0.889	0.009	1.260	0.000	Confirmed
General acceptance	-	0.454	0.007	2.100	0.000	Confirmed
Environmental responsibility	Staff	0.883	0.016	9.430	0.000	Confirmed
	Customers	0.623	0.010	0.820	0.000	Confirmed
	Investors	0.764	0.011	1.340	0.000	Confirmed
	Participation in the community	0.809	0.009	8.050	0.000	Confirmed
	Enterprise in the environment	0.845	0.008	1.280	0.000	Confirmed
	Supplier	0.859	0.012	1.190	0.000	Confirmed
Meaning value	Characteristics of the organization	0.862	0.013	4.690	0.000	Confirmed
	Organizational leadership	0.861	0.011	1.060	0.000	Confirmed
	Staff management	0.845	0.011	3.760	0.000	Confirmed
	Organizational glue	0.886	0.010	7.950	0.000	Confirmed
	Emphasis of strategy	0.840	0.008	6.130	0.000	Confirmed
	Success criteria	0.466	0.012	1.510	0.000	Confirmed

Table 4: Calculation of convergent validity of the model

Variable	Cronbach's Alpha	R-squared	Composite Reliability	AVE
The value of mines	0.882	0.881	0.915	0.651
Social Responsibility	0.906	0.912	0.934	0.779
Environmental Responsibility	0.885	0.909	0.910	0.629
Public Acceptance	0.933	0.935	0.938	0.511

four variables were confirmed in this research.

When the combined reliability of the structures is above 0.6, that structure has good reliability. According to the results of the table, all dimensions of the model are above 0.6, so they have good reliability, and the extracted average of the model's structures is above 0.5. Based on the results listed in table 4, the variance averages of all dimensions of the model were above the mentioned number, so they are also approved in this sense.

Table 5: calculating the variance validity of the research model

Variable	value of mines	Social Responsibility	Environmental Responsibility	Public Acceptance
value of mines	0.807			
Social Responsibility	0.415	0.833		
Environmental Responsibility	0.369	0.527	0.793	
Public Acceptance	0.605	0.474	0.464	0.558

When the diameter of the table in the Fornell and Larker index is larger than its subset, the model structures have good validity. Based on the findings in table 5, all dimensions of the model have been confirmed in terms of the divergent validity index

Table 6: Model fit indices

Model fit indices	symbol	Estimated value	Limit
The second root of the approximation error variance estimate	SRMR	0.089	Less than 0.12
Softened fit	NFI	0.919	More than 0.8
Model fit	GOF	0.673	More than 0.36

In working with the SmartPLS version 3.3 program, each of the indicators obtained for the model is not the reason for its suitability or lack of suitability, but these indicators should be interpreted together. There are several fit characteristics to evaluate the confirmatory factor analysis model and path model. In this research, to evaluate the confirmatory factor analysis model, model goodness of fit (GOF), smoothed goodness of fit (NFI) and the very important index of the second root of the estimated variance of approximation error (SRMR) have been used.

The GOF index shows the compromise between the quality of the structural model and the measured model. The high goodness of fit index of 0.36 indicates the fit of the model. The value of the fit index for the current research model is 0.67 and it is larger than the desired index and it shows the appropriate fit of the model. Another index of model fit is the SRMR index. The limit of this index is 0.12. For the current research model, the value of this index is 0.89 and is less than the permissible limit, so it can be said that the model has a good fit. In general, according to all three fit indicators, it can be said that the data of this research has a good fit with the factorial structure and the theoretical foundation of the research, and this indicates that the questions are aligned with the theoretical structures.

Table 7: Analysis of research hypotheses

Research assumptions	Structural equation			quality of structural equations				Results		
	beta	T	sig	R2	R2adj	F2	Q2	hypothesis	direction of influence	
Mining value → public acceptance	0.716	28.012	0.000	0.570	0.567	0.611	0.500	confirmation	+	
Social responsibility → mining value	0.559	15.63	0.000	0.312	0.311	0.454	0.583	confirmation	+	
Social responsibility → environmental responsibility	0.624	23.04	0.000	0.520	0.516	0.288	0.461	confirmation	+	
Social responsibility → public acceptance	0.124	03.04	0.014	0.737	0.735	0.350	0.406	confirmation	+	
Environmental responsibility → mining value	0.526	13.026	0.011	0.542	0.624	0.519	0.589	confirmation	+	
Environmental responsibility → public acceptance	0.306	07.359	0.008	0.432	0.614	0.150	0.397	confirmation	+	

One of the internal evaluation criteria of the model is the coefficient of determination (R2) and the adjusted coefficient of determination (R2adj). The coefficient of determination (R2) measures the explanatory variance of an endogenous variable compared to its total variance by exogenous variables. For this index, values greater than 0.67 are considered strong, values greater than 0.33 are considered moderate, and values less than 0.19 are considered weak. In fact, this coefficient shows how many percent of independent variable or variables explain the changes of the dependent variable. Based on this, it can be said that the value of mines alone explained 0.57 of the variance of public acceptance. Social responsibility predicts 0.31% of the variance of mining value, 0.52% of the variance of environmental responsibility, and 0.73% of the variance of public acceptance. And environmental responsibility has explained 0.54 of the variance of the value of mines and 0.43 of the variance of public acceptance.

Another index is the quality of the structural model or the redundancy index (Q2) of the model, which is the most famous index for measuring the quality of the structural model under the name Stone-Geisler index. In this index, the values above zero indicate the optimal ability of the structural model in forecasting, and the values of 0.02, 0.15, 0.33 represent weak, medium and strong predictive power of the structural model, respectively. The values obtained from this index are shown in table 7. The obtained results show that the quality of the structural model of the value of mines on public acceptance is 0.500 (strong), social responsibility on the value of mines is 0.583 (strong), social responsibility is on environmental responsibility 0.461 (strong), social responsibility is on acceptability. General was 0.406 (strong), environmental responsibility on the value of mines was 0.589 (strong), and environmental responsibility was 0.397 (moderate).

Another evaluation criterion of the internal model is the effect size (F2), which indicates the change in the amount (R2) after removing a specific exogenous hidden variable from the model. The results of table 7 indicate that there is a large effect of 0.61 between the value of mines and the value of mines, a large effect of 0.454 between the variable of social responsibility and the value of mines, a medium effect of 0.288 with environmental responsibility, and a medium effect of 350 with the value of mines. 0.0 large effect and between the environmental responsibility variable with the value of mines 0.519 large effect and 0.150 medium effect with general acceptability.

Sobel Test and the effect of the mediating variable

In this section, the mediating variables of environmental responsibility and the value of mines are examined as the link between the independent variable of social responsibility and the dependent variable of public acceptance, and to what extent it affects the relationship between the independent and dependent variables. Therefore, what is explained in the context of calculating the indirect effect is the role of mediator. One of the most widely used methods for this purpose is the Sobel test.

Based on the results of table 8, the indirect effect of social responsibility on public acceptance due to environmental responsibility is equal to (0.301) and the value of the Sobel statistic is significant at the confidence level of 0.95 (Sobel = 432.10), Sig As a result, it can be said that social responsibility has a significant effect on public acceptance due to



Table 8: Sobel test results to investigate the mediating effect of mining value variables and environmental responsibility

Mediating hypotheses	Sobel Test			Condition	direction
	beta				
Social responsibility → environmental responsibility → public acceptance	0.301	confirmation	Positive	confirmation	Positive
Social responsibility → value of mines → public acceptability	0.287	confirmation	Positive	confirmation	Positive

the mediating role of environmental responsibility, and the research hypothesis is confirmed. The beta value (0.301) shows the positive effect of this effect. The results have been calculated to investigate the indirect effect of social responsibility on public acceptance through the value of mines equal to (0.287) and the value of the Sobel statistic for this hypothesis is also significant at the confidence level of 0.95 (Sobel=446.9) Therefore, it can be concluded that social responsibility has a significant effect on public acceptance due to the mediating role of mining value, and the research hypothesis is confirmed. The beta value (0.287) shows the positive effect of this effect.

### 3 Discussion and conclusion

The purpose of the current research was the relationship between social responsibility and general acceptability in the local communities of mines, with the mediating role of environmental responsibility and the value of mines. This research was carried out quantitatively and 189 employees of Asfij Coal Company were selected as the research sample and were examined through appropriate questionnaires. The research results for the first hypothesis showed that social responsibility has a positive and significant effect on public acceptance ( $P < 0.05$ ). The results of this part of the research with the research of Masoudi et al [20] who showed in their research a positive relationship between environmental behavior and social responsibility of citizens, Lacny and Ostrega [18], who stated that organizational social responsibility policy It is widely used by mining companies as a tool for public acceptance, and the research of Li et al [19] who showed that interaction with local communities is an important part of social responsibility in mining and causes their social acceptance, shows alignment. to explain this research finding, it can be said that society no longer tolerates the social costs of single-purpose economic growth, such as pollution, harmful products, and dangerous work environment. In order to be accepted by society and public acceptance, companies and organizations should help some of the severe social problems caused by many companies by allocating their resources to solve the problem of society. Other research results showed that the value of mines has a positive and significant effect on public acceptance. The results of this part of the research with the research of Agustin et al [2], Lacny and Ostrega [18], Ndemena and Qutieshat [24], Shabbir and Wisdom [27], which showed that internal investment has a positive and meaningful effect on the social acceptance of the company. It is aligned. In order to confirm the results of this part of the research, it can be pointed out that it is no secret that businesses are challenged almost every day by the speed of changes that happen in their environment. Market disruptions, new regulations, economic crises, changing lifestyles and consumer habits are just some of the things that require them to be very agile. On the other hand, business has never been more expected to create long-term value for society and act as a driver of positive change. Therefore, by understanding the expectations of the stakeholders, aligning the strategies and behaviors of the company with these expectations, and involving the stakeholders, it enables the companies to align their interests with the interests of the stakeholders to reach a point where Be recognized as a meaningful contributor in society and gain public acceptance. Gaining social acceptance requires a deep understanding of the needs and expectations of stakeholders. Other results of this research showed that social responsibility has a positive and significant effect on environmental responsibility ( $P < 0.05$ ).

In order to confirm these results, Masoudi et al [20] reached these results in their research that there is a direct relationship between environmental behaviour and the social responsibility of citizens. Dana et al [11], reached these results, there is a significant positive relationship between social responsibility and environmental protection behaviours. The studies of Haghghatian et al [14] showed that the relationship between the variables of social class, environmental knowledge and cultural capital with the variable of environmental degradation is weak and inversely estimated. Lacny and Ostrega [18], stated that corporate social responsibility policy is widely used by mining companies as a tool for public acceptance. To explain this research result, it can be said that in the conditions of moral decline, the public's attention to the observance of ethical principles by the number of companies increases. Values within the company, such as observing the principles of business ethics, which are less important to the general public in situations where morality rules the society, are essential factors in improving the general acceptance of the company (social legitimacy and competitive advantage) in the conditions of moral decline. Therefore, compliance with social responsibility by the company will play a significant role in gaining legitimacy social acceptance and competitive advantage in society. Other results of this research have shown the positive and significant impact of

environmental responsibility on the value of mines. The findings of this part of the research are in agreement with the results of Avotra et al [3], Ndemena and Qutieshat [24], who stated that there is a corporate social responsibility that simultaneously addresses social and environmental issues, and at the same time competitiveness. It also increases, indicating alignment. Other results of this research indicated a positive and significant impact of environmental responsibility on public acceptance. The results of this part of the research with Kalantari et al.'s research [16] on the positive relationship between environmental responsibility and socialization, Shabbir and Wisdom [27] show the existence of a positive and meaningful relationship between the profitability and acceptability of companies that are aware of the environment and companies that are not aware of it. The environment is aligned. To explain this research finding, it can be said that in order to gain public acceptance, mining companies must include the needs and expectations of stakeholders and the local community in their communications, strategy and operations, as well as in the behaviors of their people. Creating and maintaining social acceptance requires long-term relationships with stakeholders from mining companies. Finally, the results of this research have shown the positive indirect effect of social responsibility on public acceptance through environmental responsibility and the value of mines. In line with the confirmation of this research finding, Ndemena and Qutieshat [24] showed that there are several concerns about the social responsibility of a company that simultaneously addresses social and environmental issues and at the same time increases competitiveness. Shabbir and Wisdom's research [27] shows that companies that have higher environmental investments have a higher level of profitability than companies that are not aware of the environment. Agustin et al.'s research [2] shows the positive impact of corporate social responsibility and performance. Environmental performance is aligned with financial performance. To explain this research finding, it can be said that mining activities have important economic, environmental and social consequences on a local and global scale. While this sector provides vital raw materials and energy to a large number of industries, its activities are still commonly seen as a threat to the surrounding natural environment, with environmental impacts on air, water and soil. In this sense, the first decade of the 21st century in particular has witnessed a renewed debate about mining and its sustainability. Examples of potentially serious environmental impacts of mining include chronic soil erosion, heavy metal overload, and acid mine drainage. Therefore, mining companies are expected to respond positively to these challenges by assuming responsibilities in local and national development. They must adapt existing strategies or adopt new strategies to address these demands and deal with the compatibility between productive and environmental activity and social support. Companies must follow laws and meet the demands of local interest groups in order to gain public acceptance and minimize their negative effects on the environment by adopting environmentally responsible practices and improve their accountability in environmental issues. according to the research results, it is suggested:

1. Asfij Coal Company should consider the effects of public interest for a cleaner environment.
2. Asfij Coal Company redefines its business policies around choosing a set of environmentally conscious practices.
3. Natural resources are raw materials or energy sources for various industrial processes. The management of these resources is necessary to reduce possible damage to the environment by reducing resource consumption or adapting it to needs.
4. Asfij Coal Company to consider ways to improve mine explosion design to reduce the consumption of a particular explosive. Aim to reduce waste through separation, recycling and reuse where possible.
5. Use circulating water to control dust and maintain facilities (irrigation of paths and reserves, spraying in mobile processing units, etc.).
6. Develop alternative energy sources such as solar power plants.
7. Reduce the emission of greenhouse gases. This includes converting production facilities to natural gas, reducing the use of N<sub>2</sub>O, and converting diesel-powered electric generators to power sources.
8. Put rehabilitation of destroyed lands on the agenda. Land reclamation includes various activities such as revegetation and soil stabilization.

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