International Journal of Mechanical Engineering

# The Mediating Role of Industrial Relations in The Interrelationship Between Organisational Culture and Organisational Performance in Rourkela Steel Plant

Nibedita Nanda

Karunakar Patra

Department of MBA BPUT, Rourkela, Odisha

Department of MBA RIMS, Rourkela, Odisha

## **Abstract**

The fundamental cause of this paper is to analyse the mediating role of industrial relations on the interrelationship between organisational culture and organisational performance. Organisational culture mentions the principles & beliefs that have been present in a corporation for a long time & the employees' views and predicted job value that will affect industrial relations and performance. The study aims to recognise the dimension of the organisational culture, which affects organisational performance through industrial relations, and consists of all employees in the Rourkela Steel Plant, and 400 individuals were chosen as the sample volume. The data collection mechanisms were organisational culture, industrial relations, and organisational performance questionnaires. The data investigation shows the mediating effect of industrial relations between organisational culture and organisational performance. However, it is necessary to acknowledge the connection between corporate culture, industrial relations, and organisational performance.

Key Words: Organisational Culture, Industrial Relations, Organisational performance

#### Introduction

## **Organisational Culture**

An organisational culture (OC) is a social reality that creates an opinion of what they should do and think. OC is a set of beliefs, values, psychological and assumptions that workers acquire. OC is acknowledged as a crucial component of a successful organisation. According to Hofstede (2001), corporate culture is the combined layout of thinking that differentiates between the employees of one organisation to another organisation. OC lays a structure of workers' attitudes and behaviors (Sokro, 2012; Parthasarathy & Ramalingam, 2015). It adheres them to the organisation and powers their working environment (Agwu, 2014). Employees with a productive perception of the organisational culture will acquire positive attitudes at jobs through gratification and determination (Belias et al., 2015; Yilmaz & Ergun, 2008; Yusuf et al., 2016). According to Abukar, 2013; Uddin et al., 2013). Brown (1998), quoted by Hossein Khanzadeh et al. (2013), a connection between culture and inspirational factors necessary for organisational performance. According to Ritchie (2000), Company Culture is defined as a motivational instrument encouraging workers to carry out the work effortlessly and efficiently.

Organisational culture is the basis of the fundamental presumption that a specified workforce has originated, innovated, or formulated in studying to sort out with its difficulties of outer modifications and inner combination, and that has performed industriously adequate to be assessed reasonably and should be instructed to new individuals as they accumulate course of action to understand, believe, and sense regarding those obstacles.

## **Industrial Relations**

Workers are the main cause of an organisation's success because they are the expensive assets that integrate the resources that are technology, information, finance, and production techniques, enabling the firm to accomplish its competitive advantages. Together workers should work with each other and maintain cordial relationships with the management. Therefore, worker-management relationships play an important role in the achievement of objectives. Maintaining a healthy interrelationship between employer and employees is essential for high production, inspiration, and success.

According to Mishra and Dimri (2017), the relationships of employers and employees are an important instrument for stimulating workers to strengthen their expertise with high-level satisfaction. This investigation of this survey plays a pivotal role in forming a relationship between workers. Duah and Danso (2017) investigate industrial relations and their effects on a firm's performance. In this study, the main focus was to construct industrial relations in increasing the industry's performance. Marginson (2015) inspects the practical factors on the worker's management relationship to stimulate association. In this study, the main center of attraction is on the most useful/valuable elements for the inspirational improvement of associate-level workers.

## **Organisational Performance**

Organisational performance has been the greatest crucial issue for every establishment, be it profit or non-profit. It has been imperative for administrators to know which aspects motivate the organisation's performance to take suitable phases to originate them. However, describing, conceptualising, & assessing performance has not been an easy task. Investigators have distinct views & descriptions of performance, which remains a combative matter between organisational investigators (Barney, 1997). According to Venkatraman & Ramanuiam (1986), The issue concerns the correctness of numerous tactics to the conception use & dimension of organisational performance.

According to Amin (2017), organisational performance could be discussed as the central beliefs in administration and almost all management functions. Corporate performance can be expressed as the accumulation of accomplishments perceived by a firm. As per Lee and Haung(2012), the success of an organisation involves a goal accomplished within a stipulated time. According to Ahmed and Shafiq (2014), the conception of organisational performance is connected with success and progress. Corporate performance is represented as the dimensions at its workers achieve an objectives & desires of an industry as described by Cascio, in 2006. The level of success and proficiency against an enterprise's expected performance standards is affected by the organisational performance as defined by Rogers in 2016.

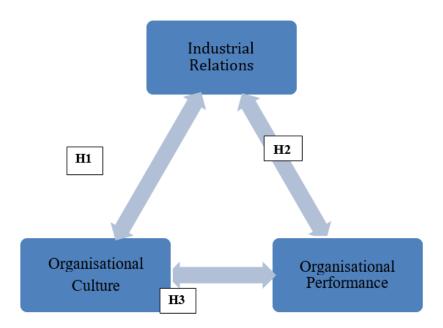


Figure-1: Theoretical Model

The current study is based on the survey of the Rourkela Steel Plant situated in the state of Odisha. This research attempts to recognise Industrial Relations as a mediator in the interrelationship between organisational culture and organisational performance (Figure-1). The pertinent comprehensive theoretical composition is scrutinised in the following sections, and proposed hypotheses are introduced; then, the appropriate methodology with analysis is discussed. Subsequently, the final outcomes with salient findings are presented and reviewed.

## **Research Hypotheses**

The following research hypotheses guided the study:

## H1: Organisational culture is positively interrelated with industrial relations.

Organisational culture can direct the employee in identifying what to do and what not to do. It consists of standards, conjectures, & views about their task. The importance of an organisation starts with industrial relations. The task, visualization, ethos, and standards of an organisation are worked out to understand their objectives of working in an enterprise. A clear vision and mission assist them in orienting their task with that of the enterprise. A robust organisational culture preserves a cordial relationship with the workers, emphatically affecting the workers' efficiency.

## H2: Organisational culture is positively correlated with organisational performance.

Organisational culture is discussed as shared values, half and assumptions and holds an organisation together. A healthy culture is an outline of rules that spells out how people should help them acmeve their aims and objectives. Organisational performance depends on the success when the desired goals of the organisation are achieved by the workers. Organisational culture has a significant impact on organisational performance. Organisational culture with all of its components stimulates the different perceptions of organisational performance.

Copyrights @Kalahari Journals

Vol. 6 (Special Issue 2, Nov.-Dec. 2021)

## H3: Relationship between organisational culture and organisational performance is mediated by industrial relations.

The effectiveness of an establishment depends on the capabilities and competencies of the workers. The management forms an appropriate work situation that satisfies the mental needs of the workers and will stimulate the level of corporate efficiency to a great range. There is an interrelationship between organisational culture and organisational performance that is mediated by industrial relations. Organisational performance is positively related to the affective ties that exist between the workers and management. Researchers have worked toward industrial relations with organisational culture and performance for many years, revealing that corporate culture greatly emphasises the individual level. Although there is a direct relationship between organisational culture and organisational performance has been confirmed by various studies. It shapes employee perception regarding knowledge sharing and motivational aspects and enhances their abilities, ultimately leading to higher performance. Influential organisational culture plays a significant role because it creates feelings of participation, open communication, sharing values, assumptions, and trust among workers. Researchers studied industrial relations aspects, which bring to individual attention how workers' behavior and attitude may influence organisational success.

## Methodology

Sampling and data collection

The present investigation is an explanatory/a descriptive & correlational analysis that was piloted through the questionnaire-based analysis method. The 400 respondents/participants, executives, and non-executive personnel were taken from different departments of RSP situated in the state of Odisha to administer the database, out of which 302 were reliable enough to be included, with a rate of 75.5 percent. We acquire the collaboration/cooperation of the administration to distinguish the respondents who have been working in RSP for more than five years. Respondents were put questionnaire to rate the questions by using a 5-point Likert scale. The questionnaire was to evaluate the organisational culture, industrial relations, & organisational performance. Table1 designates questions correlated to various characteristics of three variables of the corporate culture(independent variable), industrial relations(mediating variable), and organisational performance(dependent variable). Information from the investigation was transferred to Excel and SPSS for additional study. The research engages the descriptive analysis, correlations, and regressions to scrutinize the statistics. In this investigation, dependent variables refer to organizational performance, while independent variables refer to the corporate culture mediating variable industrial relations.

The survey was distributed to 400 participants. The distribution of the questionnaire resulted in 302 responses over a month and two reminders a week apart before the surveys closed. Respondents were then asked about their level of awareness about the culture, & the participants were well familiar with the term. As multiple indicators were used to measure the three variables

For analysis of reliability, Cronbach's alpha test was conducted. Table 1 displays the reliability test results. All the procedures met the Cronbach's Alpha value of .70, which points to the relative consistency and stability of the constructs.

Table 1 Cronbach Alfa Analysis

VARIABLES	NO. of ITEMS	Value of Cronbach Alpha
OC	4	0.737780955
IR	4	0.709566187
OP	4	0.740012161

## **Results of Analysis**

The 2nd table was generated in a linear regression test in SPSS, which delivers detail about the features of the form. In the current circumstances, the key variables pondered were company culture, industrial relations, and organisational performance.

## Hypothesis-I

H0: There is no relationship between organisational culture and industrial relations

H1: There is a relationship between organisational culture and industrial relations

## Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.986ª	.972	.972	.17239

a. Predictors: (Constant), OC

R-value signifies the correlation between the dependent & the independent variable. Establish a value larger than 0.4 is chosen for additional study. The value is 0.986 in this case, which is good. R-square signifies the entire difference for the dependent variable that can be described by the independent variables. A value is greater than 0.5 displays that the model is active enough to determine the association. In the above table, the value is .972, which is good. Adjusted R-square displays the simplification of the outcomes, that is, the variant of the outcomes from the populace in multiple regression.

The 4th table decides whether the test is significant enough to establish the results.

#### Table4

## ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	308.789	1	308.789	10391.057	<.001 b
	Residual	8.915	300	.030		
	Total	317.704	301			

a. Dependent Variable: IR

b. Predictors: (Constant), OC

Mostly, 95% confidence level of the significance level is selected for the research. Thus, the p-value/sig. value must be <0.05. In the above table, it is <0.05. Therefore, the outcome is significant. F-ratio signifies an enhancement in the prophecy of the variable. A value is >1 for F-ratio produce efficient method. In the above table, the F-value is >1, which is good.

The coefficient analysis aids in presenting the hypothesis testing for analysis. It displays the consequence of the variable & the magnitude with which it affects the dependent variable.

## Table5

## Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.539	.036		14.824	<.001
	ос	.896	.009	.986	101.937	<.001

a. Dependent Variable: IR

Here, only one value is significant that is the sig. value. The value must be beneath the tolerable significance level for the research below 0.05 at 95% confidence interval. Depending on the significant value, the null hypothesis is either accepted or rejected. The coefficient of regression analysis, t value, & p-value display that corporate culture ( $\beta$  =0.896, t=101.937, p <0.001) exercises a positive & statistically significant impact on industrial relations. It can be concluded that organisational culture substantially impacts industrial relations; & hence the null hypothesis is rejected.

## Hypothesis-II

H0: There is no relationship between organisational culture and organisational performance.

H1: There is a relationship between organisational culture and organisational performance.

Table 6

# Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974ª	.949	.949	.22359

a. Predictors: (Constant), OC

Table 7

## **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	277.537	1	277.537	5551.724	<.001 <sup>b</sup>
	Residual	14.997	300	.050		
	Total	292.534	301			

a. Dependent Variable: OP

b. Predictors: (Constant), OC

Table 8

# Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.789	.047		16.727	<.001
	0C	.849	.011	.974	74.510	<.001

a. Dependent Variable: OP

The R-value is 0.974 > 0.4, which results is good. R-square signifies the entire difference for the dependent variable that can be described by the independent variables. A value >0.5 displays that the model is active enough to determine the association. In the above table, the value is .949>0.5, which is good. Adjusted R-square displays the simplification of the outcomes. Mostly the p-value/sig. value must be <0.05. In the above table, it is <0.05. Therefore, the outcome is significant. F-ratio signifies an enhancement in the prophecy of the variable. A value is >1 for F-ratio produce efficient method. In the above table, the F-value is >1, which is good. As we know, only one value is significant that is the sig. value. The value must be beneath the tolerable significance level for the research below 0.05 at 95% confidence interval. Depending on the significant value, the null hypothesis is either accepted or rejected. The coefficient of regression analysis, t value, & p-value display that corporate culture ( $\beta = 0.849$ , t=74.510, p <0.001) Copyrights @Kalahari Journals

Vol. 6 (Special Issue 2, Nov.-Dec. 2021)

exercises a positive & statistically substantial impact on organizational performance. It can be concluded that corporate culture has a substantial impact on corporate performance & the null hypothesis is rejected.

## Hypothesis-III

H0: There is no relationship between industrial relations and organisational performance.

H1: There is a relationship between industrial relations and organisational performance.

Table-9

# Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.989ª	.977	.977	.14890

a. Predictors: (Constant), IR

Table-10

## ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	285.883	1	285.883	12894.053	<.001 b
	Residual	6.652	300	.022		
	Total	292.534	301			

a. Dependent Variable: OP

b. Predictors: (Constant), IR

Table-11

## Coefficients<sup>a</sup>

		Unstandardize	d Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.275	.035		7.797	<.001
	IR	.949	.008	.989	113.552	<.001

a. Dependent Variable: OP

The R-value is 0.989>0.4, which results is good. R-square signifies the entire difference for the dependent variable that can be described by the independent variables. A value >0.5 displays that the model is active enough to determine the association. In the above table, the value is .977>0.5, which is good. Adjusted R-square displays the simplification of the outcomes. Mostly the p-value/sig. value must be <0.05. In the above table, it is <0.05. Therefore, the outcome is significant. F-ratio signifies an enhancement in the prophecy of the variable. A value is >1 for F-ratio produce efficient method. In the above table, the F-value is >1, which is good. As we know, only one value is significant that is the sig. value. The value must be beneath the tolerable significance level for the research below 0.05 at 95% confidence interval. Depending on the significant value, the null hypothesis is either accepted or rejected. The coefficient of regression analysis, t value, & p-value display that corporate culture ( $\beta$  =0.949, t=113.552, p<.001) exercises a positive & statistically

substantial impact on company performance. It can be concluded that industrial relations substantially impact corporate performance; hence, the null hypothesis is rejected.

#### Conclusion

Corporate cultures were positively interrelated with industrial relations & organisational performance, and industrial relations was correlated with organisational performance. The culture within an establishment is essential, performing a significant role in a cheerful and energetic atmosphere where they work. In collaborating & encouraging the company culture to the workforces, their recognition & reception of it can impact their job performance & viewpoints. The conclusion will give members interaction & teamwork & be stimulated to achieve the mission and goals allotted by the company, thereby improving organisational performance, when the communication among the administration & personnel is effective.

## **References:**

- 1. Boon, O. K., & Arumugam, V. (2006). The influence of corporate culture on organizational commitment: A case study of semiconductor organizations in Malaysia. Sunway Academic Journal, 3, 99–115.
- 2. Brhane, H. and Zewdie, S. (2018) 'A Literature Review on the Effects of Employee Relation on Improving Employee Performance,' Journal International Journal in Management and Social Science, 6(04), pp. 2321–1784.
- 3. Chamanifard, R., Nikpour, A., & Chamanifard, S. (2014). Investigating the impact of emotional intelligence on organizational performance in the international division of Tejarat bank, Iran. International Journal of Scientific Management & Development, 2(11), 652–657.
- 4. Chaubey, D. S., Mishra, N. and Dimri, R. P. (2017) 'Mediating role of employee relationship management between perceived training and development and employees productivity,' International Journal of Research in Computer Application & Management, 7(10), pp. 1–6.
- 5. Denison, D. R. (2000). Organizational culture: Can it be a key lever for driving organizational change. In S. Cartwright, & C. Cooper (Eds.), The handbook of organizational culture (pp. 347–372). John Wiley & Sons, London.
- 6. Denison DR, Haaland S, Goelzer P: Corporate culture and organizational effectiveness: Is Asia different from the rest of the world? Organizational Dynamics 2004, 33(1):98-109.
- 7. Jacobs E, Roodt G: Organizational culture of hospitals to predict turnover intentions of professional nurses. Health SA Gesondheid 2008, 13(1):63-78.
- 8. Kotter, J. P., & Heskett, J. L. (2011). Corporate culture and performance. New York: Free Press.
- 9. Lauture, R., Amewokunu, Y., Lewis, S., & Lawson-Body, A. (2012). Impact of culture on the organizational commitment of public-sector employees in Haiti. International Business & Economics Research Journal, 11(3), 331–342.
- 10. Mishra, N. and Dimri, R. P. (2017) 'Analysis of employee relationship management,' Journal of Arts, Science & Commerce, 2(10), pp. 15–25.
- 11. Parashar, B. K. (2018) 'Literature Review: A study of Industrial relation management in Indian ordnance factories in Madhya Pradesh,' 3(1), pp. 6–12.
- 12. Schein, E. H. (1985). Organizational culture and leadership. San Francisco, CA: Jossey Bass.
- 13. Singh, P., & Das, G. S. (1978). Organizational culture and its impact on commitment to work. Indian Journal of Industrial Relations, 13(4), 511–524.
- 14. Zain, Z. M., Ishak, R., & Ghani, E. K. (2009). The influence of corporate culture on organizational commitment: A study on a Malaysian listed company. European Journal of Economics, Finance & Administrative Sciences, 17, 16–26.