**Employee Engagement and Job Satisfaction complement each other: A brief review in Steel and Heavy Metal Industries of West Bengal**

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**Abstract**

**Purpose:** This study would be based on employee engagement and its impact on the steel industry and the other heavy metal industries such as iron and aluminium industry of West Bengal.

**Design**: This study would be based on employee engagement and its impact on the iron, steel and aluminium industries of WB based on the evaluation secondary sources. It has been examined that the iron, steel and aluminium industries are essential for the growth of the economy. It is needed to ensure that the operations of the company should be smooth which can be effective for its growth and development in the long run. However, to improve the performance of the company, the engagement of the employees is necessary.

**Findings:** The talented and qualified workforce is a vital part of the company and can help the firm to improve job satisfaction.

**Practical implication:** The employers of heavy metal industries in West Bengal provide compensation, extra leave, and leave encashment opportunities. This is an important aspect that enhances the dedication of the employees along with their loyalty toward the company. The employees' loyalty can also be boosted by their promotion and the increment. It is also necessary for the heavy industry to understand the issues faced by their workforce.

**Originality**: The employees can be associated with the firm only if the employer values them and praise them for their work. The recognition of the employees is also an essential factor to keep them motivated and ensure that they consider themselves as an integral part of the company.

***Keywords:* Job satisfaction, employee engagement, knowledge sharing, employee commitment, employee practices and loyalty.**

## Introduction

As opined by the author Ahmed et al. (2020, p. 600), employee commitment and engagement can directly affect the overall performance of an individual. Depending upon the attention of the employees, the outcome of the business can be achieved. Various factors can be responsible for enhancing employee engagement, such as job satisfaction, culture, work environment, digital work experience, leadership, and management. Thus, the employers of the firm need to create a practical yet outstanding work environment for its workforce. On the other hand, the job rewards, benefits, hours of work, commuting time, development opportunities, career growth opportunities and work-life balance, along with an effective work environment, can lead to the satisfaction of the employees of the heavy metal industries of the WB.

Moreover, employee satisfaction is crucial to boost the performance of the employee, owing to which organisational productivity can be enhanced. Employee retention can be due to the various factors and the benefits provided by the employer. Moreover, employers are needed to provide the required help to the employees so that they can devote their time and dedication to work hard.

According to the view of Dhir, Dutta & Ghosh (2020), it has been examined that the engagement of the employees is the level of their commitment and involvement with the company, beliefs and values. The concentration of the employees plays a crucial role in boosting the performance of the company. In addition, employee engagement can be inclusive of various actions such as celebrations, anniversaries, picnics and parties, cultural festivals, and painting competitions (Economictimes. Indiatimes, 2011). Furthermore, employees of a firm devote most of their time to organisational activity. In addition, the workforce of the company is considered an essential person and asset of the firm (Economictimes. Indiatimes, 2022b). The study is based on employee engagement and how the lack of concentration can affect the job satisfaction of the employees, which can lead to an impact on the loyalty of employees of the steel industry and other heavy metal industries, which include the iron and aluminium industries of West Bengal.

## Background of the study:

As per the opinion of the author Arifin, Nirwanto & Manan (2019, p. 5), it has been analysed that the steel industry of West Bengal (WB) has been very hard hit because they have been facing hurdles in resuming its operations with a truncated employee. Moreover, production of the primary steel makers such as SAIL and Durgapur Steel Plant in WB has been continuing their operations during the lockdown at a lesser quantity. This is because of their employee's engagement and dedication to work (Economic Times. India Times, 2022). It has been examined that more than 23% of the workforce has not been engaged in the workplace (Economic Times. India Times, 2022a). The steel industry of India entered the development era in the year 2007, rising at a fast speed due to the increased demand and resurgent economy for steel, iron and aluminium. Thus, the rise in its production at a rapid rate has resulted in the nation becoming the fourth-largest producer of "crude steel" as well as the largest manufacturer of "sponge iron" across the globe. At present, the key producers of steel are "Rashtriya Ispat Nigam”, “Tata Iron & Steel Co Ltd” and “Steel Authority of India Limited”. As stated by Darmawan et al. (2020, p. 2580), these industries are growing and striving because of the proper management of their workforce. Moreover, the key pillars of the company are man, machines, materials and money.

On the other hand, employee engagement is vital for the growth and stability of the company. The industry has been growing not only because of the manufacturing of sophisticated machinery but also due to the efficient management of employees. Thus, these companies understand the importance of talent management, which is the key to their success.

## Aims and objectives of the study

Aims

The aim is to show how employee engagement affects job satisfaction that leads to loyalty in employees, to be highlighted in the manuscript in reference to the steel, iron and aluminium industries in WB.

Objectives of the study

* To analyse the implication of knowledge sharing on the performance of the company.
* To examine the employee engagement strategies to improve the work environment.
* To study the implications of employee engagement on the performance of the company.
* To explore the mediating implication of knowledge sharing between organisational performance and employee engagement.

# Literature review

## Define employee engagement

As per the manuscript postulated by the authors Sun and Bunchapattanasakda (2019, p. 80), Employee engagement is the level of dedication and enthusiasm felt by the employees towards the job. It is a crucial factor responsible for the success of the company, and employees' success is linked with employee morale and job satisfaction. On the other hand, engaged employees are higher performing and more productive. In addition, the highly engaged employees of a company are committed to the company investing in its success. As opined by Thakur (2015), the challenge faced by employers in the manufacturing industry is to retain and engage their employees. Contrary to the view of Thakur, the other authors, Iddagoda and Opatha (2020), stated that the manufacturing industry also faces challenges in motivating its employees. Instead, they understand that the work and the deadline need to be followed without understanding the requirements of the employees.

In order to curb the issue related to employee management and retention, the company needs to implement a strategy. For example, the role of the leaders of the Burdwan Iron and Steel Company Pvt. Ltd. is to improve the performance of the company by creating a positive yet engaging work environment. As opined by Sureshkumar and Karthikeyan (2014, p. 150), nurturing the employees and developing their skills to enhance their engagement with the company is needed to ensure the sustainability of the company. On the other hand, some employers focus on prioritising the employees and involve them in the essential decisions of the company. Thus, it enhances the engagement of the employees, which in turn can improve the productivity of the company. Furthermore, the company is required to implement various strategies to ensure the engagement of the employee, owing to which the improvement in the work environment can be achieved. Generally, the iron, steel and aluminium industries of West Bengal always face the issue of managing the work environment. Moreover, conflict with management is a part of this industry. As per the thesis postulated by authors Knoll and Redman (2016, p. 844), the management of the company is required to offer the opportunity for the employees to grow and perform well. In addition, the HR of the firm should be trained to understand the issues and get them resolved immediately. The satisfaction of the employees plays a vital role in enhancing employee engagement with the company.

It is also necessary for heavy metal industries and firms like IISCO, Vikash Iron and Steel Company, Century Aluminium Manufacturing Co. Limited, and National Aluminium Company Limited to provide training to employees. This is crucial to brush up on their existing skills so that less time would be required to execute the task. Additionally, providing attention to the individual employee is the most crucial aspect that can influence the employee to share their views and opinions or the issues faced by them in the workplace.

## The implication of knowledge sharing on the performance of the company

The sharing of knowledge is effective for the company to develop competencies and skills and sustain and increase value to achieve a competitive advantage. The critical function of the IISCO Steel Plant, Burnpur, Shyam Steel Industries Ltd and Century Aluminium Manufacturing Co. Limited is to motivate the team members to share knowledge within the team. According to the view of Lee et al. (2010, p. 491), disclosing information in a group can help to boost the knowledge sharing of the team members. Thus, knowledge sharing plays a vital role in the iron, steel and aluminium industries as it helps to enhance the ability of the workforce in the company to understand the perception, expectations and situations of the customers. Therefore, it can help the company to make decisions or manufacture goods as per the specifications of the customer.

As stated by Chen and Hung (2010, p. 236), allowing team members to share their innovative ideas with the team leader. Thus, based on the ideas shared, the organisation can boost their performance and productivity. In the case of the "human relations theory", the staff members cannot only be motivated by financial rewards but also by social rewards such as pride, praise, and the feeling of achievement and belongingness. Thus, the essential features of this theory are empathy, communication and motivation of the employees. On the other hand, heavy metal industries such as IISCO Steel Plant, Burnpur, Bharat Aluminium Co. Limited and Vikash Iron and Steel Company need to improve their relationship with labour, underutilisation of the capacity and inefficient management of the company.

This industry has been facing challenges to retain employees for a more extended period. Therefore, the HR of the firm is needed to keep the employees motivated and enhance their engagement with the company.

## Technological advancement in the engagement of employees

As per the view of Burnett and Lisk (2019, p. 110), technology plays a crucial role in boosting the performance of the employees associated with the iron and steel as well as the aluminium industry. This is because the technology can help to reduce human error and also hard work. Therefore, it is a tool that enhances the efficiency and performance of the workforce. The 4.0 industrial revolution has allowed the technology to work effectively with metal production, which helps to transform the making of steel (Forbes, 2022). The impact of digital technology has helped to convert the traditional steel production process into automated plants. This would encourage the young talent to apply for jobs in this industry and enhance the productivity of the firm. Therefore, the use of advanced technology can help the brand to grow as the employees would be engaged to understand the best way to use the sensor-based production plant.

In the present era, the employees of the iron, steel and aluminium industries are well educated, ambitious, more efficient and desire to improve their performance. They are engaged more with the technology and show a positive outlook on their overall operation. The HR of the company needs to nurture the workforce and understand their problems. This is because they know the tastes and preferences of the customers based on which the reputation of the company can improve. As per the engagement theory, the user engagement with technology. This framework can be effective in exploring the experiences of the employee to interact with the technology-based system, which may not be limited only to educational applications. This framework also deals with describing the engagement process of the employee, re-engagement, and disengagement.

## The implications of employee engagement on the performance of the company

The engagement of the workforce is needed to improve the performance of an organisation. Employees often make decisions and execute their actions in such a way that it can impact the performance of the company. Thus, the way employers treat their employees is a vital component to enhance the engagement of the employee. According to the view of Deorah (2022), after the outbreak of the pandemic, the concentration of employees has been crucial to boosting organisational performance. Despite the impact of the COVID-19 pandemic, the iron and steel industry of India has contributed around 1.5% to the Gross Domestic Product of India (Economic Times. India Times, 2021). This shows that the steel industry of India has managed to perform well because of the engagement and dedication of the workforce.

On the other hand, some industries fail to motivate their employees, owing to which their productivity has been negatively affected. Employee engagement has been challenging and can impact the productivity of the employee (Economic Times. India Times, 2014). Lack of employee engagement can increase absenteeism, low productivity and a high attrition rate of employees. The development of technology and E-business can reduce the time and transaction costs for online sales as well as purchase delivery, as well as increase operating efficiency. As per the "Work Engagement Theory by Kahn", the self-preference of the employees is the job tasks that often promote the connections between job and self. Therefore, it can increase the performance of the employees through physical, emotional and cognitive.

The role of the leaders is also crucial in enhancing the engagement of the employees. Thus, an effective leader often adopts internationalised ethical options, balanced handling and relationship transparency. In addition, the role of the leader is to enhance the performance of the employee.

## The theoretical framework of the employee engagement

The theoretical framework can be effectively used to explain the engagement of the employee with the employer. The theory that would be reviewed to show the engagement of the employee with the organisation is the ***social exchange theory, Herzberg’s two-factor theory*** and the ***need fulfilment theory.***

The term social exchange theory can be a concept in which the relationship between two individuals can be developed through an effective process related to cost-benefit analysis. The social exchange theory can be effective in stipulating that employees can evaluate relationships either unconsciously or consciously. As stated by Cropanzano et al (2017, p, 479), the critical notion of the theory is to involve the exchange of goods. This theory is essential as it helps to explain an individual to minimise the costs, which can help to maximise their rewards. On the other hand, the employees of a firm need to understand the strategies that can help them sustain and keep their relationship with their employers. More to context, social exchange theory is a systematic and timely approach. As opined by the author Cook (2015), this theory proposes that the behaviour of an individual can be considered as the result of the cost-benefit analyses in which the workers attempt to interact with the environment and society. In case an individual thought of receiving extra rewards through their behaviour, then they would lose through their performance, then the individual would be performing the behaviour. Conversely, if an individual thinks that the cost can exceed the benefit, then their behaviour may not be carried out. Therefore, the employee can achieve reward if they work hard and with dedication by ensuring that the cost can be minimised. This is also a practical kind of employee engagement with the organisation.

As opined by Scerri et al. (2019), the ***need fulfilment theory*** is the need of an individual to express their requirement to live and survive as a human being. The needs of a person can be individual depositions such as drives and wants. Their definition would be based entirely on the opinion of the person and the expert judgement (Gropel and Kuhl, 2009, p. 370). In addition, the fulfilment of an individual needs can be the requirement for social well-being and quality of life. In case the needs of the employee still need to be fulfilled, then they may feel a lack of motivation to work, owing to the negative consequences faced by an individual.

As stated by Alshmemri, Shahwan-Akl&Maunde (2017, p. 14), according to ***Herzberg’s two-factor theory***, the factors which can motivate employees are job dissatisfaction and job satisfaction. For instance, if an employee is not happy with their work, then they would not perform well and would like to quit their company. Conversely, satisfied employees feel like connecting with their work, stick with the company and serve better to work longer. As per the view of Stello (2011), the value of a happy as well as satisfied employee should not be overestimated. As stated by Thant and Chang (2021, p. 170), a hostile work environment can affect creativity, productivity, company value, growth rate and profitability. This concept can affect the satisfaction and motivation level of the employee. It has been examined that satisfaction and motivation factors can influence an individual differently. For instance, an individual employee may be satisfied with their job role but may need more motivation to work. Thus, the theory is effective in ensuring that the high morale of the employee can lead to the enhancement of loyalty.

As opined by Hur (2018, p. 343), hygiene factors are the essential elements associated with the job which can help in satisfying the basic needs of the employees, such as working conditions, fairness, pay, security, and others. If the basic needs are met, the employees feel satisfied and comfortable working. If salary and other benefits such as insurance are provided to the employees of the steel, iron and aluminium industries, then their motivation to work would be boosted, owing to which they can perform well. This, in turn, can increase the productivity of the company. On the other hand, the employer is required to ensure the job security of the employee. As per the opinion of Siruri and Cheche (2021, p. 165), employees should not feel stressed that their job is not secure. In addition, the iron, steel and aluminium industries of West Bengal have to focus on managing the work environment, such as maintaining cleanliness, temperature and basic hygiene at the workplace. This is also the essential parameter which can motivate the employees and encourage them to work with dedication. Moreover, it can lead to the engagement of the employee for a longer duration of time.

As per the manuscript postulated by Bevins (2018), the motivational factor can be the critical element associated with the job that can motivate the workforce to grow and stay in the organisation. If these needs are fulfilled, then the employee will be satisfied with their job. In addition, they may require challenging job roles that help the employees to learn practical skills, manage responsibilities and grow professionally. Moreover, the employees should have the sense that they have achieved something at the end of their work. The managers should acknowledge their contribution and provide them with promotions with more responsibilities. Therefore, the recognition of the employees and their promotion would boost their dedication towards the work owing to which the productivity of the company would increase at a faster rate. Therefore, the loyalty of the employee towards the company would be enhanced.

# Methodology

The concerned research has been developed based on certain kinds of methodological tools. Here, the positivism philosophy, deductive approach and descriptive design have been followed. Additionally, a primary quantitative data collection method has been used along with the conduction of the survey. Moreover, the survey has been developed with forty participants who have been connected with the steel, iron, and aluminium industries and stakeholders in West Bengal. Random sampling technique has been used here, and for developing the questionnaire, Google form has been used; online, all the data of the survey have been gathered for analysis.

Alongside that, analysis has been done with the help of Excel by evaluating all independent and dependent variables. Four different kinds of independent variables include job satisfaction, employee engagement, knowledge sharing and employee commitment, and the dependent variable is employee practice and loyalty. Additionally, through correlation, regression, and t-test, all hypotheses have been analysed, whether all of them can be accepted or not. Research ethics have been adequately maintained here with the Data Protection Act 2008 (Legislation, 2023). Additionally, any manipulation has not been done here during data analysis, and all data have been stored with proper protection.

Hypothesis

***H1***: There is a positive relationship between employee engagement and job satisfaction in the iron and aluminium industries of West Bengal.

***H2***: Effective management communication positively correlates with higher job satisfaction among employees in the specified industries.

***H3***: Gender influences employees' perceptions of management communication, with variations in satisfaction levels between male and female employees.

***H4***: Organizational interventions designed to enhance employee engagement, such as training and development programs, positively impact job satisfaction levels.

# Analysis

|  |  |  |  |
| --- | --- | --- | --- |
|  | Mean | Std. Deviation | N |
| Gender | 1.2400 | .43142 | 50 |
| Engagement\_With\_Job\_Role | 1.2800 | .45356 | 50 |
| Satisfaction\_Management\_Communication | 1.2800 | .45356 | 50 |

**Table 1: Descriptive Statistics**

(Source: As created by the author)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gender | Engagement\_With\_Job\_Role | Satisfaction\_Management\_Communication |
| Gender | Pearson Correlation | 1 | -.142 | -.038 |
| Sig. (2-tailed) |  | .326 | .796 |
| N | 50 | 50 | 50 |
| Engagement\_With\_Job\_Role | Pearson Correlation | -.142 | 1 | .306\* |
| Sig. (2-tailed) | .326 |  | .031 |
| N | 50 | 50 | 50 |
| Satisfaction\_Management\_Communication | Pearson Correlation | -.038 | .306\* | 1 |
| Sig. (2-tailed) | .796 | .031 |  |
| N | 50 | 50 | 50 |
| \*. Correlation is significant at the 0.05 level (2-tailed). |

**Table 2: Correlations**

(Source: As created by the author)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | N | Mean | Std. Deviation | Std. Error Mean |
| Gender | 50 | 1.2400 | .43142 | .06101 |
| Engagement\_With\_Job\_Role | 50 | 1.2800 | .45356 | .06414 |
| Satisfaction\_Management\_Communication | 50 | 1.2800 | .45356 | .06414 |
| Participating\_In\_Employee\_Engagement\_Activity | 50 | 1.5000 | .50508 | .07143 |
| Steps\_Enhancing\_Employee\_Engagement | 50 | 1.3200 | .47121 | .06664 |

**Table 3: One-Sample Statistics\_T-test**

(Source: As created by the author)

|  |  |
| --- | --- |
|  | Test Value = 0 |
| t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |
| Lower | Upper |
| Gender | 20.324 | 49 | .000 | 1.24000 | 1.1174 | 1.3626 |
| Engagement\_With\_Job\_Role | 19.956 | 49 | .000 | 1.28000 | 1.1511 | 1.4089 |
| Satisfaction\_Management\_Communication | 19.956 | 49 | .000 | 1.28000 | 1.1511 | 1.4089 |
| Participating\_In\_Employee\_Engagement\_Activity | 21.000 | 49 | .000 | 1.50000 | 1.3565 | 1.6435 |
| Steps\_Enhancing\_Employee\_Engagement | 19.808 | 49 | .000 | 1.32000 | 1.1861 | 1.4539 |

**Table 4: One-Sample Test**

(Source: As created by the author)



Figure 1: Frequency Polygon of Gender by Engagement\_With\_Job\_Role

(Source: As created by the author)



Figure 2: Stacked 3-D Bar of Gender by Engagement\_With\_Job\_Role by Satisfaction\_Management\_Communication

(Source: As created by the author)

# Findings

***Descriptive Statistics***

The sample consists of 50 individuals, with a mean gender code of 1.24 and a standard deviation of 0.43. This indicates a slight skew towards one gender but relatively low variability. The mean score for engagement is 1.28, with a standard deviation of 0.45. This suggests a moderate level of engagement among respondents, with some variability. This variable also has a mean of 1.28 and a standard deviation of 0.45, similar to job role engagement. Further exploration could reveal potential correlations. The data indicates moderate levels of engagement and satisfaction with management communication among the sample, with slight variations. Further analysis and investigation into possible connections between these variables are recommended to better understand workplace dynamics.Top of Form

***Correlations***

There is a negative correlation of -0.142 between Gender and Engagement With Job Role. This correlation is not statistically significant (p = 0.326), meaning that there isn't a strong relationship between gender and job role engagement in this sample of 50 individuals. The correlation between Gender and Satisfaction with Management Communication is -0.038. This correlation is not statistically significant (p = 0.796), indicating that gender is not strongly associated with satisfaction with management communication. Here, it is observed that a positive correlation of 0.306 between Engagement With Job Role and Satisfaction with Management Communication. This correlation is statistically significant at the 0.05 level (p = 0.031), suggesting that there is a meaningful relationship between these two variables. In other words, individuals who are more engaged with their job roles tend to report higher satisfaction with management communication.

The data analysis shows that while there is no significant correlation between gender and either job role engagement or satisfaction with management communication, there is a significant positive correlation between job role engagement and satisfaction with management communication. This suggests that efforts to improve job role engagement within the organization may also lead to higher satisfaction with management communication among employees. Further investigation and actions to enhance these factors could benefit the workplace environment.

***One-Sample Statistics\_T-test***

In this dataset of 50 individuals, the mean scores and standard deviations for several variables were examined. The results reveal that for Gender, the mean score is 1.24 with a standard deviation of 0.43142, and the standard error of the mean is 0.06101. Similarly, for Engagement With Job Role and Satisfaction with Management Communication, both have a mean score of 1.28 with a standard deviation of 0.45356 and a standard error of the mean of 0.06414. Furthermore, when looking at the variable "Participating In Employee Engagement Activity," the mean score is 1.50, with a standard deviation of 0.50508, and a standard error of the mean of 0.07143. Lastly, "Steps Enhancing Employee Engagement" has a mean score of 1.32, a standard deviation of 0.47121, and a standard error of the mean of 0.06664. The dataset provides insights into the norms and variations of these variables among the 50 individuals studied. These statistics serve as a foundation for further analysis and decision-making regarding employee engagement and related activities.

***One-Sample Test***

The test statistic is 20.324 with 49 degrees of freedom. The p-value is 0.000, indicating strong evidence to reject the null hypothesis that the mean is equal to zero. The mean difference is 1.24, with a 95% confidence interval of [1.1174, 1.3626], suggesting that Gender has a significant impact on the variable being tested. The test statistic is 19.956 with 49 degrees of freedom, and the p-value is 0.000. Similar to Gender, there is strong evidence to reject the null hypothesis. The mean difference is 1.28, with a 95% confidence interval of [1.1511, 1.4089], indicating that Engagement With Job Role significantly differs from zero.

This variable also shows a test statistic of 19.956 with 49 degrees of freedom and a p-value of 0.000. There is strong evidence to reject the null hypothesis, with a mean difference of 1.28 and a 95% confidence interval of [1.1511, 1.4089]. Satisfaction with Management Communication is significantly different from zero. The test statistic is 21.000 with 49 degrees of freedom, and the p-value is 0.000. This result provides strong evidence against the null hypothesis. The mean difference is 1.50, with a 95% confidence interval of [1.3565, 1.6435], indicating that Participation in Employee Engagement Activity significantly differs from zero.

The test statistic is 19.808 with 49 degrees of freedom, and the p-value is 0.000. As with the other variables, there is strong evidence to reject the null hypothesis. The mean difference is 1.32, with a 95% confidence interval of [1.1861, 1.4539], showing that Steps Enhancing Employee Engagement is significantly different from zero. For all the variables tested, there is strong statistical evidence to conclude that their means are quite other from zero. This suggests that these variables play a meaningful role in the context being studied and are not just chance occurrences. Further analysis and interpretation of these findings can help in understanding their implications for employee engagement and related activities within the organization.

# Discussion

In the literature review part of the study, the various aspects related to employee engagement have been discussed. Firstly, it discusses the critical parameters associated with engagement. The engagement of the employees is dependent directly upon the employer and the HR of the company. The employee engagement methods practices can boost their satisfaction level in the heavy metal industries of West Bengal, which can lead to enhancing the loyalty of the employees in the long run.

Secondly, the motivation of the employees enhances their engagement with the company, and it can also ensure the contentment and loyalty of the employees. On the other hand, the motivation of the employees is complex in the case of the heavy metal industries. Thirdly, the engagement of the employee can be understood based on their dedication and loyalty to the organisational context. Moreover, the iron, steel and aluminium industries of WB should have to implement strategies that can be crucial to boosting their overall productivity. The use of the theories has been effective in highlighting the facts related to the engagement of the employees.

# Recommendation

Companies such as heavy metal industries, i.e. steel, iron and aluminium, should consider improving the connectedness of the employees with the company. This is crucial to retain the talents as the employees leave the firm due to the lack of connectedness, not because of the lack of compensation (Businessworld, 2022). In addition, the motivation of the employees is an essential factor that can help to improve organisational productivity.

It is also recommended that the iron, steel and aluminium industries of West Bengal pay attention to the workforce, value them, provide rewards, and control the extra pressure and stress level of the employees. This is required to keep the employees motivated and work with dedication. The better the engagement of the employee, the more the productivity of the company.

It may also be recommended that the employers of the heavy industry create a digital-powered platform for their employees. As opined by Lee, Rocco &Shruck (2020, p. 30), this is crucial to enhance the engagement of the employees effectively, such as peer-to-peer appreciation, awards based on performance, recognition of the employee and wage advancement of the employees to keep them motivated.

# Limitation

The limitation associated with the study is that the information related to the iron, steel and aluminium industry of West Bengal could be more extensive. Through rigorous research, the information has been gathered. Though the review of academic journals such as Google Scholar, electronic books, and peer-reviewed journals has been provided, the biased view of the author in some of the cases does not validate the point. Moreover, the papers do not include each practical experience associated with employee engagement. In practice, one area that needs more research is what predicts the engagement of these employees at various levels of engagement and what management needs to identify in order to maintain these high levels of job satisfaction and loyalty among the employees. Another consideration is that employee surveys should be supported by supporting staff interviews and contextual analysis to provide a more holistic view of job satisfaction and how it is managed in a particular organisational environment. It helps embody the types of factors that are most important to employee engagement with different roles, jobs, and groups within a specific industrial sector.

## Conclusion

The study alleviates the engagement of the employees and its impact on the "steel industry" and the "Heavy Metal Industries, i.e.iron and aluminium industry" of West Bengal. The study has concentrated on the prime factor of the industry, which is the proficient and competent workforce, which helps to improve the job satisfaction of the industry. Based on the study, it can be concluded that the commitment of the employees towards the sector is enhanced by the industry's provided better scope. On the other hand, the issues faced by the industry are illustrated in this section regarding the steel, aluminium and iron sectors. The sector should be designed to avail the economic growth and to make a better development in the market. Therefore, to improve the performance of the industry, a lot of the employee engagement is needed for the better production. The sector must also integrate the payment opportunity, and it would help to motivate the employees and help them to commit to the job regarding the company. However, more opportunity for engagement with the employees is vital for the sector's economic growth.

# References:

#### Ahmed, T., Khan, M. S., Thitivesa, D., Siraphatthada, Y., &Phumdara, T. (2020). Impact of employees engagement and knowledge sharing on organizational performance: Study of HR challenges in COVID-19 pandemic. *Human Systems Management*, *39*(4), 589-601.

Arifin, Z., Nirwanto, N., & Manan, A. (2019). Improving the effect of work satisfaction on job performance through employee engagement. *International Journal of Multi-Discipline Science (IJ-MDS)*, *2*(1), 1-9.

Bevins, D. T. (2018). Herzberg's two factor theory of motivation: A generational study.

Braganza, A., Chen, W., Canhoto, A., & Sap, S. (2021). Productive employment and decent work: The impact of AI adoption on psychological contracts, job engagement and employee trust. *Journal of business research*, *131*, 485-494.

Burnett, J. R., &Lisk, T. C. (2019). The future of employee engagement: Real-time monitoring and digital tools for engaging a workforce. *International Studies of Management & Organization*, *49*(1), 108-119.

Businessworld, 2022. Employees Should Feel Connected With Their Organisations: RishadPremji. (2022). Retrieved 16 August 2022, from https://www.businessworld.in/article/Employees-Should-Feel-Connected-With-Their-Organisations-Rishad-Premji/11-01-2022-417358/

Chen, C. J., & Hung, S. W. (2010). To give or to receive? Factors influencing members’ knowledge sharing and community promotion in professional virtual communities. *Information & management*, *47*(4), 226-236.

Cook, K. (2015). Exchange: Social. International Encyclopedia Of The Social &Amp; Behavioral Sciences, 482-488. doi: 10.1016/b978-0-08-097086-8.32056-6

Cook, K. S., Cheshire, C., Rice, E. R., & Nakagawa, S. (2013). Social exchange theory. In Handbook of social psychology (pp. 61-88). Springer, Dordrecht.

Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. Academy of management annals, 11(1), 479-516.

Darmawan, D., Mardikaningsih, R., Sinambela, E. A., Arifin, S., Putra, A. R., Hariani, M., ...& Irfan, M. (2020). The Quality of Human Resources, Job Performance and Employee Loyalty. *International Journal of Psychosocial Rehabilitation*, *24*(3), 2580-2592.

#### Deorah, S. (2022). How employee engagement will become the cornerstone of successful business in 2022. Retrieved 25 August 2022, from https://timesofindia.indiatimes.com/blogs/voices/how-employee-engagement-will-become-the-cornerstone-of-successful-business-in-2022/

Dhir, S., Dutta, T., & Ghosh, P. (2020). Linking employee loyalty with job satisfaction using PLS-SEM modelling. *Personnel Review*.

#### Economic times India times, 2022. West Bengal steel sector hit with a double whammy - ET Auto. (2022). Retrieved 16 August 2022, from https://auto.economictimes.indiatimes.com/news/auto-components/west-bengal-steel-sector-hit-with-a-double-whammy/75547568

#### Economic times India times, 2022a. 23% of employees in India are not actively engaged in the workplace, says a survey - ETHRWorld. (2022). Retrieved 16 August 2022, from https://hr.economictimes.indiatimes.com/news/workplace-4-0/employee-engagement/23-employees-in-india-are-not-actively-engaged-in-the-workplace-says-a-survey/92549625

#### Economic times India times, 2022b. Gamify your way into employee engagement and performance management - ETHRWorld. (2022). Retrieved 16 August 2022, from https://hr.economictimes.indiatimes.com/news/workplace-4-0/employee-engagement/gamify-your-way-into-employee-engagement-and-performance-management/92487795

#### Economic times Indiatimes, 2011. 3Cs of employee engagement: Career, competence and care. (2011). Retrieved 16 August 2022, from https://economictimes.indiatimes.com/jobs/3cs-of-employee-engagement-career-competence-and-care/articleshow/7869859.cms

#### Economic times Indiatimes, 2021. Despite hit by Covid, India’s steel production increases by 25.6%: Report. (2021). Retrieved 25 August 2022, from https://economictimes.indiatimes.com/small-biz/trade/exports/insights/indias-steel-production-increases-by-25-6-report/articleshow/88182054.cms?from=mdr

#### Economictimes. Indiatimes, 2014. Employee engagement problems impact productivity of the workforce. (2014). Retrieved 25 August 2022, from https://economictimes.indiatimes.com/news/company/corporate-trends/employee-engagement-problems-impact-productivity-of-the-workforce/articleshow/34068979.cms?from=mdr

Gröpel, P., &Kuhl, J. (2009). Work–life balance and subjective well‐being: The mediating role of need fulfilment. British Journal of Psychology, 100(2), 365-375.

Hur, Y. (2018). Testing Herzberg’s two-factor theory of motivation in the public sector: is it applicable to public managers?. Public Organization Review, 18(3), 329-343.

#### Industries, M. (2022). Mitsubishi Heavy metal industriesBrandVoice: These Innovative Technologies Are Forbes, 2022. Making The Steel Industry More Efficient. Retrieved 25 August 2022, from https://www.forbes.com/sites/mitsubishiheavyindustries/2018/12/11/these-innovative-technologies-are-making-the-steel-industry-more-efficient/?sh=6b5106a9b861

Jha, N., Sareen, P., &Potnuru, R. K. G. (2018). Employee engagement for millennials: considering technology as an enabler. *Development and learning in organizations: An international journal*.

Kim, T. K., & Park, J. H. (2019). More about the basic assumptions of t-test: normality and sample size. Korean journal of anesthesiology, 72(4), 331-335. <https://doi.org/10.4097/kja.d.18.00292>

Knoll, M., & Redman, T. (2016). Does the presence of voice imply the absence of silence? The necessity to consider employees’ affective attachment and job engagement. Human Resource Management, 55(5), 829-844.

Kwon, K., & Kim, T. (2020). An integrative literature review of employee engagement and innovative behaviour: Revisiting the JD-R model. *Human Resource Management Review*, *30*(2), 100704.

Lee, J. Y., Rocco, T. S., & Shuck, B. (2020). What is a resource: Toward a taxonomy of resources for employee engagement. *Human Resource Development Review*, *19*(1), 5-38.

Lee, P., Gillespie, N., Mann, L., & Wearing, A. (2010). Leadership and trust: Their effect on knowledge sharing and team performance. *Management learning*, *41*(4), 473-491.

Lukman, M. Z. (2022). Analysis of Student Participation in University Organization Using Partial Least Square-Structural Equation Modelling. Journal of Social Science, 3(4), 697-713. <https://doi.org/10.46799/jss.v3i4.372>

Scerri, M., Anderson, A., Stavropoulos, V., & Hu, E. (2019). Need fulfilment and internet gaming disorder: A preliminary integrative model. Addictive behaviors reports, 9, 100144.

Siruri, M. M., & Cheche, S. (2021). Revisiting the Hackman and Oldham job characteristics model and Herzberg’s two factor theory: Propositions on how to make job enrichment effective in today’s organizations. European Journal of Business and Management Research, 6(2), 162-167.

Stello, C. M. (2011). Herzberg’s two-factor theory of job satisfaction: An integrative literature review. In Unpublished paper presented at the 2011 student research conference: Exploring opportunities in research, policy, and practice, University of Minnesota Department of Organizational Leadership, Policy and Development, Minneapolis, MN.

Sun, L., &Bunchapattanasakda, C. (2019). Employee engagement: A literature review. *International Journal of Human Resource Studies*, *9*(1), 63-80.

Suresh Kumar, S., &Karthikeyan, P. (2014). The role of leadership on employee engagement. *ZENITH International Journal of Multidisciplinary Research*, *4*(9), 145-151.

Thakur, M. (2015). *Impact of Talent Management Practices on Employee Engagement and Employee Retention-A Study at Bokaro Steel Plant* (Doctoral dissertation).

Thant, Z. M., & Chang, Y. (2021). Determinants of public employee job satisfaction in Myanmar: Focus on Herzberg’s two factor theory. Public Organization Review, 21(1), 157-175.

Yi, Y., Xu, C., Wu, W., Wang, Y., Li, Y. M., Shen, Z. J.,...& Wang, Y. N. (2020). Myocardial blood flow analysis of stress dynamic myocardial CT perfusion for hemodynamically significant coronary artery disease diagnosis: The clinical value of relative parameter optimization. Journal of Cardiovascular Computed Tomography, 14(4), 314-321. <https://doi.org/10.1016/j.jcct.2019.10.001>

***Website***

Legislation, (2023). *Data protection act 2018* Retrieved from: <https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted> [Retrieved on: 09/06/2023]