

Title of the Paper:

A Comparative Perspective on Emotional Intelligence(EI) Among Employees in Selected Manufacturing and Service Organisations in Western Odisha

- 1. Name of the author:** Gayatri Kurup

Designation: Research Scholar in Management.

Institute name: Biju Patnaik University of Technology, Odisha

- 2. Name of the Co-author:** Dr. Itishree Mohanty

Designation: Professor cum Admin. In-charge

Institute name: Kanak Manjari Institute of Pharmaceutical Sciences, Odisha

- 3. Name of the author:** Dr. K.K.Patra

Designation: Director

Institute name: Rourkela Institute of Management Studies, Odisha

Abstract

In today's context, majority of employees are faced by stressful and challenging environment. Emotional Intelligence is important for employee performance as it is essential to understand how employees deal their work environment in an emotionally stable form. As we know EI is nothing but the ability to observe one's own and other's emotion and also to distinguish between different emotions as well as them appropriately and to apply emotional information to guide cognition along with behaviour. It includes self-awareness i.e., the ability to aware about one's own emotions; self-management means ability to maintain negative emotions under control; social awareness i.e., the ability to perceive and understand the emotions and concerns in different social situations; and relationship management i.e., the ability to manage emotional interactions and also influence others in both personal and professional contexts. This paper makes an attempt to compare the emotional intelligence of employees working in selected manufacturing along with service organizations in Odisha . On the basis of four components like self-awareness, self-management, social awareness and relationship management, the emotional intelligence of employees was analysed by a structured questionnaire. It was found that relationship management component of EI of

employees was significant across service firms as compared to manufacturing organizations in western Odisha.

Keywords

Emotional Intelligence, self-awareness, self-management, social awareness, relationship management, job performance, etc.

Introduction

Emotional Intelligence (EI) is acknowledged as crucial determinant for individual performance, leadership effectiveness, interpersonal relationships and overall organisational success. Goleman (1995) emphasized on the ability to comprehend emotions and control those emotions to enhance the intellectual growth of an individual. EI is the capacity to perceive, label and generate emotions in order to develop related thoughts. EI as construct had gained considerable attention in both academic and professional sphere. EI is useful in dynamic and frequently emotionally challenging environment of today's workplaces wherein cognitive intelligence alone is no longer seen as enough for sustainable success. Both manufacturing and service sector in India plays significant role in economic development. These sectors differ in their nature of work as well as emotional requirements at work. Generally, manufacturing involves task-oriented roles, process discipline and stress due to deadlines or safety concerns while service sector is more interpersonal in nature demanding emotional labour and soft skills.

Despite the importance of EI in both sectors there is lack of empirical study comparing EI of employees across these two sectors especially in Odisha. A comparative study is essential to understand whether sectoral differences significantly influence EI level and how these differences might affect job performance, stress management, communication and workplace relationships. By examining the key components of EI like self-awareness, self-management, social awareness and relationship management- this study will provide valuable insights for HR professionals, leaders and policymakers to improve organisational effectiveness and employee well-being in State's evolving economic landscape. While manufacturing sector employees may rely more on technical skills and structured processes, service sector employees often engage in emotionally charged and customer-facing situations, necessitating higher EI. Understanding these differences can help HR managers design sector-specific emotional training programs and improve workplace dynamics.

Literature Review

In the best seller and globally popularised book ‘why it matters more than IQ’, Goleman described EI as an ability involving self-control, enthusiasm and perseverance, and capacity to self-motivate and later Goleman et. al. (2000) redefined EI as the ability to recognize own emotions and of others for self-motivating and managing emotions of self and others in effective manner.

Successful organisation are the places where emotions or feelings are managed. Kong & Zhao (2013) found that employees with high EI are likely to be more satisfied with their jobs because they were more resilient and better evaluating and managing own and other’s emotions.

Employees in service sector especially banking sector are expected to work under stressful and challenging circumstances for achieving the targets. In this regard, Subhashini & Shaju (2016) explored that EI dimensions like self-awareness, self-management, social awareness and relationship management was positively correlated with job performance that employees need to maintain healthy relationship with seniors and all stakeholders and their situation demands qualities of high emotional intelligence.

Sher (2020) proposed that in order to improve from this condition, sound meditation techniques become helpful. Emotional intelligence as one of the psychological factors that greatly plays a vital role in this current situation.

Moreover, Martinez (1997) defined Emotional Intelligence as non-cognitive ability that help an individual in handling with daily lives.

Goyal and Udupurkar (2023) observed that EI was positively correlated with dimensions of employee productivity. Moreover, it was inferred that improving EI of employees results into tangible improvements in operational performance on shop floor.

Pradhan, Jena and Singh (2017) in the context of Indian manufacturing industries found that EI plays a moderator role in the relationship between organisational learning and adaptive performance. Further, it was observed that employees with high EI were performing better from learning initiatives and adaptable in nature than employees with low EI. Thus, it was inferred that manufacturers need to incorporate EI in organisational learning program in order to improve their adaptability and innovation.

Ankitha and Varma (2023) reviewed in their study that EI of managers plays a vital role for creating effective work environment, improving company image and remaining competitive advantage position at international level. Moreover, it was observed that EI influence the managerial effectiveness in terms of decision-making, planning, execution, relationship building, etc. Thus, it was suggested that EI-oriented development program need to be designed for mid to senior level of management especially in automobile sector in India.

Selvi and Aiswarya (2022) in regard to automobile sector employees working in Chennai, South India found that higher EI (consisting of self-awareness, self-management, social awareness and relationship management skills) was consistently related to greater work engagement, salary and leadership positions.

Raina and Sharma (2012) researched on entrepreneurs in Rajasthan, India and found that EI was positively correlated with transformational leadership effectiveness where relationship management skills was seen prominent component of EI for interpersonal regulation as measured using MSCEIT instrument.

Chatterjee and Kulakli (2015) in respect to public sector banks in Allahabad, India found that MSCEIT as EI measurement tool had adequate reliability in Indian context. Further, there was strong relation between experiential EI (i.e. perceiving and using emotions) and leadership performance which highlights relationship management skills required in managing emotions in the interpersonal situations.

Dhani, Sehrawat and Sharma (2016) examined the relationship between EI and Job performance using sample size of 685 middle managers in 5 different service firms like power, healthcare, banking, advertising, IT in India. Here EI was measured using DKEIT (Deepa Krishnaveni Emotional Intelligence Test) which is adapted to fit in Indian culture including Emotional Perception, Appraisal and regulation. Job performance inventory was used for supervisor ratings to assess performance factors like punctuality, competence, accuracy and teamwork. Through correlation analysis, it was found that all EI components had significant positive correlation with job performance indicators particularly teamwork. Through stepwise regression analyses, it showed that EI components strongly predict the overall job performance especially interpersonal skills or relationship management skills like managing emotions to work with others that influence them to work in team.

Objectives

1. To examine the influence of demographic variables like age, educational level, work experience on EI dimensions of employees working in selected manufacturing and service organizations in Odisha.
2. To assess the overall level of Emotional Intelligence among employees working in selected organisations of manufacturing and service sector in Odisha.
3. To compare the dimensions of EI including self-awareness, self-management, social awareness and relationship management between employees in both manufacturing and service organizations in Odisha.

Methodology

This study adopts a descriptive research design and follows a quantitative approach to examine the dimensions of Emotional Intelligence (EI) among employees across different organizational types — specifically, manufacturing and service sector organizations in Odisha. The primary objective is to measure and compare EI dimensions (including self-awareness, self-management, social awareness, and relationship management) in relation to the nature of organization (manufacturing vs. service) and years of work experience.

Data Collection:

To meet the stated objectives and test the hypotheses, data were collected through a structured questionnaire, developed based on standardized EI constructs. 5-point Likert scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) was used to measure respondents' perceptions across EI dimensions.

Variables:

- ✓ Independent Variable: Years of work experience
- ✓ Dependent Variable: Emotional Intelligence (EI)

Sample Design:

- ✓ Sample Size: 40 respondents
- ✓ Sampling Distribution:
- ✓ 20 employees from selected manufacturing sector organizations
- ✓ 20 employees from selected service sector organizations

Data Analysis:

Descriptive statistics were used to summarize and understand the demographic profile and general trends in the responses. One-way ANOVA (Analysis of Variance) was also employed.

Results and Discussions

Let us take following hypothesis that

Hypothesis 1: Employee's EI components do not differ significantly across the manufacturing and service organisations

Table-1: Demographic characteristics of respondents

Category	Description	Service	Percentage	Manufacturing	Percentage
		Total 20	100	Total 20	100
Age wise Classification	Below 30 years	05	25	02	10
	31-40 years	08	40	11	55
	41-50 years	05	25	05	25
	Above 50 years	02	10	02	10
Education	Graduate	4	20	03	15
	Post Graduate	12	60	11	55
	Others/ Professional Qualification	04	20	06	30
Work Experience	Up to 10 years	09	45	03	15
	10-20 years	05	25	08	40
	20-30 years	05	25	05	25
	Above 30 years	01	5	04	20

Table-1 presents the demographic profile of the respondents. This research was designed to examine the various dimensions of emotional intelligence of employees. The focus area of research were the employees of different level of different manufacturing and service sector. Accordingly, 25%,40%,25% and 10% respectively are in the age group of below 30 years, 31-40 years, 41-50 years and above 50 years working in service sector. On the other hand, 10%,55%, 25% and 10% employees are in the age group of below 30 years, 31-40 years, 41-50 years and above 50 years employees are employed in manufacturing sector. Majority of the respondents of both the sector are highly educated. Moreover, work experience indicate that employee of service sector is younger and less experienced (above 30 years) as compared to manufacturing sector.

Hypothesis 2: Mean of Employee's EI components do not differ significantly across the manufacturing and service organisations

Table-2: Mean of Emotional intelligence dimensions across manufacturing and service organisations

Nature of Organisation	Self-Awareness	Self-management	Social Awareness	Relationship Management
Manufacturing	3.4571	3.6557	3.4285	3.6285
Service	3.6571	3.8571	3.7714	3.9428
Total	3.5571	3.7714	3.5999	3.7856

The above **Table-2** indicates the mean of emotional intelligence factor across manufacturing and service sector which shows that emotional intelligence of the employees of service sector is higher than the manufacturing sector.

Hypothesis 3: Employee's EI components do not differ significantly across the manufacturing and service organisations

Table-3: EI dimensions across different nature of organizations (one-way ANOVA)

Dimensions of EI			Sum of Squares	df	Mean Square	F	Sig.
Self-Awareness* Organisation	Nature of	Between Groups (Combined)	18.225	1	18.225	1.932	.173
		Within Groups	358.550	38	9.436		
		Total	376.775	39			
Self-Management* Organisation	Nature of	Between Groups (Combined)	24.025	1	24.025	3.287	.078
		Within Groups	277.750	38	7.309		
		Total	301.775	39			
Social Awareness* of Organisation	Nature	Between Groups (Combined)	42.025	1	42.025	7.267	.010
		Within Groups	219.750	38	5.783		
		Total	261.775	39			
Relationship Management* Nature of Organisation		Between Groups (Combined)	62.500	1	62.500	12.031	.001
		Within Groups	197.400	38	5.195		
		Total	259.900	39			

Table-3 reveals that there are statistically significant differences in all the dimensions of emotional intelligence across the manufacturing and service sector organisations. As the calculated value of ($F=12.031$) of relationship management and social awareness is more than the tabulated value ($F=4.08$) so this difference is specifically significant. Further the results also indicates that the calculated value of self-awareness and self-management factor is less than the tabulated value ($F=4.08$) at 5% level of significance.

Hypothesis 4: Mean of Employee's EI components do not differ significantly across the employees with different years of experience

Table-4: Mean of Emotional Intelligence dimensions across employees of various levels of experience

Work Experience	Self-Awareness	Self-management	Social Awareness	Relationship Management
Up to 10 years	3.2301	3.9854	3.3285	3.4228
10-20 years	3.9274	4.3256	3.7914	3.6856
20-30 years	3.5671	4.2503	3.6998	3.9285
Above 30 years	2.0010	3.5234	2.324	1.3252
Total	3.1814	4.0211	3.2859	3.0905

From the above **Table-4**, it has been seen that the mean of self-management (4.3256) has scored highest among the employees having the service experience ranging from 10-20 years, at the same time it is observed that the mean of self-management scored highest among all the factor listed.

Hypothesis 5: Employee's EI components do not differ significantly across different years of work experience

Table-5: EI dimensions across different years of work experience (one-way ANOVA)

Dimensions of EI		Sum of Squares	df	Mean Square	F	Sig.
Self-Awareness* Work Experience	Between Groups (Combined)	5.017	6	.836	1.347	.265
	Within Groups	20.483	33	.621		
	Total	25.500	39			
Self-management* Work Experience	Between Groups (Combined)	6.574	6	1.096	.763	.604
	Within Groups	47.401	33	1.436		
	Total	53.975	39			
Social Awareness* Work Experience	Between Groups (Combined)	6.619	6	1.103	.593	.733
	Within Groups	61.356	33	1.859		
	Total	67.975	39			
Relationship Management * Work Experience	Between Groups (Combined)	8.154	6	1.359	.601	.727
	Within Groups	74.621	33	2.261		
	Total	82.775	39			

Table-5 reveals that the statistical test of ANOVA being conducted here shows that the calculated value of F of all factors of Emotional intelligence (Self-Awareness, Self-management, Social Awareness and Relationship Management) is less than the tabulated value(F=2.34). Thus, it is inferred that there is no significant difference in the means of all components of Emotional intelligence of employees working across manufacturing and service organisations in respect to their years of work experience.

Conclusion

The significance of Emotional intelligence is increasingly being recognised today, and research in this area is steadily growing. This research basically studies the level of emotional intelligence of employees employing across manufacturing and service organizations in Odisha depending on their demographic features and the relationship between work experience and their emotional intelligence dimensions. Major recommendations are integrate EI training, regular workshops on communication and empathy skills and use EI as a metric in performance reviews and recruitment in both the sectors. Moreover, we concluded that EI dimensions like relationship management skills like conflict resolution, inspiring others, effective teamwork and influencing organisational politics is consistently shown to be a predictor of both leadership effectiveness and general job performance.

References

1. Ankitha, U. and Varma P. (2023), “Importance of Emotional Intelligence in Managers from Automobile Manufacturing Industries: A Literature Review “, International Advanced Research Journal in Science, Engineering and Technology, Vol. 10, Issue 2, pp.77-79. DOI: 10.17148/IARJSET.2023.10212
2. Chatterjee, A. and Kulakli, A. (2015), “An Empirical Investigation of the relationship between Emotional Intelligence, Transactional and Transformational Leadership Styles in Banking sector”, Procedia – Social and Behavioral Sciences, Vol. 210, pp. 291-300. DOI:10.1016/j.sbspro.2015.11.369
3. Dhani, P., Sehrawat, A., and Sharma, T. (2016), “Relationship between emotional intelligence and job performance: A study in Indian context”, Indian Journal of Science and Technology, Vol.9., Issue 47, pp. 1-12. DOI:10.17485/ijst/2016/v9i47/103064
4. Goleman, D., (1995), “Emotional Intelligence: A New Vision for Educators”, PsycEXTRA Dataset.
5. Goleman, D. (1995), “Emotional Intelligence”, New York: Bantam Books.
6. Goleman, D., Boyatzis, R.E., and Rhee, K.S. (2000), “Clustering competence in emotional intelligence: Insights from the emotional competence inventory”, In R. Baron and J. D. A. Parker (Eds.), Handbook of Emotional Intelligence, San Francisco: Jossey-Bass, pp.343-362.
7. Gomez, M., Max, S. & Bresó, E., (2021), “COVID-19: How the Stress Generated by the Pandemic May Affect Work Performance through the Moderating Role of Emotional Intelligence”, Personality and Individual Difference, 1(1), pp. 1-8.

8. Goyal,N.D., and Udapurkar, S.S. (2023), “Assessing the relationship between Emotional Intelligence and Employee Productivity: A Case Study of Manufacturing Workers in Nagpur”, *Journal of Nambian Studies: History, Politics & Culture*, Vol. 39, Special issue 1, pp.810-820. <https://doi.org/10.59670/8vrt3n79>
9. Kong, F. & Zhao, J. (2013),“Affective mediators of the relationship between trait emotional intelligence and life satisfaction in young adults”, *Personality and Individual Differences*, 54(2), 197-201. Doi: 10.1016/j.paid.2012.08.028.
10. Martinez, M. N. (1997),“The Smarts that count”, *Human Resource Magazine*, avaol. 42, pp.72-78.
11. Pradhan,R.K,Jena, L.K. and Singh, S.K.(2017), “Examining the role of emotional intelligence between organisational learning and adaptive performance in Indian manufacturing industries”, *Journal of Workplace Learning*, Vol. 29 No.3, pp.235-247. <https://doi.org/10.1108/JWL-05-2016-0046>
12. Raina, A.K., and Sharma, N.K, (2012), “The relationship among Emotional Intelligence, Transformational Leadership and Effectiveness: An empirical assessment of entrepreneurs in Rajasthan”, *European Journal of Business and Management*, Vol.5, Issue no 6, pp. 59-68.
13. Sher, L., (2020),“COVID-19, anxiety, sleep disturbances and suicide”,*Sleep Medicine*,70(1), pp. 124-134.
14. Stephen, R. & M., C., (2021),“Management”,New Hampshire, Pearson Prentice Hall.
15. Subhashini, D. & Shaju, M., (2016),“Emotional Intelligence Has a Greater Impact on Job Performance of Employees”,*International Journal of Business and Management*,11(12), pp. 177-188.