

## **A Study On Emotional Intelligence And Its Impact On Performance Of Employees In A Petrochemical Industry (With Reference To Ind Czech Engineering Pvt Ltd)**

**Marirajan Murugan<sup>1</sup> , Dr. M.N.Prabadevi<sup>2</sup>**

<sup>1</sup>Research Scholar, Department of Management studies, Vadapalani Campus,  
SRM IST, India.

<sup>2</sup>Associate Professor, Department of Management studies, Vadapalani Campus,  
SRM IST, India.

---

**ABSTRACT:** Emotional Intelligence (Mayer and Salovey, 1990) improves an individual's social effectiveness which is considered as one of the important elements of the success of a Company and plays a vital role in an economic development for a Country. Higher the emotional intelligence the better social network, which in turns lead to better business relations. The main aim of this research is to shed light on the specialized characteristic related to one's individual's emotional stability and relationships of an individual with others influence employee's performance in a petrochemical industry. Therefore, emotional intelligence is taken into account improving the performance of Ind Czech Engineering Pvt Limited. Ind Czech is serving in the diversified industry including petrochemical for Engineering, Procurement and Construction support services. Each Employee is an Economic Agent who plays a vital role in a Company and its growth for economical development for the country. They seek out, locate, and exploit chances primarily for financial benefit. An action oriented employee is a highly calculative individual who is always willing to undertake risks in order to achieve their goals based on their management support and Company. The objectives of the proposed study are to reveal the demographic profile of the respondents, to examine the factors influencing the emotional intelligence and its impact on performance of employees in a Petrochemical Industry and to offer suitable suggestions to enhance the emotional intelligence in the company and improve employees performance in a Petrochemical Industry on the basis of the findings of the study. The research methodology shows the methods to be followed in the research activities starting from investigation to presentation of research report. It includes the research design, sampling framework, construct development, data collection, framework of analysis and

limitations. The applied research design of the present study is purely descriptive in nature because of the reasons namely it has its own confined objectives and also predetermined methodology. For the research analysis, Frequency analysis, Descriptive statistics, Independent sample T test, One way ANOVA, Correlation analysis, Multiple Regression, and techniques were used.

**Keyword:** Emotional Intelligence, Performance, Productivity, Employees, Client relationship, Petrochemical Industry

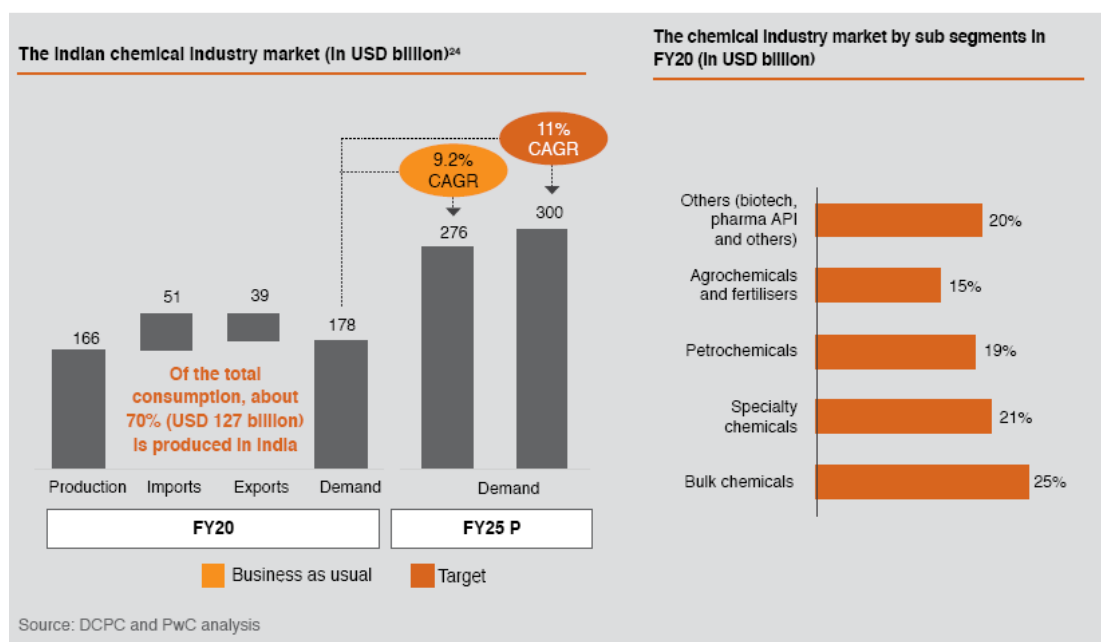
## 1. INTRODUCTION

An employee is a person who possesses the initiative, skill, and ambition to start his own business or enterprise and is constantly striving for greater success. An action-oriented employee is a calculated person who is constantly willing to take risks in order to attain their objectives. Petrochemical industries are critical to the country's economic and social development. With their effective, efficient, adaptable, and innovative employee attitude, they also play a significant part in the economy's development. The Petrochemical industry makes a considerable contribution to the country's manufacturing output, employment, and exports, and is credited with creating the most jobs and accounting for a large percentage of industrial production and exports. Petrochemical industry has long been regarded as a significant driver of economic growth and a means of achieving more equal development. The sector's main benefit is its ability to generate jobs at a low cost of capital. Therefore, the present study focuses on the emotional intelligence and its impact on the performance of employees in the petrochemical industry. The emotionally stable individual, and individual who is socially attached, managing people can shine in both in working environment and personal life. Therefore, emotional intelligence and its impact are considered as the main factors in determining the performance of the employees. The study aims at finding out the impact of emotional intelligence and its impact on performance of employees.

### 1.1. Profile of the Study Area

In terms of chemical sales, India is one of the world's largest markets, ranking sixth globally and fourth in Asia. India accounts for two .5% of the world's global chemical sales. Textiles, automotive, agriculture, packaging, pharmaceuticals, healthcare, construction, and electrical and electronics are just a few of the end-use industries that use chemicals created in the country. The chemical industry pervades every aspect of India's economy, and as a result, it has a significant impact on both individual lives and the country's overall chemical output. Large, medium, and small enterprises manufacture significant petrochemicals, alkali chemicals, inorganic chemicals, organic chemicals, insecticides, dyes and pigments, and other chemicals in India's chemical sector. The industry contributed around 8.8% of India's manufacturing GVA and 1.4% of its national GVA in FY19. In FY20, India's chemical sector was valued at USD 178 billion, with the potential to grow to USD 300 billion by FY25. In terms of demand, the industry

has risen at almost 1.3 times the country's average GDP growth over the last five years, demonstrating a significant correlation with GDP.



Furthermore, companies and its employees have contributed to the development to the petrochemical industry.

## 2.0 Theroretical Concept of the Study

### 2.1. Emotional Intelligence Overview

Emotions are the "feelings" that have an immediate, automatic, and often uncontrollable impact on human behavior and performance. Emotions can alternatively be defined as a well-coordinated response system that combines physiological, perceptual, experiential, and cognitive alterations into coherent modes and emotional experiences. Emotion is regarded as an indication of intelligence by some, while others regard it as a sign of the capacity to understand and reason appropriately with concepts or as personal intelligence because one's access to one's own emotional life. As a result, there is a widespread tendency to mix emotion and intelligence.

The idea of emotional intelligence is founded on abilities. Emotional intelligence is defined as a set of abilities that include the ability to notice emotions in oneself and others, as well as the ability to use emotions to aid performance, comprehend emotions and emotional knowledge, and manage emotions in oneself and others. The four-dimensional emotional intelligence construct of self-awareness, self-management, social awareness, and social management is addressed in this definition of emotional intelligence. The ability to express emotions is a sign of self-awareness. The ability to discriminate between distinct emotions that influence one's thought processes is referred to as self-management. The ability to grasp complicated emotions and recognize potential transitions between emotions is the third skill, social awareness.

Finally, social management refers to the ability to connect with or withdraw from an emotion based on its use in a particular setting.

## **2.2. Emotional Intelligence's Impact on Employee's Performance**

Emotional intelligence has a two-fold impact on the firm: it influences the internal processes associated with coping with emotions to solve a variety of problems in the company, and it facilitates the employee's prerequisite social processes, potentially affecting almost every aspect of the company. Emotional intelligence enables emotional regulation in the face of arousing emotions such as uncertainty. As a result, this self-control should lead to a more balanced, sensible approach to the venture's obstacles, such as decision-making and social interactions, which should both improve performance. Employees must control their own emotions while measuring and influencing the emotions of others, as this can have a significant impact on the company's overall performance. This is critical because employee is an essentially emotional process that can have a significant impact on many elements of employee activity and company performance and with client relationships. As a result, emotional intelligence aids in the development of employee potential and the creation of a route to performance sustainability and success. Emotional intelligence is vital for company performance because it affects an individual's willingness to participate in a startup and their risky pursuit of the opportunity.

To persuade potential investors and partners to support their initiatives and obtain access to the crucial resources and competencies required for sustainability, an employee must be able to recognize and manage others' emotions. Self-control and impulse control are also required for social interaction. Managing personal goals, devising tactics to achieve those goals, and dealing with difficulties that arise along the way, including one's emotional reaction, are all examples of self-regulation and impulse control. Interpersonally, emotional intelligence has an impact on social interactions and a variety of social skills that are critical to an employee's success. However, these people' business success has now been related to cognitive talents and social intelligence skills. Perceiving others accurately, making a good first impression, and persuading or influencing others in interpersonal encounters are just a few of these skills.

## **3.0 Statement of the Problem**

Employees across the petrochemical industry are showing an interest to be productive and give more performance. Employees are coming forth with ideas to improve petrochemical industry in line with global environment.

- They are willing to be inspired by role models – the experience in the company arena. They can be encouraged to their own initiative to improve their performance through emotional intelligence.

- Employee's development is an important factor in economic development of India. The role of employee needs to be considered in the economic development of the nation for various reasons.
- Employees emotional intelligence and its impact would give petrochemical industry financially viable and in turn, Indian economy can be improved further.
- Hence, the present study made an attempt to study the emotional intelligence and its impact is taken into account improving the performance of employees in Ind Czech Engineering Pvt Limited. Ind Czech is serving in the diversified industry including petrochemical for Engineering, Procurement and Construction support services.

#### **4.0 Scope of the Study**

As highlighted earlier, this study investigated performance and individual factors of employees. This study is important because limited studies were focused on emotional intelligence and its impact that influence performance based on employees productivity in the company. Through this study, the real satisfaction and their subjective performance are identified. By choosing this unique group of employees, the most prominent characters of successful employees are explored in this study. This examination has helped to identify characteristics associated with successful employees in the petrochemical industry. Thus, this study has contributed not only to academic but also has provided useful information for future employees interested in participating in the petrochemical industry.

#### **5.0 Objectives of the Study**

The confined objectives of the present study are:

- To reveal the demographic profile of the respondents.
- To study the growth and development of Petrochemical industry.
- To examine the factors influencing the emotional intelligence and its impact on performance of employees(productivity) in Petrochemical industry.
- To offer suitable suggestions to enhance the emotional intelligence and its impact on performance of employees in Petrochemical industry on the basis of the findings of the study.

#### **6.0 Research Hypothesis**

The specific testable predictions made about the independent and dependent variables in the study are known as research hypotheses. The working hypothesis is a statement concerning the link between two or more variables that is only speculative. A hypothesis is a specific, testable prediction of what we should expect to happen in our research. Here are the lists of the hypothesis that are used as tentative predictions in the study.

- Employee's performance (productivity) is positively correlated with emotional intelligence.
- Emotional Intelligence and its impact have a positive relationship on performance of employees with client relationship.

### 7.0 Limitation of the Study

- It is possible that respondents withheld information out of fear of being victimised.
- Respondents' unwillingness to complete questionnaires.
- Limitation of tools used is the limitation of the study also.

### 8.0 Research Methodology

The study was conducted using a descriptive research design. The questionnaire contains of 29 questions, with 29 statements assessing the impact of emotional intelligence on employee performance. The study's participants are Ind Czech employees for working in a petrochemical project for KPL. The study's target population is 43 employees who are working in that project. The data was gathered from primary sources.

### 9.0 Analysis and Interpretation on the Impact of Emotional Intelligence on Performance of the Employees

**Table 1. Socio demographic details of the respondents – (n=43)**

General Information	Characteristics	Frequency	Percentage
Gender	Male	41	95.3
	Female	2	4.7

From the above table it is clear that of the 43 respondents, 41(95.3%) were male respondents and the remaining 2 (4.7%) were female respondents.

**Table 2. Descriptive statistics between Gender and emotional intelligence of the respondents and all factors.**

Gender		Emotional intelligence	
Mean	0.958333333	Mean	3.854167
Standard Error	0.029147664	Standard Error	0.107311
Median	1	Median	4
Mode	1	Mode	4
Standard Deviation	0.201940937	Standard Deviation	0.74347
Sample Variance	0.040780142	Sample Variance	0.552748
Kurtosis	21.32325142	Kurtosis	-1.12071

Skewness	-4.736641097	Skewness	0.24391
Range	1	Range	2
Minimum	0	Minimum	3
Maximum	1	Maximum	5
Sum	46	Sum	185
Count	48	Count	48
Confidence Level(95.0%)	0.058637535	Confidence Level(95.0%)	0.215881

**Table 3.**  
**t-Test: Paired Two Sample for Means:**

	Gender	Emotional intelligence
Mean	0.958333333	3.854166667
Variance	0.040780142	0.552748227
Observations	48	48
Pearson Correlation	0.10038106	
Hypothesized Mean Difference	0	
df	47	
	-	
t Stat	26.72950732	
P(T<=t) one-tail	2.24548E-30	
t Critical one-tail	1.677926722	
P(T<=t) two-tail	4.49096E-30	
t Critical two-tail	2.01174048	

**t-test between Gender and emotional intelligence of the respondents and all factors.**

The independent sample t-test between gender of respondents and employee's emotional intelligence and its impact on performance is shown in the table above. The t-test is used to see if there is a difference between two independent groups' means. The independent samples t-test for the probability value of the difference between two groups is not significant. It is clear from this statistical result that respondents' views on emotional intelligence and its impact on performance are not significantly different. Emotional intelligence and its impact on performance are not different across the responders. It appears to affect both male and female employees, regardless of gender. **Table 4. Shows the results of a one-way ANOVA comparing the demographic profile of respondents with Emotional Intelligence.**

**Anova: Single Factor:**

**SUMMARY**

Groups	Count	Su m	Average	Variance
			0.95833	
Gender	48	46	3	0.04078
Emotional intelligence	48	38	7	0.16844

**ANOVA**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.66666	7	0.66666	6.37288	0.01326	3.94230
Within Groups	9.83333	1	7	1	4	3
Total	10.5	94	0.10461			

The one-way ANOVA result between the demographic profile of the respondents and the emotional intelligence of company's employee is shown in the table above. To see if respondents' opinions on emotional intelligence differed by gender, a one-way ANOVA was performed. The table indicates that there is a considerable variance in respondents' opinions on Emotional Intelligence based on their gender. The graph also depicts their Emotional Intelligence levels.

**Table 5. Shows the results of a one-way ANOVA comparing the demographic profile of respondents to productivity from employee's performance.**

**Anova: Single Factor**

**SUMMARY**

Groups	Count	Sum	Average	Variance
			0.95833	
Gender	48	46	3	0.04078
Productivity	48	37	3	0.18040

**ANOVA**

Source of Variation	SS	df	MS	F	P-value	F crit
------------------------	----	----	----	---	---------	--------



				7.62925	0.00690	3.94230
Between Groups	0.84375	1	0.84375	9	8	3
	10.3958		0.11059			
Within Groups	3	94	4			
	11.2395					
Total	8	95				

The one-way ANOVA result between the demographic profile of the respondents and the success of the employees is shown in the table above. The respondents' opinions on performance were compared using a one-way ANOVA to see if they differed by gender. It is clear from the table that there is a considerable disparity in respondents' perceptions of performance based on gender.

**Table 6. Correlation between EI value, Productivity and Customer relationship**

	Emotional intelligence	Customer relationship	Productivity
Emotional intelligence	1		
Customer relationship	0.982795973	1	
Productivity	0.983172747	0.965282199	1

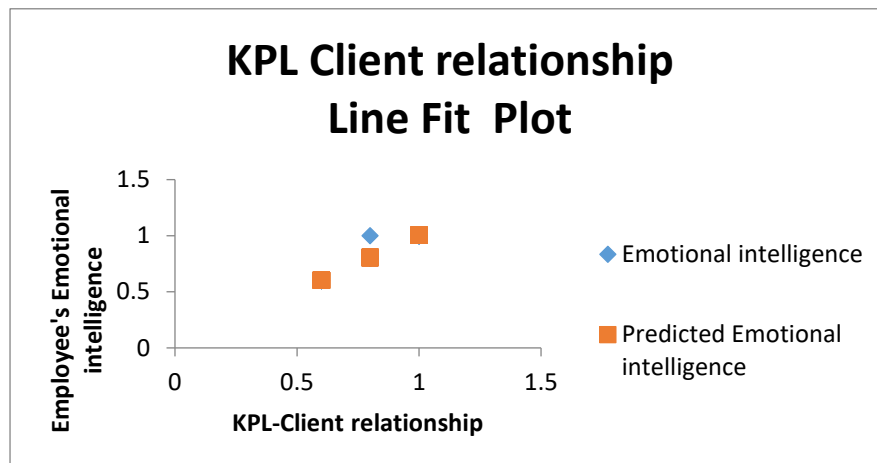
From the above graph it is inferred that the emotional intelligence, social intelligence, and career success are positively correlated. And the correlation values are found to be significant.

**Table 7. Multiple Regression results between emotional and performance**

**Regression Analysis: EI value versus client relationship**

**Regression Equation**

<i>Regression Statistics</i>								
Multiple R	0.982796							
R Square	0.965888							
Adjusted R Square	0.965146							
Standard Error	0.02916							
Observations	48							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	1.107551	1.107551	1302.496	2.14934E-35			
Residual	46	0.039115	0.00085					
Total	47	1.146667						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.00107	0.021685	-0.04925	0.960937	-0.044717727	0.042582	-0.04472	0.04258195
Customer relationship	1.006865	0.027899	36.09011	2.15E-35	0.95070794	1.063022	0.950708	1.06302204



The above table shows the multiple regression results of the relationship between employees intelligence and client relationships based on employees performance(productivity). Form the table it could be inferred that the emotional and performance. Intelligence influences success in the project. The regression values are found to be significant. Using multiple regression analysis, the results showed that emotional intelligence influences company employees and client as well.

## 10.0 FINDINGS

The following findings were observed.

- The statistical significance of the means of the responses between the respondents' gender and employees emotional intelligence were tested from different people samples using the t-test. The gender of the respondents makes no impact in any of the parameters. Irrespective of gender both male and female are equally having opinion on Emotional Intelligence.
- In order to analyze the differences in opinion among the respondents, a one-way ANOVA was done between demographic variables and emotional intelligence. It was discovered that respondents' opinions on emotional intelligence fluctuate significantly depending on their working experience, methodology and meeting project deadlines.
- To analyze the differences in opinion among the respondents, a one-way ANOVA was done between the demographic variable and their performance through productivity. It was discovered that respondents' productivity varies significantly depending on work experience and working methodology to meet project deadlines.
- A correlation was found between the variables of Emotional Intelligence and their impact on employee performance. All the variables are linked in a beneficial way. And the correlation coefficients are determined to be statistically significant.
- The association between emotions and its impact on performance was derived from multiple regression analyses. It is possible to deduce that the emotional state and its consequences have an impact on performance. The regression values were

found to be significant, indicating that emotional factors and their impact on performance had an impact on company employees and their client relationships.

### **11.0 CONCLUSION**

From the result it reveals that emotional intelligence and its impact on performance are positively correlated. Regression analysis shows model is fit between employees emotional intelligence, productivity and KPL client customer relationship. It can be concluded that emotional intelligence and its impact are the important factors to determine the performance (Subjective performance) of the company. Therefore, other than the employee's characteristics, an employee should be emotionally intelligent when dealing with the customer and suppliers and also an employee should understand its impact on performance when dealing with the customer and suppliers.

### **12.0 SUGGESION**

In a petrochemical industry, employees have no significant difference found in opinion of respondents in gender irrespective of male and female. Therefore, the male employees and female employees have the intelligence factor equally in achieving performance. Both of them can be motivated accordingly. However, employees productivity in some departments like process and piping need to be improved and customer relations ship is also improved based on the productivity. Hence emotional intelligence and social intelligence need to be improved by having internal training and development.

### **13.0 REFERENCES**

- Mayer, J. D., & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and preventive psychology*, 4(3), 197-208.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sternberg, R. J. (2000). Models of emotional intelligence. JD Mayer.
- Cote, S., & Miners, C.T. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative science quarterly*, 51(1), 1-28.
- Kelly, J.R., & Barsade, S.G. (2001). Mood and emotions in small groups and work teams. *Organizational behavior and human decision processes*, 86(1), 99-130.
- Caruso, D.R., Mayer, J.D., & Salovey, P. (2002). Relation of an ability measure of emotional intelligence to personality. *Journal of personality assessment*, 79(2), 306-320.
- Salovey, P., & Pizarro, D.A. (2003). The Value of Emotional Intelligence. *Models of Intelligence: Internatiional Perspectives*.
- Rubin, R.S., Munz, D.C., & Bommer, W.H. (2005). Leading from within: The effects of emotion recognition and personality on transformational leadership behavior. *Academy of management journal*, 48(5), 845-858.

Amy, I., & Whitney, P. (2016). Emotional intelligence, interpersonal process effectiveness, and employeeial performance. *Journal of Small Business Management*, 54(2), 1-46.

Cardon, M.S., Foo, M.D., Shepherd, D., & Wiklund, J. (2012). Exploring the heart: Employeeial emotion is a hot topic. *Employeeeship theory and practice*, 36(1), 1-10.

Baron, R.A. (2013). *Enhancing employeeial excellence: Tools for making the possible real*. Edward Elgar Publishing.

Chell, E., Wicklander, D.E., Sturman, S.G., & Hoover, L.W. (2008). *The employeeial personality: A social construction*. Routledge.

Baron, R.A., & Markman, G.D. (2003). Beyond social capital: The role of employees' social competence in their financial success. *Journal of business venturing*, 18(1), 41-60.

Erin, B.M. (2012). *An emotional behavior: The role of emotional intelligence in employeeial success*. (Doctoral dissertation, PhD Dissertation).