
**A STUDY OF EMOTIONAL INTELLIGENCE AND HUMAN CAPITAL
VARIABLES****♦ Devender Singh Muchhal****ABSTRACT**

Human Capital is the most important asset of any organization to fulfill majority of the organizational goals. Present study has been designed to investigate the relationship between the Human Capital variables and emotional intelligence of employees working in industrial organization of steel and power sector. To collect the data standardized questionnaire consisting of 19 items (Human Capital) and 15 items (Emotional Intelligence) were used. The findings of the present study reveals that Human Capital variables & Emotional Intelligence are significantly related and with each other.

Introduction**Emotional Intelligence:**

Early theorists such as Thorndike (1920) and Gardner (1983) paved the way for the current experts in the field of emotional intelligence. Each theoretical paradigm conceptualizes emotional intelligence from one of two perspectives: ability or mixed model. Ability models regard emotional intelligence as a pure form of mental ability and thus as a pure intelligence. In contrast, mixed models of emotional intelligence combine mental ability with personality characteristics such as optimism and well-being (Mayer, 1999). Two mixed models of emotional intelligence have been proposed, each within a somewhat different conception. Reuven Bar-On (1988) has put forth a model based within the context of personality theory, emphasizing the co-dependence of the ability aspects of emotional intelligence with personality traits and their application to personal well-being. In contrast, Daniel Goleman (1998) proposed a mixed model in terms of performance, integrating an individual's abilities and personality and applying their corresponding effects on performance in the workplace (Goleman, 2001).

The concept of emotional intelligence (EI) has developed to be one of the most popular psychological concepts. Salovey and Mayer (1990) introduced the concept of emotional intelligence as a type of social intelligence, separable from general intelligence. According to them, emotional intelligence is the ability to monitor one's own and others' emotions, to discriminate among them, and use the information to guide one's thinking and actions

♦ Research Associate of University School of Management, Kurukshetra University, Kurukshetra

(Salovey & Mayer, 1990). However emotional intelligence was made popular outside academia by Daniel Goleman. In 1995, psychologist and journalist Daniel Goleman Published Emotional Intelligence which became an instant best-seller.

Emotional intelligence became a well-known phrase in popular media circles (Matthews et al., 2002). Goleman (1998) explains that emotional intelligence refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships. Goleman (1998) views emotional intelligence as separate from cognitive intelligence (measured by IQ tests) and complementary to academic intelligence (measured by academic performance). Scholars tend to view emotional intelligence as a factor which has a potential to contribute to more positive attitudes, behaviors and outcomes (Carmeli,2003). Someone who possesses high emotional intelligence is (a) more adept at perceiving, understanding, and managing emotions; (b) more likely to solve emotional problems with less effort; (c) more open and amenable in social interaction; (d) less prone to negative or problem behaviors; and (e) more proficient at articulating goals (Mayer et al., 2004). On the other hand, Emotional Intelligence plays a significant part in assisting the managers and employees to manage dynamic change in the business environment (Rafique et al, 2011).

The literature on Emotional Intelligence theory proposes three different models of the construct (a) the mental ability or intelligence model of Mayer et al. (1994) based in an understanding of brain function, (b) Bar-On's model (1988) of Emotional Intelligence as an assortment of personality traits or abilities, and (c) the performance based competency model (Goleman 1995, 1998). The original model developed by Goleman (1995), was reviewed by Goleman in 1998 based on 200 competency models, he identified 25 social and emotional competencies that most strongly predict superior performance in many occupations. He organized these competencies into the five dimensions of Emotional Intelligence Goleman (1995): self- awareness, self- regulation, self-motivation, social awareness, and social skills (Titimaea, 2006).

- **Self Awareness:**

The ability to understand one's own emotions is the most essential of emotional intelligence dimensions. Having high self-awareness allows people to know their strengths, weaknesses, values , and motives . People with high self- awareness can accurately measure their own moods and intuitively understand how their moods affect others ;are open to feedback from

others on how to continuously improve ; and are able to make sound decisions despite uncertainties and pressures. They are able to show a sense of humor. A leader with good self-awareness would recognize factors such as whether he or she was liked , or was exerting the right amount of pressure on organization members.

- **Self Regulation:**

The ability to control or redirect disruptive impulses and moods, and the propensity to suspend judgment and to think before acting.

- **Self Motivation:**

Self-motivation refers to being results oriented and pursuing goals beyond what is required . Highly self –motivated people set challenging goals for themselves and others; seek ways to improve their performance; and readily make personal sacrifices to meet the organization`s goals. They harness their emotions and employ them to improve their chances of being successful in whatever they are seeking to accomplish. They operate from hope of success rather than fear of failure.

- **Social Awareness**

Social awareness refers to having understanding and sensitivity to the feelings, thoughts, and situations of others. This includes understanding another person`s situation, experiencing the other person`s emotions, and knowing their needs by showing that they care. In addition , socially aware leaders have the ability to sense

Several measurement tools have been developed based on Goleman`s model of emotional intelligence and it`s corresponding competencies. Included among these are the Emotional Competency Inventory (ECI; Boyatzis, 1994), the Emotional Intelligence Appraisal (EIA; Bradberry et al., 2003), and, Chadha & Singh (2003) Emotional Quotient measures three dimensions of Emotional Intelligence Emotional Sensitivity, Emotional Competency and Emotional Maturity.

There is a large and growing body of evidence that demonstrates a positive linkage between the development of human capital and organisational performance. The emphasis on human capital in organisations reflects the view that market value depends less on tangible resources, but rather on intangible ones, particularly human resources. Recruiting and retaining the best employees, however, is only part of the equation. The organisation also has to leverage the skills and capabilities of its employees by encouraging individual and organisational learning and creating a supportive environment where knowledge can be created, shared and applied.

Human Capital:

On the basis of above literature on human capital, the following variables has been taken in the present study as below:

Human Capital Variables:

The brief description of human capital variables is mentioned below:

1. Collective Capability: Bontis (1998) describes Human Capital as the firm's collective capability to extract the best solution's from the knowledge of the individuals.
2. Intellectual Agility: It enables one to change practices and to think of innovative solutions to problems.
3. Employee's Attitude: It covers the behavioural component of the employee's innovative solutions to problems.
4. Employee's Competence levels: Competence includes skills & education.

Literature Review:

Many researches have been conducted in relation to Emotional Intelligence & Human Capital. A review of existing literature is mentioned as below:

Miller (1999) & Carmeli (2003) conducted a research on emotional intelligence & performance, stated that emotionally intelligent leaders are thought to achieve greater overall organizational performance. Stuart & Pauquet (2001) defined that emotionally intelligent leaders uses emotions to improve their decision making & seems able to instil a sense of enthusiasm, trust and cooperation within and amongst employees. Collins (2001) found that managers having higher emotion management skills had subordinates having higher levels of organisational commitment. Goleman (2001), Kanfer & Kantrowitz (2002), Wong & Law (2002) stated that emotional intelligence is considered as being more important in influencing leaders job success and performance than traditional general mental intelligence. Ashkanasy & Daus, 2005; Locke, 2005 defined that emotional intelligence develops over a person's life span and individuals' ability to demonstrate emotionally competent behaviour which may be enhanced through training. Emotional intelligence can contribute to developing those skills and abilities that are linked with this aspiration (Orme & Langhorn, 2003). Personal competencies play a very vital role in influencing the emotional intelligence of employees in organizations. Jaeger (2003) revealed a strong relationship between emotional intelligence

and performance of employees leading to task success. Lyons and Schneider (2005) found that certain dimensions of emotional intelligence were related to more challenge and enhanced performance, thereby increasing task success. Lopes et. al. (2006) found that employees high on emotional intelligence received greater merit increases and held higher company rank than their counterparts.

Bukh et al (2001) explained that “what is” stated that formal qualifications of the employees such as level of education, work experience, organizational tenure, professional certification to measure the human capital. Brooking & Moota (1996) used the level of education, professional licenses/qualifications and work related knowledge to measure human capital. Dainty and Moore (2003) stated that the comprehensive listings of micro-competencies may be acceptable in an environment with stable jobs, companies and markets. In a turbulent & dynamic setting such as the construction industry, it is never ending task to manage such changes in micro-competencies. Cheng, Dainty and Moore (2005) suggested that micro competencies are clear descriptions of work tasks managers should be competent at and macro competencies are what enable managers to complete those tasks effectively. Armstrong (2003) stated that competency assessment is perceived as a powerful tool to underpin many contemporary human resource management practices. Also this type of assessment can assist to define the job-role characteristics and desired levels of performance.

Rao (2007) also indicated that effective interpersonal skills contribute to better performance of the managers, higher productivity and profitability of the organization. Also concluded that whether it is a manager or leader or entrepreneur, possession of 23 interpersonal skills are an imperative for achieving the organizational goals and objectives. Wah (1999) states that the measurement factors of human capital are employee productivity, company investment in training, employee education and credentials, professional background and years of working experience. Edvinsson & Malone (1999) use indicators such as leadership, motivation and empowerment index, number of employees, employee turnover rate, number of managers, number of long-term full time employees, average age of employees, employee familiarity with information technology, average number of days spent on training per year, number of long term full-time employees left per year, percentage of managers with high education...etc. In light of the above review, the present study was designed to investigate relationship between Emotional Intelligence & Human Capital Variables.

Objectives:

1. To study the nature pattern of relationship between Emotional Intelligence & Human Capital Variables.

Methodology:**Sample:**

The sample of 512 respondents were drawn from the state of Chhattisgarh from Steel and Power Industries in Chhattisgarh by using by using convenient Sampling procedure. The age of the respondents ranged between 21 to 55 years Majority of the respondents were BE/ B. Tech qualified. To assess the score of respondents on Emotional Intelligence & Human Capital variables, the following measures were used:

Tools:**A. Emotional Intelligence:**

The questionnaire for Emotional Intelligence consisting of 15 items measuring three dimensions of emotional intelligence (emotional sensitivity, emotional maturity, emotional competency) & overall emotional intelligence by Chadha & Singh, 2003 was used.

Emotional Intelligence test was prepared by compiling 15 real life situations experienced by individuals in their day to day life. The situations were selected to avoid response bias such as faking good or social desirability tendency by the respondents. Each statement was followed by 4 alternatives and the score were given from 0 to 20. The total score of 8 statements constituted the total score of emotional competence, similarly the total score of 4 statements constituted the score of emotional sensitivity and the total score of 3 statements constituted the score of emotional maturity. Finally the total score of emotional competence, emotional sensitivity and emotional maturity was added to form the overall EQ score. Norms for interpretations of the score are shown in table 1 as mentioned below:

Table 1: Shows norms of Mean score for Emotional Intelligence.

Mean Score Range	Level of Emotional Intelligence
285 and above	Extremely High
250 to 274	High
200 to 249	Moderate
150 to 199	Low
149 and below	Try some other day

Statistical Analysis:

The obtained data were processed for the computation of Mean, Standard Deviation, Skewness, Kurtosis, Pearson's Correlation.

B. Human Capital:

The questionnaire of Human Capital was used by taking items from Bontis scale of Intellectual Capital. Out of 53 items of Intellectual capital scale, 19 items are of Human Capital variables.

The responses were taken on 7 point Likert scale. Respondents answered on each item by choosing one of the alternatives ranging from strongly disagree to strongly agree. Score of 1 of 7 was awarded on the basis of response to each item. These 19 items were grouped into 6 factors (variables of Human Capital) mainly Collective Capability; Intellectual agility; employee's attitude; employee performance; Interpersonal skills & employees competence levels.

Results & Analysis:

In order to fulfill the main research objectives of the present study, the obtained, data were processed for the computation of means, Standard Deviations, Skewness, Kurtosis and Pearson's correlation.

Descriptive Statistics:

The collected data were analyzed with the help of descriptive statistics. Skewness and

Kurtosis describe the pattern of score of distribution. The scores of employees on 10 variables including 6 of Human Capital viz (Collective Capability, Intellectual agility, employees attitude, employee's performance, Interpersonal skills & employees competence levels) and 4 of Emotional Intelligence (i.e. emotional sensitivity, emotional maturity, emotional competency & overall emotional intelligence) have been shown in table 2. All the measures of emotional intelligence and two measures of Human Capital i.e. collective capability and employees competence level are negatively skewed, where as other measures of Human Capital are positively skewed.

Careful inspection of mean of Human Capital variables shows that employees working in steel and power sector in the region of Chhattisgarh are scoring above then average on all the variables, suggesting thereby that they are better on almost all the variables of Human Capital. Similarly, they also tend to be in moderate level of emotional intelligence ($M = 215$). An inspection of correlation matrix table 3 reveals that intercorrelation among human capital variables range between 0.339 to 0.700. All the intercorrelations are positive and significant at 0.01 level, Association among these measures show that all the measures share their variances among themselves. Intercorrelation among the measures of emotional intelligence range between 0.337 to 0.851. All the intercorrelation are positive and significant at 0.001 level. Inercorrelation between the 6 measures of Human Capital and four of emotional intelligence range between $-.07$ to $.304$. Out of 24 intercorrelations 12 are significant at 0.01 level and 3 at 0.05 level. Collective capability a measure of human capital correlates with emotional intelligence ($.105$ $p < .001$). Intellectual agility measure of human capital correlates with emotional competence ($.250$ $p < .001$), Emotional Sensitivity ($.225$ $p < .001$), Emotional Maturity ($.104$ $p < .05$) and emotional intelligence ($.276$ $p < .001$). Employees attitude a measure of human capital aorrelates with emotional sensitivity ($.185$ $p < .01$) and emotional intelligence ($.115$ $p < .01$) measures of intelligence. Employees performance the measure of human capital correlates with emotional competence ($.117$ $p < .01$), emotional sensitivity ($.153$ $p < .01$), emotional maturity ($.103$ $p < .001$) and emotional intelligence ($.168$ $p < .01$). Employees competence level correlates with emotional sensitivity ($.034$ $p < .001$), Emotional Maturity ($.139$ $p < .01$) and emotional intelligence ($.223$ $p < .001$). The significant intercorrelations between five measures of Human Capital viz. Collective capability, intellectual agility, employee attitude, employee performance and employee competence level reveals that these measures share most of their variances with four measures of

emotional intelligence. The non significant intercorrelations between Interpersonal skills a measure of human capital and those of emotional intelligence reveal that Interpersonal skills and dimensions of emotional intelligence are independent in nature and do not share their variances.

Discussion:

The present study states that Human capital measure Collective Capability is found to have positive & significant relationship with only emotional sensitivity measure and other measures of emotional intelligence i.e. emotional competence, emotional maturity & emotional intelligence are found to be at non significant level.

Intellectual agility, a measure of human capital is found to have positive and significant relationship with all the measures of emotional intelligence (emotional competence, emotional sensitivity, emotional maturity & emotional intelligence).

Employee attitude, a measure of human capital is found to have positive and significant relationship with emotional sensitivity & emotional intelligence but other two measures emotional competence & emotional maturity are having non significant relationship.

Employee Performance, a measure of human capital is found to have positive and significant relationship with all the measures of emotional intelligence (emotional competence, emotional sensitivity, emotional maturity & emotional intelligence).

Interpersonal Skills, a measure of human capital is found to have positive & significant relationship with emotional sensitivity. The relationship with emotional maturity is non significant. Despite of having positive and non significant relationship, the two measures emotional competence & emotional intelligence are found to be negatively correlated.

Employee Competence level, a measure of human capital is found to have positive and significant relationship with emotional sensitivity, emotional maturity & emotional intelligence. Despite of having positive relationship with three measures a non significant relationship with emotional competence is there. On the basis of above discussion that it is concluded, that in steel & power sector industries of Chhattisgarh state, certain improvement is required to develop effective human capital measure of the employees working in the organization. Certain previous studies were tried to relate/link competencies of employee & other measures of human capital with emotional intelligence in view of performance of the organization, hence found to support the current topic of the study.

Descriptive Statistics:**Table 2: Shows Means, Standard deviations, Skewness & Kurtosis (N= 512) on measures of Human Capital & Emotional Intelligence variables.**

Dimensions	Mean	Standard Deviation	Skewness	Kurtosis
Collective Capability	31.9453	4.71714	-.148	.057
Intellectual Agility	21.8359	3.25745	.638	-.411
Employees Attitude	9.3750	2.01754	.008	.074
Employee Performance	14.7031	2.42091	.127	-.123
Interpersonal Skills	4.6250	1.15357	.061	-.227
Employee competence Levels	4.3125	1.26831	-.672	.480
Emotional Competence	120.1172	19.46913	-.538	-.082
Emotional Sensitivity	45.7031	13.54466	-.358	-.308
Emotional Maturity	49.2969	11.69967	-1.537	2.004
Emotional Intelligence	215.1172	33.07742	-.810	.511

Dimensions	Collective Capability	Intellectual Agility	Employees Attitude	Employee Performance	Interpersonal Skills	Competence Levels
Collective Capability	-	-	-	-	-	-
Intellectual Agility	.383 ^{''}	-	-	-	-	-
Employees Attitude	.700 ^{''}	.314 ^{''}	-	-	-	-
Employee Performance	.665 ^{''}	.360 ^{''}	.571 ^{''}	-	-	-
Interpersonal Skills	.684 ^{''}	.321 ^{''}	.737 ^{''}	.459 ^{''}	-	-
Employee competence Levels	.339 ^{''}	.035 ^{''}	.355 ^{''}	.206 ^{''}	.268 ^{''}	-
Emotional Competence	.041	.250 ^{''}	.049	.117 ^{''}	-.071	.084
Emotional Sensitivity	.143 ^{''}	.225 ^{''}	.185 ^{''}	.153 ^{''}	.057 ^{''}	.304 ^{''}
Emotional Maturity	.065	.104 [']	.029	.103 [']	.027	.139 ^{''}
Emotional Intelligence	.105	.276 ^{''}	.115 ^{''}	.168 ^{''}	-.009	.223 ^{''}

Table 3: Shows Correlations between measures of Human Capital and Emotional Intelligence variables.

References:

- Armstrong, T. (2003). *The multiple intelligences of reading and writing: Making the words come alive*. Alexandria, VA, USA: ASCD.
- Ashkanasy, N.M. & Daus, C.S. (2005). Rumors of the death of emotional intelligence in organizational behavior are vastly exaggerated. *Journal of Organizational Behavior*, 26, 441-452.
- Bar-On, R. (1988). *The development of a concept of psychological well-being*. Unpublished doctoral dissertation, Rhodes University, South Africa.
- Bontis, N. (1998). "Intellectual Capital: An exploratory study that develops measures and models", *Management Decision*, Vol.36No.2,pp.63-76.
- Boyatzis, R.E. (1994). Stimulating self – directed change: A required MBA course called Managerial Assessment and Development, *Journal of Management Education*, 18(3): 304 – 323.
- Bradberry, T., Greaves, J., Emmerling, R., Sanders, Q., Stamm, S., Su, L.D., & West, A. (2003). *Emotional Intelligence Appraisal Technical Manual*. TalentSmart Inc.
- Brooking, A. and Motta, E. (1996) ‘ A taxonomy of intellectual capital and methodology for auditing it’, 17th Annual National Business Conference, McMaster University, Hamilton Canada, pp. 24- 26
- Bukh, P.N., Larsen, H.T. and Mouritsen, J. (2001) ‘constructing intellectual capital statements’, *Scandinavian Journal of Management*, Vol. 17, No. 1, pp 87 – 108.
- Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behaviour and outcomes: An examination among senior managers. *Journal of Managerial Psychology*, 18(8), 788-813.
- Cheng, M., Dainty, A. & Moore, D. (2003). The differing faces of managerial competency in Britain and America. *Journal of Management Development*, 22(6), 527-537.
- Collins, J. (2001). Level 5 leadership: The triumph of leadership and fierce resolve. *Harvard Business Review*. Jan-Feb, 67-76.
- Dainty, A. R. J., Cheng, M. L., & Moore, D. R. (2005). Competency-based model for predicting construction project manager’ performance. *Journal of management of in engineering*, 21(1) 2-9.

-
- Edvinsson, L. & Malone, M. S. 1999. *Intellectual Capital*, New York: HarperCollins Publishing, Inc
 - Gardner, H. (1983). *Frames of mind*. New York: Basic Books.
 - Goleman, Daniel. 1995. *Emotional intelligence: Why it can matter more than IQ*, New York: Bantam.
 - Goleman, Daniel. 1998a. *Working with emotional intelligence*. New York: Bantam.
 - Goleman, Daniel. 2001. An EI-based theory of performance. In *Emotionally intelligent workplace*, ed. Cherniss, C., and Daniel Goleman, 27-44. California: Jossey-Bass.
 - Jaeger, A.J. (2003). Job Competencies and the Curriculum: An Inquiry into Emotional Intelligence in Graduate Professional Education. *Research in Higher Education*, 44(6), 615-639
 - Kanfer, R. & Kantrowitz, T.M. (2002). Emotion regulation: Command and control of emotion in work life. In R.G. Lord, R.J. Klimoski, & R. Kanfer (Eds.), *Emotions in the workplace: Understanding the structure and role of emotions in organizational behaviour* (pp 429-472). New York: Jossey- Bass.
 - Locke, E.A. (2005). Why emotional intelligence is an invalid concept. *Journal of Organizational Behavior*, 26, 425- 431.
 - Lopes, P. N., Grewal, D., Kadis, J., Gall, M., & Salovey, P. (2006). Evidence that emotional intelligence is related to job performance and affect and attitudes at work. *Psicothema*, 18, 132-138.
 - Lyons, J. B. & Schneider, T. R. (2005). The influence of emotional intelligence on performance. *Personality and Individual Differences*, 39(4), 693-703.
 - Matthews, G., Zeidner, M., & Roberts, R.D. (2002). *Emotional intelligence: Science & myth*, Cambridge, MA: MIT Press.
 - Mayer, J.D. Stevens, A. (1994): An emerging understanding of the reflecting (meta) experience of mood. *A Journal of research in personality*, 28, 351 – 373.
 - Mayer, J.D., Caruso, D.R., Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27, 267-298.
 - Mayer, J.D., Salovey, P., & Caruso, D.R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15, 197-215.

- Miller, M. (1999). Emotional intelligence helps managers succeed. Credit Union Magazine, 65, 25-26.
- Orme, G. & Langhorn, S. (2003). Lessons Learned from Implementing EI Program – The Cutting Edge of Emotional Intelligence Programs. Competency and Emotional Intelligence Quarterly: The Journal of Performance through People, Vol. 10, No. 2, Winter, pp. 32-39.3
- Rafiq, M., Naseer, Z., & Ali, B. (2011). Impact of Emotional Intelligence on Organizational Learning Capability . International Journal of Academic Research.. 3(4).321-325.
- Rao, MS, (December 2007), 2.2.5.1 “Interpersonal Skills & Organizational Commitment”, [http:// Profmsrao.articles. articles base.com](http://Profmsrao.articles.articlesbase.com)
- Salovey, P. & Mayer, J.D. (1990). Emotional intelligence. Imagination, Cognition, and Personality, 9, 185-211.
- Singh, D. (2003). Emotional intelligence at work – A professional guide (2nd ed.) New Delhi: Sage Publications
- Stuart, A.D. & Pauquet, A. (2001). Emotional intelligence as a determinant of leadership potential. Journal of Industrial Psychology, 27(3), 30-34.
- Thorndike, R.K. (1920). "Intelligence and Its Uses", Harper's Magazine 140, 227-335.
- Titimaea, M.A. (2006). Emotional intelligence, management concept: a contributing for effective service delivery. PP. 32-34.
- Wah, L. (1999). Making Knowledge Stick. Management Review.
- Wong, C. & Law, K.S. (2002). The effects of leader and follower emotional intelligence on performance and attitude. The Leadership Quarterly, 13(3), 243-274.