

# Modeling Emotionally Intelligent Behaviour at Workplace- An Interpretive Structural Modeling Technique

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## Abstract

Workplace issues are becoming complex day by day in today's era of dynamic organization. Cut throat competition results into gaining competitive advantage by employing Star employees. But managing them at workplace is the need of the hour. The objective of this paper is to identify the factors which can help employees to demonstrate emotionally intelligent behavior at workplace. In this context, 10 variables have been identified from the literature and subsequent discussion and a structural model has been developed. Contextual relationship among these variables has been identified and interpretive structural modeling (ISM) technique has been used. MICMAC analysis has been used to carry out the classification of variables based on their driving power and dependence power. Better understanding of these variables and their contextual relationship can help organizations to make strategic and tactical decisions further helping in policy formulation.

**Keywords** –Emotional Intelligence, Interpretive Structural Modeling, MICMAC analysis, Dynamic Organization

## Introduction

Human intelligence has been a subject of great interest for researchers & philosophers. This current widespread interest has been undoubtedly fuelled by Gardner (Goleman, 1996). In his book “frames of mind”, Howard Gardener proposed the theory of Multiple Intelligence which described intelligence not as one single entity but as seven independent primary intelligence. In fourth Century B.C, the Greek philosopher compared human intelligence with blocks of wax in so much that people differed in the size, hardness, moistness & purity of their intelligence. The popularity of this topic has led to a range of predominantly popular books & articles examining its applications & its importance in the context both of individuals and of corporations. All researchers & practitioners have been quite optimistic about the importance of human intelligence in organization.

Corporate interest appears to be strongly related to the continuing search for a way of securing sustainable competitive advantage which can be developed through attention to “people issues”. These “people

issues” are not concerned with our logical intelligence. Rather these issues can be resolved by working on “Emotional Intelligence”.

The concept of EI is stated to be based on extensive scientific & research evidence. However a little research has been conducted in organizations. Context & existing research has been largely drawn from psychological studies. The organization applications of EI tend to be based on arguments & case descriptions deriving the factors which drive emotionally intelligent behavior in workgroup. The present research will explore the relationship between various predictors of emotional intelligence.

### **Statement of the Problem**

The problem addressed in this study is to establish the relationship between the factors which drive emotionally intelligent behavior of employees in organization. The study further investigates the dominance of relationship between these predictors of EI by further categorizing that into strategic, intermediary & operational variables. The need is for modeling the structure of various factors which drive Emotional intelligence so that human resource capacity can be utilized to the fullest & maximal performance can be generated. This type of research must be the core for HR manager.

### **Importance of EI**

In recent years, positive psychology oriented approach to human emerged. We are schooled to know about our intelligence which is generally our IQ. But we have also seen that people with high IQ are at times not successful. This calls for gaining attention at some other types of intelligence. The psychological concept known as EI is a phenomenon of last quarter Century, though it has roots in much older psychological theories. The term “EI” was introduced to the wider public after the publication of researcher Daniel Goleman's book, 'EI – why it can matter more than IQ' in 1995. According to Goleman, everyone has some level of emotional quotient & anyone can enhance his EI to monitor his own emotions & emotional states. The concept of EI works upon the philosophy that knowledge & skill may help someone get into the position but it takes an emotional understanding of oneself & those around to emerge triumphant. Emotional Intelligence is the overall ability to cope with organization's demands and uncertainties. Emotionally intelligent behavior help individuals to transcend self imposed limitations & actualize their potential. It helps employees to become adaptable, constructive, creative & productive in their tasks. Hence need arises to identify the factors affecting the emotional intelligence of individuals. ISM technique has been used in this paper to find the contextual

relationship among various factors. ISM is a technique which is used to give fundamental understanding of complex situations, where quantitative measure of variables, affecting the system is not possible. ISM technique is suitable for this research work as various factors affecting EI are qualitative measures.

### **Organization of the Paper**

Relevant literature has been explored to identify the important variables which constitute EI in individuals in Section 2. ISM procedure has been elaborated to find the levels of these variables in section 3. Modeling of these variables based on ISM follows in Section 4. MICMAC analysis has been presented in Section 5. In the last section, the results & discussions of this research are presented, followed by limitations & scope for future research & conclusion.

### **Identification of Factors Determining EI in Organization**

With the changing era, Organizations have become more dynamic. Every organization is striving to become a learning organization. In this process of becoming a learning organization, Emotional Intelligence becomes an innate capability. It acts as a tool to distinguish between top performers and star performers. EI is what gives a person a competitive edge (Singh 2001). It is said to have five components – namely- self awareness, self regulation, empathy, motivation & social skills (Goleman, 1998). Recent research studies have shown that EI is twice as important as IQ in determining career success. Also EI plays an important role in determining the success of organization.

In this research, we have identified various factors which can drive emotionally intelligent behaviour from literature review & expert opinion. Literature was reviewed from various different sources. Once the variables were generated from relevant literature sources, a brain storming session was conducted and 10 variables were identified. Variables identified from the literature have been discussed below:-

#### **Emotionally Innovative Ideas**

A leader has to implement the policies which he or she cannot control. It lies in the intelligence of a leader to help people see opportunities & solution to implement those policies, Fullon (2003) noticed the significance of new experience & emphasized the importance of emotions to encourage employees to work with proactiveness. This approach of identifying & seeing something new leads to emotionally charged ideas which can change behavior & can reinforce changed behavior.

#### **Knowledge about Influence of Emotions**

Rafaelli & Sulston (1989) comment that all leaders could benefit from knowledge about the influence of emotions expressed between members of their organization & that they manage.

Grown (2003) noticed the trends in organizations concerning EI. There is also evidence that a higher level of EI correlates with goal orientation & life satisfaction among adults. EI is not only concerned with knowing & managing emotions of self & others. Knowing the influence of emotions while performing tasks or while taking workplace decisions can make a huge difference. This factor of EI is also a construct of social intelligence that involves the ability to understand & act on an understanding of a social situation. A study of store managers in a retail chain found that the ability to handle stress predicted net profit, sales per square foot, sales per employee & per dollar of inventory mint (Lusch & serplenci 1990). It proves that EI has as much to do with knowing when & how to express emotions as it do with controlling it.

### **Cognitive Thinking**

Hay/MCBER (1997) claimed that intellectual superiority played no role in managerial success. Though it was recognized that cognitive skills can make considerable contribution in managerial performance, yet succeeding in leadership did not depend on cognitive thinking. It was also recognized that EI skills have an impact on success as leaders. These skills are referred to as emotional competencies. Cognitive thinking can be a part of one of the emotional competencies.

Cognitive abilities seem to play limited role in accounting for why some people are more successful than others. The answer lies in the wealth of research pointing to the importance of social & emotional intelligence (Goleman 1995).

### **Moral Commitment**

The notion of moral commitment appears in descriptions of transformational leadership (Goleman et al 2002). The concept of moral commitment operates on a clear set of values that can be empowering. Literature suggests that there is a direct relationship between employee loyalty and emotional intelligence. People who are morally committed to their organization can perform better than the persons who are not emotionally attached to the organization. Thus moral commitment acts as an influencer for employees' productivity in organizations. EI is believed as one of the most important issues affecting employee commitment.

### **Leadership Style**

There is some evidence that the currently popular transformational leadership style enables employees to make visible their attributes, more successfully (Eagly et al., 2003). Barbuto & Beirbach (2006) examined the relationship between EI & transformational leadership.

The study was based on the assumption that transformational leadership is more effective than other types of leadership. The result was that there was a strong positive correlation between domains of EI & transformational leadership abilities. Kobe et al (2001) also claimed that EI influences leadership skills. Goleman (2013) has also shifted his writings to the theme of attention suggesting that popular interest is turning back to old theme of leadership.

### **Self Awareness**

A lot of research studies have been conducted on emotional intelligence. Emotional Self-Awareness measures the relative frequency with which an individual consciously identifies his emotions at work. It also represents the frequency with which an individual is aware that his emotions may motivate or affect his thoughts and behaviour at work. It does not emphasize either negative or positive emotions. Rather, it incorporates a balance of both positive and negative states (Bar-On 1997).

### **Employee Loyalty**

Jain (2009) examined the predictive capability of employee loyalty & EI with regard to organizationally relevant criteria. It acts as a mediating variable between EI & organization commitment. Research claims that there is significant relationship between EI & its dimensions with loyalty of employees.

### **Managerial Learning**

There is an increasing articulated reality that emotions form a part of learning. Fineman (1997) argues that managerial learning is emotional. EI can be a causal factor in the frequent dysfunctions of managerial learning process. Other researchers have also explored the relationship between emotions & managerial performance. Downing (1997) also points out that people frame emotions & learning within an organizational context.

### **Organizational Change**

Downing (1997) points out that organizational change is frequently associated with emotional conflict. Goleman et al also cited examples of the case for EI based on change. Cooper (1997) quotes Nick Zenistk a former leader at ford motor Co. that EI is the hidden competitive advantage. If you take care of the soft stuff the hard stuff takes care of itself.

### **Achievement Drive**

This factor pertains to the individuality of the employees. Achievement drive concerns the satisfaction of employees at workplace. Achievement drive of an employee regulates the emotions. Self control & self management helps in creating a positive achievement drive in employees.

**Table 1- Structured Self Interaction Matrix**

Element	10	9	8	7	6	5	4	3	2
1	V	A	A	O	A	O	O	X	A
2	O	V	X	V	A	V	V	A	
3	X	O	X	X	A	V	O		
4	A	V	X	V	A	A			
5	V	A	A	A	A				
6	V	V	V	V					
7	A	X	A						
8	O	X							
9	A								

**ISM Methodology**

ISM is an effective methodology to predict & model the relationship between complex issues. It was first proposed by J. Warfield in 1973. It is often used to provide fundamental understanding of various enablers, barriers & critical success factors to resolve complex situations & to formulate a course of action for solving a problem. It is a combination of three modeling languages i.e. words, diagraphs & mathematics. ISM is particularly useful in situations where expert opinion & judgment of workgroup can interprets the relationship of variables. The following steps explain the process of ISM:-

- Step 1: Identify variables to be studied
- Step 2: Contextual relationship among the variables identified in step1 with respect to other pairs of variables are examined.
- Step 3: Self Structured Interaction Matrix (SSIM) is developed to indicate pair wise relationship among variables
- Step 4: From SSIM, a reachability matrix is developed. Further, it is checked for transitivity.
- Step 5: Partitioning of levels is done from the reachability matrix obtained in step 4
- Step 6: A directed graph is drawn based on the levels identified in various iterations of level partitioning
- Step 7: Diagraph is then converted into interpretive model by replacing variable nodes with statements
- Step 8: The ISM model so developed in step 7 is reviewed to check conceptual consistency and necessary modifications are made.

**Formation of SSIM**

With the help of literature review & brain storming in the process of idea generation, the nature of the contextual relationship among the factors was identified which can drive emotionally intelligent behavior. Following four symbols have been used for developing SSIM to denote the direction of relationship between I & J:

- V - Factor I influences EI more than factor J
- A - Factor J influences EI more than Factor I
- X - Both factors influences EI equally
- O - Both factors do not influence each other

SSIM has been developed on the basis of contextual relationship (Table 1). Factor 1 leads to factor 10; therefore symbol V is used in the cell. Factor 9 leads to factor 1, & hence symbol 'A' is used in cell (1, 9). Both factors 2 & 8 are equal in their influencing EI; therefore X has been assigned in Cell (2, 8). Factor 3 & 9 are unrelated, therefore 'O' has been assigned in Cell (3, 9).

**Reachability Matrix**

SSIM obtained in previous section is converted into initial reachability matrix, which is binary method of replacing V, A, X, O into 0s and 1s using the following rules:

- If (i,j) value in SSIM is V, then (i,j) value in reachability matrix is 1 and (j,i) value is 0
- If (i,j) value in SSIM is A, then (i,j) value in reachability matrix is 0 and (j,i) value is 1
- If (i,j) value in SSIM is X, then (i,j) value in reachability matrix is 1 and (j,i) value will also be 1
- If (i, j) value in SSIM is O, then (i, j) value and (j, i) value in reachability matrix will be 0.

**Table 2- Initial Reachability Matrix**

Element	1	2	3	4	5	6	7	8	9	10
1	1	0	1	0	0	0	0	0	0	1
2	1	1	0	1	1	0	1	1	1	0
3	1	1	1	0	1	0	1	1	0	1
4	0	0	0	1	0	0	1	1	1	0
5	0	0	0	1	1	0	0	0	0	1
6	1	1	1	1	1	1	1	1	1	1
7	0	0	1	0	1	0	1	0	1	0
8	1	1	1	1	1	0	1	1	1	0
9	1	0	0	0	1	0	1	1	1	0
10	0	0	1	1	0	0	1	0	1	1

By adding transitivity to initial reachability matrix, the final reachability matrix is obtained

**Table-3 Final Reachability Matrix**

Element	1	2	3	4	5	6	7	8	9	10
1	1	0	1	0	0	0	0	0	0	1
2	1	1	0	1	1	0	1	1	1	0
3	1	1	1	0	1	0	1	1	0	1
4	0	0	0	1	0	0	1	1	1	0
5	0	0	0	1	1	0	1*	0	0	1
6	1	1	1	1	1	1	1	1	1	1
7	0	0	1	0	1	0	1	0	1	0
8	1	1	1	1	1	0	1	1	1	0
9	1	0	0	1*	1	0	1	1	1	0
10	1*	0	1	1	0	0	1	0	1	1

**Level Partitioning**

The process of level partitioning is carried out in number of iterations to find out the importance of each factor of emotional intelligence. From the final reachability matrix, the reachability set and antecedent set is obtained. Intersection set is obtained by finding the elements

common to reachability set and antecedent set. In ISM methodology, the factors having same reachability and intersection set are assigned as level 1 i.e. top level factor.

Then iterations are further carried out discarding previous levels and subsequent levels are obtained. This iterative procedure is repeated till the level of each factor is found.

**Table 4-Iteration 1**

Element	Reachability Set	Antecedent Set	Intersection Set	Level
1	1,3,10	1,2,3,6,8,9,10	1,3,10	I
2	1,2,4,5,7,8,9	2,3,6,8,	2,8	
3	1,2,3,5,7,8,10	1,3,6,7,8,10	1,3,7,8,10	
4	4,7,8,9	2,4,5,6,8,9,10	4,8,9	
5	4,5,7,10	2,3,5,6,7,8,9	5,7	
6	1,2,3,4,5,6,7,8,9,10	6	6	
7	3,5,7,9	2,3,4,5,6,7,8,9,10	3,5,7,9	I
8	1,2,3,4,5,7,8,9	2,3,4,6,8,9	2,3,4,8,9	
9	1,4,5,7,8,9,10	2,4,6,7,8,9,10	4,7,8,9,10	
10	1,3,4,7,9,10	1,3,5,6,9,10	1,3,10	

**Table 5-Iteration 2**

Element	Reachability Set	Antecedent Set	Intersection Set	Level
2	2,4,5,8,9	2,3,6,8,	2,8	
3	2,3,5,8,10	3,6,8,10	3,8,10	
4	4,8,9	2,4,5,6,8,9,10	4,8,9	II
5	4,5,10	2,3,5,6,8,9	5	
6	2,3,4,5,6,8,9,10	6	6	
8	2,3,4,5,8,9	2,3,4,6,8,9	2,3,4,8,9	
9	4,5,8,9,10	2,4,6,8,9,10	4,8,9,10	
10	3,4,9,10	1,3,5,6,9,10	3,10	

**Table 6-Iteration 3**

Element	Reachability Set	Antecedent Set	Intersection Set	Level
2	2,5,8,9	2,3,6,8,	2,8	
3	2,3,5,8,10	3,6,8,10	3,8,10	
5	5,10	2,3,5,6,8,9	5	
6	2,3,5,6,8,9,10	6	6	
8	2,3,5,8,9	2,3,6,8,9	2,3,8,9	
9	5,8,9,10	2,6,8,9,10	8,9,10	
10	3,9,10	1,3,5,6,9,10	3,10	III

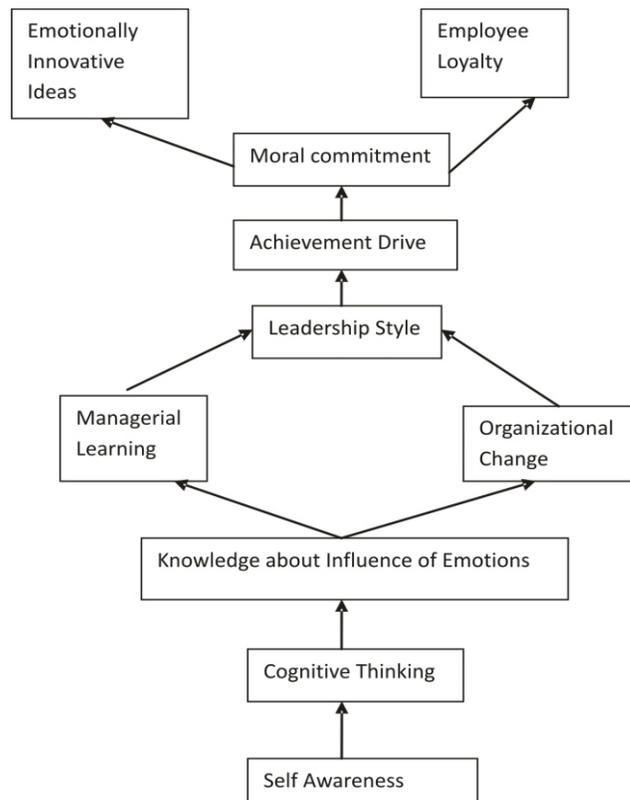
We have identified 8 levels of iterations in our study. Emotionally innovative ideas and employee loyalty have been identified as top level factors. These are considered as strategic factors.

generated by vertices and edges. Out of 10 factors, 2 factors are lying at the top and 3 factors are lying at the bottom level. Rests of the factors are lying between the top and bottom level. These are linkage variables. Further, MICMAC analysis has been carried out for classifying these variables.

**ISM based model formation- Diagram**

From the final reachability matrix, structural model is

**Figure-1 ISM based Model for variables of Emotional Intelligence**



**Factor Classification: MICMAC Analysis**

Classification of factors has been carried out based on driving power and dependence power with the help of MICMAC analysis. Based on their driving power and dependence they have been classified into four categories i.e. autonomous variables, linkage variables, dependent variables and independent variables. The aim of this section is to analyze the driving source and the linkage variables. Higher dependence values means a large number of variables should be removed to remove this factor and high driving value means a large number of factors can be removed by removing it.

From MICMAC analysis, factors have been classified into four categories as follows:

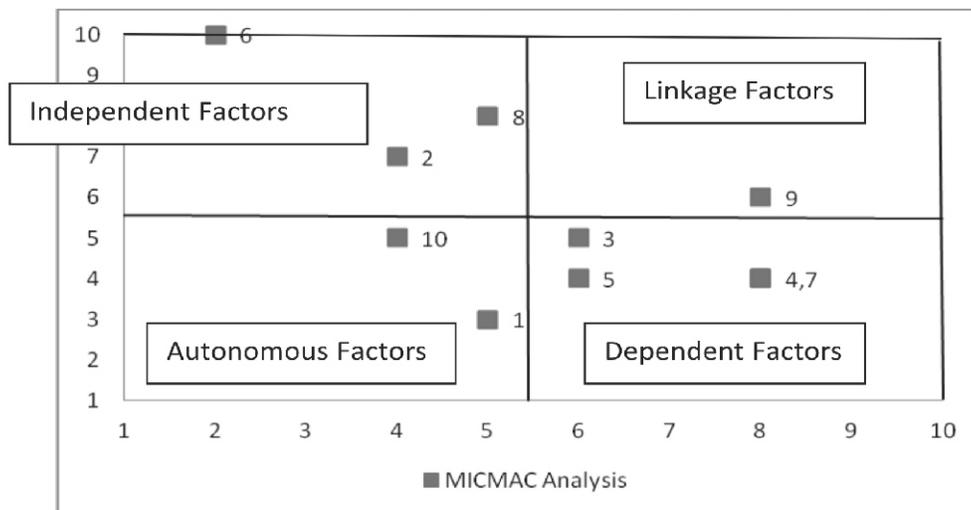
**Autonomous factor-** these have weak driving power and weak dependence power. They have few links which may be strong. In our study, emotionally innovative ideas and

achievement drive lies in this range.

**Linkage factors-** these factors have strong drive power as well as strong dependence power. Any action on these factors will have an impact on rest of the variables and also a feedback effect on themselves. In this study, linkage variable is organizational change.

**Dependent factors-** these have weak drive power but strong dependence power. The variables lying in this range are cognitive thinking, leadership style, moral commitment and employee loyalty.

**Independent factors-** these have strong drive power but weak dependence power. The factors lying in this range are key factors. In this research, the major driving factor is self awareness. Other driving factors are knowledge about influence of emotions and managerial learning.



**Figure 2- MICMAC analysis**

**Discussion**

Indian economy is growing at rapid rate & these growing trends have put tremendous pressure on organizations to become more dynamic in order to gain competitive advantage. The only solution is to nurture & utilize their talent in differentiated manner. Ever since the publication of Daniel Goleman's first book in 1995, EI has become one of the buzzwords. It has become important for not only psychologists but also for academicians & executives to understand what it really means & how it can be encountered. IQ by itself is not a very good predictor of performance. Social & emotional abilities are more important than IQ in determining professional

success & prestige (First & Barron, 1996). In fact, there is evidence suggesting that emotional & social skills actually help improve cognitive functioning. Realizing the importance of EI in workplaces, it becomes necessary to identify various factors which can help in determining emotionally intelligent behavior of employees. Further, the need also arises to identify the interrelationships between these variables. Policy makers of these dynamic organizations therefore face lots of challenges in identifying these factors & then working upon them to resolve problems employees face at workplace. Some factors have been identified in this paper & their inter relationship have been modeled using ISM methodology.

**Conclusion**

In this research study, an attempt has been made to identify &

model the major factors which drive emotionally intelligent behavior at workplace using ISM model. 11 variables were identified & ISM methodology is implemented to find contextual relationship among them. Emotionally charged ideas & employee loyalty are coming at top of diagraph. These are strategic variables whereas knowledge about emotions, cognitive thinking and self awareness are at the bottom of diagraph. These are operational variables. Leadership style, managerial learning & organizational change are linkage variables. Any action done on these variables can affect both strategic & operational variables. Thus, this paper provides a modeling framework of a few variables which can predict the emotional intelligence of employees in organization.

### Limitations of the Study

In this paper, a hypothetical model of various predictors of EI has been developed. It was based on literature review & brain storming process. The model may differ from real world conditions. It may be tested in real world conditions to match the contextual relationship identified with realities. The variables may be incomplete or their relationship may differ from derived model. Although, ISM model provides an understanding of strategic, linkage & operational variables & their inter relationship but it does not provide the quantification of influence of each variable.

### Implications of the Study

This model suggests how factors driving emotionally intelligent behavior at workplace are interrelated. Interpretive Structural modeling provides an understanding as to how factors interact with each other. This modeling can help the dynamic organization to frame policies for employee motivation so that they can demonstrate emotionally intelligent behavior at workplace and can contribute to organizational performance in a better way. Decision makers must be aware of the relative importance of various factors contributing emotional intelligence. This research study will surely help to prepare well the strategies to effectively manage workplace. The results of this study may help in strategic and tactical decision making for HR managers.

### Scope of Future Research

In this research study, 10 variables are identified but in future, more variables of emotional intelligence may emerge. Complex binary mathematics calculations may become difficult and tedious. Graph theory may be used for finding a quantitative measure of these factors. Some factors may be included or deleted to develop another model using ISM methodology. Interpretive ranking

process may be used to rank these variables. Further, Interactive Management techniques may be used to test the validity of the suggested model.

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