Development of the Emotional Intelligence Questionnaire

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Abstract: In this paper an attempt has been made to develop an instrument which can measure the emotional intelligence of supervisor and its implications, as perceived by members belonging to those organizations. The definition of emotional intelligence and the key issues EI, which have been identified by earlier researchers, are addressed.

Introduction

Emotional Intelligence (also known as Emotional Quotient) is one of the burning topics among business leaders and HR professionals lately. Emotional Intelligence (EI) has a great impact on management since Daniel Goleman (1995)[1] published his book popular book on EI for a wider audience. From fairly humble origins, EI has come into its own as one of the most popular psychological concepts of the last decade. Emotional Intelligence is defined as an umbrella term because it comprises components such as 'soft skills', 'people skills', and a general ability to cope with life's commands. In other words, 'Emotional intelligence gives us a competitive edge'. It has been argued around the world that having great intellectual abilities may make you a superb fiscal analyst or legal scholar, but a highly developed emotional intelligence will make you a candidate for CEO or a brilliant trial lawyer" (Devlin, 2013) [2]. To some people the term 'Emotional Intelligence' is an oxymoron. As we know intelligence implies rational thinking, supposedly without any emotion. The key to this compelling question touches many areas of research in Psychology and Management, the two fields which rely heavily on the various facets of EI in demystifying some key questions. Moreover, emotional intelligence is related to positive outcomes such as pro-social behaviors, parental warmth, and positive family and peer relations (Mayer et al, 1999) [3]. In this thesis, I strive to look for understanding EI in its various dimensions and its role or impact on occupational success.

Businesses across sectors have witnessed unprecedented changes in the post liberalization era. These changes have compelled business establishments to go for strategic realignments in their very approach to doing businesses. These realignments assume a variety of forms raging from redefining the organizational structures, systems and procedures, to mergers and acquisitions, new product development, new market development, financial reengineering and human reengineering, and a host of other alike actions and a complete overhauling of the process and operations intended to fit to the new requirements so that the firms are able to sustain competitions and growth.

The initial formal state of emotional intelligence emerges to obtain from a German article entitled "Emotional Intelligence and Emancipation" available in the journal "Praxis der Kinderpsychologie and Kinderpsychiatire", by Leuner in 1956 [4]. However, the first time that the word "emotional intelligence" materialized in the English literature was in an unpublished doctoral dissertation by Payne in 1986 (Matthews, et al., 2002) [5]. Since then, Emotional intelligence has captured the interest of both the popular press (e.g. Cooper & Sawaf, 1997; Goleman, 1995, 1996; Hein, 1997; Stiener, 1997; Wessinger, 1998) and of the scientific researchers (e.g. Davies, et al., 1998; Mayer, Caruso, & Salovey, 2000; Petrides & Furnham, 2000, 2001).

Blau (1985)[6] in his study 'The measurement and prediction of career commitment' has pragmatic that employees may stumble upon difficulties of many kinds in pursuing a career that may result in dysfunctional emotions and as such emotionally intelligent individuals are expected to identify, supervise and use their emotions to eradicate these obstacles and advance their career horizon better than people with low emotional intelligence. He defines career commitment as 'one's outlook towards one's occupation or vocation'.

Snarey and Vaillant (1985)[7] in their study 'How lower and working class youth become middle class adults: The union between ego defense mechanisms and upward social mobility' have attempted to examine the parameter(s) responsible for success of an individual in his personal and professional life. This study which is a 40 year longitudinal study of 450 boys reported IQ to be insignificantly related to how well the boys performed at work as adults, and that 'work performance was more influenced by their abilities to handle frustration, control emotions and get along with other people'. Weisinger (1988)[8] in

his work 'Emotional Intelligence at Work' has observed that success at work is honestly linked to EI.

Brad Berry and Greaves (1989)[9] in a study 'The emotional intelligence' have exposed how thoughtful and utilizing emotional intelligence can be key to achieving goals and one's fullest potential. Bycio, et. al. (1990)[10] in their work observed that emotions may be used to forecast job performance at workplace because emotions and moods can better forecast specific behaviour of an individual at least in the short run. Salovey and Mayer (1990)[10] have viewed emotional intelligence as a potentially standard intelligence. They have defined emotional intelligence as the ability to reason with emotion in four areas- (i) perceive emotion, (ii) integrate emotion in thought, (iii) understand emotion and (iv) manage emotion. They have viewed that emotional intelligence may well forecast definite, important life outcomes at about the level of other important personality variables. Kelley and Caplan (1993)[11] conducted a study 'How Bell labs create star performers' on the performance of investigate groups in the Bell Laboratories connected to emotional intelligence. The study was aimed at finding out the incremental result of emotional intelligence (EI) over intelligent quotient (IQ) in managerial surroundings. They observed that emotional intelligence differentiates the high performers from average performers. Some of the researchers in the group were rated by others as 'stars', though all of them had high IQ scores. This research showed that neither IQ nor past academic performance was a good forecaster of stars. Instead, emotional intelligence apparently differentiates and predicts the performance and star ratings of the individuals.

1. Development of the questionnaire

The first step in the development of this questionnaire for measuring the implementation of the emotional intelligence on the organization was to identify the specific characteristics of the organization's emotional intelligence. The literature on emotional intelligence was reviewed to identify concrete elements associated with the organization's culture. From the review it was evident that most of the views describing the emotional intelligence of the organization were, by nature, psychology or management or a combination of both. Further, the feasibility of measuring the dimensions advocated by psychologist and anthropologist is very low. So the views given by Danial Goalman(1998)[24], Davis and Stankov(1998)[26], Becker (2003)[15]were taken into consideration for formulating the questionnaire.

First draft of the questionnaire: On the basis of this theoretical background, an emotional intelligence questionnaire was developed, which consisted of six characteristics, viz. (1) Self awareness (2) Self-Regulation (3) Motivation (4) Empathy (5) Social Skills Five of these characteristics were given by Danial Goalman. The operational definitions of these characteristics are as follows:

I. *Self awareness:* The degree of recognizing, understanding how own emotions both affect interaction with other and impact on others emotional state

II. *Self regulation:* The degree of able to self-control our emotions and responses to situations and other people. But it's also about feeling positive emotions and expressing positive emotions to others.

III. *Motivation:* The degree of benefits and encouragement provided by manager or supervisors to their peers to motivate them for work.

IV. *Empathy:* The degree of warmth and empathy provided by managers to their subordinates

V. *Social skills:* The degree of ability to understand and respond to the needs of others. This is the third of the domains of emotional intelligence

On the basis of these five characteristics, 56 items were formulated. A five point rating scale that ranged from 1(very low) to 5(very high) was used with the item statements. Copies of questionnaire containing 56 items were distributed to 15 competent judges to test its content validity. The team of judges includes professionals and expert psychologists. For this purpose, a list of description of each characteristic of emotional intelligence was furnished to each judge. The judges were requested to read the description of each of the five characteristics and assess each item.

The percentage of judges' agreement with regard to the classification of each statement in one of sub dimensions of emotional intelligence was calculated. The item having agreement of more than 72% were selected. Out of 56 items, only 40 were selected on the basis of judges' agreement and 16 items were discarded.

The validity of the questionnaire was assessed using Factor Analysis. A principal axis analysis was used to extract initial factors and an iterated principal factor analysis was performed using SPSS with an Oblimin with Kaiser Normalization rotation. Only items with loadings >0.5 were considered to be significant and when items were significantly loaded on more than one factor only that with the highest

value was selected. Factor 1 relates to self awareness with the EI, Factor 2 pertains to the impact of EI on self-regulation and Factor 3 relates to the impact of EI on motivation, Factor 4 relates to the impact of EI on employee outlook and Factor 5 pertains to the impact of EI on empathy.

The data was captured using Excel (Version 5), processed with SPSS and Google docx was used to circulate questionnaire.

Second draft of the questionnaire: This questionnaire was used by a sample of 188 supervisors from four different organizations to assess the existing emotional intelligence of those organizations.

2. Final Version of questionnaire

1. Again, this 40-item instrument was processed for factor analysis. The method o Priti S. Mishra and Mohapatra, A. K. D., (2010), '*Relevance of Emotional Intelligence for Effective Job Performance: An Empirical Study*', Vikalpa, Vol. 35, No.1, January – March, pp. 53-61.

f principle axis factoring with oblique rotation was applied, for the reason that "it is widely used (and common understood) and that it conforms to the factor analysis model in which common variance is analyzed independent of unique and error variance". Oblique rotations were performed to improve simple structure and to test the degree of interrelatedness among the factors.

3. Internal consistency and Reliability

The internal consistency of the emotional intelligence questionnaire is partially demonstrated from the inter-correlations of the factor comprising it. For testing reliability, test-retest (after one month gap) method was applied on 30 subjects.

Scoring: The questionnaire is a five point Likert type scale. Every item has five point response category are: (1) very low, (2) low, (3) moderate,(4) high, and (5) very high. The categories carry the weightings 1,2,3,4 and 5 respectively. The scoring is revised for negative item**.**

4. Illustrative Items

(A) "I am able to perform consistently under pressure"

(1)Very low, (2) low, (3)moderate, (4)high, and (5)very high

Scoring: 1   2
        3   4   5

The above mentioned item is positive, so the answer 'very high' means a highly favorable item

(B) I am not able to understand the organizations value and culture.

(1)Very low, (2) low, (3) moderate, (4)high, and (5)very high

Scoring: 5   4
        3   2   1

The above mentioned item is negative. So the answer 'very high' means a less favorable culture. The total score indicates the degree of favorableness of the organization's culture, as perceived by the subject

Table I: Communality, Eigen value and Percentage of Variance

A	B	C	D	E	F	G
1	.170	*	1	4.636	41.146	41.146
2	.215	*	2	4.424	10.068	51.214
3	.215	*	3	2.744	6.033	57.247
4	.149	*	4	2.473	5.430	62.677
5	.269	*	5	2.197	3.905	66.582
6	.272					
7	.202					
8	.290					
9	.262					
10	.205					
11	.998					
12	.958					
13	.998					
14	.716					
15	.864					
16	.503					
17	.477					
18	.543					
19	.869					
20	.931					
21	.352					
22	.470					

23	.477
24	.493
25	.488
26	.336
27	.493
28	.998
29	.961
30	.998
31	.284
32	.308
33	.251
34	.357
35	.505
36	.657
37	.411
38	.881
39	.458
40	.410

(A= Item no. ,B=Communality, C=*, D= Factor, E=Eigen Value, F=Percentage of variance, G= Cumulative percentage)

Table II: Factor Scales: Dimensions and factor loading

A	B	C	D
	Factor1 **(Self awareness)**		
13		When I am angry or upset at someone, I usually try to imagine what he or she is thinking or feeling.	.957
20		I feel comfortable with risk.	.930
29		I can recognize the situations that trigger own emotions.	.864
30		I have positive vision on life.	.963
36		Demonstrates an ability to see things from someone else's perspective.	.716
38		Has a sense of humour about oneself	.905
	Factor2 **(Self regulation)**		
14		It is difficult to know whether I feel sad or angry or something else.	.755
15		Can you calm in stressful situation	.860
19		When I am .angry or upset, I try to understand why?	.861
37		I consider how other will affect by my words	.665
39		I act decisively when faced with tough decision including staff issues.	.438
40		Smoothly juggles multiple demands.	.537
	Factor3 **(Motivation)**		
12		Financial incentives motives me more than non financial incentives	.852
35		The retirement benefit are available are sufficient.	.568
	Factor4 **(outlook)**		
11		I do not lose my control when I am angry.	.723
28		I hate situations in which I am expected to socialize	.715
	Factor5 **(Empathy)**		
17		When I see someone suffering, I feel bad too.	-.431
18		Looking back at typical conversations, I realize that I talked mostly about myself	.547
22		I adjust my social behaviour according to the situation I am in or the person I am interesting with.	.608
23		I am happy to make decisions even if the given information is ambiguous.	.466

A= **Sl.No.as in the questionnaire, B= Factor, C=Statement and D= Factor Loading**

5 Factor Co-relation Matrix

The factor correlation matrix among oblique factor patterns establish through oblique rotation. According to some studies it calls that it is a cosines of matrix. The cosines can be read as correlations between patterns, and vice versa. The features of a correlation matrix explained in Table 4.3 apply equally well here.

This will uncover the pattern of relationships between the factors; the interpretation of these patterns does not change from those establish for the variable correlations. The reduction of factor interrelationships to their patterns is called *higher order factor analysis.*

Table III: Factor Co-relation Matrix

Factor	1	2	3	4	5
1					
2	-.049				
3	.050	-.014			
4	.097	-.027	.062		
5	-.058	.063	-.008	.092	

Extraction Method: Principal Axis Factoring.
Rotation Method: Oblimin with Kaiser Normalization.

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