Emotional Intelligence and Organisational Citizenship Behaviour Using Structured Equation Modeling Approach

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Abstract:

This paper focuses on deriving a model showing relationship between the Emotional Intelligence and Organisational Citizenship Behaviour.The model fits good for nurses who need to be emotionally intelligent and also show citizenship behavior towards the organization while dealing with patients, peer groups and supervisors.Study population were nurses working in a tertiary care hospital in Chennai. Sample size taken for the study was 100.

Keywords: Emotional Intelligence(EI), Organisational Citizenship Behaviour(OCB), Structural equation modeling (SEM)

1. Introduction

Emotional Intelligence (EI) is an act of understanding one's own emotions and the emotions of others, thus handling the interpersonal relationship with others. Three among the four dimensions of EI given by Schutte et al., was used to study the emotional Intelligence among nurses. Organisational Citizenship Behaviour (OCB) is the spontaneous behavior of an individual in the organisation considering it as one's own organization. Three out of five dimensions of OCB given by Organ(1988) are taken for the study.

2. Literature Review

Salovey and Mayer (1990) while introducing the term emotional intelligence stated that it is a collection of capabilities,connected to emotions and processing of emotional data (1).According to Mayer & Salovey (1997), Emotional intelligence is one's capacity to distinguish, evaluate, and convey emotion; it is also the capacity to evaluate and spawn feelings while facilitating thinking process; an capacity to recognize emotional knowledge; thereby controlling emotions in order to encourageintelligence. The concept of Organizational Citizenship Behaviour (OCB) was given by Bateman & Organ (1983) based on a principle that job satisfaction would affect employee's readiness to help their co-workers in various forms in order to maintain organized structures that govern work. Moreover Organisational Citizenship Behaviour(OCB) would have a considerable impact on the effectiveness and efficiency among peer groups in an organizations which in turn contributes to the Organisation's productivity. (Moorman, 1991; Podsakoff & MacKenzie, 1994; Yen & Niehoff, 2004).Podsakoff et al,deliberated a model thatdescribes Organisational Citizenship Behaviourcounting altruism, conscientiousness, courtesy, sportsmanship and civic virtue (2).According to Hair et al.,2006, A statistical modeling technique named Structural equation modeling (SEM) includes factor scrutiny and also multivariate statistical study. The equation gives approximation of severalinterconnecteddependency relationships, also the ability to position unnoticednotions in the relationship and explicates the measurement flaw in the method (Hair et al., 1998). There are various goodness of fit (GOF) indices making evaluations, therefore "fit should be evaluated from the standpoint of numerous fit statistics" (Campbell et al., 1955:6). The total fit analyses, statistics like, root mean squared residual (RMR), the normed fit index (NFI), adjusted goodness-of-fit (AGFI) and the goodness-of-fit (GFI) (Bentler and Bonnet,1980) which aresuitablein measuringand evaluating the excellence of the assumed proposed model.

3. Objectives of the study

• To analyse the profile of the sample taken for the study.

• To assessthe proposed model and find out whether measurements fall within the recommended range thussignifying a good fit for the data collected.

4. Research Methodology

The Research design considered for the research is Descriptive. Study group were the nurses working in a tertiary care Hospital in Chennai, India. Data collection was done through Primary as well as secondary methods. Primary data was collected through structured Questionnaire and secondary data from websites and Journals. Population Study techniques was used wherein the entire population of 100 respondents were taken into the study. Data thus collected were studied with the support of analysis of moment structure (AMOS) 16. Data analysis was done using Structural equation modeling (SEM).

5. Interpretation of Results

5.1. Respondents profile

Table 1 contains the demographic summary of nurses involved in the study. Out of the sample taken for study, 10% are Male and 90% are Female. 34% are below 25 years of Age, 36% are between 25 & 30 years of age and 30% are above 30 year of age. 80% of the nurses are Diploma holders and 20% are graduates. 46% are single and 54% are married. 24% earn below 7500 INR per month, 48% earn between 7500 rupees& 10000 rupees per month 28% and the rest earn above 10000 INR per month.

Table 1. Demographic summary of the sample (n=100)

S. No	Features	Categories	Respondents (Number)	Percentage (%)
1	Gender	Male	10	10
		Female	90	90
2	Age Group in years	Below 25	34	34
		25-30	36	36
		Above 30	30	30
3	Educational status	Diploma	80	80
		Graduate	20	20
		Rural	20	20
5	Marital status	Single	46	46
		Married	54	54
		Away from family	30	30
8	Monthly income	Below 7500	24	24
		7500-10000	48	48
		Above 10000	28	28

5.2. Structural equation modeling (SEM) - Model fit assessment

Structural equation modeling (SEM) was used to analyze the proposed model's suitability based on the collected data. As per Anderson and Gerbing (1988) recommendation, Questionnaire(survey instrument) was evaluated to find out its reliability, it was then validatedand then the structural model was analyzed with AMOS 16. The structural equation model (SEM) is considered valuable while evaluating the causal relationship among variables and proving the excellence of the proposed model (Peter, 2011).

5.2.1. The variables that are considered in the structural equation model are

5.2.2. Observed, endogenous variables

- Conscientiousness
- Altruism
- Civic Virtue
- Perception of Emotions (POE)
- Managing own Emotions (MOE)
- Managing others Emotions (MOtE)

#### 5.2.2.1. Unobserved, endogenous variables

- Organisational Citizenship Behaviour

5.2.2.2. Unobserved, exogenous variables

- e1: Error term for Perception of Emotions (POE)
- e2: Error term for Managing own Emotions (MOE)
- e3: Error term for Managing others Emotions (MOtE)
- e4: Error term for Conscientiousness
- e5: Error term for Altruism
- e6: Error term for Civic Virtue
- e7: Error term for Organisational Citizenship Behaviour
- Emotional Intelligence

Hence the quantity of variables in the model is as follows,

Quantity of variables in the model: 15

Quantity of observed variables: 6

Quantity of unobserved variables: 9

Quantity of exogenous variables: 8

Quantity of endogenous variables: 7
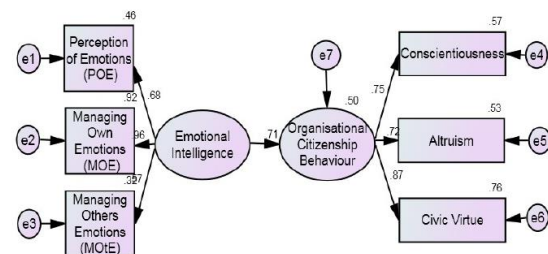
Figure 1. Structural Equation Model (SEM) based on Standardised Coefficient on Emotional Intelligence and Organisational Citizenship Behaviour

Table 2. Analysis of Variables using SEM

Variables			Unstandardised co-efficient (B)	S.E of B	Standardised co-efficent (Beta)	t value	P value
Perception of Emotions (POE)	<---	Emotional Intelligence	1.938	0.268	0.682	7.226	<0.001**
Managing Own Emotions (MOE)	<---	Emotional Intelligence	3.726	0.338	0.957	11.038	<0.001**
Managing Others Emotions (MOtE)	<---	Emotional Intelligence	1.279	0.219	0.568	5.841	<0.001**
Conscientiousness	<---	Organisational Citizenship Behaviour	1.000	-	0.755	-	<0.001**
Altruism	<---	Organisational Citizenship Behaviour	0.493	0.071	0.725	6.919	<0.001**
Civic Virtue	<---	Organisational Citizenship Behaviour	1.160	0.147	0.872	7.909	<0.001**
Organisational Citizenship	<---	Emotional Intelligence	1.542	0.264	0.710	5.847	<0.001**

Variables			Unstandardised co-efficient (B)	S.E of B	Standardised co-efficent (Beta)	t value	P value
Behaviour							

Note: ** denotes significant at 1% level

Table 2signifies the Unstandardised coefficient of Perception of Emotions (POE) on Emotional Intelligence is 1.938 signifies the fractional effect of Perception of Emotions (POE) on Emotional Intelligence, keepingfurther path variables as constant. The projected sign is observed to be positive and it is inferred that theEmotional Intelligence would rise by 1.938 for per unit surge in Perception of Emotions (POE) and thesignificance level of coefficient value is 1%.Unstandardised coefficient of Managing Own Emotions (MOE) on Emotional Intelligence is 3.726 signifies the fractional effect of Managing Own Emotions (MOE) on Emotional Intelligence, keeping further path variables as constant. The projected sign is observed to be positive and it is inferred that the Emotional Intelligence would rise by 3.726 for per unit surge in Managing Own Emotions (MOE) and thesignificance level of coefficient value is 1%.Unstandardised coefficient of Managing Others Emotions (MOtE) on Emotional Intelligence is 1.279 signifies the fractional effect of Managing Others Emotions (MOtE) on Emotional Intelligence, keeping further path variables as constant. The projected sign is observed to be positive and it is inferred that the Emotional Intelligence would rise by 1.279 for per unit surge in Managing Others Emotions (MOtE) and thesignificance level of coefficient value is 1%.Unstandardised coefficient of Consciousness on Organisational citizenship Behaviour is 1.000 signifies the fractional effect of Consciousness on Organisational citizenship Behaviour, keeping further path variables as constant. The projected sign is observed to be positive and it is inferred that the Organisational citizenship Behaviour would rise by 1.000 for per unit surge in Consciousness and thesignificance level of coefficient value is 1%.Unstandardised coefficient of Altruism on Organisational citizenship Behaviour is 0.493 signifies the fractional effect of Altruism on Organisational citizenship Behaviour, keeping further path variables as constant. The projected sign is observed to be positive and it is inferred that the Organisational citizenship Behaviour would rise by 0.493 for per unit surge in Altruism and thesignificance level of coefficient value is 1%.Unstandardised coefficient of Civic Virtue on Organisational citizenship Behaviour is 1.160 signifies the fractional effect of Civic Virtue on Organisational citizenship Behaviour, keeping further path variables as constant. The projected sign is observed to be positive and it is inferred that the Organisational citizenship Behaviour would rise by 1.160 for per unit surge in Civic Virtue and thesignificance level of coefficient value is 1%.Unstandardised coefficient of Emotional Intelligence on Organisational citizenship Behaviour is 1.542 signifies the fractional effect of Emotional Intelligence on Organisational citizenship Behaviour, keeping further path variables as constant. The projected sign is observed to be positive and it is inferred that the Organisational citizenship Behaviour would rise by 1.542 for per unit surge in Emotional Intelligence and thesignificance level of coefficient value is 1%.Based on Standardised coefficient, Emotional Intelligence on Managing Own Emotions (0.957) is most influencing path in this SEM model, followed by Organisational Citizenship Behaviour on Civic Virtue (0.872), Organisational Citizenship Behaviour on Consciousness (0.755) and so on.

5.3. Fitness of the proposed model - Summary

Table 3 signifies the approximations of the level of fitness indices of the proposed model using AMOS structural modeling.

For evaluating the model, importance was given to model-fit measures like Chi-square value, P Value, Goodness of fit index (GFI), Comparative fit index (CFI),Root Mean Square Residuals (RMR), Adjusted goodness of fit index (AGFI), and Root mean square error of approximation (RMSEA).

Table 3. Fitness of the ProposedModel – Summary

Fit Indices	Results	Suggested value
Chi-square value	22.495	-
DF	8	-
Chi-square value/DF	2.812	< 5.00 (Hair et al., 1998)
GFI	0.933	> 0.90 (Hu and Bentler, 1999)
AGFI	0.923	> 0.90 (Hair et al. 2006)
NFI	0.918	> 0.90 (Hu and Bentler, 1999)
CFI	0.944	> 0.90 (Daire et al., 2008)
RMR	0.072	< 0.08 (Hair et al. 2006)
RMSEA	0.065	< 0.08 (Hair et al. 2006)

From Table 3, it is found that Goodness of Fit Index (GFI) value (0.933) and Adjusted Goodness of Fit Index (AGFI) value (0.923) is greater than 0.9 which confirms that the anticipatedmodel has a good fit. The calculated Normed Fit Index (NFI) value (0.918) and Comparative Fit Index (CFI) value (0.944) indicates that the proposed model is perfectly fit and it is found that Root Mean square Residuals (RMR) and Root Mean Square Error of Approximation (RMSEA) value is 0.065 which is less than 0.072 which further indicates perfect fit for the model.

6.   Conclusion

This study proposed a model relating the Emotional Intelligence and Organisational Citizenship Behaviour. From the analysis using structure equation modeling approach it is significant that the proposed model in the study shows a good fit between the variables of Emotional Intelligence and the variables of Organisational Citizenship Behaviour.

7.   Limitations of the Study

The study was carried on by collecting data from nurses working in tertiary care hospital and was restricted a sample size of 100.

References

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