

## **Emotional Intelligence of Service Quality and Behavioural Outcomes of Patients An Empirical Study**

*Mrs. D.S.V. Krishna Kumari,*

Assistant Professor,  
Department of Business Administration,  
Kbn College, Vijayawada, Andhra Pradesh, India.

### **ABSTRACT**

*Delivery of service quality become building blocks for their market supremacy, while other firms delivery of service become stimulating blocks for their own exit in the marketing sphere, and they go unnoticed. The authors aim to answer these questions by comparing, contrasting and synthesising ideas by review and also by statistically analysing the moderating effects of emotional intelligence of values on the relationship between service quality and behavioural outcomes of consumers (satisfaction, re-patronage intention and positive word-of-mouth communication) in the hospital services context. Emotional intelligence is considered to be important to lead a happy and successful life. The results indicate that values perform more as a predictor than as a moderator between service quality and behavioural outcomes of Patients.*

**Keywords:** Service quality, emotional intelligence, values, satisfaction, re-patronage intention.

### **INTRODUCTION:**

Emotional intelligence is gaining popularity in management literature of its significant contribution to managerial effectiveness. Emotional intelligent people lead effectively (Zeidnes; Mathews & Roberts, 2001).Service quality has received a great deal of attention in the marketing literature (Patrick, 1998).The trend towards examining service quality has stimulated plethora of research over the years, and most of which had focused on the relationship of service quality with other variables of interest. But to date, there has not been a comprehensive examination of service quality perception of patients in relation to the key variables taken in the present research like, consumer values, satisfaction, re-patronage intention and positive word-of-mouth communication.

Healthcare institution are focusing more on business related area(e.g. Occupancy rate, staff productivity, cost containment) to address issues such as inadequate reimbursement from government programmes, new federal regulations, drastically increasing costs of professional liability insurance& increased competition (Weinston&Nesbitt,2007)

The reasons for selecting the hospital service industry are that, hospital services are customised and there is a strong likelihood that the service performance in hospitals will be heterogeneous in nature, across different service encounters in various hospitals. Moreover, the hospital services by virtue of uncertainty, which the patients are likely to be experience in evaluating them prior to their service purchase, would provide an interesting & appropriate context for examining the envisaged relationship.

Emotional Intelligence is the ability to understand one's own and other people's emotions and reciprocating them in behaviour and using to build relationships. The present study focus on emotional intelligence as a moderator of the relationship between service quality and Behavioural outcomes of patients.

### **REVIEW OF LITERATURE:**

Salovey & Mayer (1990) documented a framework for EI. They traced the roots of EI to social intelligence and highlighted how the concept of emotion had been used in traditional intelligences. They explained that EI is

associated with positive mental health and emotionally intelligent people are a pleasant company whereas those lacking in EI are generally maladjusted to their environment.

Mayer & Salovey (1997) explained the evolution of the concept of EI and put forth their 4 branch ability model of EI. They cited the role of EI in schools, at home, workplace and in other work settings. They also purported that EI skills can be acquired through education like other skills.

George (2000) explained the role of EI through description of four aspects of Mayer & Salovey's model (1990) in effective leadership. The four components of EI i.e. the appraisal & expression of emotion, use of emotion to enhance cognitive processes & decision making, knowledge about emotions and management of emotions and five essential elements of effective leadership i.e. development of collective goals & objectives; instilling in others an appreciation of the importance of work activities; generating and maintaining enthusiasm; confidence, optimism cooperation and trust; encouraging flexibility in decisionmaking and change and establishing and maintaining a meaningful identity for an organization were studied.

Mayer, Caruso & Salovey (1999) conducted a research in order to identify whether EI conforms to the criteria for it to be considered as an intelligence i.e. EI must measure mental performance in terms of correct and incorrect answers, EI abilities should be correlated yet distinct from the already existing intelligences and EI must develop with age. Two studies were conducted as part of this research using Multifactor EI Scale (MEIS). Study 1 was conducted on 503 adults from diverse sources i.e. college students, corporate employees, executives etc. Results from study 1 confirmed that EI can be considered a new type of intelligence and EI was found to moderately correlate with a measure of verbal intelligence. Study 2 was conducted on 229 adolescents and the results were compared with the scores in study 1. The findings from study 2 revealed that adults scored higher on EQ than adolescents. Therefore it was concluded that EI can be considered as a full-fledged Intelligence satisfying the three point criteria.

Sherlock (2002) reviewed the literature and suggested the incorporation of EI into the curriculum of international education. Based on Goleman's notion that EI can be taught and arguments and researches supporting the need for both intellectual and emotional development of students through education, the study recommended that values like open- mindedness, inclusion, respect and tolerance can be developed by propagating the development of EI in students.

Emotional intelligence has been studied intensively during the past several decades, particularly its application in the workplace (Chernis & Alder, 2000; Goleman, 1995, 1998; Salovey & Mayer, 1990). Researcher have advanced beyond early ways of perceiving emotions that characterised early ways of perceiving emotions that characterized thinking and feeling as polar opposites and emotions as something chaotic and immature and not capable of assisting reason (Salovey & Sluyter, 1997).

Extensive studies that have appeared tend to examine service quality or values, but rarely both (Wang, Chiu and Pin Wu, 2003). The concept of price, quality and value has received considerable attention in the marketing discipline in recent years. For example, Jones (1993) examined their relationship in a hospital setting by proposing and testing a theoretically based model of sacrifice, service quality and emotional intelligence by hypothesising that sacrifice (price), service quality and emotional intelligence would influence consumers behavioural intention (defined by Jones as loyalty and willingness of a consumer to recommend the service to others).

The American society for Training and Development found that 80% of companies surveyed in 1997 were trying to promote emotional intelligence in their employees (Goleman, 1998). Thus it seems that research and the majority of organisations believe that emotional intelligence skills are critical. Through the findings of Jones (1993) study supported the relationship of both service quality and sacrifice influencing the patients perceptions of values, the mode in which the survey was administered raises many questions about the authenticity of the collected data from the former patients, and the issue of generalizability of the survey results.

Similarly, York (1993) investigated the effectors of consumers evaluations of quality, satisfaction, and emotional intelligence on service patronage, using structural equation modelling. Since, a mail survey was administered to a sample of 427 former patients after they stayed in a local hospital, maturation effect could have affected the responses of the former patients. Another shortcoming is that, the survey was conducted in only one hospital.

Cronin and Taylor (1992) also echo an analogous view that the important relationships between service quality, customer satisfaction, and purchasing behaviour remain largely unexplored, though empirical work in a variety of service settings provides some support for the link between service quality and satisfaction and between satisfaction and purchase intentions. Service quality is an important and widely studied context, but the salient issue of service quality perceptions by hospital patients in the hospital setting has not received much academic attention.

Incompatibility among received roles can diminish one's effectiveness in the work unit because such a situation is psychologically uncomfortable (Pikko, 2006). Role ambiguity may arise if expectations may not have been defined in the first instance or they would have changed with time (Srivastava, 2007). Among Indian Nurses, role incompatibility, conflicts, and ambiguity are the major contributors to stress that result in their burnout (Kitaoka-Higashiguchi, 2005; Parikh, Taukari, & Bhattacharya, 2004; Sen. Gupta & Adhikari, 2008).

According to the World Health Organisation (2010), India needed 2.4 million nurses by 2012 to achieve the government's aim of a nurses-patient ratio of one nurse per 500 patients (WHO, 2010). Job demands are physical (work overload), psycho-emotional (continuous contact with suffering and death), social (interacting with co-workers) or organizational (job complexity) aspects of the job that require continuous efforts and are associated with certain physiological and psychological costs (Demerouti et al., Lee & Akhtar, 2011). They often find it difficult to continue in such work settings and fail to give their best that fuel burnout (Chakra borty, Chatterjee, & Chaudhury, 2012; Lee & Akhtar, 2011; Sunden, Hochwalde, & Lisppers, (2011). In the long-run, this condition may lead them to quit the organisation.

### **CONCEPTUALISATION:**

According to Steve, Emotional intelligence is an innate ability that gives emotional sensitivity and potential for learning healthy emotional management skills. Daniel Go leman, while operationalizing the concept, identified 5 domains of emotional quotient (EQ) as: self-awareness, mood management, self-motivation, empathy and managing relationships. Researcher have concluded that people who manage their own feelings well and deal effectively with others are more likely to live context lives

In an empirical study by Sinha & Gupta (2007) on the customer's satisfaction with hospitals, the patient's attendants were studied and the patient attendants satisfaction index (ASI) was calculated. In addition, the quality of facilities, the characteristics of doctors, and the quality of service were also studied. Their study highlights the role of quality of service for the attendant's overall satisfaction with hospital services.

Janaki (2002) in her research studied the geographical and spatial distribution of hospitals focusing in disease ecology and healthcare delivery systems with reference to Chennai city and addresser the importance geographical locations in the construction and management of hospital and its services. However this study like most other researcher fall short of simultaneously considering other closely related variable of service quality, which is critical to address the issue of present day service quality management of hospital services.

In India it is observed that there are long sections of people of the middle class who largely depend on the private healthcare delivery system and they revert to public facility only when the facilities offered become expensive (Janaki, 2002). Therefore in a developing country like India there is a need for a study to measure service quality with other related variables with reference to private hospitals.

Davis (1997) studied the variable, shared values of the employee/manager and related it with variable, perceived patient service equality data, which was collected from the patients. Further, Davis (1997) suggested that future researcher should investigate relationship and test the hypothesis by comparing value congruence data patient service quality data from hospitals, rather than from simply the patient service units of single hospital.

### **OBJECTIVE OF THE STUDY:**

The present study has the objective to examine the moderating effect of emotional intelligence on the relationship between service quality and behavioural outcomes of patients (satisfaction, re-patronage intention and positive word-of-mouth communication).

### **HYPOTHESIS:**

The following hypotheses were framed based on the study objectives:

**H1:** Emotional intelligence as a composite (overall emotions), as well as its dimensions individually have an interaction effect with service quality dimensions and also with overall service quality in its relationship to behavioural outcome of patients as dependent variables (satisfaction, re-patronage intention and positive word-of-mouth communication).

**H2:** Emotional as a comparative, as well as its dimensions individually have a main effect with service quality dimensions and also with overall service quality in its relationship to behavioural outcomes of patients as dependent variables.

## **METHODOLOGY:**

### **Sources of Data:**

The design of the research specifies both the data are needed and how they are to be obtained. The step in data collection-process is to look for primary data as well as secondary.

### **Primary Sources:**

Primary data are data that are collected to help solve or take advantage of an opportunity on which decision is pending. An important source of primary data is Research survey.

Data is collected through

- The questionnaires are prepared. Most of the questions are consists of multiple choices.
- Personal interaction.

### **Secondary Sources:**

Secondary data are data that were developed for some purpose other than helping to solve the problem at hand. Secondary data was collected from Internets, various books, journals and Hospital/Company Records.

### **Sampling:**

The study sample of hospitals was derived from the Vijayawada telephone directory (BSNL) using random sampling. Four private hospitals in Vijayawada gave permission to conduct survey with their patient and patient attendants. The hospital consumers were randomly selected from the hospital records on daily basis based on their room numbers and after holding discussions with the nursing staff concerned about their illness and their ability to spend time in completing the survey instrument.

### **Measures:**

All the constructs were measured using measured using multi-item scales. The variable service quality was measured by using the adapted SWERVPERF scale (Cronin and Taylor, 1992) consisting of five dimensions: tangibles, reliability, responsiveness, assurance and empathy comprising of twenty-two items was used to assess the service quality perception of hospital patients. Similarly, the variable values was measured using the multi-item list of values (MILOV) scale developed by Herche (1994). This scale consists of nine dimensions: security, self-respect, being well respected, self-fulfilment, sense of accomplishment comprising of forty four items was used to measure the social-life-goal-view of values of hospital patients. Both these constructs were measured by using a seven-point Likert scales ranging from 1=strongly disagree to 7=strongly agree. The satisfaction construct consisting of six items was measured by the scale developed by Kennedy, Ferrel, and Leclair (2011).

## **DATA ANALYSIS:**

The survey instruments were subjected to reliability and validity tests. For internal consistency reliability analysis procedure using SPSS 11.0 was used. The reliability analysis of the scales used in the study yielded favourable results. According to Nunn ally (1978) a Cronbach's alpha of 0.7 is acceptable. In this study the composite Cronbach's alpha values are 0.87 for service quality, 0.89 for emotional intelligence, 0.90 for satisfaction, 0.73 for re-patronage intention, and 0.79 for positive word-of-mouth respectively. Since, standardised questionnaires were used in this research they were subjected to confirmatory factor analysis (CFA) procedure using AMOS 5 (analysis of moment structures) software (Arbuckle, 2003). For service quality the goodness of fit (GFI) was 0.92, and to 0.1 it is accepted as it indicates a good fit. In addition, root mean square error of approximation (RMSEA) for service quality was found to be 0.050, and for value it was found to be 0.051 thereby confirming the good fit.

There are two types of statistical techniques generally used to test to test the moderating effect of particular variables. They are sub-grouping analysis and hierarchical regression analysis. The linear moderator multiple regression (MMR) analysis (Zedeck, 1971) technique was preferred to the sub-group correlation method as it enabled retention and use of information that would otherwise be lost in sub-group analysis and the fact that its use resulted in more detailed information about both main and interaction effects (Cohen and Cohen, 1983).

Moderators are often tested by including a multiplicative term in the model. That is, a product of the two interacting independent variables (IVS) in which, one of the two independent variables is hypothesised as a moderator variable (MV). The interaction is tested as the unique influence of the multiplicative term (IVxMV) when the lower-order (main effect) independent variables are included in the model (Cohen and Cohen, 1983;

also Wegener and Fabrigar, 2000). An interaction effect is said to exist when the effect of independent variable on the dependent variable differs depending on the influence of another variable called, the moderator variable (MV) (Jaccard and Turrissi, 2003). By using the MMR technique, for each dimension of the independent variable and the dependent variables relationship pair, the increment in the percentage of variance explained due to the addition of (a) the purported moderator as a second independent variable (main effect) and subsequently (b) the interaction term, a cross-product of independent variable dimensions and purported moderator (interaction effect), were tested with the F-ratio described by Cohen (1968).

**Results of the Analysis**

For testing the interaction effects, linear moderated multiple regression (MMR) analysis was used. The results of the functional analyses are presented in the Tables 1 to 3. The main and interaction effects of the ten moderating variables (values dimensions and its composite on the relationship between six independent variables (service quality dimensions and its composite) and the three dependent variables satisfaction, re-patronage intention, and positive word-of-mouth (behavioural outcomes hospital patients) are consolidated and presented in the table 1. In addition, the percentage of observed interaction effects of values on service quality and behavioural outcomes of hospital patients, along with the corresponding main effects are given moderator variables-wise is given in Table 1.

**Table 1: Interaction & Main Effect Observed For Emotional Intelligence**

Moderator Variables	Extent of interaction effect*		Extent of main effect*	
	No. of Respondents	%	No. of Respondents	%
VALUES security dimension	7	38.89	13	72.22
Self-respect dimension	5	27.78	15	83.33
Being well-respected dimension	5	27.78	2	11.11
Self-fulfilment dimension	7	38.89	12	66.67
Sense of belonging dimension	7	38.89	16	88.89
Excitement dimension	9	50.0	16	88.89
Fun and enjoyment dimension	-	-	7	38.89
Warm relationship with other dimension	5	27.78	10	55.56
A sense of accomplishment dimension	6	33.33	14	77.78
Overall values	6	33.33	14	77.78

Percentages are based on examined relationship = 18.

The table shows that while a total of 57(31.67%) interaction effects are significant, main effects are witnessed in 119(66.11%) of the examined relationships. The interaction effects are more observed for excitement dimension and sense of belonging dimension and it was least observed for self-fulfilment dimension and sense of belonging dimension and it was least observed for self-respect dimension, being well-respected dimension and warm relationship with others dimension respectively. Main effects are observed to be equally more for sense of belonging dimension & excitement dimensions respectively. But it was least observed for being well-respected dimension. The findings indicate the values perform better as a predictor than a moderator. This provider support for hypothesis H2 and partial of value dimensions both as predictor as well as a modulator. The interaction and the main effects of the examined relationships are tabulated service quality dimensions wise are depicted in Table 2

**Table 2: Interaction & Main Effects Observed For Service Quality.**

Independent variables	Extent of interaction effect*		Extent of main effect*	
	No. of Respondents	%	No. of Respondents	%
Tangibles	19	63.33	25	83.33
Reliability	12	40.0	16	53.33
Responsiveness	3	10.0	28	93.33
Assurance	1	3.33	11	36.67
Empathy	9	30.0	25	83.33
Overall Service Quality	13	43.33	14	46.67

Percentages are based on examined relationships = 30.

From the table it can be observed that tangible dimension of service quality displays more interaction effects with values, followed by responsiveness and empathy while assurance dimension exhibits least moderator effects. In addition main effects are observed in almost all the relationships for responsiveness dimension while it was least for the assurance dimension.

The findings show that components of service quality need to be considered as they differ in their ability to combine with the dimensions of values in explaining the variance in behavioural outcomes of hospital patients. Among the service quality dimensions tangibility factor shows main effect as a predictor as well as in interacting with values. The interaction and main effects of the examined relationships tabulated dependent variable-wise are exhibited in table.3.

**Table 3: Interaction and Main Effects Observed for Patients.**

Dependent variables	Extent of interaction effect*		Extent of main effect*	
	No. of Respondents	%	No. of Respondents	%
Satisfaction	18	30.0	37	61.67
Re-patronage Intention	15	25.0	53	88.33
Positive word-of-mouth	24	40.0	29	48.33

Percentages are based on examined relationships = 60.

Among the three dependent variables interaction effects are observed more for positive word-of-mouth 24(40.0%) followed by satisfaction 18(30.0%) and least observed for re-patronage intention 15(25.0%).But main effects are observed more for re-patronage intention 53(88.33%) followed by satisfaction 39(61.67%) and least observed for positive word-of-mouth 29(48.33%).While value can serve as a buffer between service quality and positive word-of-mouth its efficiency pronounced in explaining the variance in re-patronage intention of the hospital patients.

### SUMMARY OF FINDINGS:

The test of moderator finds a reasonable number of interaction effects of the variable values as a composite (overall values) as well as its dimensions with service quality in its relationship towards behavioural outcomes of patient. The support for the main effect of values is well supported.

Among the nine dimension of values, the moderating effect was observed only for being well-respected dimension Whereas the other values dimensions: security, self-respect ,self-fulfilment, sense of belonging, excitement, fun and enjoyment dimension, warm relationship with others, sense of accomplishment and overall values were observed to have more main effect and thereby predicting the behavioural outcome of patients. Therefore based on the study results the hypothesis H1 is supported and H2 is partially supported.

### Managerial Implications:

Hospital administration should undertake periodic and systematic service quality audit to determine deficiencies and lapses in delivering quality service to the consumer. In addition, data gathering on the patients values and their behavioural outcomes (satisfaction, re-patronage intention and positive word-of-mouth) are vital in order to tailor make the hospital service to suit the patients. Further meaningful efforts in this direct would boost the hospitals image and it will enable to earn and establish goodwill among patients.

Scholar like Cook (1988) had emphatically professed and also argued that values are the most relevant aspect of consumer's personality for the marketer. He further argues that if the market does not know what personality aspects are most central for the consumer, then the marketers understanding of that consumer is shallow. Therefore integrating the measurement of values to the consumer's behaviour is a key task for the marketing researcher.

In the research the hypothesised moderators were subjected to linear modulator multiple regression(MMR) analysis, and his study has been identified only limited interactions effects for the variable values. But on the other hand, the analysis results found main effect to be abundant.

### CONCLUSION:

The findings of the study confirm that the being well-respected dimension of the variable values display moderating effects. The differential efficacy of the values dimensions in conjunction with service quality found by this study supports the cause for further efforts to study individual differences by value research. Nevertheless from a theoretical perspective these findings throw up a light on the questions.

"How far do individual value-difference determine or moderate the relationship between perceived service-quality and effect patient's perception of satisfaction, re-patronage intention and positive word-of-mouth". Moreover, further meaningful thrust for research in this direction requires additional theoretical reinforcement linking hospitals with varying bed capacities, location and the patients belonging to different strata in the society. The findings from this study therefore do not constitute causal evidence for the select variables taken for study and given this caveat, the present research appears to provide a strategic information as well as direction useful in ascertaining how to plan, provide and deliver better service quality to patients.

## REFERENCES:

- Browns, S.W., and Swartz, T.A (1989). A Gap Analysis Of Professional Service Quality, *Journal of Marketing*, Vol.53, No.2.92-98.
- Cook, William A, (1988). On Values And The Valued, *Journal of Advertising Research*, vol.28, No.1,PP.7-8.
- Cronin,J.Joseph,Jr.,ans Steven A.Taylor.(1992). Measuring Service Quakity: A Re-examination And Extension, *Journal Of Marketing*,Vol.56,No.7,app.55-68.
- George, J.M. (2000). Emotions and leadership: the role of emotional intelligence. *Human Relations*, 53 (8), 1027-1055. DOI: 10.1177/0018726700538001.
- Goleman, D.(1995). *Emotional Intelligence: why it can matter more than IQ?* New York, Bantam Books.
- Janaki,L (2002). *Disease Ecology and Healthcare Deliver Systems in Chennai city*, unpublished doctoral dissertation.Unoversity of Madras,chennai,India.
- Mathew & Robert Emotional Intelligence and the construction and regulation of feeling. *Appl prev Psychol*, 4(3) (2001) pp. 197-208. [https://doi.org/10.1016/S0962-1849\(05\)800058-7](https://doi.org/10.1016/S0962-1849(05)800058-7).
- Mayer, J.D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D.J. Sluyter (Eds.), *Emotional development and emotional intelligence* (pp. 3-31). New York: Harper Collins. Retrieved May 5, 2009, from <http://naturaldiscoveries.biz/articles/EI1997MSWhatIsEI.pdf>
- Mayer, J.D., Caruso, D.R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27 (4), 267-298. DOI:10.1016/S0160-2896(99)00016-1
- Patrick, Michelle Leyn (1998). *The Measurement Understanding Of The Zone Tolerance in expected service quality: An Application in the Tourism Industry (Airtime Industry, Hospital Industry)*, (Doctoral disscratation,kent state university).
- Salovey, P., & Mayer, J.D. (1990). *Emotional Intelligence*. Retrieved September 25, 2010 from [http://www.unh.edu/emotional\\_intelligence/EI%20Assets/Reprints.EI%20Proper/EI1990%20Emotional%20Intelligence.pdf](http://www.unh.edu/emotional_intelligence/EI%20Assets/Reprints.EI%20Proper/EI1990%20Emotional%20Intelligence.pdf)
- Sherlock, P. (2002). Emotional Intelligence in the international curriculum. *Journal of Research in International Education*, 1(2), 139-158. Retrieved September 23, 2010, from <http://jri.sagepub.com/content/1/2/139.short>.
- Williams, R. M., Jr. (1970). *American Society: a sociological interpretation*, (3rd ed.),knopf,New York.
- Zeduck,S.(1971). Problems with the use of 'moderator' variables, *Psychological Bulletin*. Vol.76,pp.295-310.
- Zeidness. Concept, Analysis and the development of nursery knowledge: the evolutionary cycle Jadv Nurs, 14(1789). Pp.330-335)

----