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# Understanding Communication satisfaction in the Indian context

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**Abstract (150 words, Font 12):**

**Purpose:** With growing importance of communication across organizations, relevance and importance to measure organizational communication is further enhanced. The present study attempts to administering the internationally tested Communication Satisfaction Questionnaire (CSQ) in the Indian conditions and verifying its results to those reported in the western conditions.

**Design/Methodology/ Approach:** To start the authors have used the items of Communication Satisfaction Questionnaire (CSQ) as reported by Deconink, et. al., (2008) was administered to 179 executives employed in 6 different sectors.

**Findings:** Confirmatory Factor Analysis (CFA) was used on the original CSQ scale and the results showed that the model was not a good fit (CFI= .72 RMSEA= .06) therefore the there was a need to modify the scale items. Modified items of the original CSQ scale were used to conduct an Exploratory Factor Analysis (EFA) followed by a CFA on the reduced items. The factor structure of CSQ does not match the results achieved by the Indian organizations.

**Research Limitations/ implications:** A suable tool to measure communication satisfaction in the Indian context can be developed.

**Originality/ Value:** No research in the field of measuring organizational communication in Indian context has been found.

**Keywords:** Organizational Communication; Communication Measurement; Communication Satisfaction Questionnaire (CSQ), Indian conditions, AMOS

- Corresponding Author

## Understanding Communication satisfaction in the Indian context

### Abstract

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**Design/Methodology/ Approach:** To start the authors have used the items of Communication Satisfaction Questionnaire (CSQ) as reported by Deconink, et. al., (2008) was administered to 179 executives employed in 6 different sectors. Confirmatory Factor Analysis (CFA) was used on the original CSQ scale and the results showed that the model was not a good fit (CFI= .72 RMSEA= .06) therefore the there was a need to modify the scale items. Modified items of the original CSQ scale were used to conduct an Exploratory Factor Analysis (EFA) followed by a CFA on the reduced items.

**Findings:** The factor structure of CSQ does not match the results achieved by the Indian organizations.

**Research Limitations/ implications:** The study was conducted in a city in the western part of India and therefore the results cannot be generalized and fool proof but preliminary indicators of important factors and similar validates from other parts of the country would help in crafting a communication measurement tool which is suitable for Indian organizations.

**Originality/ Value:** No research in the field of measuring organizational communication in Indian context has been found. Results of this study can be used as a basis for further research in this direction.

**Keywords:** Organizational Communication; Communication Measurement; Communication Satisfaction Questionnaire (CSQ), Indian conditions, AMOS.

**Paper Type:** Research Paper

### Introduction

Communication is defined as “the process or act of transmitting a message from a sender to a receiver, through a channel and with the interference of noise” (DeVito, 1986) and is simply understood as an exchange of information, thought, and emotions expressed as ideas, opinions or beliefs between two individuals or an individual and a group. The second form of communication which happens between an individual and a group is gaining increasing importance to be gradually realized as having a pivotal role in the way an organization operates and is identified as a key factor for organizational success (Wallace, 1993). This genre of communication is understood as organizational communication and has been defined as ‘the process by which individuals stimulate meaning in the minds of other individuals by means of verbal or nonverbal messages in the context of a formal organization.’ (Richmond, et al., 2005) The definition clearly indicates that organizational communication encompasses and impacts all facets of organizational activity making it extremely complex and multifaceted (Duncan & Moriarty, 1998; Mersham & Skinner, 2001) ranging from micro, meso and macro levels, informal and formal kinds , internal and external types of communication and linked to other organizational activities and processes like innovation, organizational learning, knowledge management, conflict management, diversity, and communication technologies (Baker, 2002) and operational process like integration of units and processes and objective alignment. This leads organizations to measure the prevalence and analyse communication effectiveness in an intra-organizational context.

The measurement of the impact of organizational communication is important because there have been studies and notions suggesting the same and establishing an empirical

association between effective and satisfactory communication and organizational performance, productivity and positive customer orientation (Downs & Adrian, 2004; Hargie & Tourish, 2000; Larson and Fukami (1984); Pincus (1986) and Clampitt and Downs (1993). The level of employee stress, attrition and absenteeism is also noted to reduce (Angle & Perry, 1981; Hargie, Dickson, & Tourish, 1999; Ray, 1993; Steers, 1977) and an enhanced level of job satisfaction and commitment and heightened motivation is observed as a result of high communication satisfaction (Gregson, 1990; Mathieu & Zadjac, 1990; Orpen, 1997; Pettit, Goris, & Vaught, 1997; Varona, 1996). Since organizational communication measurement covers a range of business operations and activities and makes a comprehensive analysis of the organizational activities, several companies have begun to measure organizational communication (Angelopulo, et. al., 2004). But there exists a lacuna in the awareness about the importance and impact of organizational communication on the other activities of business (Greenbaum, 1974) especially in developing nations like India where organizational communication activities are still struggling to draw attention of both practitioners and researchers (Harris and Bryant, 1986).

There are four instruments developed for measuring organizational communication of which Communication Satisfaction Questionnaire (CSQ) is the most widely-used instrument particularly in the western and the developed nations. To the best of our knowledge, however, the CSQ has not been employed in the context of Indian organizations. We take a first step in rectifying this neglect by administering the questionnaire to a sample of 179 participants from a variety of industries in India, carrying out a Confirmatory Factor Analysis (CFA) on the submissions, and then comparing and contrasting the CFA results with those previously reported for Western and developed nations. We conclude by offering some conjectures as to the cultural differences and/or similarities between Indian and Western societies that might account for the difference and similarities observed in the communication channels. The need for this study in India is felt because globalization has resulted in making Indian organizations complex (Garr, 2001) with intricate communication patterns with impacts that call exploration and analysis (Castells, 1996, 1997, 1998).

## **Literature Review**

### **Measures of Organizational Communication**

#### *Evolution of Communication Assessment*

Measuring organizational communication has been widely written and discussed in the western and developed nations where large organizations with professionally established processes and systems have existed for a long while now. The first academic understanding of measuring communication has been explained as an “exploratory attempt to discover the accuracy, and direction of communication within a particular organization at a particular moment” (Odiorne, 1954) done through a 16 item questionnaire. The complexity in the process of measuring communication were encountered primarily because communication is “a process rather than a static variable”(Roberts and O’Reilly, 1974). Over a period of time several initiatives have been taken and attempts to develop and validate communication measurement tools have been made. Organizations like the International Communication Association (ICA) have facilitated the standardized process of internal communication assessment. The rudimentary measure of the 1950’s was realized as primitive and scholars by 1970’s had begun to work on a more comprehensive scale (Goldhaber, 1976). The organizational communication division of ICA developed a standardized measurement system by 1971 and by 1973 Roberts and O’Reilly released the 35 item Organizational Communication Questionnaire (OCQ) which was followed by the

Communication Satisfaction Questionnaire (CSQ), an 88 item questionnaire by Downs and Hazen in 1977. CSQ was an evolved version of the 122 item, lengthy and impractical, ICA audit questionnaire (Zwijze-Koning & De Jong, 2007). The commonality between all the measurement tools are the variables through which communication assessment is made – information communication climate, message directionality, accuracy, content, overload and satisfaction, (Greenbaum, Clampitt & Willihnganz, 1988).

A range of measurement tools are available - the International Communication Association Audit, Organizational Communication Scale, Organizational Communication Development Audit Questionnaire and Communication Satisfaction Questionnaire but organizations fail to employ them and rather adopt unique indigenous ways of assessing communication leading to a marked absence industry verified results (Greenbaum & White, 1976; Cortez & Bunge, 1987).

### **The CSQ**

CSQ as mentioned earlier was developed by Downs and Hazen in 1977 and was originally used to analyse the association between communication and job satisfaction. It measured communication satisfaction of employees by probing into eight different areas of communicative topics. The eight factors as mentioned by Deconinck, et.al, 2008 is detailed below

*Communication Climate* reflects communication on both the organizational and personal level and includes items such as the extent to which communication in the organization motivates and stimulates workers to meet organizational goals and estimates of whether or not peoples' attitudes toward communicating are healthy in the organization.

*Supervisory Communication* includes both upward and downward aspects of communicating with superiors (e. g., extent to which my subordinates anticipate my needs for information).

*Organizational Integration* revolves around the degree to which individuals receive information about the immediate work environment such as personnel news and information about departmental plans.

*Media Quality* is the extent to which meetings are well organized, written directives are short and clear, and the degree to which the amount of information is about right.

*Co-worker Communication* is concerned with the extent to which horizontal and informal communication is accurate and free flowing.

*Corporate Information* deals with the broadest kind of information about the organization as a whole. It includes items on information about the organization's financial standing and notification about changes.

*Personal Feedback* is concerned with workers' need to know how they are being judged and how their performance is being appraised.

*Subordinate Communication* focuses on upward and downward communication with subordinates. Only supervisors respond to these items.

### *Reasons for use of Communication Satisfaction Questionnaire (CSQ)*

Empirically established positive relationship between communication satisfaction and organizational health has been driving research in the area of Communication Satisfaction (CS) (Downs & Adrian, 2004; Downs & Hazen, 1977) and as a result CS measurement tools consist of multiple constructs inquiring into the various organizational dimensions – communication load, communication climate, its direction, and frequency of interaction (Hargie, Tourish, & Wilson, 2002; Hecht, 1978; Mohr & Sohi, 1995). Initially, organizational communication was understood as a one-dimensional construct (DeConinck, et.al, 2008) but CSQ changed the perspective and the idea of employees being satisfied with one aspect of communication and dissatisfied with another evolved (Clampitt and Downs, 1993) which became a key reason for the wide spread employment of the instrument (CSQ) in the field of communication measurement (Gray and Laidlaw, 2004).

Crino and White (1981) confirmed the eight factors using principal component analysis just as they were reported by Downs and Hazen in 1977 but the detailed findings failed to indicate either discriminant validity or convergent validity (DeConinck, et. al, 2008). The scale has been tested to hold a high correlation with job satisfaction when tested with nurses but not with job performance (Pincus, 1986). In 2004, Gray and Laidlaw used AMOS, the confirmatory factor analysis technique to check the scale and proposed a two-factor solution – relational and informational dimension (Zwijze-Koning, & De Jong, 2007). CSQ has a high test retest reliability of .94 and construct and concurrent validity of the scale has also been researched upon (Rubin, Palmgreen, & Sypher, 1994). There have been several research studies in the western universities in the form of dissertation and thesis which have used the CSQ but using CSQ in the Indian conditions as a tool for measuring communication satisfaction has not found the interest of the research scholars. The present study uses CSQ as a tool in the Indian organizations and verifies the results against those received in the western conditions.

## **Methodology**

### **Sample**

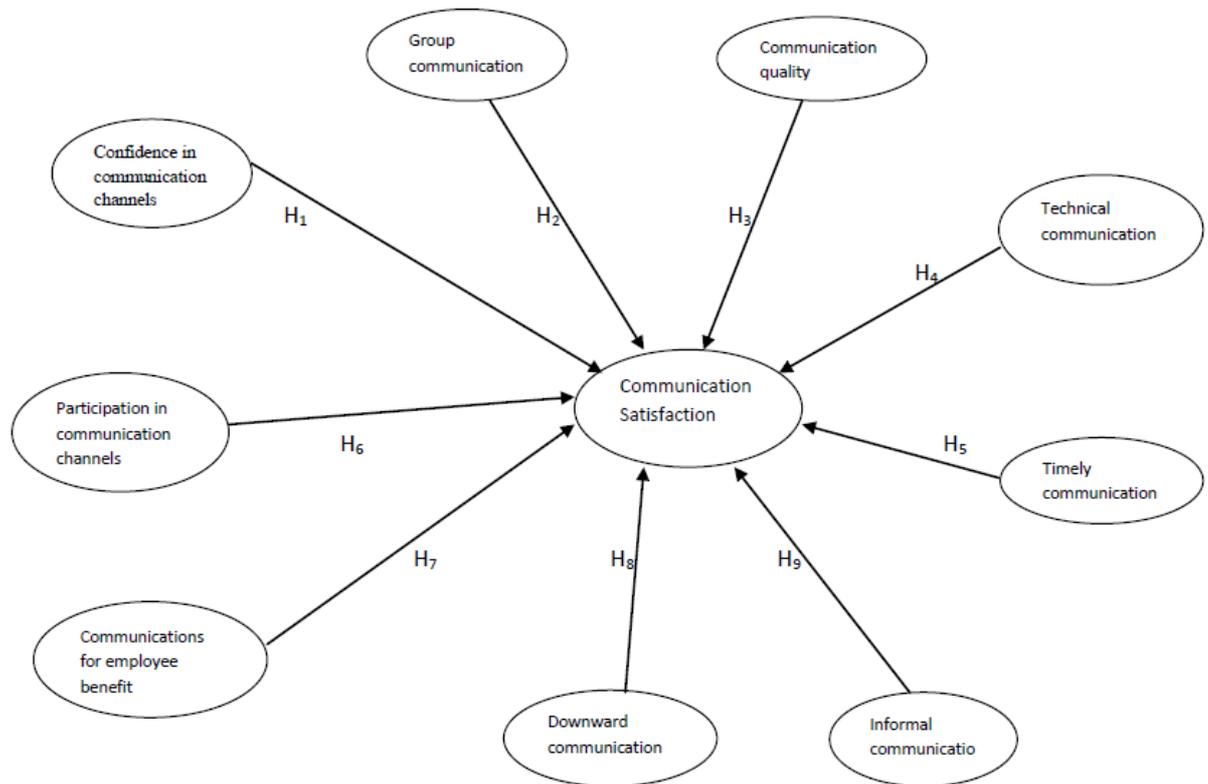
Items were picked up from the CSQ as reported by Deconink, et. al., 2008, was administered to 197 participants, 79 were females and 100 were males from various industries – Telecom, Information technology and Enabled services, Manufacturing, Logistics and Banking. The participants had an average work experience of over 3 years and did not occupy supervisory position. These organizations were technology enabled and most official inter office communication in written form happened over e-mails and oral communication was either telephonic or face to face in meetings and conferences. The respondents had not ever responded to this questionnaire earlier and were neither aware of any such a questionnaire. Participants from the same organizations were made sit separately while answering the questionnaire. The scale consisted of 36 items. Each item was rated on scale of 1 to 7 (Annexure-I).

### **Method**

Confirmatory Factor Analysis (CFA) was used on the original CSQ scale items and the results showed that the model was not a good fit (CFI= .72 RMSEA= .06) therefore using the items of the scale an Exploratory Factor Analysis (EFA) was done to understand the factor structure in the Indian scenario. EFA was done to evaluate the structure validity of the new factors. It was also required because the original scale was developed in 1977 and over years several researches (Crino and White, 1981; Pincus, 1986; Zwijze-Koning, & De Jong, 2007; DeConinck, et. al, 2008) have reported varying factor structures.







### Confirmatory factor analysis (CFA)

CFA was performed to understand the measurement and the structure model. Communication satisfaction was treated as a second order factor resulting from nine first order factors as reported above.

### Model Fit

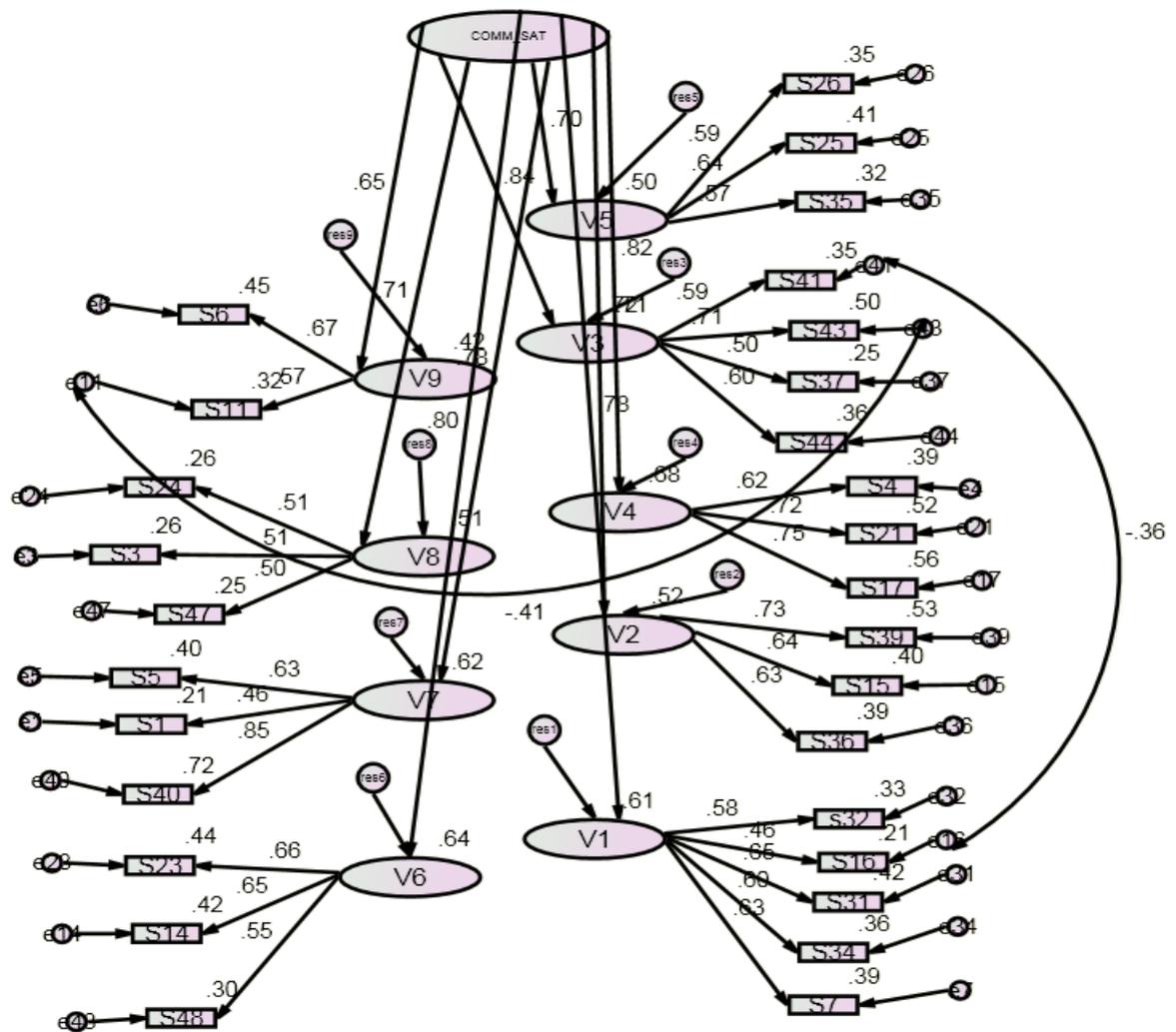
There have been discussions on the issue of ‘good fit’ of a model (Bollen & Long, 1993; Shevlin, Miles & Lewis, 2000) and two broad factors considered for fitness are ‘overall fit’ and ‘component fit’ (estimates of parameter) (Bollen, 1989). The initial efforts to check the model fit, employed confirmatory factor analysis (likelihood ratio), following the CHI-Square distribution (simply referred as  $X^2$ ). Concerns regarding using  $X^2$  arouse due to the intolerance of this method to even inconsequential ‘misspecifications’ (Shevlin and Miles, 1998) and therefore the rejections of models. Further, the value of  $X^2$  is also sensitive to distortions and therefore to assess model fit Comparative Fit Index (CFI) and RMSEA is also used (Steiger, 1990; Steiger & Lind, 1980).

CFI was proposed by Bentler (1990) when he revised the earlier prevalent Normed Fit Index (NFI) and considered the sample size as a parameter in deciding a model fit. CFI value of  $>.90$  was considered a well-fitting model and a value of  $>.95$  representing an excellent fit (Bentler, 1992). RMSEA provides ‘a measure of the discrepancy per degree of freedom for the model’ (Browne & Cudeck, 1993). It uses the  $X^2$  value of the model along with the sample size along with a correction of the complexity of the model (degrees of freedom) so that these factors do not impact the decision of accepting or rejecting the model. Further, RMSEA has a known sample distribution which provides for calculation of the confidence limits. RMSEA value of  $<.08$  as a satisfactory fit and values  $<.05$  as an excellent fit (Browne & Cudeck, 1993). In the present study while  $X^2$  is presented, other fit indices along with CFI and RMSEA are considered and the model fit is decided not on

the basis of  $X^2$  value but on the basis of CFI and RMSEA. Both these indices of fit are reported in the AMOS output (Appendix I) but CFI is considered a better index of choice (Bentler, 1990).

### **Analysis of CFA model**

CFA model was formulated using AMOS Graphics (Arbuckle, 2007). The initial model to be tested did not provide an adequate representation of the data, the modification indices (MIs) and standardised expected parameter changes (par change) were used to modify the model, as recommended by (Saris, Satorra, & Sorbom, 1987).



**Figure 1**

The original nine factor model was tested and the results are as follows:

- $X^2 = 507.260$   $df = 398$  and  $p = .000$   $CFI = .874$  and  $RMSEA = .051$

The Modification indices suggested the following changes:

- Step 1: error term of item 41 (e41) shows a covariance with error of item 16 (e16). So join item e41 with e16
- Step2: error term of item 43 (e43) shows a covariance with error of item 11 (e11). Join e43 with e11.

After the above modifications we arrive at model 2 the results are as follows:

- $X^2 = 481.55$  df= 396 and p= .000 CFI= .902 and RMSEA= .045

(The  $X^2$  value has dropped from 507.3 to 481.6.  $X^2$  being a badness of fit measure implies model 2 is better than model 1.)

The CFI is greater than .90 and RMSEA is less than .05 this implies a satisfactory fit.

The full structure model (figure1) was also tested by treating the Communication satisfaction as a second order factor and nine first order factors as reported above. The results are as follows:

- $X^2 = 441.221$  df= 366 and p= .004 CFI= .905 and RMSEA= .044

The above parameters indicate a satisfactory fit and indicate that in the Indian conditions the Communication satisfaction is a nine factor model. The final model reveals that communication satisfaction is a second order factor consisting of nine first order factors. After establishing a fit for the hypothesized model we tested the hypothesized regression model. The final model revealed the following:

	<b>Standardized Regression weights</b>	<b>R<sup>2</sup> Estimate</b>
V1 <--- COMM_SAT	.779	.607
V6 <--- COMM_SAT	.799	.639
V2 <--- COMM_SAT	.724	.524
V7 <--- COMM_SAT	.785	.616
V8 <--- COMM_SAT	.713	.508
V4 <--- COMM_SAT	.824	.679
V9 <--- COMM_SAT	.646	.417
V5 <--- COMM_SAT	.704	.495
V3 <--- COMM_SAT	.840	.706

A good deal of variance is explained in each factor. This validates Hypothesis H1 to H9 about each individual factor effecting the communication satisfaction positively.

## **Discussions and Implications**

Items from the scale pertaining to factors concerning employee benefits, group communication and informal channels of communication are understood better whereas items pertaining to timely communication and relating to supervisors do not fit very appropriately because sample population from where data was gathered were first generation users of computer mediated communication whereas employees prefer interpersonal communication over mediated communication with their supervisors (Cameron and McCollum, 1993) and since communication satisfaction has been identified as a multidimensional process where employees may be satisfied with one aspect yet may be dissatisfied with the other aspects of communication (Clampitt and Downs, 1993). Communication satisfaction model in Indian context also shows that most

employees are not receiving the right kind and timely communication (Bartoo and Sias 2004) though they may be getting a high amount of information.

The present study gives clear indications that Communication satisfaction as a concept finds satisfactory fitment in the Indian conditions and organizations intending to understand communication satisfaction should be cautious of the limitations of the tool in the Indian conditions. Added it also indicates to researchers of communication that the developed model needs to be tested further with a larger sample group which encompasses a bigger cultural mix.

### **Directions for Further Study**

The customer satisfaction model for organizational communication needs to be validated and this can be taken as a maiden study making rudimentary indications towards the direction of research required to either develop a new scale for measuring communication in India or to refine CSQ for using it as tool for measuring communication in India. The fully developed scale could be used for the audit of the communication satisfaction in Indian organizations.

### **Conclusion**

The existing tools such as CSQ cannot be used as it is in the Indian context. The new factor structure which evolved through this study has a satisfactory validity implying that there exists a further scope to undergo further modification. The modification would involve an addition of items which could be brought out by experts opinion and literature review. It is important to keep the cultural aspect of communication in mind while developing a questionnaire for communication satisfaction for the Indian conditions. Further, the changes in the work environment due to computer mediated communication should also be considered while working on the questionnaire for the Indian conditions. There is scope and an academic and industry need to work in the area of communication satisfaction such that best organizational communication delivery and measurement in India could be par with the professionally managed companies of the developed western world.

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**Appendix - I**

<b>Model Fit Summary</b>					
<b>CMIN</b>					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	69	441.221	366	.004	1.206
Saturated model	435	.000	0		
Independence model	29	1193.879	406	.000	2.941

<b>RMR, GFI</b>				
Model	RMR	GFI	AGFI	PGFI
Default model	.087	.793	.754	.667
Saturated model	.000	1.000		
Independence model	.299	.358	.312	.334

<b>Baseline Comparisons</b>					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.630	.590	.909	.894	.905
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

**FMIN**

Model	FMIN	F0	LO 90	HI 90
Default model	4.162	.710	.249	1.247
Saturated model	.000	.000	.000	.000
Independence model	11.263	7.433	6.491	8.446

**RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.044	.026	.058	.738
Independence model	.135	.126	.144	.000

**AIC**

Model	AIC	BCC	BIC	CAIC
Default model	579.221	633.695	763.647	832.647
Saturated model	870.000	1213.421	2032.681	2467.681
Independence model	1251.879	1274.774	1329.391	1358.391

## Appendix - II

### Regrouped Factors of CSQ in the Indian Conditions

Factor Name	Item No.	Item
confidence in communication channels	S32	Extent to which my supervisor is open to ideas
	S16	Extent to which horizontal communication with other employees is accurate and free flowing
	S31	Information about the requirements of my job
	S34	Information about our organization's financial standing
	S7	Extent to which my company's publications are interesting and helpful
	S30	Extent to which my supervisor trusts me
Group Communication		Reports on how problems in my job are handled
		Extent to which the people in my organization have great ability as communicators
		Extent to which my work group is compatible
Communication Quality	S41	Extent to which the amount of supervision given to me is about right
	S43	Extent to which conflicts are handled appropriately through proper communication channels
	S37	Extent to which the attitudes toward communication in the organization are basically healthy
	S44	Extent to which informal communication is active and accurate
Technical	S4	Information about company policies and goals

Communication	S21	Information about departmental policies and goals
	S17	Extent to which our meetings are well organized
Timely Communication	S26	Extent to which communication practices are adaptable to emergencies
	S25	Extent to which the organization's communication makes me identify with it or feel a vital part of it
	S20	Extent to which my supervisor offers guidance for solving job related problems
	S35	Extent to which I receive in time the information needed to do my job
Participation in communication channels	S23	Recognition of my efforts
	S14	Information about government action affecting my company
	S48	Extent to which superiors know and understand the problems faced by subordinates
communications for employee benefit	S5	Extent to which the organization's communication motivates and stimulates an enthusiasm for meeting the goals
	S1	Information about my progress in my job
	S40	Information about benefits and pay
Downward communications	S24	Information about changes in our organization
	S3	Information about how my job compares with others
	S47	Information about accomplishments and/or failures of the organization
Informal Communication	S6	Extent to which the grapevine is active in our organization
	S11	Personnel news