Chapter 4
Measuring TQM Awareness in Indian Hospitality Industry

Faisal Talib and Zillur Rahman

Abstract Hospitality industry is considered one of the rapidly growing industries of Indian service sector due to its ability to generate huge employment, share in economic development of country, and developing a healthy relationship between the two countries. Hospitality industry needs to maintain and improve its performance continuously by identifying customer needs and fulfilling their requirements to remain at the top among other service industries. Total quality management (TQM) is considered as one of the approaches for this purpose and should be treated as a way of life for all the service industries. But how can TQM become a "a way of life" in the industry if the managers and practitioners are not aware of it? For this purpose, the present study addresses managers' awareness and familiarity of TQM program in the Indian hospitality industry. The data were collected using a self-administered questionnaire to 112 hospitality industries in India. A total of 34 useable survey questionnaires were considered for the final analysis. The result recommended that the Indian hospitality industry is well aware of TQM principles and practices and they in large adopt programs that improve quality performance and customer satisfaction. It was also observed that there is a need to train employees in advanced quality improvement techniques and in inducing quality culture within the industry. Some latest TQM models or frameworks as proposed by the TQM experts and academicians may also be adopted by the managers and practitioners of the industry to get maximum benefits.

Keywords TQM · TQM awareness · Hospitality · Industries · Quality improvement tools · India

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4.1 Introduction

Over the last decade, Indian service especially hotels and tourism industries (hospitality industry) and government have shown a keen interest in total quality management (TQM). It was Planning Commission [31] and Quality Council of India [34] reports on standards, accreditation, and quality control and assurance, which focused on quality managers and government attention on TQM. However, earlier researches on quality and related areas have provided little evidence on the awareness level of TQM in the Indian hospitality industry. Only a few research studies have been undertaken in Indian context that too at a low or fragmented level. Although a significant number of manufacturing, small and medium enterprises (SMEs), corporate and public industries have inculcated a form of TQM in their trade [13, 16, 27, 36, 52] and have derived demonstrable benefits from the application of such approaches, still there is a need for much more study on TQM particularly on the weakest area like an assessment of TQM awareness and its measurement in the field of business performance as few people are actually exploring this issue in the Indian service sector. Industries like hospitality, wishing to implement TQM therefore, face difficulties as they are under tremendous pressure to perform and sustain in the global market and gain competitive advantage.

Hence, there is a need for the Indian hospitality industry to know about the TQM awareness and related issues to cope-up with other emerging sectors. Further, TQM literature suggests that only a few studies have been done in the hospitality sector that too on different issues other than the assessment of TQM awareness and restricted to developed countries only. It is therefore predicted that researchers in this area have largely remained silent and indifferent to the assessment of TQM awareness in the hospitality industry. Accordingly, there is a need to study such an issue to bridge this gap in the available literature on the hospitality industry.

In light of the above, the objective of this study was framed to fill the void in the literature by investigating the awareness of TQM in Indian hospitality companies using a survey-based approach. Such an analysis will help researchers understand the development and progress of TQM in the hospitality industry to date and will help to draw attention to some gaps to be fulfilled by the future researchers in the area.

The study is organized as follows. After review of literature on TQM, the research methodology is described. The explanation of results and discussion section follows. The conclusions drawn from the study followed by some implications to managers and future research scope closes the study.

4.2 Literature on TQM

The literature on TQM is quite exhaustive, encompassing an overabundance of research works on development of TQM models [5, 10, 18, 30, 42, 43, 47], case

studies [3, 9, 22, 28]; critical practices of TQM [38, 42, 44], relationship between TQM and quality performance [4, 20, 21, 32, 33, 37, 40, 43], development of qualitative studies on TQM [29, 39, 45, 48, 49], and quality tools and techniques [25, 49, 51], and many more.

Several research studies have also been conducted using different quality award models like Malcolm Baldrige National Quality Award (MBNQA), Deming Quality Award and European Foundation Quality Award (EFQA) frameworks to examine the impact of TQM on organization performance [5, 24, 30, 51].

All the above studies have used different approaches to study TQM in different organizations. However, some studies on TQM in hospitality which needs to be discussed in this paper are presented in the following section.

4.2.1 TQM in Hospitality Industry

Bouranta et al. [8] identified the TQM critical factors and their effect on organization performance in the hotel industry of Greece and found that strategic quality planning, top management, employee knowledge, and education, employee quality management and customer focus are the factors responsible for quality improvement while Amin et al. [1] studied the structural relationships between TQM, employee satisfaction, and hotel performance. The findings of the study were: seven determinants of TQM showed positive relationships with employee satisfaction and hotel performance, and leadership role and customer focus have critical roles in improving employee satisfaction and hotel performance.

Sila and Ebrahimpour [41] analyzed and capered TQM practices in three luxury hotels while Claver-Cortés et al. [11] examined how TQM is associated with managerial factors such as training, information, and communication technologies and information system (ICT/IS) and environmental management. A literature review conducted by Keating and Harrington [23] on the implementation of the quality program in the hotel industry observed that top-management commitment and the provision of training and value promotion throughout the organization were important dimensions for the growth of Irish hotel industry. They further observed that quality management (QM) in this industry is lacking in involvement, communication, and teamwork dimensions.

Eraqi [15] evaluated the customer's views related to tourism quality in Egypt using TourServQual model and measured tourism business performance. A recent study by Daghfous and Baskhi [14] assessed and explored the extent of UAE hotels using IT (information technology) system to improve back-end operations and customer services with special focus on TQM, customer relation management (CRM), and supply chain management (SCM) through a questionnaire survey methodology. They proposed a conceptual model for a better understanding of the strategic challenges faced by IT/IS managers in this industry. Similarly, a study by Holjevac [19] emphasized business ethics as a dimension of TQM in Croatian tourism sector. Further, during the current literature review, no study was found on TQM in context within

Table 4.1 Population and sample size for hospitality industry

Industry	Population (*N*)	Sample size based on GDP contribution (*n*)	Return responses	Valid responses	Rejected responses	Percentage response
Hospitality	350	112	39	34	5	30.3

Indian hospitality industry context. This suggests a lack of research gap in the knowledge about TQM in Indian hospitality industry and therefore, the current study was undertaken.

4.3 Research Methodology

A survey methodology based on a questionnaire was carried out to accomplish the objective of this study in the select Indian hospitality industry (including hotels and tourism). Next section describes sample and data collection procedures used together with instrument development and target respondents administration approach.

4.3.1 Sample and Data Collection

A database i^3 (i-cube, Information Infrastructure for Institutions), Centre for Monitoring Indian Economy Private Limited, India (i^3, CMIE, 2010) was used to identify the names of select Indian hospitality companies. The information provided by the database is: company name, address of the company, contact person, and e-mail ID. The target population of this study is 350 companies obtained from the database (Table 4.1). A minimum sample size based on GDP contribution of hospitality industry from the total contribution of GDP in the Indian service sector was used in this study. Using this methodology, minimum sample size of 112 was obtained (Table 4.1) and used for further study. A simple random sample approach was utilized to draw a sample from the calculated size.

4.3.2 Research Instrument Development and Administration

A self-administered structured instrument was designed in this research based on the works of Antony et al. [2], Bhat and Rajashekhar [7], and Rad [35]. The instrument was modified by consulting with academicians and quality experts and was initially validated through a pilot survey before it was actually used for primary data

collection. The instrument developed was divided into two sections. The first section comprises the demographic information of the respondents including profession, gender, years of experience as well as the general background of the company and the second section collects information regarding the awareness of TQM in Indian hospitality companies. Eight statements were constructed that seek the opinion about awareness of TQM and various facets concerning TQM in the company. The instrument used a 5-point Likert scale, with 1 = very little, 3 = moderate, and 5 = very much, depending on the type of question.

The target respondents for this study were top and middle-level administrators/managers who have sufficient level of experience and qualification and therefore, they will be aware of the TQM program. A total of 112 questionnaires were e-mailed to different hospitality companies. After several follow-ups and personal contacts, a total of 39 companies responded which were selected for this study, however, only 34 useable survey instruments were included for the data analysis as five instruments were unusable, yielding a response rate of 30.3% (Table 4.1).

4.4 Results and Discussion

4.4.1 Profile of Respondents

The first section of the instrument developed for this study seeks the demographic data of the respondents. As shown in Table 4.2, the profile of the survey respondents comprised 16 tourism (47.1%) and 18 hotels (52.9%) companies out of which 20.6% were government and 79.4% were private owned companies. The breakdown of gender of the respondents was 30 (88.2%) male and 4 (11.8%) female. It suggests that the majority of the Indian hospitality companies are male-dominated companies in their quality department. Regarding the year of experience, there were only five respondents (14.7%) who have less than five years of experience, and the remaining 29 respondents (85.3%) were having more than five years of experience. Reflecting that majority of respondents' job tenure at their current organization was more than five years at the time of survey and hence, low job turnover problem was not observed. It was also found that almost all the responding companies were quality certified meaning that the group of companies is either implementing or is in the process of getting TQM implemented in some way. Finally, the responses received from different departments/sections are as follows: 4 from quality (11.8%), 6 from product and services (17.6%), 5 from customer relation (14.7%), 11 from marketing (32.4%), 5 from information management services (14.7%), and 3 from others (8.8%).

Table 4.2 Characteristics of respondents

Characteristics	Number of respondents	Percentage of respondents
Company type		
Star hotel	18	52.9
Tourism	16	47.1
Total	$n = 34$	100
Ownership		
Government	7	20.6
Private	27	79.4
Total	$n = 34$	100
Number of employees		
50 or less	6	17.6
Exceeding 50 or more	28	82.4
Total	$n = 34$	100
Respondent position		
CEO/Director/Managing Director/CEO/General Manager	4	11.8
Project Manager/Senior Manager	6	17.6
Quality Engineer/Service Manager/Human Resource Manager	10	29.4
Manager/Technical Manager/Operations Manager	8	23.5
Others (Like Consultant; Customer Relation Officer; Assistant Manager)	6	17.6
Total	$n = 34$	100
Years of experience		
5 years or less	5	14.7
5 years plus	29	85.3
Total	$n = 34$	100
Gender		
Male	30	88.2
Female	4	11.8
Total	$n = 34$	100
Department		
Information Management Services	5	14.7
Product and Services	6	17.6

(continued)

Table 4.2 (continued)

Characteristics	Number of respondents	Percentage of respondents
Quality	4	11.8
Customer Relation	5	14.7
Marketing	11	32.4
Others	3	8.8
Total	$n = 34$	100

4.4.2 Assessing the Awareness of TQM in Indian Hospitality Industry

In order to assess the awareness of TQM in the Indian hospitality industry, various statistical tools and techniques were adopted like graphical representation of data, mean and standard deviation, and Pearson's correlation analysis using SPSS 16.0 software [12]. Figures 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, and 4.8 shows the results of all eight statements individually based on percentage of responses on five-point scale as well as Fig. 4.9 depicts the compiled result of TQM level awareness statements on the mean scale. As can be seen from Figs. 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, and 4.7, the responses received in most of the TQM awareness statements the perceived levels of awareness is quite high (between 3 and 5 on five-point scale) while responses received in case of statement 8 (Fig. 4.8) shows lowest level of awareness. Similarly, it can be seen from Fig. 4.9 that all the eight statements except TQM awareness statement 8 (mean score of 3.41) are loaded above moderate mean values, i.e., more than 3.5 scores. This could be also observed from Table 4.3 which shows descriptive statistical analysis by computing mean scores and standard deviations of all the statements related to awareness of TQM program. Again from Table 4.3, the perceived level of

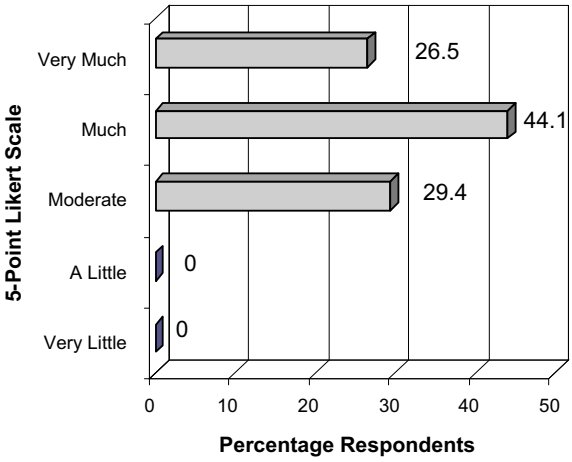

Fig. 4.1 *Statement 1*—TQM concepts and practices familiarity

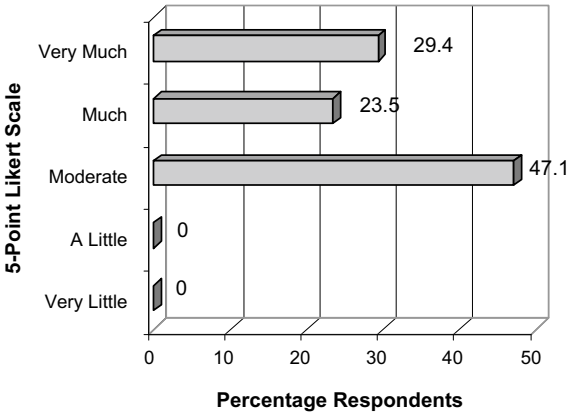

Fig. 4.2 *Statement 2*—TQM acts as guiding philosophy in the company

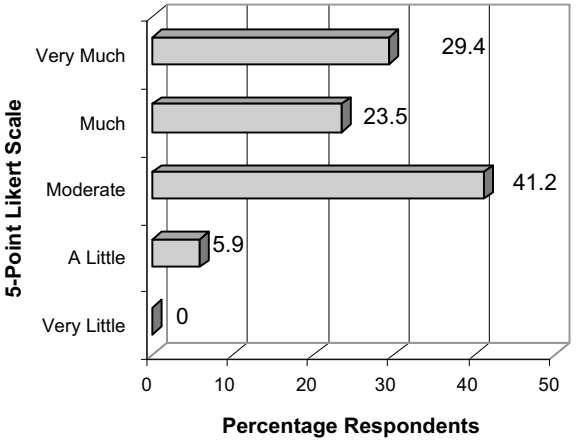

Fig. 4.3 *Statement 3*—Training of employees on TQM concepts and practices by the company

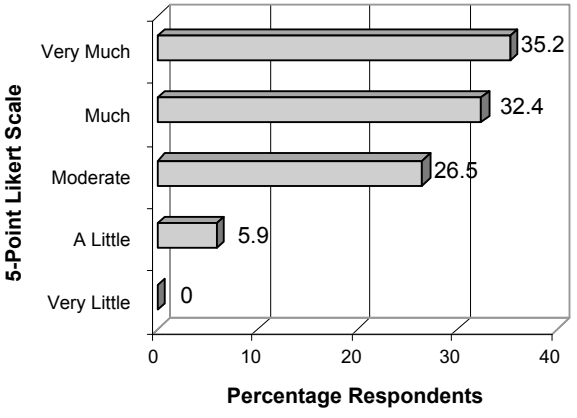

Fig. 4.4 *Statement 4*—Guaranteeing high quality of products and services through TQM

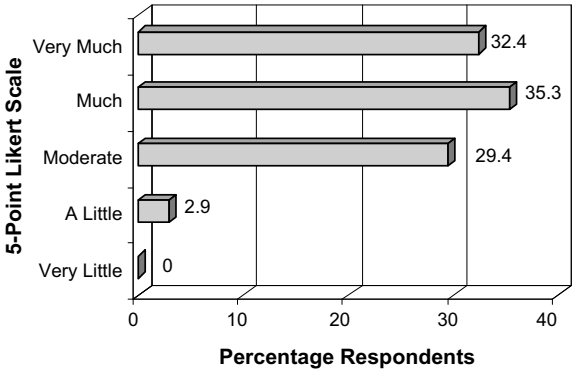

Fig. 4.5 *Statement 5*—Company practices TQM program across all the departments

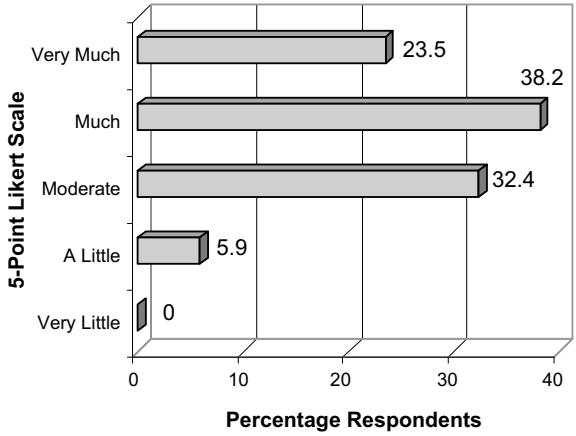

Fig. 4.6 *Statement 6*—TQM in your company is successful

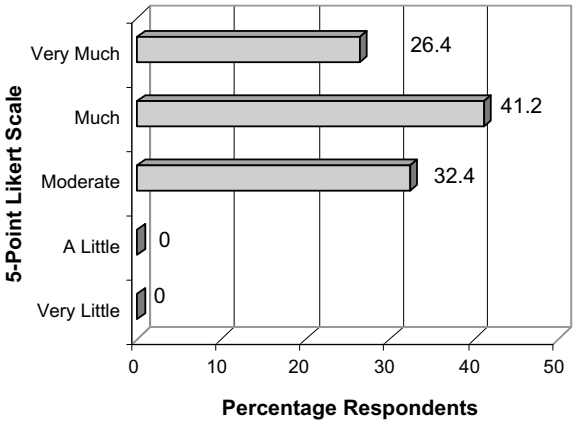

Fig. 4.7 *Statement 7*—Company is well versed with continuous quality improvement and innovation program

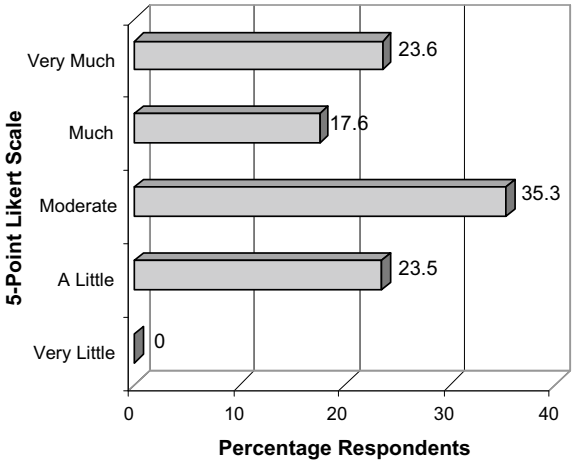

Fig. 4.8 *Statement 8*—Usage of any TQM model (like MBNQA, PDCA, EQAM, etc.) in the company

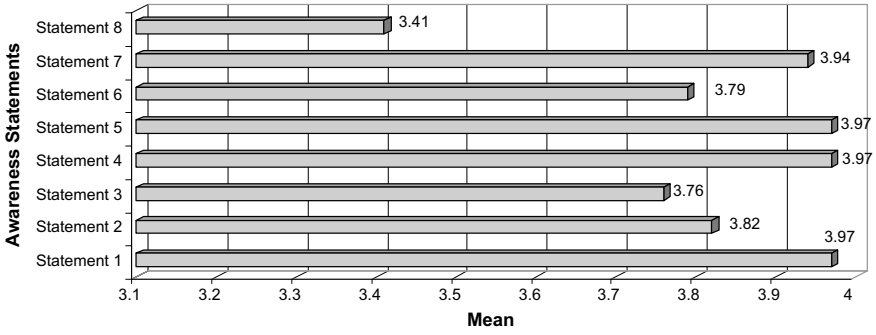

Fig. 4.9 TQM awareness in Indian hospitality industry

TQM awareness varies between the mean scores of 3.41 and 3.97, and the standard deviations range from 0.758 to 1.104. This implies that the perception levels of awareness and knowledge of TQM program in Indian hospitality companies are quite high. The mean responses obtained were in-between 'moderate' and 'very much'. The higher values of standard deviation also indicate the dispersion in a widely spread distribution implying that the awareness of TQM and its measuring statements are an approximation to a normal distribution [46].

From Fig. 4.9 and Table 4.3 it can be seen that the mean scores of TQM awareness statement 1, 4, 5, and 7 range between 3.94 and 3.97 while for statements 2, 3, and 6 between 3.76 and 3.82. This implies that equal importance had been given to all the statements instead of emphasizing individual TQM awareness statements. Hence, it may be arrived at a judgment that TQM had been observed as a strategic approach.

Table 4.3 Mean, standard deviation, and correlation coefficients

Statement	Mean	Standard deviation	TQM aware-ness	1	2	3	4	5	6	7	8
Statement-1	3.97	0.758	0.794** 0.000	1.000							
Statement-2	3.82	0.869	0.791** 0.000	0.727** 0.000	1.000						
Statement-3	3.76	0.955	0.821** 0.000	0.576** 0.000	0.532** 0.000	1.000					
Statement-4	3.97	0.937	0.804** 0.000	0.681** 0.000	0.663** 0.000	0.635** 0.000	1.000				
Statement-5	3.97	0.870	0.866** 0.000	0.642** 0.000	0.674** 0.000	0.684** 0.000	0.705** 0.000	1.000			
Statement-6	3.79	0.880	0.785** 0.000	0.626** 0.000	0.585** 0.000	0.553** 0.000	0.470** 0.000	0.665** 0.000	1.000		
Statement-7	3.94	0.776	0.709** 0.000	0.563** 0.000	0.362* 0.035	0.635** 0.000	0.498** 0.000	0.536** 0.000	0.692** 0.000	1.000	
Statement-8	3.41	1.104	0.537** 0.001	0.160 0.367	0.298 0.086	0.382* 0.026	0.276 0.115	0.392* 0.022	0.277 0.113	0.206 0.243	1.000

Note **Significant at 0.01 level (two-tailed), *Significant at 0.05 level (two-tailed)

Besides this, the lowest mean score comes from the statement 'Usage of any TQM model in the company' (3.41) having received an only a moderate score. This suggests that TQM managers and quality practitioners should focus on improving the current quality management (QM) model and emphasize the usage of advanced quality tools and techniques. They should encourage the organizations to adopt new and recently developed TQM models which are validated and accepted by the quality researchers to enhance the business performance.

Finally, Pearson's correlation analysis was performed on all the eight TQM awareness assessing statements for two purposes. The first was to check the presence of multicollinearity. Secondly, it was performed to understand the relationships between variables. Two-tailed ($p < 0.01$ and $p < 0.05$) bivariate correlation technique which computes Pearson's correlation coefficient was performed using SPSS program. The correlation coefficient values are in the range from -1 to $+1$. A value of zero or nearly zero indicates no relationship between the variables. Additionally, a value of more than 0.60 is treated as closely correlated, a value ranging between 0.30 and 0.60 shows moderate correlation, and a value smaller than 0.30 is observed as poorly correlated [26]. From Table 4.3 (Pearson's correlation matrix), the highest coefficient of correlation is 0.866, which is below the cut-off of 0.90 for the multicollinearity problem implying that the data in this study is free from collinearity and multicollinearity problems [17].

From Table 4.3, it is observed that the correlation coefficients presented in the form of matrix are quite high for all the eight statements under study. A total of 36 correlations were obtained, maximum of which is greater than 0.35 accept for the TQM awareness statement '8' which showed weak or low correlation coefficients between almost all the awareness statements. This result further strengthens the above findings.

4.5 Conclusions

The paper successfully accomplishes the objective of this study and presents the survey findings of managers awareness of TQM principles and practices in the Indian hospitality industry. The study was conducted by assessing the opinion of the top- and middle-level administrators who are directly responsible for providing quality services and have knowledge of TQM program implementation in the company. From the empirical analysis as indicated in the results and discussion section, it is concluded that the Indian hospitality industry is well aware of TQM program. The only unfavorable outcome was in the adoption of any validated TQM model proposed by eminent researchers and quality experts.

Overall, the empirical findings of the present study reflect that the respondents are aware of TQM program and familiar with its principles and practices. It is practiced throughout the hospitality industry. It was observed that the majority of hospitality companies accept that TQM is a guiding philosophy in their company which plays an important role in the company's progress. Further, it was revealed that most of

the companies are in the process or have trained their employees in TQM concepts and practices. It was also found that the top-management and employees understand that TQM is a way of guaranteeing high-quality products and services, which could help in achieving customer satisfaction and improving position in the marketplace. Furthermore, it was also found that the Indian hospitality industry is quite familiar with the continuous quality improvement and innovation program which is a positive indication of a progressive industry.

Moreover, this paper has pointed out some areas where there is a need for further improvements like a need for training to the employees in advance quality tools and techniques, change of culture from traditional to quality culture, implementation of new and improved TQM models or frameworks in the company. This will improve the company's performance and achieving better results. Nevertheless, this paper suggests that there is strong evidence of managers' awareness TQM program and familiarity of its principles and practices like the development of quality products and services, continuous training, and quality improvement and innovation program. Further, the adoption of TQM model in the hospitality industry and employees training in advanced quality improvement techniques are the need of the hour.

4.5.1 Managerial Implications

The findings of the present study provide some insights to quality managers and practitioners regarding the awareness of TQM program and its familiarity in the Indian hospitality companies which could improve their business performance. Some of the potential managerial implications of the hospitality companies are:

- The findings of this study provide a practical understanding of current TQM status in the Indian hospitality industry. It would provide the policymakers and practitioners to think about those areas where there is a need to improve for better performance.
- The findings suggest that TQM program should be implemented holistically rather than on a piecemeal basis to get the maximum advantage.
- The findings suggest quality managers should remain up-dated from time to time by reviewing their current TQM program/model so that they may be able to compete in the global market.
- This study also gives enough functional experience to the managers in their present roles and suggests training in new and emerging quality improvement tools as well as the development of quality culture within the industry.

4.5.2 Future Research

Some of the scopes for future researchers are as follows:

- In the present research, top- and middle-level administrators were the dominant respondents. It is suggested that different positions of the employees within the company may be allowed to give the responses so that a wider perspective on the TQM philosophy within industry may exist.
- The sample size of this study may not be large enough and increased to have more accurate results and conclusions.
- This study was conducted in one country only. Future research may include other South Asian countries (especially the neighbor countries like Pakistan, Sri Lanka, Bangladesh, etc.) to make the study more universally applicable in the region and generalizable. Further, the study may be undertaken to understand their TQM awareness and then comparing with the Indian findings.
- The relationship between the TQM awareness and company performance as well as the prioritization of various facets of TQM program may be studied and incorporated using AHP and ANP approaches.

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