

Impact of Total Quality Management on Employees' Job Satisfaction Spillover

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Abstract

Background: Issue of gradual improvement is gaining value in Nepal. As per the literatures found improvement in the dimensions of TQM leverages job satisfaction but literatures in Nepal related to this issue is very minimal. Thus, the study considered this issue. The objective of this study is to examine the impact of total quality management (TQM) practices on job satisfaction in the Nepalese manufacturing industry.

Materials and Methods: Descriptive, and correlation research designs have been used in this study. Data were collected using five point Likert scale Structured questionnaire. Population of the study are the employees of the manufacturing companies listed in the stock market of Nepal. Sample size was considered 384. Respondents were selected purposively. Data have been analyzed by using Mean, correlation matrix and OLS regression.

Results: The study found that TQM practices in bundle and individually influences employees' job satisfaction ($\beta = .871$ & $p\text{-value} = .000$).

Conclusion: managing the TQM practices can leverage the job satisfaction of employees in the listed manufacturing industries of Nepal.

Keywords: total quality management practices, employees' job satisfaction, manufacturing industry, Nepal

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I. Introduction

Total quality management approach was instituted in the 1950s to search sources of continuous improvement to provide quality products and services to the customers (Pandi, Roa & Jeyathilager, 2009). TQM is an organization-wise technique to develop the quality of the organization, products, services and processes (Thapa, 2067). TQM is a holistic approach and a continuous improvement in all operations in the organization in producing and delivering high quality products and services to satisfy the changing desires of the consumers (Demirbag, Tatoglu, Tekinkus, & Zaim, 2006). TQM is a comprehensive approach to improving product quality and thereby customer satisfaction. It occurs when an entire organizational culture becomes focused on quality and customer satisfaction as integrated system of management (Pant, 2007). TQM as a process of creating an environment in which management and workers strive to create an organizational culture, which supports to accomplish the goal of generating the highest possible quality in products and services for the purpose of customers' satisfaction (Williams, 1994). TQM is a holistic management philosophy focusing on the maintenance and continuous improvement of products, services, people, and processes at all levels and in all functions of the organization with the goal to meet or exceed customer expectations (Goetsch & Davis, 1994). TQM can also be defined as the application of quality principles for the integration of all functions and processes within the firm (Ross, 1993).

Job satisfaction is fundamentally recognized as a multifaceted construct that captures the feelings towards satisfaction with a spectrum of job elements that are directly and indirectly interrelated to the content (Chang & Chang, 2007). Job satisfaction can be expounded as an emotional reaction to the job, resulting from the incumbent's comparison of actual outcomes with the required outcomes (Hirschfeld, 2000). Job satisfaction is perceived as the degree to which an employee senses positively to his job (Odom, Boxx, & Dunn, 1990). Job satisfaction is the psychological, emotional, and evaluative response of an individual that has towards his/ her jobs (Greenberg & Baron, 1997). Job satisfaction can be evaluated through the degree of satisfaction with the work, co-workers, supervision, pay, promotional opportunities, and amount of security, the success achieve in job, and the overall process of the objective outline for job (Weiss et al., 1967).

Customer focus is an essential element of TQM practices because the organization can outperform their competitors by meeting customers' expectations, and predict their demands (Sureshchandar, Rajendran & Anantharaman, 2001). Customer focus was appraised through collections of customer complaint information, market investigations, and customer satisfaction surveys (Zhang, 1999). Customer focus enhances the employees' job satisfaction in organization (Morrow, 1997; Ooi et al., 2007; Alsughayir, 2014). Training and education support to improve the employee's confidence and hence, improves his/her personal development (Tsang & Antony, 2001). All management personnel, supervisors, and employees should accept quality education and training such as quality awareness education and quality management methods education (Zhang, 1999). Training and education increase the employees' job satisfaction in industry (Karia & Asaari, 2006).

Teamwork refers to an increase in employees' control over their work and allows them to work as a group (Ooi et al., 2007). Teamwork measures comfortable to work in team rather than individual, plant is organized into permanent production team, all team members' opinions and explore opportunities in its work area during the problem solving, formally structured to supports the work team approach, clearly defined charter/ mission and operation guidelines each team, and each team meets regularly and frequently to solve problems (Noorliza & Zainal, 2000, Flynn et al., 1994; Lau & Idris, 2001). Teamwork improves the employees' job satisfaction in organization (Karia & Asaari, 2006; Ooi et al., 2008). Organizational culture is an important instrument for the organizations to live in the ideas, values, norms, rituals and beliefs in order to endure organizations as socially created realities (Morgan, 1986). Lau and Idris (2001) defined that organizational culture support and enhance effective people and team process, continuous improvement and empowerment efforts are formally celebrated, participation and open discussion culture is organization, operators are empowered to take direct action, information- passing processes are a regular part of work, the empowerment and change efforts are formally documented and to make future plans. Organizational culture enhances the employees' job satisfaction in industry (Ooi, et al., 2007; Ooi et al., 2008; Alsughayir, 2014).

Literatures showed that good TQM practices in organization improve the employees' job satisfaction (Karia & Asaari, 2006; Ooi, et al., 2007; Batista, et al., 2013). In Nepalese context, researchers have studied that TQM improve overall quality of education (Thapa, 2011) and TQM practices enhance organizational performance in services sector (Thapa, 2015). But, literatures related to TQM practices and employees' job satisfaction is in minimum number. The manufacturing sector is a neglected area of study in Nepal. But, the development of the country like Nepal is possible only with the development of manufacturing sector. Thus, the study focused on the manufacturing sector of Nepal. It may help to improve the job satisfaction and at the end overall performance of manufacturing sector of Nepal. So, this study intends to assess the position of TQM practices in Nepal and examine the impact of TQM practices on employees' job satisfaction in the Nepalese manufacturing industry.

II. Literature review

TQM incorporates fundamental management techniques, prevailing improvement efforts, and the technical tools under a disciplined approach dedicated on continuous improvement (Winner, Pennell, Bertrand, & Slusarczyk, 1988). TQM has been pronounced as an approach to grow the efficiency and flexibility of business as a whole, knowing customer requirements both external and internal to the organization (Oakland, 1989). TQM practices are customer focus, training and education, teamwork, and organizational culture (Karia & Asaari, 2006; Ooi et al., 2007; Ooi et al., 2008; Batista et al., 2013). Job satisfaction concerns with employees contribute on recognition to the overall accomplishment of organizational goals (Guimareas, 1996).

TQM practices is a positively correlated with job satisfaction (Guimaraes, 1996; Morrow, 1997; Karia & Asaari, 2006; Ooi, et al., 2007; Ooi, et al., 2008; Batista, et al., 2013). Customer focus can be designated as the degree to which organizations continuously achieve the customer needs and expectations to improve their performance (Ooi et al., 2007). Job satisfaction is a common attitude that the employees show towards their job and is directly tied to individual needs comprising challenging work, equitable rewards and a cooperative work environment (Ostroff, 1992). Morrow (1997) found that customer focus was positively significant to job satisfaction in a Midwestern Transportation agency. Karia and Asaari (2006) conducted a study in private and public organizations working in Malaysia founded that customer focus did not contribute to job satisfaction. Ooi et al. (2007) found that customer focus had a positively relation with employees' job satisfaction in the state of Perak, Malaysia. Ooi et al. (2008) concluded that customer focus was found insignificantly relation with job satisfaction in full-time production workers of three Electrical and Electronics (E&E) organizations from the same industry located in Malaysia. Batista et al. (2013) achieved that customer focus did not display any favorable influence to the employees' job satisfaction within 49 organizations in Azores (Portugal), certified by regulation ISO 9001- quality management system. Alsughayir (2014) found that customer focus was positively influence employee job satisfaction in a mix of employees at a large Saudi Telecom company.

Training and education delivers the knowledge of continuous enhancement and invention in service process to achieve full benefits and business excellence (Talib, Rahman & Qureshi, 2013). Job satisfaction is

one component of the work-related well-being that encompasses in diagnostic studies of people's well-being in organizations (Rothmann, 2008). Training and education had a significant effect on job satisfaction in various levels and functions of five private –sector companies and five public- sector companies (Karia & Asaari, 2006). Ooi et al. (2008) revealed that education & training was insignificantly associated with full-time production workers' job satisfaction in three E&E organizations from the same industry located in Malaysia. Prajogo and Cooper (2010) concluded that employee training had a strong and positive relationship to job satisfaction in non-managerial employees of across 23 organizations in Victoria, Australia. Batista et al. (2013) disclosed that training and education did not reveal any favorable contribution to the employee job satisfaction within 49 organizations in Azores (Portugal), certified by regulation ISO 9001- quality management system.

Teamwork concerns with working together, and comprises groups of interdependent employees who effort cooperatively to accomplish a common goal (Parker & Wall, 1998). Job satisfaction concerns with a person's common attitude towards his or her work (Robbins, 2003). Morrow (1997) showed that teamwork was significantly related to job satisfaction in a Midwestern Transportation agency. Karia and Asaari (2006) found that teamwork significantly enhanced job satisfaction in various levels while conducting study in five private –sector companies and five public- sector companies. Ooi et al. (2007) revealed that teamwork had positively related to employees' job satisfaction in the state of Perak, Malaysia. Ooi et al. (2008) revealed that teamwork was perceived as a dominant TQM practice which was strongly associated with full-time production workers' job working in three E&E organizations Malaysia. Batista et al. (2013) found that Teamwork had a significant and positive correlation with job satisfaction studying at 49 organizations in Azores (Portugal). Alsughayir (2014) revealed that teamwork had a positive impact on employee job satisfaction in the employees at a large Saudi Telecom company.

Organizational culture is a method of sharing meaning among employees that discriminates the organizations from further organizations (Robbins, Judge, & Sanghi, 2010). Job satisfaction is the emotional and intellectual fulfillment one receives from one's job (Brief & Weiss, 2002). Ooi et al. (2007) revealed that organizational culture was positively associated with employees' job satisfaction in the state of Perak, Malaysia. Ooi et al. (2008) identified that organization culture has a positive relationship with full time production workers' job satisfaction in three E&E organizations situated at Malaysia. Alsughayir (2014) concluded that organizational culture had a significant impact on employees' job satisfaction in a mix of employees at a large Saudi Telecom company.

Review of Nepalese context, Thapa (2011) conducted research total quality management in education. The objective was TQM is applied in education. The finding was the need of TQM to improve overall quality of education in Nepal. Thapa (2015) operated research total quality management and organizational performance in Nepalese tourism industry. The objective was to analyze the relationship between quality management orientation and organizational performance in Nepalese tourism sector. The finding found that TQM dimension (management commitment, customer focus, continuous improvement, training and development, and feedback and effective communication) and organizational performance had significant positive relationship.

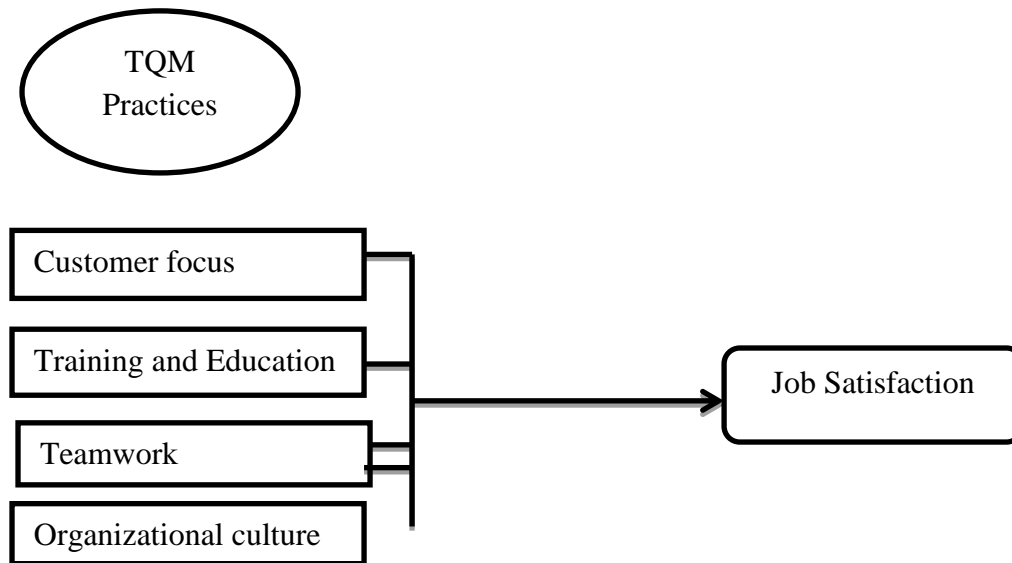
Conceptual framework

Based on the literature review, a conceptual framework was developed to examine the effect of TQM practices on employees' job satisfaction. In this conceptual framework, TQM practices; customer focus, training and education, teamwork, and organizational culture are considered as independent variables (Karia & Asaari, 2006; Ooi et al., 2007; Ooi et al., 2008; Batista et al., 2013) and employees' job satisfaction as dependent variable (Morrow, 1997; Karia & Asaari, 2006; Ooi et al., 2007; Ooi et al., 2008; Batista et al., 2013).

Figure No: 1
Conceptual Formwork

Independent variables

Dependent variable



III. Material and Methods

This part contains the major practices and processes that are adopted while undertaking study.

Research design: Descriptive design was used to assess the position of variables used in the study and correlational design was used to examine the relationship between TQM practices and job satisfaction.

Study location: The samples were collected from the manufacturing industries located through out the country.

Population and sample: All officer level employees of listed manufacturing industries in Nepalese Stock market are considered as population and 384 sample size was determined based on statistical calculation. The 450 questionnaires were distributed to the managers, senior officials and junior officials working at thirteen manufacturing industries. Out of 450 distributed questionnaires only 405 questionnaires were collected. But, 384 questionnaires were useable for further analysis. Purposive sampling technique was used.

Data source: Primary data was used in this study. TQM practices and employees job satisfaction related questions were designed on five- point Likert scale. Scale was ranging from (1) "very low" to (5) "very high".

Statistical analysis: Cronbach's alpha is calculated for testing reliability of the measurement tool. Mean was used to assess the position of TQM practices. Pearson's correlation was used to assess the association between TQM practices and employees' job satisfaction and OLS regression was used to examine the impact of TQM practices on employees' job satisfaction. The regression equations of dependent variable of E_{JS} with independent variables of TQMP, CF, TE, T, and OC are herewith,

$$E_{JS} = \alpha + \beta TQMP + u \dots \dots \dots ii$$

$$E_{JS} = \alpha + \beta CF + u \dots \dots \dots ii_1$$

$$E_{JS} = \alpha + \beta TE + u \dots \dots \dots ii_2$$

$$E_{JS} = \alpha + \beta T + u \dots \dots \dots ii_3$$

$$E_{JS} = \alpha + \beta OC + u \dots \dots \dots ii_4$$

Where,

E_{JS} = Employees' job satisfaction, $TQMP$ = Total quality management practices, CF = Customer focus, TE = Training and Education, T = Teamwork, OC = Organizational culture, α = alpha (constant), β = Beta (change), u = Error term.

IV. Results

Results of Mean, standard deviation, reliability and correlation are given in table 1.

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Table 1: Mean, Standard Deviation, Reliability, and Correlation of TQM Practices and Employees' job satisfaction

	Mean	Std. Deviation	Reliability	CF	T_E	T	OC	EJS	TQM
Customer Focus (CF)	3.368	0.694	0.655	1					
Training and Education (T_E)	2.855	0.755	0.666	.635**	1				
Teamwork (T)	2.881	0.673	0.622	.685**	.571**	1			
Organizational Culture (OC)	3.171	0.665	0.630	.789**	.436**	.805**	1		
Employees' Job Satisfaction (EJS)	3.230	0.559	0.610	.774**	.609**	.788**	.835**	1	
TQM practices (TQM)	3.068	0.598		.903**	.782**	.884**	.871**	.871**	1

** . Correlation is significant at the 0.01 level (2-tailed).

The Cronbach's alpha of all variables range from 0.610 to 0.666. The smallest Cronbach alpha (0.610) was found in dependent variable of employees' job satisfaction and the highest Cronbach alpha (0.666) was in independent variable training & education. The Cronbach's alpha for all variables (dependent and independent) have been above 0.6. According to Nunnally (1967), alpha coefficients should be minimum 0.6 for further analysis. Thus, the reliability of measuring instrument is satisfactory.

The mean score of variables range from 2.855 to 3.368. Customer focus with the highest mean score (M = 3.368) is perceived the most dominant TQM practice and organizational culture (M = 3.171) is practiced moderately in the manufacturing sector of Nepal. Training & education and teamwork with the lowest mean score (M = 2.855, M = 2.881) which were perceived as least practiced in the manufacturing industries of Nepal. The mean scores of employees' job satisfaction was 3.230. It shows that job satisfaction in the manufacturing sector of Nepal is in moderate level. The overall TQM practices (M = 3.068) was also found moderately practiced. The standard deviations range from 0.559 to 0.755. The standard deviations for independent variables are quite high which indicates that the dispersion of data was high. It means opinion of the respondents are not unanimous related to TQM practice.

The overall TQM practices and employees' job satisfaction has strong positive association (r= .871). Customer focus, organizational culture and team work have strong association with the employees' job satisfaction but training and education has moderate but positive association with employees' job satisfaction. The criteria for the strength of association was dragged from the recommendation of Rowntree (1987). He suggested that correlation coefficient (r) is from 0.4 to 0.7, strength of relationship is moderate and correlation coefficient (r) is from 0.7 to 0.9, strength of relationship is strong or high.

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Overall R² is 0.784 and F-value (343.771, P-value= .000) is significant at 1 percent level of significant. Thus, the regression model used for the analysis was fit.

Simple regression analysis (SRA) was used to examine the degree of relationship between TQM practices and employees' job satisfaction. Table 2 presents the regression results simultaneously the test of hypotheses.

Table No:2
Tests of Hypotheses Results

S.N.	Hypotheses	R ²	F	Coefficients		P-value	results
				(α)	(β)		
1	TQM practices have a positive effect on employees' job satisfaction.	0.759	1200.560	5.842	0.272	0.000	Accepted
2	Customer focus has a positive effect on employees' job satisfaction.	0.598	569.111	9.061	0.830	0.000	Accepted
3	Training and education have a positive effect on employees' job satisfaction.	0.371	225.295	15.532	0.602	0.000	Accepted
4	Teamwork has a positive effect on employees' job satisfaction.	0.622	627.765	10.741	0.874	0.000	Accepted
5	Organizational culture has a positive effect on employees' job satisfaction.	0.698	882.533	8.018	0.937	0.000	Accepted

R^2 is 0.759, which means 75.9 percent of total variation in employees' job satisfaction is explained by TQM practices used in the model. The beta coefficient of TQM practices (0.272) is positive and significant at 1 percent level of significant. (P- value = 0.000). It means change in the TQM practices explained by customer focus, training and education, teamwork and organizational culture influences positively and significantly to the employees' job satisfaction. All the TQM practices individually also affect positively and significantly to the employees' job satisfaction as all the TQM practices were significant at 1 percent level of significance.

V. Discussion

The results indicated that TQM practices have a positive effect on employees' job satisfaction in the Nepalese manufacturing industry. This result of the study is supported by Guimaraes (1996). As he found that TQM had a significant improvement in job satisfaction. The present result is consistent with the findings from previous study conducted by Morrow (1997) in which he found that TQM principles have a positive and significant impact on job satisfaction. The result is consistent simultaneously consistent with the findings of Karia & Asaari, 2006; Ooi et al., 2007; and Ooi, et al., 2008. The results are consistent because TQM practices are undertaken in the similar ways all around the world. The context may not affect to the TQM practices.

The result of this study indicates that customer focus has a positive effect on employees' job satisfaction. This result of the study is supported by Morrow (1997) and Ooi et al. (2007) and Alsughayir (2014). They found that customer focus has positive and significant relation with job satisfaction. However, the result is inconsistent with the findings of Karia and Asaari (2006) and Batista et al. (2013). As they found that customer focus did not exhibit any favorable contribution to the employees' job satisfaction. Some results are not consistent because the way of customer focus might be different based on the context of organizations that uses TQM practices. As well the methodology and the nature of population and sample might be different.

The study result concluded that training and education have a positive impact on employees' job satisfaction. Training and education improve the skill and knowledge which leverages the employees' job satisfaction. This result is supported by Karia and Asaari (2006) and Prajogo and cooper, (2010). As they found that training and education had a significant and positive impact on job satisfaction. The result of the study is consistent with those studies. But, this study result is inconsistent with the findings of earlier studies conducted by Ooi et al. (2008) and Batista et al. (2013) who found that training and education is insignificantly associated and did not demonstrate any favorable contribution to production workers' job satisfaction. It may be so because those study were based on the shop floor workers but the recent study was undertaken in the white colour workers of manufacturing industry.

This study's finding showed a positive impact of teamwork on employees' job satisfaction. Teamwork boosts employees' job satisfaction. This result of the study supports the finding of the study conducted by Morrow (1997); Karia and Asaari (2006); Ooi et al., (2007); Ooi et al., (2008); Prajogo and Cooper, (2010); Batista et al., (2013); and Alsughayir, (2014). They found that teamwork was perceived as dominant TQM practices which had a strong association with employees' job satisfaction. The consistency in result may be because of similarity in context and methodology used while undertaking research.

The study found that organizational culture has a positively influences on employees' job satisfaction. This finding is consistent with the previous study findings (Ooi et al., (2007) Ooi et al. (2008), and Alsughayir (2014). They found that organizational culture was positively associated with production workers' job satisfaction. The consistency in results may be because of similarity in methodology.

VI. Conclusions and Implications

The positions of TQM practices in Nepalese manufacturing industries are satisfactory. TQM practices have a strong relationship with employees' job satisfaction. Customer focus is highly practiced in the manufacturing sector of Nepal. All the TQM practices have the capacity of influencing job satisfaction of employees in the Nepalese manufacturing industries. It means Nepalese manufacturing organizations can leverage employees' job satisfaction by exercising the TQM practices. Every industries focusing to customer can satisfy customers. Customer satisfaction satisfies the employees. Training and education enhances skill and knowledge of the employees that leverage the satisfaction. Similarly, teamwork helps to develop environment of cooperativeness and cohesiveness that gives the feeling of ownership which enhances the employees' job satisfaction. In the same line, organizational culture of sharing information among the employees within the organization helps to reduce the information gap that reduces conflict and leverages the job satisfaction. This study has accepted the two factor theory of motivation developed by Herzberg. All the factors used in it are hygiene factors. Hygiene factors helps to reduce the dissatisfaction in one hand and on the other way helps to increase the job satisfaction of employees. This study can support to the managers in developing HR policies and procedures so that they can enhance job satisfaction and motivate the employees. Similarly, further research can be conducted changing scope of research. This study has included only four TQM variables, further

researcher can add more variables. In addition to that further researcher can change the population of the study like banking, hotel and hospitability. Further research can be conducted even by increasing the sample size so as to verify the findings of the previous studies.

References

- [1]. Alsughayir, A. (2014). Does practicing total quality management affect employee job satisfaction in Saudi Arabian organizations. *European Journal of Business and Management*, 6(3), 169-175. <https://core.ac.uk/download/pdf/234625237.pdf>
- [2]. Batista, M., Feijo, A., & Silva, F. (2013). Quality management and employees' attitudes: An example from certified enterprises. *Management Research: The Journal of the Iberoamerican Academy of Management*, 11(3), 260-279. <https://doi.org/10.1108/MRJIAM-01-2012-0468>
- [3]. Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53(1), 279-307. <https://doi.org/10.1146/annurev.psych.53.100901.135156>
- [4]. Chang, C. S., & Chang, H. H. (2007). Effects of internal marketing on nurse job satisfaction and organizational commitment: Example of medical centers in Southern Taiwan. *Journal of Nursing Research*, 15(4), 265-274. <https://doi.org/10.1097/01.jnr.0000387623.02931.a3>
- [5]. Demirbag, M., Tatoglu, E., Tekinkus, M., & Zaim, S. (2006). An analysis of the relationship between TQM implementation and organizational performance: Evidence from Turkish SMEs. *Journal of Manufacturing Technology Management*, 17(6), 829-847. <https://doi.org/10.1108/17410380610678828>
- [6]. Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1994). A framework for quality management research and an associated measurement instrument. *Journal of Operations Management*, 11(4), 339-366. [https://doi.org/10.1016/S0272-6963\(97\)90004-8](https://doi.org/10.1016/S0272-6963(97)90004-8)
- [7]. Goetsch, D. L., & Davis, S. M. (1994). *Introduction to Total Quality: Quality, Productivity, Competitiveness*. New York: Macmillan College Publishing Company.
- [8]. Greenberg, J., & Baron, R. A. (1997). *Behaviour in organizations: Understanding and managing the human side of work (6th ed.)*. New Jersey: Prentice-Hall.
- [9]. Guimaraes, T. (1996). TQM's impact on employee attitudes. *The TQM Magazine*, 8(1), 20-25. <https://doi.org/10.1108/09544789610107225>
- [10]. Hirschfeld, R. R. (2000). Does revising the intrinsic and extrinsic subscales of the Minnesota satisfaction questionnaire short form make a difference?. *Educational and Psychological Measurement*, 60(2), 255-270. <https://doi.org/10.1177/00131640021970493>
- [11]. Karia, N., & Asaari, A. H. (2006). The effects of total quality management practices on employees' work-related attitudes. *The TQM Magazine*, 18(1), 30-43. <https://doi.org/10.1108/09544780610637677>
- [12]. Lau, H. C., & Idris, M. A. (2001). The soft foundation of the critical success factors on TQM implementation in Malaysia. *The TQM Magazine*, 13(1), 51-62. <https://doi.org/10.1108/09544780110379480>
- [13]. Morgan, G. (1986). *Images of Organizations*. Beverly Hill: Sage Publication.
- [14]. Morrow, P. C. (1997). The measurement of TQM principles and work-related outcomes. *Journal of Organizational Behavior*, 18(4), 363-376. [https://doi.org/10.1002/\(SICI\)1099-1379\(199707\)18:4%3C363::AID-JOB803%3E3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1099-1379(199707)18:4%3C363::AID-JOB803%3E3.0.CO;2-Q)
- [15]. Noorliza, K., & Zainal, A. A. (2000). Quality practices that pay: Empowerment and teamwork. *Malaysian Management Review*, 35(2), 66-76.
- [16]. Nunnally, J. C. (1978). *Psychometric Theory (2nd ed.)*. New York, NY: McGraw-Hill.
- [17]. Oakland, J. S. (1989). *Total Quality Management*. London: Heinemann.
- [18]. Odom, R. Y., Boxx, W. R., & Dunn, M. G. (1990). Organizational cultures, commitment, satisfaction, and cohesion. *Public Productivity & Management Review*, 157-169. <https://doi.org/10.2307/3380963>
- [19]. Ooi, K. B., Arumugam, V., Teh, P. L., & Chong, A. Y. L., (2008). TQM practices and its association with production workers. *Industrial Management & Data Systems*, 108(7), 909-927. <https://doi.org/10.1108/02635570810897991>
- [20]. Ooi, K. B., Bakar, N. A., Arumugam, V., Vellapan, L., & Loke, A. K. Y. (2007). Does TQM influence employees' job satisfaction? An empirical case analysis. *International Journal of Quality & Reliability Management*, 24(1), 62-77. <https://doi.org/10.1108/02656710710720330>
- [21]. Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organizational level analysis. *Journal of Applied Psychology*, 77(6), 963-974. https://www.researchgate.net/profile/Cheri_Ostroff/publication/232418125
- [22]. Pandi, A. P., Rao, U. S., & Jeyathilagar, D. (2009). A study on integrated total quality management practices in technical institution-student's perspective. *International Journal of Educational Administration*, 1(1), 17-30. <https://doi.org/10.1504/IJIE.2009.02736>
- [23]. Pant, P. R. (2007). *Principles of Management*. Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd.
- [24]. Parker, S., & Wall, T. D. (1998). *Job and Work Design: Organizing Work to Promote Well-Being and Effectiveness*. London: Sage Publication.
- [25]. Prajogo, D. I., & Cooper, B. K. (2010). The effect of people-related TQM practices on job satisfaction: A hierarchical model. *Production Planning and Control*, 21(1), 26-35. <https://doi.org/10.1080/09537280903239383>
- [26]. Robbins, S. P. (2003). *Organizational Behaviour*. Upper Saddle River: Prentice-Hall.
- [27]. Robbins, S. P., Judge, T. A., & Sanghi, S. (2010). *Essentials of Organizational Behavior (10th ed.)*. India: Pearson education.
- [28]. Ross, J. (1993). *Total Quality Management: Text, Cases, and Readings*. Delary Beach: St Lucie Press.
- [29]. Rothmann, S. (2008). Occupational stress, job satisfaction, burnout and work engagement as components of work related well-being. *South African Journal of Industrial Psychology*, 34(3), 11-16. <http://www.scielo.org.za/pdf/sajip/v34n3/02.pdf>
- [30]. Rowntree, D. (1987). *Statistics without Tears*. New York, NY: Penguin Book.
- [31]. Sureshchandar, G. S., Rajendran, C., & Anantharaman, R. N. (2001). A holistic model for total quality service. *International Journal of Service Industry Management*, 12(4), 378-412. <https://doi.org/10.1108/09564230110405299>
- [32]. Talib, F., Rahman, Z., & Qureshi, M. N. (2013). An empirical investigation of relationship between total quality management practices and quality performance in Indian service companies. *International Journal of Quality & Reliability Management*, 30(3), 280-318. <https://doi.org/10.1108/02656711311299845>
- [33]. Thapa, N. (2015). *Total quality management and organizational performance in Nepalese tourism industry: the role of market orientation*. Unpublished M. Phil thesis, Faculty of Management M. Phil Programme, Kathmandu.
- [34]. Thapa, T. B. (2067). *Educational Management and Organization Behavior (2nd ed.)*. Kathmandu: sunlight publication.
- [35]. Thapa, T.B. (2011). Total Quality Management in Education. *Academic Voices A Multidisciplinary Journal*, 1(1), 80-83. <https://doi.org/10.3126/av.v1i0.5314>

- [36]. Tsang, J. H. Y., & Antony, J (2001). Total quality management in UK service organization: Some key findings from survey. *Managing Service Quality*, 11(2), 132-141. <https://doi.org/10.1108/09604520110387293>
- [37]. Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire*. Minneapolis: University of Minnesota.
- [38]. Williams, R.I. (1994). *Essentials of Total Quality Management*. New York: Chapman & Hall.
- [39]. Winner, R. L., Pennell, J. P., Bertrand, H. E., & Slusarczuk, M. M. (1988). *The role of concurrent engineering in weapons system acquisition*. Institute for Defense Analyses Alexandria VA. <https://apps.dtic.mil/sti/pdfs/ADA203615.pdf>
- [40]. Zhang, Z. (1999). *Developing an Instrument for Measuring TQM Implementation in a Chinese Context*. Groningen: University of Groningen.

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