

A Literature Review on Quality Management Practices

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Abstract: The objective of this paper is to review the Total Quality Management (TQM) and organizational performance. Total Quality Management (TQM) plays an important role in the industry in improving the productivity and quality of products. This paper seeks to conduct a study to evaluate the variables of Total Quality Management in the Industry sector. An extensive literature survey indicates that there are some significant TQM variables such as Quality Culture, Employee Focus, and Operations Focus including Continuous Improvement, Customer Focus and Competitive Management Strategies.

Keywords: Total Quality Management, Total Quality Management practices, Organizational Performance.

I. INTRODUCTION

Quality management practices have been thoroughly described and similarities between practices can be discerned. In a large set of articles, we first defined a list of all the practices suggested. Then we took each practice, one at a time, analyzing it and asking ourselves if it was different or comparable to the previously analyzed practices. The ten following practices resulted in this process: top management commitment and support, quality organization, employee training, employee participation, quality management of suppliers, customer focus, continuous support, quality system improvement, information and analysis, and the use of statistical quality techniques.

The dairy industry today is moving towards bringing innovation in dairy products with a particular focus on value-added products, which gives the Company enormous scope to venture into value-added products such as custards, desserts, puddings, sauces, mousse stirred yogurt and nectars. Increasing demand for branded and packaged dairy products is also increasing, particularly in urban centers, as the population with higher disposable income and greater health awareness will certainly choose quality dairy products that will have a positive impact on the business line of the company.

II. LITERATURE REVIEW

M.N.Qureshi, Faisal Talib, and Zillur Rahman For milk products, a Pareto study of total quality control variables that are crucial to performance. Volume 4 of the International Journal of Quality Research was published in 2016. By defining the list of Essential Success Factors for milk products, Faisal Talib et.al (2016), carried out a Pareto Analysis. An review of 39 TQM studies on CSFs resulted in various researchers and practitioners listing 60 CSFs for milk-based products. In almost all research papers, these vital few CSF's were found to be key factors and are used repeatedly by the different researchers and concluded that Total Quality Managers and practitioners should concentrate on these 21 vital few CSF's in order to gain competitive advantage in the service sector. As for improvements, multivariate analysis should be used to test further surveys and studies. In almost all research papers, these vital few CSF's were found to be key factors and are used repeatedly by the different researchers and concluded that Total Quality Managers and practitioners should concentrate on these 21 vital few CSF's in order to gain competitive advantage in the service sector. As for improvements, multivariate analysis should be used to test further surveys and studies, validate the model and refine it. Currently, the questionnaire to collect data from manufacturing organizations in Malaysia is being planned, in order to validate the proposed model and its propositions mentioned above.

TQM Implementation and its Effect on Organizational Efficiency in Developing Countries: A Case Study in Libya, FuziAbusa, PhD Dissertation. The University of Wollongong wrote this article in 2017. By selecting six distinct industry groups such as food, milk products, electronics and engineering, chemical, textile and furniture and cement and construction materials, Fuzi Abusa (2017) examined the impact of TQM implementation on organizational performance in developing countries such as Libya. Using TQM elements such as Top Management Commitment, Customer Focus, Supplier Quality Management, People Management, Process Management and Continuous Improvement, the extent of the TQM application for selected industry groups was assessed. Based on these six TQM elements, research questions were framed. Top Management Commitment is of vital importance in the success of the implementation of TQM among the six examined TQM elements and concluded that only Top Management Commitment achieved the overall competitive position, output performance improvement, customer attention, people management, process management and financial improvement, including revenue growth and profit growth. Future research can be done taking into account the external consequences of the proposed model of customer loyalty and competitive advantage. For future studies, improved service/product quality, improved financial performance, and operational efficiency from the internal impact category may also be considered. The proposed model can be tested by additional researchers for various industries and different markets. It is also possible to validate the model under various conditions, such as environmental, cultural and situational conditions.

Critical Success Factors of Complete Quality Control in Milk Products, Neha KalraAnoppant. Vol. 2, no. 8, 2017, International Journal of Economy, Management, and Social Sciences. Neha Kalra and Anoop Pant (2017) examined the Critical Success Factors of Total Quality Management in the milk products. Data was collected from the Manufacturers, Suppliers and Sub-contractors of milk market in National Capital Region of India. They identified 8 Critical Success Factors like Policy and Strategic Planning, Process Management and Control, Customer Focus and Satisfaction, Employee Focus, Information Management, Quality Leadership, Supplier Focus and Satisfaction and Organization Specific Business Result. Among these eight CSF's three CSF's like policy and strategic plan, quality leadership and customer focus and satisfaction are identified as the most important factors for automotive industry to generate higher revenue and profit. The result will motivate and help them in future research to remove or minimized the barriers of SMEs in implementing TQM to achieve the business excellence.

Dara Schniederjans and Marc Schniederjans , Fresh Perspectives on a Systemic Contingency Process. Quality Control and Creativity. Vol. 1, no. 2, International Journal of Quality Innovation, 2017.The goal of Dara Schniederjans and Marc Schniederjans (2017) is to analyze the relationship between TQM's social and technical quality management factors by gathering data from 58 milk product consumer respondents. Different social quality management variables were identified, such as quality training, cross-functional cooperation and long-term supply relationships; Technical factors such as Just In Time Management and Manufacturability Design and Institutional Factors such as Organizational Scale, Organizational Mission, and Managerial Ethical Assessment to research the Structural Contingency System Quality Management and Innovation insights. They concluded that variables in social quality management are positively related to creativity and Social Quality Management and Professional Quality Management have a mutual partnership. In addition, their research reveals that the effects of organizational size, task and management ethics moderate the positive relationship between quality management and innovation. In the following year, the researcher may concentrate on quality-circle practices in private companies.

Amul, An Experiment in Rural Economic Development; 2015 edition, Singh S.P. Kelley L. Paul. According to Satbir Singh, Euan Fleming and Tim Coelli analyze the impact of the liberalization policy on cooperative dairy plants in India in their paper "Efficiency and Productivity Analysis of TQM in Cooperative Dairy Plants in Haryana and Punjab States of India." According to his findings, privatization alone is not a response to higher performance in milk product processing. Efforts to achieve higher performance should be made by plant managers and public policy makers through actions on the demand and supply side of the milk and milk products industry. In order to further enhance the study, the next researcher may investigate whether TQM practices enhance the efficiency of the employee in the issue.

Raj Kumar and Mamta Patel., A Literature Review on TQM Implementation in Milk Products Using the PDCA Method. No. 2, issue 6, 2018. International Journal of Research in Technical Studies. Mamta Patel (2018) addressed the advantages and challenges facing the Indian milk product, such as low quality, milk protection and energy saving. The purpose of this study is to apply the PDCA (Plan-Do-Check-Act) approach to the assessment of causes affecting milk products' productivity and quality. Some TQM considerations, such as Top Management Engagement (Leadership), Supplier Quality Management, Customer Attention and Employee Involvement, were identified after analyzing the literature to determine the quality of milk products. They found that the major problems for milk products are inefficient management and inadequate technology and recommended that the principle of TQM and Deming's PDCA will provide the Indian Milk Industry with a competitive advantage and will result in higher productivity and profitability if all the TQM factors are systematically balanced. In future study, the outcome will inspire and assist them to evaluate the quality consciousness against the employees in different matters.

Complete Quality Control in Jordan's Top Rank of Milk Products Mujbil Al-Marsumi Jordan Journal of Mechanical and Industrial Engineering, Volume 3, Number 1, January 2019. The TQM activities adopted by Jordan's five milk processing units were investigated by Mujbil Al-Marsumi (2019). Research was carried out on the basis of the five-point Likert scale for TQM variables such as Instilling Quality Culture, Employee Concentration, and Operations Focus like Performance Improvement, Consumer Focus and Strategic Competitive Advantage. TQM factors were considered as the independent variables for each company and the quantity in tons of milk products was considered as the dependent variable and the correlation coefficient was used to calculate the relationship between the TQM factor and quantity in tons of milk products and established that the highest score was achieved by the most modern milk processing units, while the oldest score was achieved. The minimum and the least modern scored and concluded that the coefficient of correlation has a clear and consistent linear relationship between tons of milk quantity and TQM variables. The future research could focus on the perception of employees in production-oriented concern in TQM practices.

Amul and Anand Pattern of Milk Cooperatives, Taimni K.K (2019)He analyzed the TQM practices in milk products by the Gujarat Cooperative Milk Marketing Federation Ltd., according to B.Bowonder, B R Raghu Prasad and Anup Kotla (2019) in his paper "TQM practices in milk products: The Amul Experience" As soon as the milk is delivered, the system makes it easy for the farmers to get the cash payment. The Amul experience shows that the rural poor can benefit from TQM practice platforms if properly planned and implemented. IT platform customization for use in rural communities is emerging as a significant opportunity for change. The future research could be based on evaluating the degree of satisfaction in the manufacturing company's TQM practices.

Ahire (2019) Big vs. Small Business Quality Control The Journal of Small Business Management is a publication devoted to the management of small businesses. They concluded in Ahire (2019) that over the last few years, both small and large companies have begun structured TQM implementation. However, several companies that attempt to implement TQM fail. Many

of the failures can be traced back to a failure to understand that TQM performance is based on organizational background, such as the size of the enterprise, the quality of its goods, and industry characteristics. In addition, several studies compare the implementation of unique quality management elements in conventional (non-TQM) and TQM businesses. A look at the relative strengths and limitations of small businesses shows that TQM concepts like employee engagement and versatility could be more effectively enforced in small businesses than in large ones. Small companies, on the other hand, lack clout with suppliers and lack adequate resources, according to researchers. They still lack skilled management experience, which is responsible for 90% of small business failures. These are important aspects of TQM implementation. Lack of clout with suppliers, for example, may restrict a company's ability to monitor the quality of incoming materials. A small business's lack of resources can also prohibit it from investing in high-quality processes. Furthermore, for TQM to be implemented successfully, awareness and dedication from management are required. Small companies' human resource management priorities and activities vary from those of large organizations. Furthermore, small business owners do not agree that rewards are important for increasing productivity. These results may lead one to conclude that small businesses' TQM implementation experiences are significantly different from those of large businesses. As a consequence, the efficacy of different quality control strategies can be affected by the size of an organization. A future study could look into TQM and its effect on financial management in the dairy industry.

J.H., Kirk, (May-June 2020). TQM is being used by dairies to enhance milk consistency and food safety. Vol. 53, No. 3 (California Agriculture). The principles of Complete Quality Control were extended to dairy farm operations by J. H. Kirk (2020) in order to handle antibiotics and avoid residues in meat and milk. The National Dairy Total Quality Control Program, which included dairies from 30 states, included six California dairies. During the research, milk product manufacturers, their veterinarians, UC Cooperative Extension dairy farm advisors, and Veterinary Medicine Extension veterinarians collaborated. The six dairies produced written recovery plans as part of the project to ensure that opined withdrawal deadlines were met. The majority of the producers who took part in the study assessed the management, care, and treatment protocols. Perhaps the most important gain was enhanced coordination between the milk product management and its staff, which resulted in a clearer understanding of what, was required of each employee and who was responsible. Further study should look at the TQM and how it aligns with organizational and individual objectives.

Satbir Singh, Euan Fleming and Tim Coelli (2002) analyze the impact of the liberalization policy on cooperative dairy plants in India in their paper "Efficiency and Productivity Analysis of TQM in Cooperative Dairy Plants in Haryana and Punjab States of India." According to his findings, privatization alone is not a response to higher performance in milk product processing. Efforts to achieve higher performance should be made by plant managers and public policy makers through actions on the demand and supply side of the milk and milk products industry. In order to further enhance the study, the next researcher may investigate whether TQM practices enhance the efficiency of the employee in the issue.

Quality without Tears, by Philip Bayard Crosby, was published in 1984, Quality control methods and management theory. Crosby started the Martin Company's Zero Defects initiative. Crosby was credited with a 25% reduction in total rejection rate and a 30% reduction in scrap costs as the quality control manager for the Pershing missile programme.

Zairi (1998) provided a comprehensive tool for organizations to undergo a two-stage external and internal benchmarking exercise, and stressed the role of leadership for implementing continuous improvement. TQM philosophy is the effective initiative that produces a wide range of benefits, which include improved internal communication, better problem-solving, greater employee commitment and motivation, stronger relationships with suppliers, understanding of customers needs, improved customer satisfaction, fewer errors and reduced waste (Powell, 1995). However, TQM is mostly implemented in the manufacturing operations function with little progress in other functional areas (Sohal and Terziowski, 2000). More recently, (Kanji, 2002) defined TQM as a philosophy applied throughout the world in all types of organizations. He defined TQM particularly as a management philosophy that fosters an organizational culture Committed to Customer satisfaction through continuous improvement. Since TQM is so fundamental to business, it is applicable to all organizations. However, the definitions of TQM vary slightly from country to country and from culture to culture.

Total Quality Management: Key Principles and Case Studies, D.R. Kiran (2016). According to D.R. Kiran, he was a member of the National Institute for Quality and Reliability's national council, which was nominated by the Quality Council of India to be the nodal point for the Government of India's ZED (Zero Effect Zero Defect) Cell programme. Traditional industrial engineering techniques relating to modern concepts of Kaizen, DFSS, and statistical quality control are given a special function.

TABLE : I

The following table represents that major Key factors of the research papers,

S.No	Year	Paper Title	Author	Key factors
1.	1984	Quality without Tears	Crosby, P.B	Zero Defects
2.	1998	The effect of total quality management on corporate performance	Easton, G.S. and Jarrel, SL	TQM , Organizational performance
3.	1998	A two-stage external and internal benchmarking exercise, and stressed the role of leadership for implementing continuous improvement	Zairi	Continuous improvement
4.	2002	Performance of Dairy Plants in the Cooperative and Private Sectors in India	Satbir Singh, Euan Fleming and Tim Coelli	Efficiency and Productivity Analysis of TQM
5.	2015	An Experiment in Rural Economic Development	Singh S.P., Kelley L. Paul	Efficiency and Productivity Analysis of TQM
6.	2016	Pareto Analysis of Total Quality Management Factors Critical to Success for milk products	Faisal Talib, Zillur Rahman and M.N.Qureshi	Critical Success Factors
7.	2016	Total Quality Management: Key Principles and Case Studies D.R. Kiran	D.R. Kiran	Zero Effect Zero Defect
8.	2017	TQM Implementation and its Impact on Organizational Performance in Developing Countries	Fuzi Abusa	Top Management Commitment, Customer Focus, Supplier Quality Management, People Management, Process Management and Continuous Improvement
9.	2017	Critical Success Factors of Total Quality Management in the milk products	Neha Kalra and Anoop Pant	Policy and Strategic Planning, Process Management and Control, Customer Focus and Satisfaction, Employee Focus, Information Management, Quality Leadership, Supplier Focus and Satisfaction and Organization Specific Business Result
10.	2017	Quality Management and Innovation: New Insights on a Structural Contingency Framework	Dara Schniederjans and Marc Schniederjans	Quality Training, Cross-Functional Cooperation and Long Term Supply Relationships; Technical Factors
11.	2018	TQM Implementation through PDCA Approach in Milk Products	Mamta Patel and Raj Kumar	Leadership, Supplier Quality Management, Customer Focus and Employee Participation
12.	2019	Total Quality Management in the Top Rank of the milk products in Jordan	Mujbil Al-Marsumi	TQM factors, Quality Culture, Focus on Employee, Focus on Operations, Focus on Customers and Strategic Competitive Advantage
13.	2019	Amul and Anand Pattern of Milk Cooperatives	Taimni K.K	TQM practices in the manufacturing company
14.	2019	Quality Management in Large vs. Small Firms	Ahire	TQM Practices on the Performance
15.	2020	Dairies adopt TQM to improve milk quality and food safety	J.H. Kirk	Economic

III. OBJECTIVES OF THE STUDY

- To study the Quality Management Practices followed.
- To identify the variables of Total Quality Management.
- To evaluate and interpret the TQM variables used in particular units to improve efficiency.

IV. DISCUSSION AND CONCLUSION

This paper presents a review of literature in Quality Management Practices. The review has been made around fifteen papers regarding quality management practices. From the literature review it is very clear that quality management practices plays a vital role in enhancing quality of product and success of the industry. Whether it is a small industry or large industry the quality management practices should be done. But it is also observed that most of the studies were conducted in the areas concerned with mass production industries.

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