A Research on Obstecles Originating from The Management Departments About Quality Improvement and Development

SERİN, Hasan
Department of Forestry Industry Engineering, Faculty of Forestry, KSU

ŞAHİN, Yunus
Department of Forestry Industry Engineering, Faculty of Forestry, KSU

AKYÜZ, lker
Department of Forestry Industry Engineering, Faculty of Forestry, KTU

https://doi.org/10.15017/1906151

出版情報：Proceedings of International Exchange and Innovation Conference on Engineering & Sciences (IEICES). 3, pp.31-34, 2017-10-19. Interdisciplinary Graduate School of Engineering Sciences, Kyushu University
バージョン：
権利関係：

IEICES

3rd International Exchange and Innovation Conference on Engineering & Sciences
Kyushu University, Fukuoka, Japan
October 19-20, 2017

A Research on Obstecles Originating from The Management Departments About Quality Improvement and Development

Hasan SERİN[1], Yunus ŞAHİN[1]*, İlker, AKYÜZ[2]
[1]Department of Forestry Industry Engineering, Faculty of Forestry, KSU, Kahramanmaras, Turkey, [2]Department of Forestry Industry Engineering, Faculty of Forestry, KTU, Trabzon, Turkey
ysahin@ksu.edu.tr

Abstract: *Quality is the degree to which a set of inherent characteristics fulfils requirements. Quality has a important role in targets of sustainability and customer satisfaction of the management. There are two methods as classic and modern quality methods for sustainability and customer satisfy at the management. In this study, it has been researched that many obstacles originating from management departments about quality improvement and development in reference to classic and modern quality methods. These enterprises take place at 24 numbers industry regions (Bursa, İstanbul, Kayseri, etc. İn Turkey). The data was evaluated by using SPSS program. After the results, the education support has very important role at classic quality method (38.7%) and modern quality method (36.7%) According to classic quality method, the education was 1st rank and the marketing was 6th rank. Also according to modern cquality method, the manufacturing was 1st rank and themarketing/education was 5th rank.*
Keywords: Quality, Enterprise, SPSS, Sustainability

1. INTRODUCTION

Increasingly, organizations are recognizing the strategic importance of quality and quality management. Many organizations have arrived at the conclusion that effective quality management can enhance their com petitive abilities and provide strategic advantages in the marketplace [1].

One of the strongest proponents of quality management was W. Edwards Deming, a member of the select few credited with contributing to the rapid revitalization of the Japanese economy after World War II. The Deming management method is currently embraced by many firms in the world. Quality improvement is the use of a deliberate and defined improvement process, such as Plan-Do-Check-Act [2].

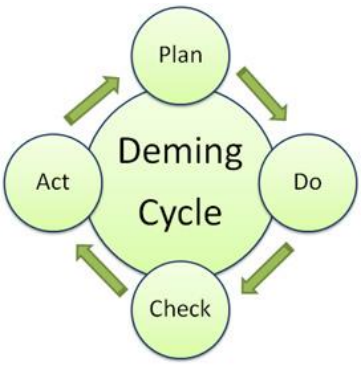

Figure 1. Deming Cycle

Over the last forty years, many researchers have discussed the reasons for the inferior quality of products and have recommended quality improvement prescriptions such as management leadership, product quality planning, customer focus and shop floor quality control [3].

In the global marketplace increased levels of competition have resulted in quality becoming of increasing importance to organisations and consequently total quality management (TQM) has become a key management issue [4]. Total Quality Management (TQM) is a structured approach to overall organizational management. The focus of the process is to improve the quality of organizations outputs, including goods and services, through continual improvement of internal practices. The standards set as part of the TQM approach can reflect both internal priorities and any industry standards currently in place [5],[6],[7].

Furniture production in Turkey dates back to the 19th century and was done in small workshops as artisan production. However, by the rapid globalization and all other aspects, present furniture industry is becoming a fashion sector. In accordance to data from Turkish Statistical Institute (TurkStat), in 2012 furniture production was realized as 10,3 billion Turkish Liras. According to the recent General Census of Industry and Business Establishments, the furniture sector employs 151.904 people and the industry has 33.924 companies manufacturing various furniture. Furniture production in Turkey is concentrated mainly in İstanbul, Ankara, Bursa (İnegöl), Kayseri, İzmir and Adana. The most important furniture production districts are İstanbul and the region of Bolu-Düzce, which is famous for its production of wood products. (Anonymus, 2013;Anonymous, 2016)

It was given that researched obstacles as percentage distribution at tables for a great quality assurance control at furniture outlets. It was analyzed that differences between furniture outlets according to traditional quality management and total quality management by chi square test. It was lined up that the factors on the quality improvement and development in order of priorities.

2. MATERIAL AND METHOD

Furniture enterprises in organized industry zones was chosen as material. Survey was prepared to determine

communications among the top management and departments. 295 number surveys were filled by the eager managers with face to face method. The most of surveys were filled Bursa, Ankara, İstanbul and Kayseri where the furniture industry is commonly.
The surveys were evaluated by SPSS program. Frequency tables were formed and low frequency question options were combined. Frequency distribution was given according to two different criteria as enterprises: Traditional Quality Management and Total Quality Management.

3. RESULTS

As a result of evaluating the data according to production subject, 36,3% of the survey is miscellaneous furniture, bed-dining-kitchen furniture (19%); according to number of worker, 63,7% of the survey was filled the enterprise that has 10-49 person workers (Table 1).

Table 1. Distribution of the enterprises that the survey was applied

Production Subject			Scale Size		
	Production Subject	%		Number of Worker	%
	Miscellaneous Furniture	36,3		1-9 Person	17,3
	Sitting Group-Sofa-Hide a Bed	17,9		10-49 Person	63,7
	Bed-Dining-Kitchen Furniture	19,0		50-99 Person	13,7
	Office-Hotel-Modular Furniture-Furniture Decoration	13,2		100 - + Person	5,3
	Teen and Kid's Room	6,1			
	Joinery-Door-Profile-Chair-Table Production	7,5			
	Total	100		Total	100

The surevey applied 66.7% of the furniture outlets use Traditional Quality Management and the rest of use Total Quality Management. 14.9% of these furniture outlets has the quality assurance program, but 69.2% of them has no this program, and the rest of them develop their quality assurance program. It has showed at Table 2 about the situation of the quality development program of the furniture outlets.

Table 2. The Quality Development Program at Furniture Outlets

Quality Management System*	% Yes	% No	Program Developing %	Total
Traditional Quality Management	10,0	75,1	14,9	66,7
Total Quality Management	65,9	8,0	26,1	33,3
In Total	14,9	69,2	15,9	100

*p>0.05 no differences between them

As shown at Figure 2, according to Traditional quality management applied the furniture outlets; insufficient engineering support (9.2%) is not important, inadequate manufacturing support (47.7%) and insufficent marketing support (50.0%) are important. Inadequate education support (38.7%) is very important for these furniture outlets.

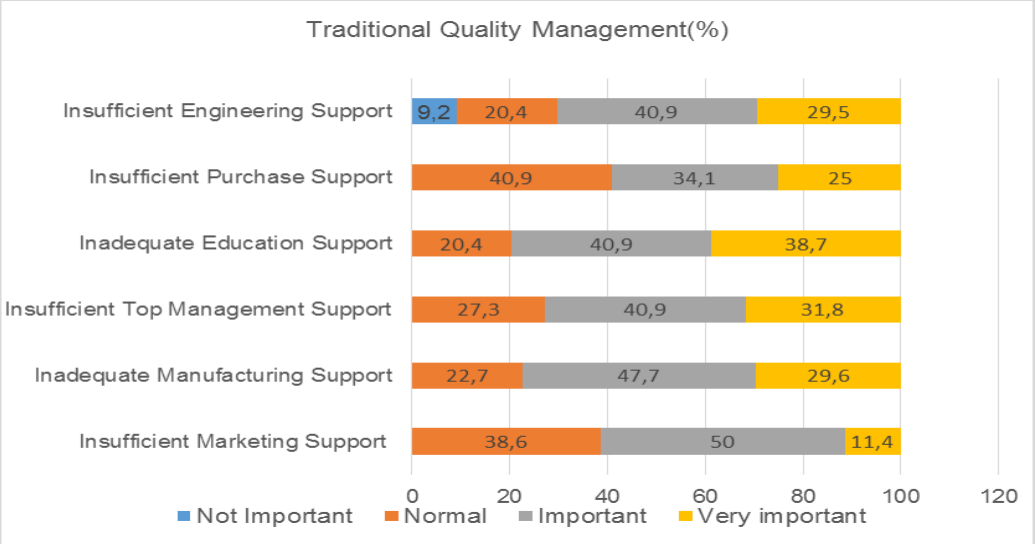

Figure 2. Traditional Quality Management

As shown at Figure 3, according to Total quality management applied the furniture outlets; insufficient engineering support (4.5%) is not important, inadequate manufacturing support (63.7%) and insufficent marketing support (40.9%) are important. Insufficient top management support (45.7%) and

insufficient engineering support (40.9%) are very important for these furniture outlets.

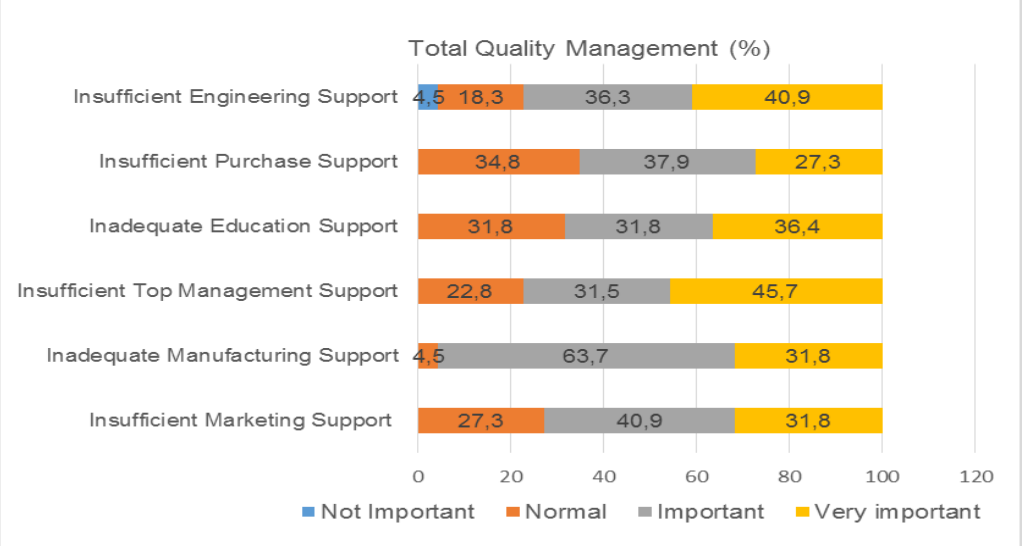

Figure 3. Total Quality Management

As shown at Figure 4, according to in total; insufficient engineering support (7.6%) is not important, inadequate manufacturing support (53.0%) and insufficent marketing support (47.0%) are important. Inadequate education support (37.9%) is very important for these furniture outlets.

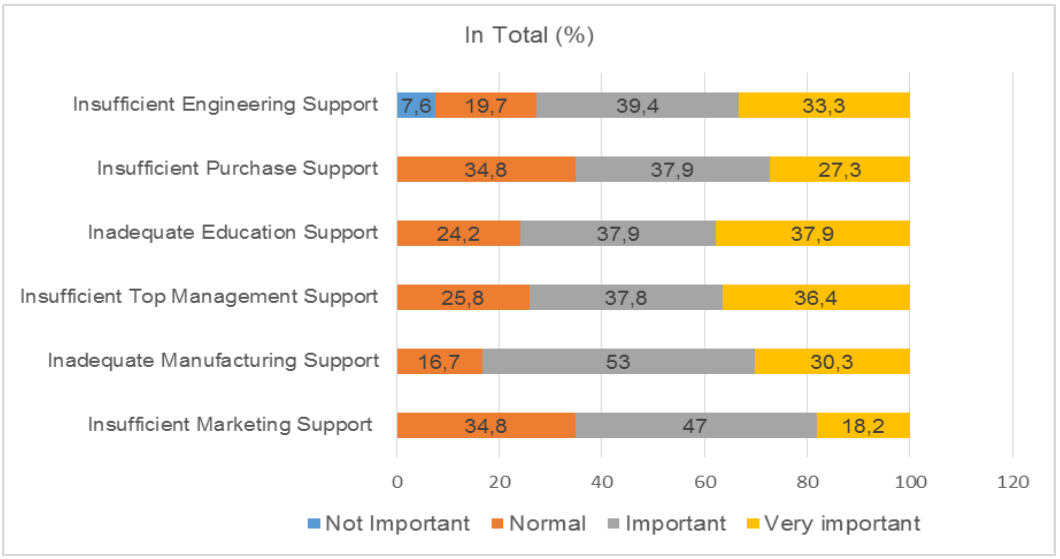

Figure 4. In Total

Table 3. Order of importance of the factors

Factors	Quality Management System			
	Traditional Quality Management		Total Quality Management	
	Order of importance	Mean	Order of importance	Mean
Inadequate Education Support	1	4,1818	5	4,0455
Inadequate Manufacturing Support	2	4,0682	1	4,2727
Insufficient Top Management Support	3	4,0455	2	4,2273
Insufficient Engineering Support	4	3,9091	3	4,1364
Insufficient Purchase Support	5	3,8409	4	4,0909
Insufficient Marketing Support	6	3,7273	5	4,0455

The factors, which are obstacles on applying a great quality development program, were examined as far as the quality management mentality. For trational quality management applied the furniture outlets, insufficient education (4.1818) was as first rank, insufficient manufacturing support (4.0682) was as second rank, and insufficient marketing support (3.7273) was as last rank. For total quality management applied the furniture outlets, insufficient manufacturing support (4.2727) was as first rank, insufficient top management suppor (4.0570) was as second rank, and insufficient marketing and purchase support (4.0455) was as last rank.

4. DISCUSSION

After this research, we can see that many of the furniture outlets (66.7%) use traditional quality management system. Insufficient engineering support is not very important for these outlets. Because these outlets are generally family outlets and they don't trust the engineers. They have experienced employees. For these outlets orders of importance are respectively education, manufacturating, top management, engineering, purchase, and marketing.

For total quality management applied the furniture outlets, the manufacturing (63.7%) support are important. Because this process improves the organization outputs, and including goods and services. For these outlets orders of importance are respectively manufacturating, top management, engineering, purchase, education, and marketing.

In generally, as shown at Figure 4, the manufacturating and marketing support are important for the furniture outlets. So, these firms should improve these factors and then apply their quality control systems. They should give importance for the engineering support because of new ideas and more productivity. Also education support is so important. If employees or managers at firms get much experience, they can show great performance and the firms get sustainable growth.

REFERENCES

[1] John C. Anderson Manus Rungtusanatham Roger G. Schroeder, A., 1994. Theory Of Qualıty Management Underlyıng The Demıng Management Method, Academy of Management Review, Vol. 19, No. 3, 472-509.

[2] Ronald D. Moen and Clifford L. Norman, 2009. “The History of the PDCA Cycle,” proceedings from the Seventh Asian Network for Quality Congress, Tokyo, Sept. 17.

[3] Terziovski M.,Samson, D., 1999. The link between total quality management practice and organisational performance, International Journal of Quality & Reliability Management, Vol. 16 No. 3, pp. 226-237

[4] Angel R. Martínez-Lorente, Frank Dewhurst, Barrie G. Dale, 1998. "Total quality management: origins and evolution of the term", The TQM Magazine, Vol. 10 Issue: 5, pp.378-386.

[5] Ghobadıan, A., Gallear, D.N., 1996. Total Quality Management in SMEs, Omega, Int. J. Mgmt Sci. Vol. 24, No. 1, pp. 83-106.

[6] URL, 2017. http://www.investopedia.com/terms/t/total-quality-management-tqm.asp#ixzz4oRH0gHTO 31.07.2017.

[7] Hackman, J.R., Wageman, R., 1995. Total Quality Management: Empirical, Conceptual, and Practical Issues, Vol. 40, No. 2, Jun, pp. 309-342

[8] Anonymous, 2016, Furnutire Industry, Republic of Turkey – Ministry of Economy.

[9] Anonymous, 2013 The Turkish Furniture Products Assembly Sector Report