

A Research on Obstacles Originating from the Furniture Management Departments About Quality Improvement and Development

Yunus ŞAHİN^{1*}, Hasan SERİN¹, İlker AKYÜZ²

¹ Kahramanmaraş Sutcu Imam University, Faculty of Forestry, Forestry Industry Engineering, Kahramanmaraş, TURKEY

²Karadeniz Teknik University, Faculty of Forestry, Department of Forest Engineering, Trabzon, TURKEY

*Corresponding author: ysahin@ksu.edu.tr

Received Date: 26.03.2018

Accepted Date: 16.09.2018

Abstract

Aim of study: Quality is a predictable degree of uniformity and dependability at low cost and suited to the market. 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.

Area of study: These enterprises take place at 24 numbers industry regions (Bursa, İstanbul, Kayseri, etc. In Turkey).

Material and Methods: The survey method used at furniture managements. The data was evaluated by using SPSS program.

Main results: 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 quality method, the manufacturing was 1st rank and the marketing/education was 5th rank.

Research highlights: If firms are developing on this way, economics of country will be improve and the firms will develop.

Keywords: Quality, Enterprise, Sustainability

Kalite İyileştirilmesi ve Geliştirilmesi Hakkında Mobilya İşletme Bölümlerinden Kaynaklanan Engellerin Araştırılması

Öz

Çalışmanın amacı: Kalite, yerine getirilmesi gereken ihtiyaçların doğal karakteristik dizilerini derecelendirmesidir. Kalitenin yönetimde müşteri tatmini ve sürdürülebilirlik üzerinde önemli bir role sahiptir. İşletmede müşteri tatmini ve sürdürülebilirlik açısından klasik ve modern kalite metotları olmak üzere iki yöntem vardır. Bu çalışmada, klasik ve modern kalite yöntemlerine göre kalitenin iyileştirilmesi ve geliştirilmesi hakkında işletme bölümlerinden kaynaklanan birçok engeller araştırılmıştır.

Çalışma alanı: Bu işletmeler 24 tane organize sanayi bölgelerinde (Bursa, İstanbul, Kayseri, vd.) yer almaktadır. Materyal ve Yöntem: Mobilya işletmelerinde anket yöntemi kullanılmıştır. SPSS program kullanılarak veriler analiz edilmiştir.

Sonuçlar: Sonuçlar ışığında eğitim desteğinin klasik kalite yöntemi (%38.7) ve modern kalite yönteminde (%36.7) önemli role sahip olduğu ortaya çıkmıştır. Klasik kalite yöntemine göre öncelik sıraları belirlenmiş ve eğitim ilk sırada yer alırken pazarlama altıncı sırada bulunmaktadır. Ayrıca modern kaliteye yöntemine göre imalat ilk sırayı alırken pazarlama ve eğitim beşinci sırayı paylaşmışlardır.

Araştırma vurguları: Bu yöntem ile işletmelerdeki gelişme sayesinde sürdürülebilirlikleri devam edecek ayrıca ülke ekonomisi ve kendi ekonomilerine büyük katkı sağlayacaktır.

Anahtar Kelimeler: Kalite, Girişimcilik, Sürdürülebilirlik

This article was presented at 3rd International Exchange and Innovation Conference on Engineering and Sciences Kyushu University, Fukuoka, Japan, 19-20 October 2017



Introduction

Growingly, organizations are aware of quality management and strategic significance of quality. Several organizations have realized at the conclusion that efficient quality management can develop their abilities of competitive and ensure strategic advantages in the market (John, Manus & Roger, 1994).

W. Edwards Deming was one of the strongest henchmen of quality management and after World War II, an enrollee of the select low credited with conducive to the rapid revitalization of the Japanese economy. The Deming management method is currently adopted by several firms in the world. Improvement of quality is the use of a calculate and defined progression process, thus Plan-Do-Check-Act (Ronald and Clifford, 2009).

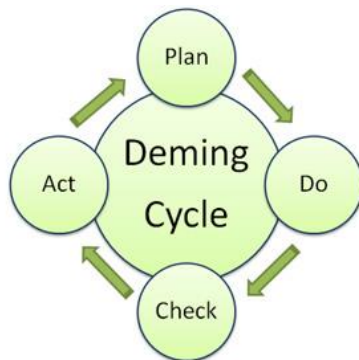


Figure 1. Deming Cycle

In last forty years, several investigators have discussed the causes for the inferior quality of products and have advised improvement of quality instructions thus customer focus, planning of product quality, management leadership, and quality control of shop floor (Terziovski and Samson, 1999).

In the global market enhanced levels of competition have resulted in quality becoming of increasing significance to organizations and after all total quality management (TQM) has become a key management matter (Angel, Frank & Barrie, 1998). TQM is a structured approach to from end to end organizational management. The focus of the process is to enhance the quality of organizations outputs, including goods and services, via continual development of internal practices. The standards set within

the TQM approach can reflect both any industry standards and internal priorities currently in place (Hackman and Wageman, 1995; Ghobadian and Gallea, 1996; URL, 2017).

Production of furniture in Turkey dates back to the 19th century and was done in small workshops as tradesmen production. Even so, by the rapid globalization and all other aspects, present industry of furniture is becoming a popular sector. As for that data from Turkish Statistical Institute (TurkStat), in 2012 production of furniture was performed as 10,3 billion Turkish Liras. As far as the recent General Census of Industry and Business Establishments, the sector of furniture employs 151.904 people and the industry has 33.924 companies manufacturing varied furniture. Production of furniture in Turkey is concentrated mostly in Kayseri, İstanbul, Bursa (İnegöl), Ankara, İzmir and Adana. The most important production of furniture areas are in İstanbul and the region of Bolu-Düzce, which is famous for its production of wood products (Anonymous, 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.

Material and Methods

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.

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	Production Subject	%	Scale Size	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 survey 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 insufficient marketing support (50.0%) are important. Inadequate education support (38.7%) is very important for these furniture outlets.

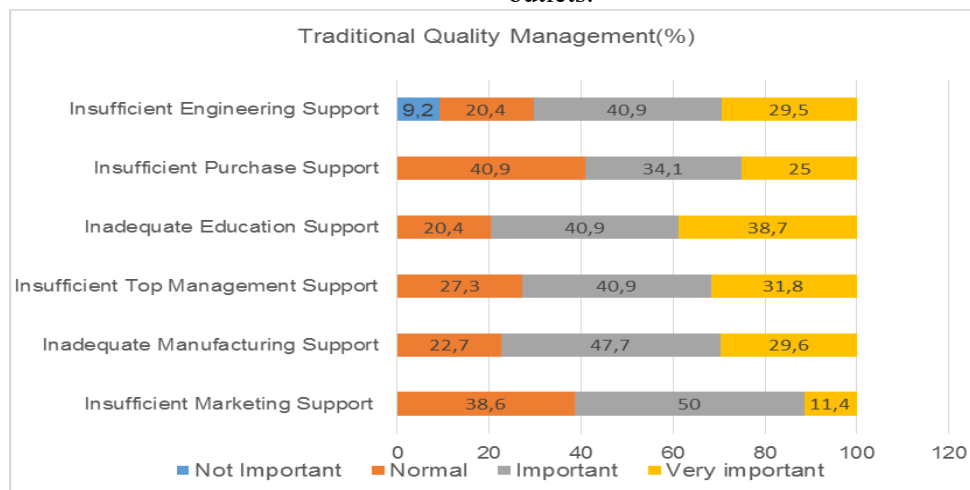


Figure 2. Traditional quality management

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

insufficient 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.

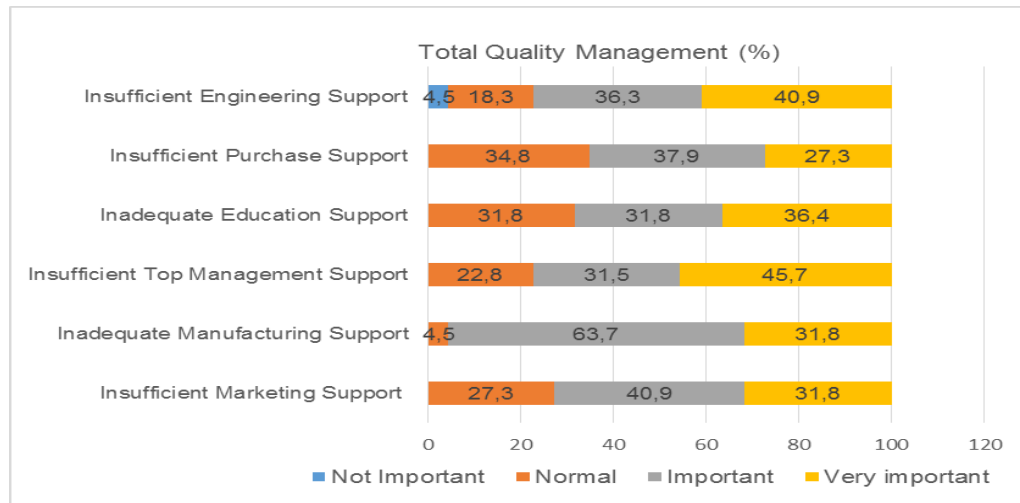


Figure 3. Total quality management

As shown at Figure 4, according to in total; insufficient engineering support (7.6%) is not important, inadequate manufacturing support (53.0%) and insufficient marketing

support (47.0%) are important. Inadequate education support (37.9%) is very important for these furniture outlets.

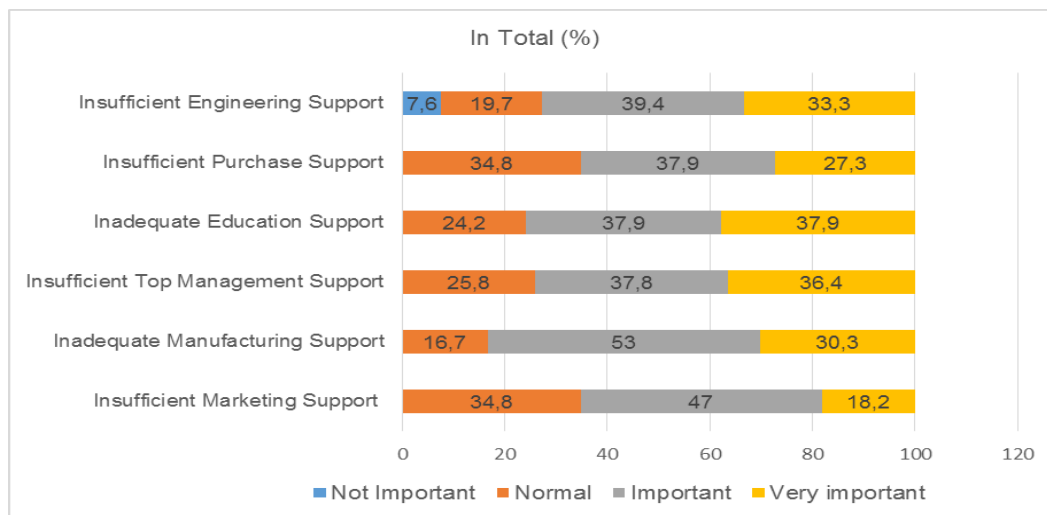


Figure 4. In total

The factors, which are obstacles on applying a great quality development program, were examined as far as the quality management mentality. For traditional 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 support (4.0570) was as second rank, and insufficient marketing and purchase support (4.0455) was as last rank.

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

Discussion and Conclusion

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, manufacturing, 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 manufacturing, top management, engineering, purchase, education, and marketing.

In generally, as shown at Figure 4, the manufacturing 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

- Angel, R. M. L., Frank, D., & Barrie, G. D. (1998). Total quality management: Origins and evolution of the term. *The TQM Magazine*, 10(5), 378-386.
- Anonymous, (2013). The Turkish furniture products assembly sector report.
- Anonymous, (2016). Furniture industry, Republic of Turkey – Ministry of Economy.
- Ghobadian, A. & Gallear, D. N. (1996). Total quality management in SMEs, Omega. *The International Journal of Management Science*, 24(1), 83-106.
- Hackman, J. R. & Wageman, R. (1995). Total quality management: Empirical, conceptual, and practical issues. *Administrative Science Quarterly*. 40(2), 309-342.
- John, C. A., Manus, R. & Roger, G. S. (1994). Theory of quality management underlying the deeming management method, *Academy of Management Review*, 19(3) 472-509.
- Ronald, D. M. & Clifford, L. N. (2009, September). *The history of the PDCA cycle*. Proceedings from the Seventh Asian Network for Quality Congress, Tokyo.
- Terziovski, M. & Samson, D. (1999). The link between total quality management practice and organizational performance. *International Journal of Quality & Reliability Management*, 16(3), 226-237.
- Total Quality Management - TQM. (2017, July). Retrieved from: <http://www.investopedia.com/terms/t/total-quality-management-tqm.asp#ixzz4oRH0gHTO>.