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Building Partnership with Suppliers of Macedonian Companies

Elizabeta MITREVA^{1*}, Nako TASKOV¹, Zdravko KRIVOKAPIĆ², Jelena JOVANOVIĆ²

¹University "Goce Delcev" – Shtip, Macedonia

²Faculty of Mechanical Engineering Podgorica, University of Montenegro, Montenegro

*Corresponding author: Elizabeta Mitreva; E-mail: elizabeta.mitreva@ugd.edu.mk; elizabeta.mitreva@gmail.com

Abstract

Procurement of materials and spare parts for the needs of the companies is often a major source of problems for the quality of products and services. This paper shows the results of a larger study of Macedonian companies in terms of planning and implementing the philosophy of Total Quality Management (TQM) and building partnerships with suppliers.

The survey results indicate the fact that many of the companies in Macedonia build formal relationship with suppliers that do not deliver the desired results. When there is poor quality of the raw materials, good quality of product is not expected, therefore consistency on the market is not achieved and the requirements of ISO standards are not met. To achieve sustainable development, Macedonian companies need to eliminate old habits and proactively focus on developing long-term partnerships with suppliers, providing technical support for training to improve processes, product quality, productivity, in one word accepting the TQM philosophy.

Keywords: quality system, supplier management, standards, TQM philosophy.

1. Introduction

One of the criteria for the European Quality Award (EQA) is in what way the company is effectively and efficiently managing the suppliers and raw materials. Procurement of raw materials is one of the most important activities for quality assurance; the cost of inputs make up to 50-70% of the product and the quality of incoming material largely determines the quality of the final product. Ensuring quality on the input materials is accomplished by properly defined characteristics and regulated documents. Suppliers are key link in the planning and implementation of TQM (Total Quality Management) system and they play an important role for effective and efficient quality system.

2. Literature review

Supplier relationship management is an important part of the TQM (Total Quality Management) philosophy. On average, 40 percent of production costs relate to the costs of raw materials, therefore the conclusion that supplier management plays an important role. Quality of the products depends on the quality of inputs provided by the supplier therefore building a partnership with them is essential, according to Genna, (1997).

According to Flood (1994), the supplier should be treated as a continuation of the manufacturing process. Many authors (Kanji & Wong, 1999; Romano, 2002; Wong, 2000; Robinson & Malhotra, 2005) support the opinion of the necessity in building partnership with suppliers as well as increasing their motivation to fulfill the expectations of buyers. Building these type of relations will lead to quality results in the production cycles.

As per Kani and other authors (1999) building partnership relations between buyer and supplier is one of the main qualities of the procurement operation.

Feignebaum (2002) proposed ten principles of quality management, and one of them is that top quality is achieved

only by connecting the buyer to the supplier. Quality management of products and services depends on the responsibility of the employees, suppliers and buyers.

Genna (1997) suggests that steps such as timely delivery and delivery of raw materials without defects can greatly improve the quality of the end product and it is "first step" to ensure quality.

According to Flood (1994) in the Philips Company (Filip's Group) was created long-time partnership with their suppliers. They have created the term "Co-Makership" as an expression of their joint work towards achieving common goals. The synonym "Co-Makership" is based on the principle that both parties can get more through cooperation rather than individual realization of their interests. With the new policy of building partnership with suppliers a significant changes in behavior did occur, policies and procedures for working with suppliers were developed, and they were required to take full responsibility for their products and to not depend on the inspection of the contracting authority. Companies (Rank Xerox, TI Rayleigh, Locas, etc.) adopted "Co-Makership" approach to build relations with suppliers and improved the quality of their products (Flood, 1994).

Toyota and Nissan (Toyota and Nissan) hired specialized consulting groups that should help suppliers to improve their performance and achieve total quality of its products and services. This assistance was offered free of charge (Wong et al, 1999; Wong, 2003).

Other organizations worldwide use specialized teams to improve the quality of its products and services in which suppliers should take part (Martínez Fuentes et al., 2000).

According to group of authors (Goicoechea & Fenollera, 2012; Dyer & Ouchi, 1998; Dansomboon et al. 2016; Cao et al., 2000) quality-oriented companies are no longer directed towards establishing criteria for selecting suppliers but proactively aiming at developing long-term relationships with them, providing technical support and training to improve processes, product quality and productivity.

Easton in his research (1993) states that many applicants for Baldrige Award began quality program with their suppliers slowly injecting the quality through the entire supply chain.

3. Methods in the research and analyses of the results

The subject of interest in this study is an analysis of Macedonian companies in terms of procurement management of raw materials and building partnership with suppliers. According to the previously defined goals of this empirical research, the list of surveyed companies consisted of 3109 Macedonian companies. The research was conducted in cooperation with the Chamber of Commerce of the Republic of Macedonia. In the process of analysis actively participated only 363 companies and managers from their respective quality control departments; although it was planned many Macedonian companies to participate, the research was realized with participation of only 363 companies which is 11.6% of the estimated database, such a response is typical for this type of research (Bohdanowicz 2005a; Jeong et al. 2003; Medina-Munoz Garcia-Falcon 2000).

The research was based on questionnaire and a detailed study of the companies conducted by the research team. Research in Macedonian companies is usually done as per the European Quality Award criteria which includes leadership, policy and strategy, staff management, resources, processes, customer satisfaction, employee satisfaction, corporate social responsibility, business results and investment in innovation. These criteria are used to evaluate whereabouts of Macedonian companies to compete for the European Quality Award and to identify the large gap between local and developed European and global companies as well as their ability to compete on the global market.

Due to great quantity of investigated material this study only shows the results in terms of management of raw materials and building partnership with suppliers which is the basis for continuous improvement of the quality and readiness to accept TQM philosophy.

The structure of the surveyed companies – participants in the survey, as per the industries to which they belong (National Classification of Activities – NKD rev. 2 – (“Official. Gazette of the Republic of Macedonia” no. 147/08) and amendment of the National Classification of Activities – NKD Rev. 2 in place since 1 January 2013) is shown in *figure 1*. In the survey participated quality managers in all the companies and institutions that have planned and implemented quality systems, those who do not have engaged managers of the first or second level.

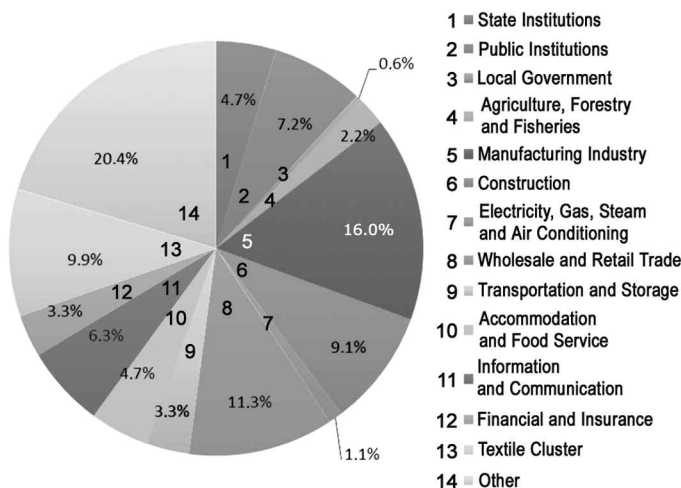


Figure 1.

Percentage share of companies in the survey as per industries

3.1. The Supplier Relationship Management in Macedonian companies

Management of suppliers is an important aspect of the quality system. Our research pointed to poor cooperation between Macedonian companies and their suppliers, lack of nurturing these relationships and mutual trust.

When asked whether their company is seeking for technical specification to ensure quality of incoming materials, only 38.6% of the surveyed companies confirmed that they are always requesting for specification of incoming material not only when they doubt the quality, *figure 2*.



Figure 2. Do companies require specification of the quality of input materials?

Results per industries are shown in the *figure 3*.

The business partnership of the company with suppliers requires trust and adequate integration in terms of generating improvements and development of new values (Mitreva, 2011).

Asked in what way they select the supplier of input materials, data obtained from the respondents gave the following results:

- 67.2% of them choose their supplier based on quality, delivery deadline, price and reliability of the material that is procured, which is contradicting the previous answers where only 38.6% of them said they always require specification of the material that is procured. If there is no definition of the quality of input materials there is no good business relationship with the suppliers;
- 24.2% of respondents said that the choice is made on one supplier who will offer the cheapest inputs without having to ask for specification of the product;
- 5.8% of them are choosing supplier without any specific criteria depending, it all depends on the situation and needs;
- 2.8% of them said that choosing of supplier of raw material is done randomly.

In terms of building business cooperation with suppliers, we obtained the following data:

- 76.6% of respondents said they have long-term cooperation with suppliers and foster partnerships with them;
- 14.6% of them treat suppliers as a reserve option, building distrust and discontinuity in the quality of business cooperation;
- 8% of them are in constant search for new suppliers, ignoring building good relationships with existing ones, to foster cooperation and to include them in all activities aimed at improving the business results of the company;
- 0.8% of them showed distrust towards those relations.

The results per industries are shown in the following *figure 4*. Our direct research in Macedonian companies stated the fact that Macedonian companies according to their needs, build

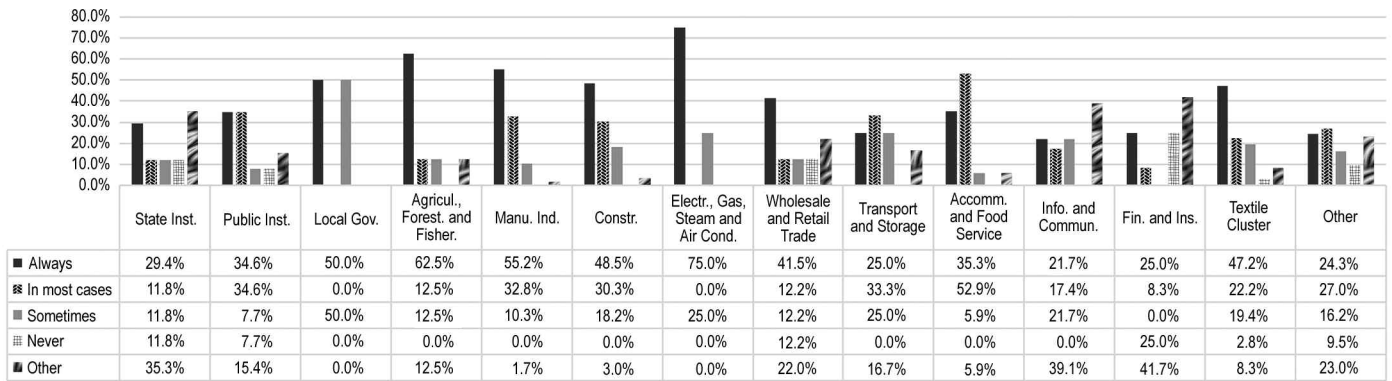


Figure 3. How the company is effectively and efficiently managing suppliers and procurement of raw materials in the industry?

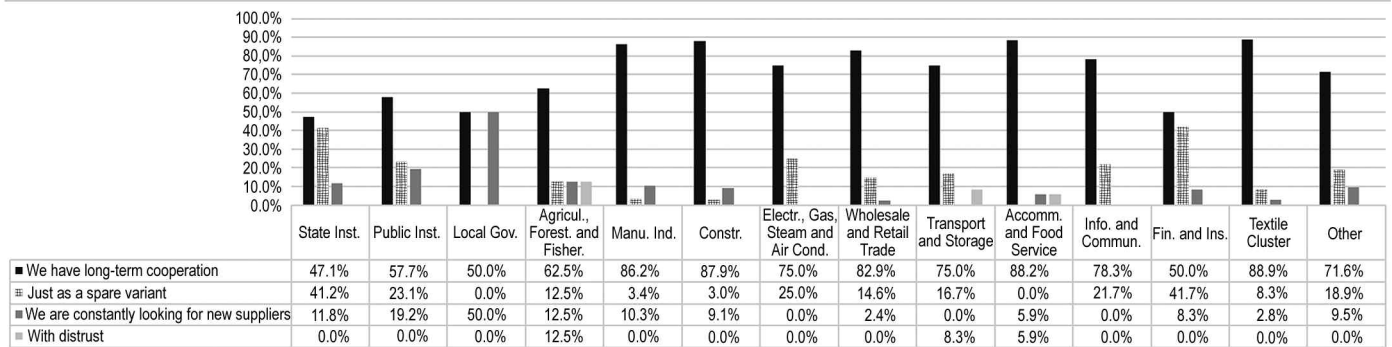


Figure 4. How is the company building relationships with suppliers per industry?

only formal business relationships with suppliers without willing to essentially improve these relations or to define the obligations and responsibilities and to improve the quality. Creating formal relations does not bring the desired results, poor quality of raw materials does not bring good quality of product or service either.

In order for Macedonian companies to achieve sustainable development they should focus on reducing and eliminating the old habits and proactively focusing on developing long-term partnership with suppliers, providing technical support for training to improve processes, product quality and productivity. Quality of the products depends on the quality of raw materials provided by the supplier, therefore building a partnership with the supplier is necessary. The supplier should be treated as an introduction to the manufacturing process and they should also be motivated to fulfill the expectations of buyers. Actions such as timely delivery of raw materials without defects can greatly improve the quality of the products as "first step" to provide good quality of products and services. Many companies are forming specialized team to improve the quality of its products and services and suppliers are invited to actively take part in it.

4. Conclusion

Analyzing the results of the survey and our own views, we came to a conclusion that Macedonian managers who struggle for existence of their business don't really understand current trends in the development of management with suppliers based on the TQM strategy. To maintain their presence on the global market, Macedonian companies must make every effort to provide products and services that are competitive on the market, to meet and exceed the needs of customers/users.

To achieve sustainable development, Macedonian companies should be exempted from building criteria for selecting suppliers and proactively focus on developing long-term relationships with them and adopt the TQM philosophy (Mitrevic et

al., 2012). The application of TQM strategy in companies means that the company should manage suppliers in such a way to identify problems, optimize inventory, and reduce and reuse waste together with the supplier. All these activities are opposed to the previous case with planning and implementation of ISO 9001:2015 standard where the appointment was done according to specific and documented criteria, activities and other listed requirements that are particular for ISO 9001 standard given in a form of questionnaire (Mitrevic et al., 2016).

Many companies worldwide use specialized teams to improve the quality of its products and services in which suppliers take place.

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References

- [1] Bohdanowicz, P., Simanic, B., & Martinac, I. (2005), 'Environmental training and measures at Scandic Hotels, Sweden'. *Tourism Review International*, 9(1), pp. 7-19.
- [2] Cao, G., Clarke, S., & Lehaney, B. (2000), 'A systemic view of organisational change and TQM'. *The TQM magazine*, 12(3), pp. 186-193.
- [3] Dansomboon, S., Phimonstathienand, T., & Fongsuwan, W. (2016), 'Cross cultural logistics and supply chain management towards organizational effectiveness within the ASEAN/THAI automotive industries: a SEM analysis'. *Management and Production Engineering Review*, 7(3), pp. 23-38.
- [4] Dyer, J.H., & Ouchi, W.G. (1998), 'Japanese-style Partnerships: giving companies a competitive edge'. *Japanese Business*, 3(1), pp. 200.
- [5] Easton, G.S. (1993), 'The 1993 state of US total quality

- management: A Baldrige examiner's perspective'. *California Management Review*, 35(3), pp. 32-54.
- [6] Flood, R.L. (1994), 'I keep six honest serving men: they taught me all I knew'. *System Dynamics Review*, 10(2-3), pp. 231-243.
- [7] Feigenbaum, A.V. (2002), 'The power behind consumer buying and productivity'. *Quality Progress*, 35(4), pp. 49.
- [8] Genna, A. (1997), 'Suppliers are key to giving customers what they want'. *Purchasing*, 123(8), pp. 33-4.
- [9] Goicoechea, I., & Fenollera, M. (2012), *Quality management in the automotive industry*. DAAAM International Scientific Book, pp. 619-632.
- [10] Kanji, G.K., & Wong, A. (1999), 'Business excellence model for supply chain management'. *Total quality management*, 10(8), pp. 1147-1168.
- [11] Martínez Fuentes, C., Balbastre Benavent, F., Angeles Escribá Moreno, M., González Cruz, T., & Pardo del Val, M. (2000), 'Analysis of the implementation of ISO 9000 quality assurance systems'. *Work study*, 49(6), pp. 229-241.
- [12] Medina-Muñoz, D., & García-Falcón, J.M. (2000), 'Successful relationships between hotels and agencies'. *Annals of Tourism Research*, 27(3), pp. 737-762.
- [13] Mitreva, E. (2011), 'Model-integral methodology for successful designing and implementing of TQM system in Macedonian companies'. *International Journal for Quality Research*, 5(4), pp. 255-260.
- [14] Mitreva, E., Jakovlev, Z., Koteski, C., Kitanov, V., & Angelkova, T. (2012), 'Analysis of the existing management system in Macedonian companies and the necessity of accepting the TQM philosophy'. *International Journal of Pure and Applied Sciences and Technology*, 8(2), pp. 54-63.
- [15] Mitreva, E., Taskov, N., Atanasoski, D., Gjorshevski, H., Sazdova, J., & Georgieva, I. (2016), 'Integrating supplier satisfaction with customer satisfaction in the projection and implementation of the TQM system in Macedonian companies'. *International Journal of Information, Business and Management*, 8(1), pp. 25.
- [16] Robinson, C.J., & Malhotra, M.K. (2005), 'Defining the concept of supply chain quality management and its relevance to academic and industrial practice'. *International Journal of Production Economics*, 96(3), pp. 315-337.
- [17] Romano, P. (2002), 'Impact of supply chain sensitivity to quality certification on quality management practices and performances'. *Total Quality Management*, 13(7), pp. 981-1000.
- [18] Wong, A. (2000), 'Integrating supplier satisfaction with customer satisfaction'. *Total Quality Management*, 11(4-6), pp. 427-432.
- [19] Wong, A., Tjosvold, D., Wong, W.Y., & Liu, C.I.P.R. (1999), 'Relationships for quality improvement in the Hong Kong-China supply chain'. *International Journal of Quality & Reliability Management*, 16(1), pp. 24-41.
- [20] Wong, A. (2003), 'Achieving supply chain management excellence'. *Total Quality Management & Business Excellence*, 14(2), pp. 151-159.