

Supply Chain Management as a Key Factor for Improving Macedonian SMEs' Competitiveness

L. Pulevska Ivanovska* and S. Ivanovski**

* University "Ss. Cyril and Methodius", Faculty of Economics, Skopje, Macedonia

** University "Goce Delcev", Military Academy "General Mihajlo Apostolski", Skopje, Macedonia
e-mail address: lidijap@eccf.ukim.edu.mk

Abstract - In recent years, effective logistics and supply chain management have been recognized as key opportunities for improving the profitability and the competitive performance of the companies. Also in the last few years, a significant progress in the field of small and medium enterprise development in Macedonia has been seen. The supply chain management is seen as a catalyst for unleashing economic growth in Macedonia and throughout the region of Southeastern Europe. Supply chain performance will be a key indicator of overall corporate success in the upcoming period and core advantage when entering foreign markets and compete with low cost countries. Small and medium enterprises (SMEs) with efficient logistics and SCM will be able to maximize their profitability and improve their competitiveness. That is why this paper elaborates the supply chain management as a key factor for improving the competitiveness of the Macedonian SMEs.

I. INTRODUCTION

The reason for the existence of the supply chains is that there are very few companies that can produce end products for end-customers from raw materials on their own, without the assistance of other organizations. The company that produces the raw material is often not the same company that sells the end products to the end-customer. In order to provide end products to the end-customers, a network of actors is involved in activities (as purchasing, transforming and distribution) to produce products and/or services. All of these actors add value to the end product. The series of companies that interact to produce end products, and to contribute to the value of end products, is actually the supply chain. [1]

Consequently, the competition is no longer between companies but between supply chains. The goals of the entire supply chain become the common objective of each company. Cost and service improvements that were not achievable by individual companies will now be attained by cooperating companies. [2]

The large companies in Macedonia, although they exist in small number, have developed logistics and SCM system. This is especially the case with the companies that were privatized during the transition period and where a foreign investor is a dominant shareholder. Usually in these companies the main advantage is that they use the experience, the know-how and the benefits from the already well established logistics and SCM system in the parent company, located in some foreign country.

The successes achieved by organizations that implement the strategic supply chain management approach will certainly have a positive impact on the popularity of the approach and a trend towards implementing the supply chain management approach by increasingly more organizations is to be expected. This trend will undoubtedly influence small and medium-sized businesses (SMEs). Many SMEs are already supplying materials, products and services to large organizations. Hence, the adoption of the strategic supply chain management approach by large organizations in supply chains will have a definite impact on them (SMEs). [3]

It is obvious that the position of the SMEs regarding the SCM is not as favorable as for the large companies. If we have in mind the fact the SMEs dominate in the Macedonian economy, we can say that the development of the Macedonian economy is based on the development of the Macedonian SMEs.

II. DEVELOPMENT OF SMEs IN MACEDONIA

According to the data of the State Statistical Office the number of active business entities in the Republic of Macedonia in 2010 was 75497. The sectors with the highest share in the structure of business entities were: Wholesale and retail trade; repair of motor vehicles and motorcycles with 28326 entities or 37.5% and Manufacturing with 8263 entities or 11.0%, whereas the least represented were the sectors Electricity, gas, steam and air conditioning supply with 107 entities or 0.1% and Mining and quarrying with 164 entities or 0.2%.

The data on the structure of active business entities according to the number of persons employed show that the highest share of 78.5% belongs to business entities with 1-9 persons employed, followed by business entities with no persons employed (or the entities did not provide information about persons employed) with 14.2%, and entities with 10-19 persons employed with 3.3%. The share of entities with 20-49 persons employed was 2.1%, those with 50-249 persons employed participated with 1.6%, while entities with 250 or more persons employed had a share of only 0.3%. [4]

Nearly 99% of the companies in Macedonia are registered as small enterprises, employing nearly 55% of the employees in the private sector. According to the main activity registered, the majority of businesses are in the wholesale and retail trade sector (47%), manufacturing sector (13.1%), and the transportation, storage, and communications sectors (approximately 10%). The largest

employer is the manufacturing sector, with 35.6% of the total number of employees in the private sector.

The Macedonian Government puts a high priority on the development of the SME sector, focusing on measures and activities to support the development and competitiveness of SMEs, and to improve the business environment in general.

The strategic framework for support of SME development is defined by the following documents: the Small Business Development Strategy, Program on measures and activities for the promotion of entrepreneurship and creation of competitiveness of the SMEs in the Republic of Macedonia, the European Charter for Small Enterprises, the Law on Realization of Handicraft Activities, and the Law on the Agency for Promotion of Entrepreneurship of the Republic of Macedonia (APERM).

In order to achieve a higher degree of coordination among the relevant factors, the National Council for Competitiveness and Entrepreneurship was established as an advisory body to the Government, linking the private and public sector to improve the climate for entrepreneurship development.

The Agency for Promotion of Entrepreneurship of the Republic of Macedonia is the major player on the national level for the implementation and coordination of national and international support to the small businesses. The Agency works in cooperation with various foundations, development centers, centers for technology transfer, Euro Info centers, as well as private consultants. [5]

From the aspect of its size and flexibility the SMEs represent the most dynamic but in the same time and the most vulnerable segment in the global economic structure of the country. That's why, the policy makers responsible for SME development, necessarily need a reliable mechanism for systematic follow up and assessment of the condition of the sector. It will further on, help them to select and carry out adequate measures providing the desired level of SMEs development. [6]

Already in 2002 the Ministry of Economy has published an SME Strategy paper covering a ten year period (2002 to 2013), together with an action plan for implementation of the strategy for the period 2003 to 2006. The overall approach to the development and support for the SME sector that has been outlined in this Strategy paper remains valid. However, a number of developments have made it necessary to revise the SME Strategy and Programme:

- A new Government was elected in July 2006 with an election manifesto and programme which places strong emphasis on increasing the competitiveness of the economy, and on promoting domestic and foreign investment; the Government moreover recognises the important role that the SME sector must play in achieving these objectives.

- With attaining Candidate Country status for accession to the European Union (EU) in late 2005, the harmonization of the National legislation and regulatory framework with EU norms and standards has become a

priority. This pertains in particular to numerous laws and regulations affecting the SME sector. Candidate Country status also requires that the Government implement the EU Charter for Small Enterprises, and pursues the goals of the Lisbon Agenda.

- New EU initiatives such as the EU Commission's Instruments for PreAccession Assistance (IPA) and the Competitiveness and Innovation Framework Programme (CIP) present new challenges, in particular in relation to Science, Technology and Innovation (STI) and Information and Communications Technology (ICT) as a means of enhancing the competitiveness of SMEs. The Government must respond proactively to these challenges, in order to create a business environment in which SMEs not just survive, but thrive and are enabled to compete within the EU markets.

Therefore, the SME Department undertook a major revision of the existing strategy paper in the course of 2006, leading to the revised SME Strategy 2007 – 2013. This document has identified the following key areas for policy improvements in relation to the SME sector:

- ♦ The legal, regulatory and institutional environment;
- ♦ The business climate;
- ♦ Support to small businesses;
- ♦ Access to finance;
- ♦ Taxation for SMEs. [7]

III. ADVANTAGES OF SUPPLY CHAIN MANAGEMENT STRATEGIES FOR SMEs

Chapman, Lawrence and Helms believe that SMEs can take advantage of the supply chain management strategy for various reasons: [8]

- SMEs are critical links in many supply chains.
- SMEs are very flexible. Many SMEs are still young and developing and it is therefore easier for them to re-engineer existing business processes and adopt a supply chain management approach than for large organisations with a long-standing organisational structure and culture. The integrated approach is inherently part and parcel of SMEs.
- SMEs follow an integrated approach by nature. Various business functions are usually performed by one or a few persons working together.
- Computer software programmes are more SME friendly. IBM, for example, started the service Smart Start, which allows SMEs to use IBM's expertise with information systems along with their own business expertise to find and implement ERP system solutions that work for their business.
- SMEs can also benefit from global competition. Supply chain management provides a method of addressing the competitive challenges facing business today.

Small businesses are therefore already vital links in the supply chains in which they participate. By virtue of their size, flexibility and expertise they possess advantages that

they can use to benefit their supply chain and strengthen their own businesses.

Technology is increasingly affordable and available to help SMEs take advantage of supply chain strategies. Because of the competitive pressures facing small businesses it is critical for them to use supply chain perspectives and associated strategies to create synergies with supply chain partners in order to succeed in the global competitive environment [7]. Despite the optimism of Chapman, Lawrence and Helms there is reason to doubt the general implementation of the supply chain management approach and willingness and ability to implement the approach by small businesses. [3]

IV. SURVEY'S RESULTS

Supply chain performance will definitely be a key indicator of overall corporate success in the upcoming period and core advantage when entering foreign markets and compete with low cost countries. Small and medium enterprises (SMEs) with efficient logistics and SCM will be able to maximize their profitability and improve their competitiveness. That is why a survey has been accomplished in order to see how Macedonian SMEs are managing their supply chains and what should be done in order to make SCM a critical factor for increasing their competitiveness. The research about SCM in Macedonian SMEs was made through a web based questionnaire, which was sent to 68 managers of small and medium enterprises from various industries in the Republic of Macedonia. The questionnaire was answered by 55 managers and only those answers are included in the analysis.

Out of the 55 interviewed managers, 28% are from SMEs from the manufacturing sector, 44% from the service sector, and 28% are offering both products and services.

It is disappointing that only 37% of the SMEs have a separate logistics department and 63% do not have. From the companies that do not have a separate logistics department, 77% plan to establish one in near future, 13% do not know if they will and 10% do not plan at all. Of course this is an encouraging fact. 54% of the interviewed managers think that there is a need for organizational change for SCM adoption in the company, 33% think that there is no need for organizational change and 13% do not have opinion about this issue.

Regarding the current public policy towards SCM, 34% of the interviewed managers are not satisfied, 27% are satisfied and 19% are very satisfied.

On the question How do you manage your supply chain?, we got the following answers: 34% have close partnership with suppliers, 39% have close partnership with customers, 25% use outsourcing, 23% are holding safety stock, 21% use subcontracting, 14% use Supply Chain Benchmarking, and 12% use Vertical integration. These are the most popular methods among the Macedonian SMEs, while we got negligible percentage (i.e. almost no one) for using other sophisticated methods, such as: Electronic Data Interchange (EDI), e-procurement, Just-in-Time (JIT) supply, Third Party

Logistics Providers (3PL), Fourth-party logistics provider (4PL) and similar.

13% of the interviewed managers think that their company is not successful at all in managing its supply chain in general, 34% think that they are just not successful, 28% think they are somewhat successful, 17% think they are successful and only 8% think that they are very successful. These figures are disappointing, but the managers are aware of the fact that there is a need of implementing different systems in the companies for supporting the Supply Chain Management. More of the half of the interviewed managers believe that the Supply Chain Management in the company will be supported strategically by the implementation of the following systems: Material Requirements Planning (MRP), Manufacturing Resources Planning (MRPII), Enterprise Resource Planning (ERP), Warehouse Management System (WMS), Customer Relationships Management (CRM), Supplier Relationships Management (SRM), E-commerce, Radio Frequency Identification (RFID), Bar coding and Electronic Data Interchange (EDI). Nearly three-fourths of the interviewed managers strongly believe that the companies will achieve great benefits with the implementation of those systems, such as: better quality and quantity of information, reduced lead-time in production, reduced inventory level, better operational efficiency, increased coordination with suppliers and customers and flexibility. But, they are of course aware that the implementation of these systems is very expensive and a long-run project, probably as SMEs they will not be able to implement most of these sophisticated systems, so as a solution for overcoming the unfavourable level of logistics and SCM development in the SMEs, they are planning to implement the following future measures for supporting the company effort in logistics and SCM by raising the awareness of the importance of these topics: More funding and financial support (73%), More formal education (65%), Easier access to vocational training (62%), Better infrastructure (61%), Increased regional cooperation between institutions (59%), Closer cooperation between companies and governments (57%) and Improved information provision (54%).

V. CONCLUSION

Success in integrating global supply chains starts with the ability of companies to move goods across borders rapidly, reliably and cheaply. In order to connect the Macedonian economy to the world trends and processes and connect the Macedonian market to the European and the world market, the highest priority should be given to the development of logistics and supply chain management in Macedonia. It is obvious that for the large companies it is easier to reap up the benefits of the well established logistics and SCM division. The position of the Macedonian SMEs regarding the SCM is not as favorable as for the large companies. If we have in mind the fact the SMEs dominate in the Macedonian economy, we can say that the development of the Macedonian economy is based on the development of the Macedonian SMEs. That is why this paper is focused on research about the level of development of logistics and SCM in the Macedonian SMEs. Macedonian SMEs must fully

understand the supply chain management approach and their role. Large organizations, however must realize that, despite their size, SME suppliers are important partners who can contribute substantially to savings in the supply chain. Only in this way they can increase their profitability and competitiveness and become integral parts of the global supply chains.

REFERENCES

- [1] Global Supply Chain Games, Delft University of Technology. Available at http://sk-3.tbm.tudelft.nl:8080/opencms/opencms/gscg/background_info/
- [2] Lancioni, F. (2000), New developments in supply chain management for the millennium, *Industrial Marketing Management*, vol. 29, no. 1, pp. 1-6.
- [3] Badenhorst-Weiss J.A., Fourie I., Nel J.D. (2004), *The Application Of Supply Chain Management Best Practices By Small Business Suppliers*, Small Business Advancement National Center, University of Central Arkansas.
- [4] State statistical office of Republic of Macedonia (2011), *News release*, Year XLIX, No: 6.1.11.12.
- [5] Agency for Foreign Investments and Export Promotion of the Republic of Macedonia (<http://www.investinmacedonia.com>)
- [6] Agency for Promotion of Entrepreneurship of the Republic of Macedonia (<http://www.apprm.gov.mk>)
- [7] European Commission (2007), *Small Enterprise Development in the Former Yugoslav Republic of Macedonia, An overview*.
- [8] Chapman, S., Lawrence, P., Helms M.M. (2000), Do small businesses need supply chain management? *IIE Solutions*, 32(8), pp. 31-34.