

POLICY BRIEF 7

DEVELOPMENT OF THE MACHINING AND METAL PROCESSING SECTOR – RECOMMENDATIONS FOR STRUCTURAL CHANGES AND EXPORT DIVERSIFICATION

PROJECT:

“IDENTIFYING DEVELOPMENT POTENTIALS FOR STRUCTURAL CHANGES AND EXPORT DIVERSIFICATION THROUGH ACTIVE SECTORIAL POLICIES – CASE STUDY: MACHINING AND METAL PROCESSING SECTOR”



THE ONLY ECONOMIC MODEL THAT CAN BE USED AS BASIS FOR GROWTH OF OUR ECONOMY IN THE LONG TERM IS INCREASING THE DYNAMICS OF EXPORTS, EXPORT DIVERSIFICATION AND EXPORT SOPHISTICATION IN SECTORS WHERE THE COUNTRY HAS BUILT COMPARATIVE ADVANTAGES OR WHERE THERE ARE REALISTIC ECONOMIC ASSUMPTIONS FOR SUCH ADVANTAGES. THIS POLICY BRIEF INDICATES THE KEY CONSTRAINTS THE MACHINING AND METAL PROCESSING SECTOR FACE IN THE CONTEXT OF THEIR CAPACITY TO START PRODUCTION AND EXPORT OF NEW PRODUCTS WITH A HIGHER LEVEL OF FINISHING, WHICH IN PRACTICE IS AN IMPORTANT BASIS IN THE CREATION OF SECTORIAL POLICIES.



Author: National Centre for Development of Innovation
and Entrepreneurial Learning Skopje – NCDIEL
www.ncdiel.mk

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INTRODUCTION

The unfavourable trend of de-industrialization of the country over the past two decades created the need to focus urgent attention towards active industrial and sectoral policies aimed at accelerating the process of structural changes in the economy and encouraging export competitiveness by building competitive advantages in production and export of products with greater added value. If the unfavourable trend of deindustrialization is added to the unfavourable industrial and export structure that has not changed significantly in this period, it will only confirm the above conclusion regarding the need for policymakers to take concrete steps in the area of building a clear strategy with adequate economic, sectorial and industrial policies.

One of the key sectors in the country is the metal processing and machining industry. Although their relative share in the total industrial production and export of the country is significant, the export diversification (the number of different exported products) and the export sophistication (the complexity of the products) are extremely low. Companies are either not involved in the supply chain or their involvement is only slight, hence the multiplicative effect on the economy is small, and the potential to transfer technology and knowledge is insignificant.

The purpose of the conducted research is to contribute to the stimulation of structural changes and export diversification of the companies in the machining and metal processing sector and to define policy proposals in accordance with Negotiation Chapter 20: Enterprise and Industrial Policy. The research was carried out with the support of the re-granting program of the project "Strengthening Capacities and Mechanisms for Supporting Chapter 20 Reform Processes".

To illustrate, the relative share of the industry in the domestic gross product of the Macedonian economy in 1996 was around 23%, while in 2016 it was reduced to 12%.

Strategies and policies for restructuring and export diversification can yield real results only if they are based on in-depth research conducted in accordance with a valid scientific methodology.

Products exported within the target sectors are characterized by low added value, with the exception of several products produced by foreign companies located in the country.

APPROACH AND CONCLUSIONS

The methodology of the conducted research included:

1. Systematization of successful world experiences from countries that have managed to provide a strong dynamic of economic growth through the process of export diversification and structural changes within certain sectors and intersectoral changes.
2. Analysis of export performance within the analysed sectors at product level and identifying the development opportunities for export diversification and structural transformation.
3. Analysis of current conditions, barriers and opportunities through a survey questionnaire and interviewing enterprises from the target sectors.
4. Developing recommendations and proposing measures for increased export and competitiveness.

Three groups of experiences from around the world were elaborated to increase export competitiveness and improve the export structure of countries:

- intra-industrial policies,
- inter-industrial policies,
- Entrepreneurial approaches.

The export value of the metal processing industry is based on the export of approximately 50 products, while the machining industry exports over 80 products that are exported in value of over 100,000 euros. This shows that the machining sector has greater participation in the country's export structure.

Regarding sophistication, there is a need in both sectors for intra-sectoral transformation (shifting towards production and export of products with higher degree of finishing and added value) and export diversification (increasing the number of products that these industrial branches produce and export with comparative advantages).

Research findings are available in separate expert reports, and were also discussed as part of the organized round table. The conclusions from this expert debate were aimed at understanding the need to initiate and intensify greater cooperation between the business sector, policy makers and the scientific community in the sense of real problem detection, finding appropriate solutions using scientific methodology and creating appropriate policies.

Conclusions from the analysis of world experiences of export diversification

- There is no universal approach and a single model acceptable and applicable to every country.
- All selected experiences, presented in a separate report, have relevance and enable us to learn something on possible approaches and combine them in a way that is suitable for our country.
- The entrepreneurial approach is particularly important and is incorporated into all approaches for restructuring exports and strengthening the country's competitiveness, especially considering that innovation is an essential feature of the entrepreneurial process.

Conclusions from the analysis of export performances

- The total value of exports of the analysed sectors in 2017 was EUR 755 million or in a relative amount of 15.1% of the total export of the country:

- > The value of the export of the metal processing industry amounts to 185 million euros or 3.7% of the total export of the country;
- > The value of the export of the machining sector is 570 million euros or 11.4% of the total export.
- In the export structure of the analysed sectors, with the exception of foreign companies in the TIDZ, the products with medium and low level of finishing have a dominant role:
 - > The average level of sophistication of the metal processing industry according to the PRODY index is USD 21,282 compared to the average level of sophistication of the entire industry of USD 29,016 according to the same index;
 - > The average level of sophistication of the machining sector according to the PRODY index is USD 25,322 compared to the average level of sophistication of the entire industry of USD 35,254 according to the same index.
- The export structure of the analysed sectors is heavily concentrated on several products:
 - > 10 top export products in the metal processing industry hold 93% of the total export of this sector,
 - > 10 top export products in the machining industry hold more than 95% of the total export of this sector.

Conclusions from the field research

Most of the companies in these sectors are SMEs and they are export-oriented or have the potential to export, but that potential is not sufficiently used. The most serious problems faced by companies from the analysed sectors in gaining competitive advantages in export are:

- Limited access to finance and unfavorable loan conditions for financing investment projects;
- Lack of quality workforce;
- Poor road and logistics infrastructure;
- Lack of cheap fuels (gas);
- Low level of innovation and lack of research and development in the analysed sectors, due to which there is a serious technological lag;
- Low productivity and high production costs compared to the competition;
- Small market and inability to exploit the positive effects of economy of scale;
- Strengthening the legal system as the basis for successful business.

SIGNIFICANT TECHNOLOGICAL AND ORGANIZATIONAL IMPROVEMENT OF COMPANIES IS NEEDED FOR ACHIEVING GREATER COST EFFICIENCY, EXPORT COMPETITIVENESS AND EXPANDING THE PRODUCT ASSORTMENT. IMPROVEMENT IS POSSIBLE ONLY BY INVESTING IN NEW TECHNOLOGY AND CHANGING THE MIND SET OF MANAGEMENT.

RECOMMENDATIONS FOR POLICY MAKERS

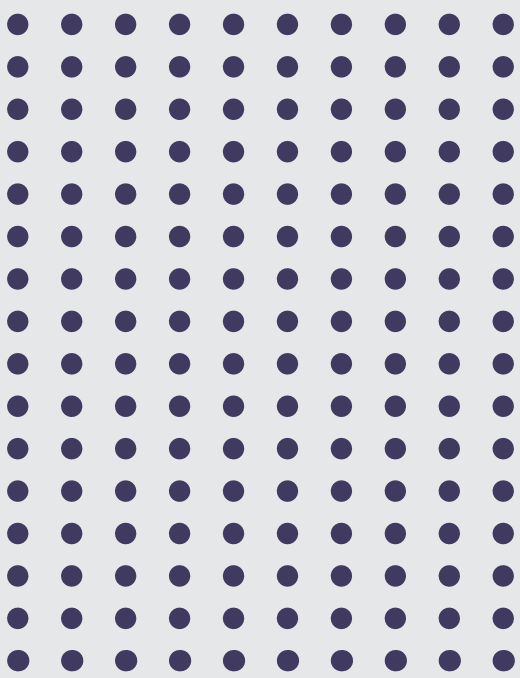
Most of the representatives of the companies that were interviewed pointed out that a more active role of economic policy makers is needed in order to improve the business climate, as well as greater support for SMEs that are export oriented through initiating various support programmes, improving infrastructure, reforming the education system, especially programmes and trainings in the field of non-formal education, increasing the efficiency of public administration and better services for the business sector.

OUT OF A TOTAL OF 820 COMPANIES IN THE METAL PROCESSING SECTOR, 164 COMPANIES HAVE EXPORT ACTIVITY.

OUT OF A TOTAL OF 149 COMPANIES IN THE MACHINING SECTOR, 50 COMPANIES HAVE ENGAGED IN EXPORT.

In order to increase the export competitiveness of the analysed sectors, active industrial policies are needed to remove and eliminate the identified constraints and challenges faced by export-oriented companies in these sectors, i.e. the following is necessary:

- Programmes for greater systematic support to export-oriented SMEs in the analysed sectors;
 - Financial support for transfer of new technology or initiation of research and development projects, especially with universities;
- Training programs for the workforce, especially in the area of professional dual education;
 - Integrating companies into regional and global supply chains;
 - Improving road and logistics infrastructure in order to increase efficiency and reduce transport costs;
 - Intensification of the cooperation between the business sector, the creators of the economic and industrial policies and the scientific community in initiating joint projects with the purpose of finding solutions aimed at improving the sectoral performances of the processing industry;
 - Changing the mind-set of managers in regards to the need for constant change and restructuring in line with global trends and increasing their capacity to apply for calls of the Fund for Innovation and Technology Development and calls of international donors that fund projects for improving innovation and the transfer of new technologies.



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