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Summary of doctoral thesis

*Economic conditions and consequences of digitization of Value Added Tax in Poland*

The selected topic is related to the problem of VAT gap both in Poland and throughout the European Union along with the methods of dealing with the phenomenon. The Green paper issued in 2010 by the European Commission presents evidence of the difficulties in terms of VAT functioning in the European Union. The document emphasizes the susceptibility to tax fraud resulting from the weakness of tax regulations and information limitations, and recommends using new technologies to improve and simplify VAT collection. Until 2016, ad hoc instruments applicable to specific industries, goods or services were implemented in Poland, which in practice meant shifting certain unfair practices to others. From the perspective of the entire economy, the scale of fraud did not decrease. Therefore, since 2016, solutions have been introduced in Poland to build an effective system for controlling, managing and analyzing data in real time, including artificial intelligence. The following paper refers to the process as digitization of Value Added Tax.

The main objective of the research is to assess the consequences of the digitization of Value Added Tax in Poland from the point of view of both the state budget and the entrepreneurial activities. For the purposes of the considerations, auxiliary objectives related to the identification and assessment of costs and benefits incurred by enterprises in relation to the use of VAT digitization tools were also set. Conjointly, the paper aims to show the benefits of the harmonization of the VAT rate as a support for the digitization process in the fight against the negative phenomenon of the tax gap.

This dissertation consists of five chapters preceded by an introduction and a final summary. The first three chapters of the work are theoretical and empirical in nature. Chapter four and five are empirical in nature.

The considerations in the first chapter are devoted to the presentation of the development of the economic theory of taxation. This is a very important issue - taxes have long been at the center of attention in terms of theory and practice of the subject in query. The goal of research

in the field of taxation theory is the selection of appropriate taxes, which are components of the tax system, but also the assessment of the structure of individual taxes, including the subject of taxation and rates. The deliberations of this chapter also refer to the differentiation of consumption tax rates. Research on this subject has been conducted by economists around the world - the ones that started them are listed in this chapter. In a situation where science does not suggest a specific solution with regard to the tax structure (including VAT) benchmarking, i.e. comparing various tax solutions in the world, may be a way to improve the tax system. The summary of the first chapter is the characteristics of the factors that determine the efficiency of tax collection. Constructors of the tax system should refer to the factors determining the trouble-free tax collection with great interest. Listening to the needs of taxpayers and the clash of these realities with the financial needs of the state may guarantee the success of the entire tax system.

The second chapter describes the system of tax liabilities in Poland, including a classification of tax burdens, a presentation of tax functions and characterization of their structural elements. Particular attention was paid to the tax on goods and services and its evolution in Polish economic practice and the process of EU requirements' adaptation. Moreover, attention was drawn to the phenomenon of tax evasion (including VAT) and its determinants and forms were indicated. The result is a tax gap, discussed thoroughly along with the methods of its measurement.

Another important point of consideration in this chapter is a synthetic assessment of Value Added Tax, particularly the functioning of the reduced rates. This topic was raised in the context of research on the issue and benefits of harmonizing VAT rate.

In addition, an analysis and evaluation of the existing solutions introduced into Polish economic practice in order to reduce the VAT gap were analyzed, including reasons for their withdrawal or transformation.

The third chapter is devoted to the digitization of Value Added Tax. The genesis of this process is presented, as well as the definition and the tools through which the digital revolution in the VAT system takes place and the changes in the way the state and the tax payers communicate. The tools that are part of the digitization process are: Standard Audit File, split payment mechanism, IT System of the Clearing House, white list, online cash registers and e-invoices. The trend in the digitization of VAT can also be observed in other European Union countries, which is why the tools used in Poland and in other European Union member states were compared.

The results of the empirical research carried out are included in the fourth and fifth chapter. A comprehensive analysis of the economic consequences of digitization requires

examining its impact on the operations of enterprises. The fourth chapter focuses on the analysis of surveys, including: the benefits and costs of using solutions for the VAT digitization. This part of the work also provides information on whether Polish entrepreneurs recognize the digitization of VAT as a factor limiting unfair competition in the area of taxes.

Chapter five analyzes VAT tax revenues in total and in selected sections: in construction and trade in 2010-2020 (thus before and during the start of the digitization process) in percentage, nominal and dynamic terms. The increasing tax revenues do not have to be the result of solutions sealing the tax system, making it necessary to evaluate the data on the tax gap. Comparative research on the scale of VAT fraud in Poland compared to other European Union countries was based on the VAT gap statistics published by the European Commission.

Attention was also paid to the budget arrears caused by VAT in nominal terms and in relation to the revenues from the tax. It also provided data on the effectiveness of tax arrears enforcement and examined whether this is affected by the digitization of Value Added Tax.

Another aspect discussed in chapter five is the impact of the digitization of VAT on the value added of sections F and G. One of the manifestations of unfair competition is the unregistered sale, i.e. tax evasion. Companies that practice such activities are more competitive because they can offer lower prices than companies that diligently fulfill tax obligations. The conducted research will allow to determine whether digitization contributes to the disclosure of income and leaving the shadow economy, and whether the difference in the degree of digitization in selected sections is significant in this matter. Limiting tax fraud will be reflected in an increase in tax revenues, and from the statistical point of view, it should also result in an increase in the added value of the section.

Chapter five also indicates solutions that may reduce the VAT gap. Actions were proposed in the technical (using new technologies) and legislative fields:

1. Reducing the complexity of Polish tax regulations, which has an impact on the loss of tax revenues. The harmonization of the VAT rate could be helpful in this matter;
2. Progress in the digitization of VAT, the use of blockchain technology introducing a change in the method of tax settlement: the method of tax collection and refund, the method of settlement and verification of transactions and the invoicing mechanism;
3. Promoting non-cash payments and reducing the limit of cash payments in order to fight the shadow economy.

At the end, the problems, goals and research hypotheses posed before the work were referred to. It was shown to what extent obtained results allow for a reaction, and which areas remain problematic or give way to new fields of research. The application values of the

conducted research were presented. The holistic approach to the digitization of Value Added Tax represented in the work allows for a better recognition of the conditions and consequences of this process in Poland.