

Factors determining the readiness for e-commerce from the point of view of businesses in the Republic of Serbia

(draft Research Project/Methodology)

**EU Support for Internal Market
2024**

Preface

E-commerce in Serbia is developing rapidly. However, Serbia needs systematic endeavours in order to continue with high e-commerce growth rates. Lack of data concerning consumers and businesses engaged in e-commerce in Serbia is one of the main issues and barriers to further development.

Objectives of the survey: Background and rationale

The survey is carried out in connection with the intention of the Ministry of Internal and Foreign Trade of the Republic of Serbia to obtain an updated picture of e-commerce in Serbia from a B2C point of view, i.e. from a business perspective. The purpose is to understand the potential and challenges of the sector and, based on the findings, to propose measures for better use of the existing potential and solutions to problems and challenges associated with e-commerce. The EU funded project EU support for internal market, supports MIFT in this endeavour proposing methodology to implement a survey in 2 approaches: the perspective of the consumer and the perspective of the trader. This document explains the methodology for the elaboration of the respective survey (attached) to businesses.

The motivation for conducting this survey is to create a set of recommendations that will lead to the development and growth of e-commerce in Serbia. Based on this survey, develop procedures for measuring and monitoring the further development of e-commerce in Serbia in the form of its systematic monitoring and the possibility of improving the conditions for the adoption and development of e-commerce in Serbia.

The meaning of the survey is to find problems related to e-commerce in Serbia on the part of entrepreneurs and companies, based on which it will be possible to formulate recommendations leading to the improvement of business and the functioning of e-commerce in Serbia.

The purpose of the survey is to find out and map the adoption of e-commerce and the potential for its development on the part of businesses, who have a decisive role in the further development of e-commerce in Serbia. The business perspective is important because it creates an offer and at the same time reacts to changes in the market, its functioning, changes in consumer behavior (on the demand side), as well as the entire economy of the state.

This survey is carried out in relation to the second survey, which is focused on consumer behavior - on consumer readiness for e-commerce adoption. For that reason, this survey is focused exclusively on problems and factors related to the business perspective.

The research objective is narrowed to the B2C relationship, i.e. the business-to-consumer or customer relationship.

Based on the above, we formulate **the main objective of the research:**

Identification of key factors determining the successful adoption of e-commerce by business and mapping of its current state in various business sectors.

In this survey, two types of factors are distinguished in terms of impact on the adoption of e-commerce: a) negative factors that represent barriers, obstacles, risks or limitations to the successful development of e-commerce and b) positive factors that support the development of e-commerce.

In this survey, identification is the determination of the factors involved in the adoption of e-commerce on the business side and the measurement of the importance of these factors.

Central Research Question (CRQ):

What are the key factors and how do they determine the relationship of business to the adoption of e-commerce in the Republic of Serbia?

To achieve the research goal, a quantitative approach was chosen, which will be implemented in the form of a standardized interview - questionnaire survey - between representatives of the business sector. The time and financial demands, together with the need to ensure the representativeness of the research, are the main reasons why this approach was chosen in contrast to qualitative methods..

At the same time, second research focused on consumer behavior in Serbia in the field of e-commerce is underway. Both surveys will be processed simultaneously, that is, the findings from the second survey will be compared with the findings from this survey.

Framework theoretical dimensions of e-commerce

The theoretical model is based on the OECD model published in "Defining and measuring E-commerce: A status report". The original theoretical framework was developed for the purpose of international comparison based on national indicators monitored by state statistical surveys and generally provided by national statistical institutions.

Modifications and selection of factor categories is loosely derived from the academic study "Factors influencing e-commerce development in Serbia" (Kalinić, Z.; Ranković, V.; Kalinić, L.; 2016).

In the survey, 3 framework theoretical dimensions of e-commerce in general are identified, which are related to the relationship of the business sector to e-commerce.

1. **Dimension of e-commerce potential (readiness for e-commerce)** - includes technological readiness and integration for e-commerce, structural-organizational infrastructure, readiness of human capital of business and information and communication competence of companies, which represents the so-called potential for the development of e-commerce in the country.
2. **Dimension of e-commerce intensity** – represents the application of B2C e-commerce in practice. It includes the volume of sales (how much and what is sold through e-shops), the value/price that e-commerce brings, the necessary personnel capacities for online sales and the degree of impact on consumers/customers of e-business.
3. **Dimension of the importance of e-commerce for businesses (result dimension, impact dimension)** - includes three independent measurements of the importance of e-commerce from the point of view of business: a. importance of e-commerce components, b. structural effects of electronic commerce and c. process relationship within the structure: production - distribution (suppliers) - demand.

Each of the mentioned dimensions is determined by several factors that need to be measured and operationalized, which are described below. However, due to the length of the questionnaire, some of the dimensions and factors have limited presence in the research.

Methodology and analytical description

The survey will have 5 chapters, which will allow conclusions to be drawn about the ways of e-commerce adoption by business entities in Serbia in order to achieve higher quality and strengthen e-commerce. The chapters define the measurements and indicators needed to identify the limitations and barriers of e-commerce and to better map the current state of e-commerce in Serbia from a business perspective.

Basic Description of the Business Entities – the chapter is dedicated to the basic definition of variables that will serve to map the current structure of business in Serbia. It presents a basic view of the business sector.

Measuring the e-commerce potential (readiness for e-commerce) – the chapter is dedicated to measuring the current level of business readiness for e-commerce adoption. The chapter defines the variables and indicators intended for measuring the current state and mapping the achieved level of readiness for e-commerce, that is, it presents the measurement of the potential of e-commerce.

Measuring the intensity of e-commerce in business – presents the basic indicators for measuring the intensity of e-commerce and their operationalization.

Data analysis plan for measuring factors – is dedicated, following the previous chapter, to the description of analytical activities for processing and evaluating the measurement of factors determining the adoption of e-commerce by business entities.

Perceived importance of e-commerce from the point of view of business – the chapter is dedicated to the operationalization of the perception of importance understood in this survey as the importance of e-commerce, which reveals the perception of the importance of e-commerce on the part of businesses. It indirectly indicates the strategies that apply to businessmen's decision-making in relation to e-commerce.

In accordance with the main objective for which the survey will be carried out surveys in the field of e-commerce, namely, to identify the potential and barriers for the development of e-commerce in the Republic of Serbia.

Basic Description of the Business Entities

The variables described in this section will be used to describe the business. A basic description is necessary for several complementary reasons. The characteristics of business are necessary for mutual comparison of different types of business entities according to their inclusion in selected categories. It represents a starting point for further analysis of e-commerce data. The parameters of individual business entities can indicate the influence of factors that are external to e-commerce. An example is the scope of business, which is not connected to e-commerce, but may reflect a problem at the level of sectoral division of the economy.

The second reason for analysing these data is the need to ensure the validity and reliability of the research. This is related to the issue of credibility of the findings and the conclusions drawn. For this reason, a detailed presentation of the structure of the research sample of business entities is essential.

Measuring the e-commerce potential (readiness for e-commerce)

In general, the potential or readiness for electronic commerce can be observed on three levels: 1. the potential of the company, 2. the potential or readiness of the population, and 3. the readiness or potential for electronic commerce on the business side. The survey focuses exclusively on the readiness (potential) of business entities for e-commerce.

This dimension aims to find out what e-commerce options companies use and to what extent. The goal of the survey is to get a good overview of the extent of the current state of use of e-shops compared to classic physical stores. The indicators allow capturing the overall use of e-commerce options and individual technologies. At the same time, they make it possible to find out whether companies have suitable human capital. The survey monitors the use of technology and human capital that business companies have.

The basic components of an e-commerce survey are:

1. Integration of digital technology
2. Human capital
3. Readiness for cross-border expansion
4. Structure of the business network

Business companies that invest in building their technological capital and at the same time in human capital are better prepared to take on the roles of leader-commerce in each country.

The measurement of readiness for e-commerce represents a measurement based on the breadth and extensive aspect of the investigated phenomenon.

For this purpose, the following variables, i.e. indicators, are defined for the needs of the survey:

Variables for measuring readiness for e-commerce
Stages of readiness
Website Maturity
E-commerce activities
AI maturity
Readiness for Cross-border expansion
Openness of e-commerce business
Language competence
Human capital
Payment system

The survey will present the findings in the field of readiness for e-commerce in several steps that follow each other. The collection of empirical data is based on a questionnaire that will be distributed among business entities. This results in certain limitations of the analysis. First, the analysis is based on the declared facts provided by business entities. To ensure the representativeness and reliability of the research, the selected indicators will be compared with the measurements of the domestic statistical office.

Measuring the intensity of e-commerce in business

Standard indicators of e-commerce use are: B2C e-commerce turnover, structure of goods and services sold online, payment methods used, product delivery methods, average online order value.

The survey identifies three groups of indicators that measure the intensity of e-commerce on the business side:

1. Transaction-oriented indicators: revenue from online sales, average value of online purchases, number of orders, category of purchased products, payment methods used, source of purchases according to geographic breakdown (domestic or foreign seller).
2. Consumer-focused indicators: the number and/or proportion of consumers shopping online, the technology consumers use to shop online, consumer-perceived benefits and barriers to e-commerce.
3. Seller-centric metrics: number and/or proportion of sellers selling online

The degree of intensity is a dependent variable that is influenced by both readiness and basic characteristics of the enterprise.

The survey measures the following indicators of e-commerce intensity:

Variables for measuring readiness for e-commerce
Economic performance (Total turnover)
Value of e-commerce
Lifetime
Volume of e-sales
Share of labor on e-commerce business
Share of consumers using e-commerce services
The main area of business investment

Measuring the perception of e-commerce factors

The survey is aimed at identifying the factors that determine the impact on e-commerce. For this reason, the key measurement is the measurement of the perception of these factors. In terms of their polarity, they were divided into positive and negative factors. The measurement is based on the evaluation of business entities, which means the weight they attribute to individual factors is measured.

The following variables were determined for the purpose of measurement:

1. Perception of the advantages and disadvantages of e-commerce
2. Impact of e-commerce development on business
3. Perception of the preliminary factors of electronic commerce
4. Perception of positive factors of e-commerce
5. Significance of factors determining electronic commerce

Perceived importance of e-commerce from the point of view of business

The perception of the meaning of e-commerce from a business point of view represents a specific quality that e-commerce requires. The significance of e-commerce for business is operationalized in this survey as importance. Importance represents the value placed on an e-commerce business, which includes its belief or expectation that it will benefit from the introduction of these services. It thus represents the degree of openness or closedness at the strategic level of the company's decision-making. Scales and scaling methods and techniques based on the Likert scale are used in this survey to measure the importance that business entities attribute to e-commerce. For the needs of the survey, four independent measurements were created in the form of scales.

Each measurement focuses on a different aspect of the importance of e-commerce.

Based on the presented partial research intention, the goal of the survey is to find out and measure the preferences of business entities and at the same time measure the perceived impact on the position in economic competition.

Measuring the impacts makes it possible to take into account the differences in the strategies of various types of business entities and at the same time to compare the values with other measures determined in this survey, especially with the readiness and intensity of e-commerce.

Data collection and data analysis

The survey is based on a quantitative approach, which means that it is organized as measuring the variables and testing the hypotheses presented in the previous sections. Data collection will take place in the form of a questionnaire, which is structured into 5 modules and covers all monitored indicators necessary for measuring the described variables and synthetic indicators:

Module A: Business characteristics

Module B: The potential of e-commerce

Module C: Intensity of e-commerce

Module D: Importance of e-commerce

Module E: Factors and Limitations

Data obtained from respondents will be processed in accordance with statistical data processing standards.

Organization of a survey of consumer behavior in the e-commerce space in Serbia

- The survey will be carried out by a procured research agency
- The analytical unit is a business entity operated in the Republic of Serbia which is already actively using e-commerce (see questionnaire).
- This is a representative survey with a minimum sample size of 120 respondents and a recommended sample size of 200 respondents.
- The survey will be conducted in November 2024 for a minimum of 2 weeks.
- Confidence interval for the entire sample: max. $\pm 2\%$ at the 95% level of significance for the frequency of the phenomenon 20%.
- The data collection method is a questionnaire (appendix)
- Combined data collection through an online questionnaire and a call centre is recommended.