

Abstract

Innovations in the payment services sector in the European Union in the conditions of the open banking model

The process of digitization of services is one of the most important economic trends conditioning the process of profound market changes in the 21st century. This evolution affects institutions, as well as the attitudes of consumers, who express an increasing openness to using digital services. One of the branches of the economy that develops and adapts technological innovations the fastest is the payment services industry. The sector is currently under the influence of two rapidly changing and strongly influencing processes. The first is the extremely dynamic development of information technologies, and the second is the regulations created by EU legislation and supervisory authorities.

The main goal of the dissertation is to *examine the impact of the PSD2 directive on the development of innovation on the payment services market in the European Union*. In addition, within the work, the author formulated six specific objectives:

1. Systematization of theoretical knowledge in the area of payment innovations and open banking.
2. Characteristics of the payment services market in the European Union.
3. Proposing models for the provision of payment services based on the OpenAPI infrastructure.
4. Getting to know the strategy of payment service providers implemented in the conditions of open banking in the European Union.
5. Indication of cooperation and competition levels between market entities in the area of creating and using the OpenAPI infrastructure.
6. Examination of consumers' preferences regarding the usage of payment services offered by banks and non-banking providers.
7. Exploring the potential for adoption of payment services based on open banking mechanisms by consumers in the European Union.

Within the dissertation, the following hypotheses were verified:

H1. The main factor in the development of payment innovation in the European Union is the creation of an open technical infrastructure for payment solutions.

H2. The asymmetry of obligations directive between banks and non-bank payment service providers arising from the PSD2 has negative effects on the functioning of banks.

H3. The conditions resulting from the PSD2 directive are an incentive for banks to establish cooperation with non-bank PayTech entities in the process of introducing innovative payment services in the open banking model.

H4. Banks are characterized by a higher level of consumer trust than non-banking companies in the field of transfer of financial data for the purpose of providing payment services.

Within the dissertation, a number of research methods were used to verify the research hypotheses. Literature studies included scientific literature as well as many industry publications, which, due to the high topicality of the issue, have not yet been used in the academic literature. The description of the key issues in this field is presented in the first two theoretical chapters. The third chapter of the dissertation reviews selected market data on the state of the European payment services market based on information from statistical databases provided by the European Central Bank and the European Banking Authority, as well as from statistical studies published by the National Bank of Poland. Within three last chapters presented an analysis based on two empirical studies carried out under the research grant of the National Science Center, in which the author of the dissertation acted as a contractor, entitled "*The impact of the development of FinTech and legal regulations on innovations in the payment services market of the European Union: strategies of the financial sector and consumer needs*" (2017/26/E/HS4/00858).

The first is an expert study carried out using the CAWI method, using an online survey. The survey allowed to obtain answers from 202 verified experts from all European Union countries as well as Great Britain, Norway and Switzerland. The dissertation also used a consumer survey made with the CAWI method, which was complementary and planned as a reference point and a market verification method for the results obtained in the expert study.

The conducted research showed the importance of adaptation to the PSD2 as a factor determining the creation of innovations on the payment services market in the EEA. Moreover, legal regulations indirectly influence decisions on implementing innovations, also by shaping market standards. The study also confirmed that the market predicts a decline in the competitive position of banks as a result of the creation of the OpenAPI infrastructure. The survey results indicate that the banking sector will suffer the most significant losses among entities operating in the payment market. Research shows that banks, to maintain their market position, should strive to establish strategic alliances with PayTech entities to increase the competitiveness of their product offer. This is supported by the argument that customers using digital goods are more likely to use payment solutions offered by the banking sector.

In summary, conclusions from the conducted research can be used by players on the payment services market in order to prepare efficient strategy towards introducing innovative payment services in the open banking model.