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Dissertation Abstract

**The impact of technical changes on the  
financial services sector**

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The dynamics of change in the financial services sector led to the emergence of new products and services and a transformation in the way they are used. Because of constant digitization customer service process has been shifted to remote channels (internet and mobile). The development of information and communication technologies, along with the increase in the popularity of smartphones and Internet, resulted in the growth in mobility and new expectations of customers towards financial institutions. Non-banking technological entities had a significant impact on the shaping of new ways of providing services and influenced the change of the competitive environment for traditional institutions. Fintechs have become a catalyst for the implementation of new technologies in the financial sector and have changed the current business model in the traditional institution. The technological revolution, apart from the changes in the technical areas of service provision, deeply affected the shaping of the preferences of customers who began to impose their needs and expectations to the financial services sector, leading to radical changes in the way mass services were provided.

The changes caused by technological development have most intensely transformed the area of mass services provided to individual clients, i.e. payment, deposit and credit services, and access channels – mobile and internet, which started the evolution towards platforms providing a number of value-added services from the level of the transaction service provider. The observed dynamics of changes in the structure of services provided by traditional entities is a reflection of the change in the current financial paradigm, shaped in the environment of liberalization and globalization of finance, the new configuration of trading participants, marketization of services, and most importantly in the analysis of the evolution of services – leaving the traditional role of financial intermediaries.

The impact of technological changes on the financial services sector is therefore a complex phenomenon that should be discussed comprehensively. The analysis of the impact of technological development should not only concern the financial institutions themselves, which in the case of the Polish financial services market dynamically react to competitive pressure and provide digital services at a high level of advancement. An important element of the universality of modern financial services is also their adaptation by clients and the universality of their full use. Adaptation of innovations in financial services by consumers on the example of the Polish market is currently disproportionate to the supply of modern financial services provided by traditional institutions and fintechs. This indicates the presence of additional factors that affect the process of technological adaptation, independently from the

supply of new technologies and financial services. Analyzes of this situation let the formulate of the main goal of dissertation.

The main research problem was included in the question about verification of customer attitudes and qualitative analysis of the innovations implemented in mass banking services. This are increasingly based on modern technological solutions and identification of areas that are potential obstacles to the development of the commonness of modern financial services, which should be taken into account in strategies and at the stage of designing services by financial institutions. In order to verify the main research problem of the thesis, the following auxiliary goals were identified. The questions correspond to the structure of the dissertation.

- 1) Identification of the most important changes in the financial system affecting the competitive environment in the banking services sector,
- 2) Determine the importance of customer preferences researches and main factors influencing technological adaptation on the basis of behavioral economics and the theory of innovation adaptation,
- 3) Identification of the major changes in the servicing of mass client in financial sector in Poland and changes in the strategies of competitive financial institutions,
- 4) Analysis of the prevalence of modern financial services determined by the development of new technologies with an indication of preferences, the model of use and factors differentiating customers of mass services,
- 5) Identification of customer attitudes towards new technologies in financial services in Poland.

The author intends to verify the main thesis that the impact of technological development on the banking services sector is a complex phenomenon that goes beyond technological changes, including the issues of customer preferences, adaptation of innovation and quality changes in mass services provided to individual customers.

In this dissertation following research methods were used: critical analysis and content analysis within the framework of literature studies, including books, articles published in national and international science journals, analysis of existing statistical data and historical-comparative analysis. In order to present a comprehensive approach and a reliable and extensive data for qualitative transformation analysis of financial services and available data on their use in society the author used desk research approach. The customer preference research was supported by a questionnaire survey, done on representative sample of mass customers in Poland.

The dissertation is divided into five major chapters. In the opening chapter theoretical changes in financial system and financial services ecosystem are analyzed. The chapter defines the financial system and presents its most important theoretical determinants, which are the basis for outlining the financial services ecosystem in Poland. Then, the author present considerations on the most important determinants of changes in the financial system and the structure of banking services, focusing on the theoretical analysis of the causes of changes in the financial system, along with the role of fintech companies, generational changes and reformulation of the traditional role of financial institutions in the context of changes in financial services.

The second chapter is dedicated to behavioral economics and the theoretical approach to acceptance of innovation. The purpose of this chapter is to identify theoretically the most important factors influencing the decision-making process of a consumer of modern financial services based on the problem of acceptance of innovation by individuals. The chapter is also discussed the most important achievements of behavioral economists and the problem of defining the phenomenon of innovation in the literature. Consequently the author presents the most important psychological factors and heuristics identified in the research of behavioral economists and the process of diffusion of innovation and adaptation of new technologies on the basis of TAM, UTAUT and UTAUT2 models.

In chapter three is based on quality analysis of mass financial services in Poland with identification of the most important changes and transformations of banking sector. The chapter begins with the most important changes diagnosed in the most popular mass services, i.e. payment, credit, loan and deposit services, as well as qualitative changes in internet and mobile banking on the Polish market. Then, is described the most important changes in the provision of financial services, such as the use of the omnichannel and client-centric approach and changes in the approach to financial services security. The chapter ends with an analysis of the new competitive environment for traditional financial institutions, with an indication of the evolution of the business model and the scope of key changes that have been identified in traditional financial institutions due to the competitive pressure of non-banking entities .

The fourth chapter analysis the most important identified factors that affect the adaptation of modern financial services in Poland. The chapter begins with analysis of the infrastructure and universality of Internet access, as well as an examination of the phenomenon of digital exclusion and the level of digital competences, which are the conditions initiating the possibility of using modern financial services. Then, the process of changes in the process of purchasing products and services has been was verified in sectors which are characterized by

a high importance of the motivational factor to use a modern model of providing services similar to modern financial services. The most important part of this chapter is the analysis of the level of use mass modern financial services by clients of financial institutions, taking into account the level of loyalty and trust in the banking sector and the perception of services provided by fintechs. The analysis is supplemented with a verification of the level of financial awareness and cybersecurity, which were considered to be one of the most important factors in the development of a modern financial services.

The main goal of chapter five is analyzing of customer survey in terms of preferences and motivation to use modern financial services. The results of the survey of financial services customers are combined with the previously obtained conclusions from the desk research analysis in order to develop the most important recommendations for the financial sector and to obtain answers to the question regarding the most important challenges in the development of modern financial services in Poland.

The general findings presented in the dissertation confirm the main hypothesis, that impact of technological development on the banking services sector is a complex phenomenon. In considerations conducted in this paper, the importance of consumer preferences for the adaptation of innovative financial services was confirmed, which was indicated in detail in the course of desk research and a survey. Identified differences between traditional and new model of servicing clients complicate decision making process. On the ground of behavioral economy and adaptation of innovation theory, the author identifies factors influence adaptation of innovation in Poland and development barriers in the digital financial services sector. Both of them have impact on universality of new financial services adaptation. This indicates high differentiation of the use of services defined by customer preferences, knowledge and the impact of socio-economic factors on innovative adaptation and the importance of the currently existing social disproportions on that. A comprehensive approach to the area of influence of technological development on the financial services sector allowed for the recognition of the most important development barriers, trends, proper assessment of the phenomenon and at the same time, marked future directions of research.