ABSTRACTS OF THE ARTICLES

IN FOCUS: FINANCIAL SECURITY IN THE CYBERSPACE – 'PÉNZ7'

Elemér Terták– Levente Kovács

'PÉNZ7' promoting financial and entrepreneurial awareness via interactive solutions is to be organised for the ninth time from 6 to 10 March 2023. We are happy to announce the financial thematic week has attracted one and a half million student participants, which is the result of the sustained efforts of approximately 1700 schools over almost a decade.

The topic of this year's 'PÉNZ7' thematic week is "Modern money management and digital security" set by the project owner Ministry of the Interior in collaboration with and following consultations with the Ministry of Economic Development, the Ministry of Culture and Innovation, the Ministry of Finance, the Hungarian Bank Association, the 'Pénziránytű' Foundation and the 'Junior Achievement Magyarország' Foundation. This paper discusses the different aspects of digital security linked to money management. Our objective is to disseminate practical skills and useful advice on the topic among teachers and students.

JEL codes: A20, G2, O30

Keywords: financial culture, cyber risk, financial security

ARTIFICIAL INTELLIGENCE IN FINANCE

Péter Bagó

The world of finance is being transformed; digitisation has become part of our lives in all fields including finance. It has been termed 'fintech', i.e., financial technology, which has reached a stage in its development when one can start talking about the financial applications of AI. The digitisation of finances is widespread; it covers basic processes, back and front office applications and clients alike. The multitude of data are channelled to Big Data storing such high volumes that cannot be processed manually any longer. It is the point where solutions such as automation, machine learning and, eventually, AI are applied. In this paper I introduce the concept of fintech and its connections with the application of AI in finance.

JEL codes: G00, O33, Q55

Keywords: fintech, automation, digitisation, artificial intelligence, FinFluencer

THE ROLE OF TECHNOLOGY IN INNOVATIVE FINANCIAL SERVICES AS REFLECTED IN THE BREAKTHROUGH OF BIGTECH COMPANIES

Éva Pintér – Balázs Herczeg

Fast digitisation can be observed in everyday life including financial services. The analytical tools of Big Data, such as artificial intelligence and machine learning are able to promote user awareness in terms of the characteristic features of financial products and can offer personally tailored information on how to utilise their financial products and the management of their financial sources. Financial service providers proactively apply artificial intelligence and machine learning in customer support (for instance, virtual assistants are added to telephone customer service). In addition, the appearance of BigTech companies trigger further turbulent development and service innovation in the financial services industry.

Non-bank competitors appearing in the field of financial services and the proliferation of digital innovation and new technologies are a constant challenge and risk to banks' everyday operations and clientele as they must face risks and fight competitor pressure while the regulatory environment places strict limitations on their operations. In this paper the authors offer a comparative status survey of banks and BigTech companies as they investigate the factors, development paths and operational areas that reflect the differences in cross-sectoral and industry regulation and have an impact on the cyber security risks of digitisation.

JEL codes: G20, G21

Keywords: digitisation, business intelligence, BigTech

EXAMINATION OF THE DEVELOPMENT AND EXPLANATORY VARIABLES OF THE DIFFICULT SITUATION IN THE HUNGARIAN SME SECTOR

Szilárd Hegedűs

The aim of the study is to examine compliance with the definition of a firm in difficulty in the competition law of the European Union in the Hungarian small and medium-sized enterprise sector. In the study, we analysed the enterprises based on 2019 data. In the research, we singled out the firms in difficulty as per the legal regulation from a sample of about 31 thousand companies. The businesses in difficulty identified were analysed by area, sector, and size. The explanatory variables were selected based on the literature. We investigated the causes of the difficult situation using a classification tree and binary logistic regression. The models

built are highly reliable in predicting the development of the difficult situation. The most important result of the research is that it has created a set of variables capable of describing the occurrence of the difficult situation.

JEL codes: G28, G33, G38

Keywords: Difficult situation, capital structure, company analysis, forecasting