

Influence and contribution of the platform economy to the digital economy

Abstract: This study reviews key initiatives and research centers focused on the platform economy. Notable efforts include the MIT Digital Economy Initiative, which conducts research and organizes the Annual MIT Platform Strategy Summit, and Platformation Labs, which monitors trends in platform economics. Major consulting firms like Accenture also analyze platform business models and readiness. The Harvard Business School and Toulouse School of Economics are prominent in studying digital platforms, while the Observatory on the Online Platform Economy advises the European Commission on regulatory policies. Despite these advancements, challenges persist, such as the lack of a unified definition of the platform economy and inconsistent metrics across rankings. Current rankings, like those from the Boston Consulting Group and Forbes, show variability in criteria and methodology, underscoring the need for standardized evaluation methods. The study highlights the growing interest in platform economics but notes limitations in existing research frameworks and rankings, suggesting areas for future investigation.

Keywords: Platform economy; MIT Digital Economy; digital platforms; European Commission regulations; evaluation methods.

Összefoglalás: A tanulmány áttekinti a platformgazdaságra összpontosító legfontosabb kezdeményezéseket és kutatóközpontokat. A figyelemre méltó erőfeszítések közé tartozik az MIT Digital Economy Initiative, amely kutatásokat végez és megszervezi az éves MIT Platform Strategy Summitot, valamint a Platformation Labs, amely a platformgazdaság trendjeit figyeli. Az olyan nagy tanácsadó cégek, mint az Accenture szintén elemzik a platform üzleti modelleket és a felkészültséget. A Harvard Business School és a Toulouse School of Economics kiemelkedő szerepet játszik a digitális plat-

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[1] Guillen M. (2021): *The Platform Paradox. How Digital Businesses Succeed in an Ever-Changing Global Marketplace*. Philadelphia: Wharton School Press,

formok tanulmányozásában, míg az Online Platformgazdaság Megfigyelőközpontja az Európai Bizottságnak ad tanácsokat a szabályozási politikákkal kapcsolatban. Az előrelépések ellenére továbbra is vannak kihívások, például a platformgazdaság egységes definíciójának hiánya és a rangsorok közötti következetlen mérőszámok. A jelenlegi rangsorok, például a Boston Consulting Group és a Forbes által készítettek, a kritériumok és a módszertan tekintetében eltéréseket mutatnak, amely aláhúzza az egységesített értékelési módszerek szükségességét. A tanulmány rávilágít a platformgazdaság iránti növekvő érdeklődésre, ugyanakkor rámutat a meglévő kutatási keretek és rangsorok korlátaira, és a jövőbeni vizsgálatokra váró területeket javasol. **Kulcsszavak:** Platformgazdaság; MIT Digital Economy; digitális platformok; Európai Bizottság szabályozása; értékelési módszerek.

Introduction

The 1960s–2020s was a period full of events that served as triggers for the flourishing of digital business and the digitalization of industry, including the dominance of the platform business model. These technological triggers include the launch of PCs, computers, and laptops, the founding of the Internet in 1969, the democratization of computing power and computer memory and the use of semiconductors, the popularisation of smartphones with embedded applications, most of which use technologies based on the platform business model, the mass use of mobile Internet, the development of sensors and ubiquitous network access, which made it possible to collect and manage large amounts of information.

One of the most recent triggers, socio-economic and humanitarian, which reinforced the process of digitalization and the application of platforms in all spheres of economic activity and, consequently, the relevance and need to justify and analyze transformational processes, was the pandemic of coronavirus infection [1].

Methods

To solve the set goal and designated tasks, the research is based on the use of qualitative analysis with the use of observation and measurement, system approach, techniques and methods of grouping, generalization of theoretical and factual material, modeling, and tools of graphical interpretation of conceptual dependencies.

Results

Scientific centers for the study of platform economies and platforms. A search and review of the academic and journalistic literature reviewed research centers that have launched initiatives to study and measure the platform economy and its actors. The flagship initiative, which conceptually summarises and highlights the main achievements and innovations of the digital economy, is the MIT Digital Economy Initiative at the Massachusetts Institute of Technology (USA), which brings together digital fellows, graduate students, postdoctoral fellows, corporations that own platform solutions, and research groups that are periodically updated as research directions are updated [2]. As part of the initiative, the New Digital Business Models 2020 research group publishes an annual report, research articles, and reviews, organizes workshops, and representatives of the group co-chair the Annual MIT Platform Strategy Summit [3]. In 2015, S. Choudary, co-author of the bestselling book in the field of platform economics, *The Platform Revolution*, opened Platformation Labs to monitor processes in the platform revolution. One of his latest works is the annual report "The State of the Platform Revolution 2021", which covers platform regulation, inequality in the gig economy, platform strategy for traditional firms, etc. [4]. Consulting companies, especially Accenture [5], which tracks platform business trends and offers business consulting in digital transformation, are beginning to respond to the disruptive effect of platforms, which create new sources of added value for businesses and new markets. The company published a report in 2016, presenting a G20 Platform Readiness Index based on research conducted between January and June 2016. According to the Accenture team's findings, except the top five – the US, China, UK, India, and Germany - European and emerging markets lagged in platform readiness, which does not fully reflect the current state of affairs in the region. (Accenture. *Five Ways to Win with Digital Platforms*.) Former employees of technology companies that did not survive the digital revolution have begun to provide expertise [6].

[2] MIT IDE (2020): *Annual Report*. URL: <https://www.yumpu.com/en/document/read/65272899/mit-ide-2020-annual-report>.

[3] MIT Initiative on Digital Economy. *New Digital Business Models*. URL: <https://ide.mit.edu/newdigital-business-models/>.

[4] The State of the Platform Revolution (2021): URL: <https://platforms.substack.com/p/the-state-of-the-platform-revolution>.

[5] Accenture. *Five Ways to Win with Digital Platforms*. URL: https://www.accenture.com/us-en/_acn-media/pdf-29/accenture-five-ways-to-win-with-digital-platforms-full-report.pdf.

[6] Moazed A.–Johnson N. (2020): *Platform: practical application of a revolutionary business model*.

[7] European Commission. *The Digital Markets Act: ensuring fair and open digital markets*. URL: https://ec.europa.eu/info/strategy/priorities-2019-2024/Europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en#what-are-the-next-steps

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[9] Kenney M.–Zysman J. (2016): The rise of the platform economy. *Issues in Science and Technology*, 2., (32.), pp. 61–69.

[10] Medium (2021): *MIT Initiative on the Digital Economy. Tagged in Platform Economy*. URL: <https://medium.com/mit-initiative-on-the-digital-economy/tagged/platform-economy>.

[11] Accenture: *Platform Economy: Technology-driven Business Model Innovation from the Outside in*. URL: https://www.accenture.com/t20160823T222808Z_w_/us-en/_acnmedia/Accenture/Omobono/TechnologyVision/pdf/PlatformEconomy-Technology-Vision-2016.pdf?en#zoom=50; Accenture. *Digital disruption: the growth multiplier*. URL: https://www.accenture.com/_acnmedia/pdf-14/accenture-strategy-digital-disruptiongrowth-multiplier-brazil.pdf.

Since 2017, the activities of research institutes and laboratories at universities have been intensified: H. Schmidt's Netzökonom blog (Technical University of Darmstadt, Germany), the TSE Digital Centre (Toulouse School of Economics, France), the Digital Business Institute and its Annual Platform Strategy Research Symposium (Boston University, USA). In 2018, the Observatory on the Economics of Online Platforms was launched to advise the European Commission on the development of regulatory policy for online platforms, including the development and amendments to the Regulation on Promoting Fairness and Transparency for Business Users of Online Platforms (P2B Regulation) and the draft new EU "digital legislation" – the draft Digital Services Act (DSA) and the Digital Markets Act (DMA), providing for changes to the provisions set out in the European e-commerce directive [7, 8].

In addition to academic centres, major non-profit organisations have been launched, which research the activities of platform companies, and their regulation in the country and represent the interests of business to the authorities at the national and international levels. *Table 1* summarises the results of the analysis of the current centers of study of the platform economy. Importantly, scientific associations have been launched to provide expertise to all branches of government on the regulation of platform companies. The relevance and importance of studying the platform economy and its subjects are confirmed by the complexity of research, which can be grouped into three areas: theoretical justification and formation of the conceptual field of digital and platform economies (studied mainly by universities and research institutes), analytics of the established market of platform companies and business counseling (implemented mainly by consulting agencies) and development of policies for the functioning of foreign and national platform companies in the country or region [9].

Table 1. Review of initiatives to research the platform economy and its actors

Year of creation	Name of institute, location	Name of the initiative	Research focus
1	2	3	4
2013	<i>MIT Sloan School of Management (MIT Sloan School) of Management</i> at the Massachusetts Institute of Technology, Cambridge, USA	<i>The MIT Initiative on the Digital; The annual MIT Platform Strategy</i> [10] Summit as a key event as part of the initiative.	<ul style="list-style-type: none"> – Identify key principles and systems that will help companies develop successful platform strategies and drive the digital transformation of work and commerce. – Exploring how companies are changing the way they do business by launching online platforms (using Uber, Airbnb, and eBay as examples). – Exploring the changing methodology for developing a successful platform strategy and how companies can maintain a competitive advantage in the digital age, even if they are not platform providers. <p>The research direction of the Sloan School of Management, dedicated to the study of platform economics and business, – "New Digital Business Models."</p>
2015	<i>Platformation Labs</i> is a consultancy and research firm specializing in research and application of platform strategies in various industries. Head - Sanjit Choudary	<i>Platform Thinking Labs</i> is a blog by S. Choudary that publishes research and reports on trends and the state of the platform revolution2).	<p>Research Directions:</p> <ul style="list-style-type: none"> – B2B platforms; – platform economy policy; – The disruption of the industry and future behavior of networks.
2016	<i>Accenture</i> [11] is an international consulting company based in Dublin, Ireland.	External Advisory Board "Technological Vision."	In 2016. Technology Vision external advisory board carrying out research together with <i>Accenture</i> , highlighting the platform economy as the third trend of the year. The company produces reports analyzing trends in the platform economy and its players – digital platforms.

Year of creation	Name of institute, location	Name of the initiative	Research focus
1	2	3	4
2016	<i>Applico</i> – international consulting company, New York, USA	<i>Platform Innovation</i> is a news blog by Applico with articles on trends in platform economics.	The company helps traditional businesses transition to a platform business model – Strategies for turning conventional products and services into platforms; – Regulatory challenges caused by influential platforms.
2020	Harvard Business School in Boston at Harvard Business School in Boston University of Cambridge, USA	<i>Digital Initiative</i> In addition to the news blog, the owners of the company released it in 2016. A guidebook on transitioning a business to a platform business model "Platform".	<i>Digital Initiative</i> Science Cluster Directions: – The reality of misinformation; – machine learning curve; – climate disruption; – creators of new technologies; – industry transformation; – the society meets technology; – a new space race; – for the public good; – the future of finance. A community was also created at the initiative, which aims to facilitate testing, learning, and innovation, and to offer interdisciplinary approaches applied to technologies and organizations.
2017	<i>Netzökonom</i> is the blog of Holger Schmidt, Professor at the Technical University of Darmstadt University of Darmstadt, Darmstadt, Germany	Lectures on platform economics; platform index. (<i>Platform Fund</i>)	– Analysis of the geographical distribution of platforms in the world and their ranking by market capitalization. – Creating and tracking a platform index.
Year of creation	Name of institute, location	Name of the initiative	Research focus
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2018	Toulouse School of Economics at the University of Toulouse 1 Capitol, Toulouse, France	Toulouse School of Economics Digital Centre research center at the Toulouse School of Economics, Toulouse, France ⁶).	The work of the Centre is organized into 5 research areas: – digital platforms; – Big data analytics and economics; – Artificial intelligence and society; – Financial technologies and digital markets; – Intellectual property in the digital economy. One of the most active initiatives is an online seminar "The online Economics of Platforms. Seminar" (launched in 2020).
2018	PPMI, <i>Open Evidence</i> , RAND Europe, German Economic Institute, Cologne, Germany	<i>The Observatory on the Online Platform Economy</i> is a community of 15 independent experts and teams of European Commission employees, r. Brussels, Belgium ⁷).	The Observatory examines current and emerging issues and opportunities for the EU in the online economy and general internet search and advises the European Commission on policy-making on online platforms. It also monitors the implementation of the Promotion Regulations fairness and transparency for business users of online platforms (Regulation P2B).
2020	Questrom Business School Boston University, Boston, USA	<i>Digital Business</i> ; The annual <i>Platform Strategy Research Symposium</i> is a key event in the institute's activities.	One of the research areas of the institute is platform economics. Current topics: – Effective strategies for launching and growing the platform; – Rules for designing and managing a platform to build and maintain trust; – Strategies for complements to effectively engage with the platforms in which they participate.

The state of ranking of platform companies: analysis of practices and methodologies. Previously, an attempt has been made to sample international rankings of companies in which the majority of ranked economic agents use a platform business model, namely a review of the Boston Consulting Group (BCG) ranking of the "World's Top 50 Most Innovative Companies" (since 2004), the ranking of the analytical company CB Insights "World Unicorn Club List" (since 2013), the ranking of the "Top 100 Exponential Organisations" (since 2015) and Forbes magazine's ranking of the "Top 100 Digital Companies" (since 2018) 23. Several rankings of internet companies and startups not included in the earlier and current research can also be counted as rankings where the majority of companies will use the platform as the underlying business model.

A. Moazed and N. Johnson support this by stating that "platforms were virtually every Internet company that succeeded in the dot-com era, including Amazon, Angie's List, Monster.com, Shutterfly, and Yahoo" and "in the startup economy, the number of business platforms increases significantly in each new wave of large public companies".

In the course of studying this issue, an attempt was made to select ratings that assess the performance of platform companies directly and to analyze the methodology of compiling these ratings (*Table 2*).

Table 2. International and author ratings of platform companies

Year	Title	Source and method of sampling of companies	Types of companies	Criteria for ranking companies	Disadvantages
2017	Top 100 digital MNCs by sales or operating income UNC-TAD	Manual selection of all companies by their core business and the presence of a platform business model in the TNC source list from the <i>Bureau van Dijk</i> database.	Digital TNCs, viz: a) internet platforms, b) digital solutions companies; c) online shops (e-commerce sites); d) digital content companies	1. Affiliation with MNCs: a) their foreign income or foreign assets (or both) are more than 10 percent of the total, b) the existence of a significant number of subsidiaries outside the country of origin (excluding branches in offshore financial centers). 2. The inclusion of companies in the listing. 3. Presentation of relevant information on foreign sales and/or foreign assets.	1. Non-systematic compilation of the rating (it was compiled once in 2017). 2. Lack of information on the country of origin of companies. 3. A small number of companies represented in each sub-category of digital TNCs.

2016	Platform fund based on a platform index	Weekly check of the share price of listed companies on the stock exchange, and a sample of 15 platforms with the highest share price.	Platforms	The index is calculated using the price component of the profitability method and is compared to the <i>Dow Jones Industrial, Nasdaq Composite, and Dax 30</i> indices.	1. A small number of companies are included in the calculation of the index. 2. Lack of reports capturing the history of the index.
2017	Top 100 platforms by market capitalization in the billion USD	The author does not publicly disclose the source of the sample companies.	Platforms	The author does not publicly disclose the methodology for rating platforms.	Lack of information on sampling sources and methodology company rankings.
2019	43 digital platform companies	Manual selection of all companies by their core business and the presence of a platform business model in the original <i>Forbes Global 2000</i> ranking from 1995 to 2015.	Digital platforms	1. The inclusion of companies in the listing. 2. Analysis of 4 indicators: sales, profit, assets and market value.	Non-systematicity of the ranking (was compiled once in 2019).

The result of the analysis is the conclusion that there is a problem with systematizing the criteria for ranking platform companies, primarily due to the typology of platforms, which has not been definitively consolidated, and the difference in the metrics measuring their success depending on the sphere of their work (e.g. online commerce, financial services, digital media and games, search engines or social networks). Each of the above rankings has several uncertainties and to date, there is no universally recognized ranking that assesses the success of platforms.

Discussion

Interest in the platform economy and its subjects is also shown by the global scientific and business community. The limitations of the present study are: 1) the lack of a unified understanding of the concept of "platform economy", despite the operation of several research centers and launched initiatives, including scientific summits and conferences dedicated to platforms and platform strategies presented in *Table 1*; 2) the closed nature of the metrics underlying several rankings of platform companies, which makes it difficult to critically analyze them and to select a ranking for the sample of companies and their subsequent

[12] Accenture. *Digital disruption: the growth multiplier*. URL: https://www.accenture.com/_acnmedia/pdf-14/accenture-strategy-digital-disruptiongrowth-multiplier-brazil.pdf.

analysis. The results of this work can serve as material for scholars dealing with the problems of platform companies in their subsequent research, which requires reference to the fundamental works of scientists of these centers, as well as an aid in selecting one of the rankings or monitoring new ones for the analysis of platform companies [12].

Conclusion

Thus, the platform economy is an emerging promising core of the digital economy, which is a system of relationships based on economic activity built on digital platforms that allow buyers and sellers of products/services to make transactions, enhance indirect network effects, and create new markets. Its subjects are platform companies (two-sided, new markets) as intermediaries in the realization of the transaction and other companies, one of whose business models is platform. The platform economy is studied mainly by research centers and research institute.