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THE DIGITAL ECONOMY AND NEW BUSINESS MODELS

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Abstract

The digital economy represents a new era in which information and communications technology (ICT) plays a central role in all aspects of economic activity. This digital transformation has led to the emergence of new business models that harness the power of data, connectivity and online platforms to create value in unprecedented ways.

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JEL Classification: O30, O33, M21.

Introduction

The ubiquity of information represents one of the defining features of the digital economy, characterised by the instantaneous and omnipresent accessibility of data and knowledge. This unprecedented availability of information has had a profound impact on economic and social structures, leading to a fundamental reconfiguration of market dynamics and decision-making processes at both individual and organisational levels. The democratisation of access to information has led to a significant reduction in information asymmetries that have traditionally characterised many markets. This phenomenon has had far-reaching consequences, diminishing competitive advantages based exclusively on the possession of privileged information and forcing economic entities to re-evaluate their strategies for creating and capturing value. Consequently, there has been an increasing trend towards business models based on continuous innovation and the ability to efficiently process and interpret large volumes of available data. The ubiquity of information has catalysed the emergence of new forms of collaborative production and consumption. Crowdsourcing platforms and the gig economy are eloquent examples of how widespread access to information has enabled the rapid mobilisation of human and material resources, transcending traditional geographical and organisational boundaries. This phenomenon has

led to unprecedented flexibility in the labour market but has also raised complex questions regarding social protection and workers' rights in the new economic paradigm.

In the sphere of innovation and research and development, the ubiquity of information has dramatically accelerated the pace of scientific and technological progress. Open access to academic publications, research data and online collaboration tools has facilitated the rapid exchange of ideas and results on a global scale. This rich informational ecosystem has stimulated interdisciplinary innovation and enabled the addressing of complex challenges through distributed and collaborative research efforts.

The informational abundance also brings with it significant challenges. Information overload and the difficulty of discerning relevant and reliable information in the mass of available data represent significant obstacles to the efficient utilisation of this resource. Moreover, disparities in access to and the ability to effectively use digital information have given rise to a new form of inequality, known as the 'digital divide', which threatens to exacerbate existing socio-economic disparities.

Network effects represent a fundamental phenomenon in the digital economy, characterised by the increase in value of a product or service as its user base expands. This mechanism, intrinsically linked to the interconnected nature of digital technologies, has profoundly reconfigured competitive dynamics in numerous sectors, leading to the emergence of distinct market structures and, often, to 'winner-takes-all' phenomena.

Network effects can be categorised into two main types: direct and indirect. Direct network effects manifest when the value of a product or service for a user increases in direct proportion to the total number of users. Social media platforms perfectly exemplify this concept: the more users join a network, the more valuable it becomes for each individual participant. On the other hand, indirect network effects occur in multi-faceted ecosystems, where an increase in the number of users on one side of the platform enhances the value for users on the other side. Online marketplaces illustrate this phenomenon, where a larger buyer base attracts more sellers, and vice versa, in a positive feedback cycle.

The economic implications of network effects are profound and multifaceted. Firstly, they tend to favour a „rich-get-richer" dynamic, where platforms or services that reach a critical mass of users benefit from a significant and hard-to-overcome competitive advantage. This phenomenon can lead to the concentration of market power in the hands of a small number of dominant players, raising complex questions related to competition and antitrust regulation in the digital era.

Once a platform or service has attained a dominant position based on strong network effects, challenging this position becomes extremely difficult, even for innovators with superior products or technologies. This

phenomenon raises important questions regarding the dynamics of long-term innovation in sectors dominated by strong network effects.

Simultaneously, network effects have profound implications for the value and valuation of digital companies. Traditional valuation models based on tangible assets or cash flows often become inadequate in the context of the network economy, where the potential for exponential growth and market domination can justify valuations that appear disproportionate in relation to current financial performance.

Rapid scalability represents a defining characteristic of the digital economy, allowing businesses to expand their operations globally at an unprecedented speed and with near-zero marginal costs. This phenomenon, facilitated by the intangible nature of digital goods and services, as well as the global technological infrastructure, has fundamentally transformed the dynamics of growth and competition in the contemporary business environment.

The implications of this rapid scalability are profound and multidimensional. Firstly, it has democratised access to global markets, allowing even small enterprises or start-ups to compete internationally from the outset. The 'born-global' phenomenon has become increasingly prevalent, with companies achieving a global presence in record time, overcoming traditional barriers to international expansion.

Moreover, rapid scalability has dramatically intensified the pace of innovation and competition. The ability to quickly test, iterate and scale new products or services has significantly reduced development cycles and increased pressure on companies to continuously innovate. This dynamic environment favours agile organisations capable of pivoting rapidly and adapting to market changes, putting pressure on more rigid and less adaptable business models.

The platform economy represents a revolutionary business model that has emerged as a dominant force in the contemporary digital economic landscape. This phenomenon is characterised by the creation of bilateral or multilateral markets that facilitate direct interactions between suppliers and consumers, mediated by sophisticated technological infrastructures. Digital platforms such as Amazon, Uber and Airbnb exemplify this model, fundamentally redefining traditional market structures and catalysing a profound transformation of economic dynamics on a global scale.

Digital platforms operate as intermediaries that significantly reduce transaction costs and market frictions, allowing for a more efficient allocation of resources and an increase in economic efficiency. By aggregating supply and demand in a centralised digital space, these platforms create vast and interconnected economic ecosystems, characterised by strong network effects and significant economies of scale.

The economic model of platforms is distinguished by:

Bilateral or multilateral network effects: The value of the platform grows exponentially as more participants join both sides of the market, creating a positive feedback cycle that reinforces the dominant position of successful platforms.

Asymmetric cost structures: Platforms tend to subsidise one side of the market (often consumers) to attract participants, while monetising the other side (usually suppliers or merchants).

Rapid scalability: The digital nature of platforms allows for rapid global expansion with low marginal costs, facilitating exponential growth and market dominance.

Open innovation: Many platforms offer application programming interfaces (APIs) and development tools, allowing third parties to contribute to expanding the platform's functionality and value.

The impact of the platform economy extends beyond traditional sectors, disrupting and transforming entire industries. In the transport sector, Uber has revolutionised the concept of urban mobility, while Airbnb has reconfigured the hospitality industry. Amazon, far exceeding the status of a simple online retailer, has become a complex ecosystem encompassing e-commerce, cloud computing and advanced logistics services.

However, the rise of the platform economy has also generated significant challenges for policymakers and regulators. The concentration of market power in the hands of a small number of dominant platforms raises concerns about competition and monopoly. Issues related to worker classification in the gig economy, consumer protection in digital markets, and the fair taxation of multinational platforms represent just a few of the emerging complexities that require innovative approaches to regulation and governance.

Nevertheless, the platform economy has catalysed a redefinition of traditional concepts of work and employment. The emergence of the 'gig economy' facilitated by platforms has offered unprecedented opportunities for flexibility and individual entrepreneurship, but has also raised crucial questions about job security, social benefits and workers' rights in this new economic context.

The platform economy represents a transformative paradigm that fundamentally redefines economic structures, market relationships and competitive dynamics in the digital age. As this model continues to evolve and expand into new sectors, a nuanced understanding of its operating mechanisms, its socio-economic impact, and the associated ethical and regulatory challenges becomes essential for navigating the increasing complexity of the global digital economy.

Risks identified at the level of business decision-makers in Romania can be judged from the perspective of the insurance market at this level. Cyber-risk insurance is starting to have more and more followers in Romania as well. Demand is growing rapidly because the market is still in its infancy, dominated by international brokers,

who sell the products of foreign insurers. Local players are waiting because they do not have all the necessary data to be able to enter the cyber insurance niche. Romanian companies are most afraid of the pandemic, the cyber incidents and the risks that can lead to the interruption of activities (Ilie, 2022).

Conclusions

The digital economy has opened new frontiers for innovation and economic growth, but has also brought significant challenges. Adapting to these rapid changes requires a continuous reassessment of business models, public policies and regulatory frameworks. Understanding and effectively managing this transformation will be essential for economic and social success in the 21st century.

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