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THE IMPACT OF DIGITAL PLATFORMS ON TRADITIONAL MARKET STRUCTURES

The object of the research is the transformative impact of digital platforms on traditional market structures. Qualitative research is used to gain a deep understanding of how traditional market structures are impacted by digital platforms. Interviews with eight participants highlight the shift towards gig and freelance work, the erosion of traditional employment protections, and the emergence of new business models facilitated by technological advancements. The study adopted thematic analysis to analyze the collected data.

The study reveals that digital platforms have significantly lowered barriers to market entry and fostered economic inclusion. As a result, the initial costs of starting a business have significantly decreased. However, they have also introduced complexities surrounding labor rights and necessitated a re-evaluation of regulatory frameworks to address monopolistic practices and ensure fair competition. This is due to the lack of labor regulations protection for freelance workers compared to traditional employment. The study stresses the need for agile, forward-looking, and internationally coordinated regulatory approaches to effectively govern digital platforms, balancing innovation with the protection of consumer and worker rights. Such an approach should aim to address the current challenges but also anticipate future developments by ensuring that regulations evolve in tandem with technological advancements without stifling innovation. Furthermore, fostering technological literacy among law-makers, adopting adaptive regulatory frameworks, and ensuring the inclusion of diverse perspectives are crucial steps towards achieving effective governance of digital technologies.

The findings contribute to the ongoing dialogue on digital governance, offering insights for policymakers, regulators, and stakeholders in crafting regulations that harness the benefits of digital platforms while mitigating their negative impacts on society.

Keywords: *business models, digital platforms, labor rights, traditional market, regulatory frameworks, digital technology management.*

Received date: 27.02.2024

Accepted date: 29.04.2024

Published date: 30.04.2024

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How to cite

Oluka, A. (2024). The impact of digital platforms on traditional market structures. *Technology Audit and Production Reserves*, 2 (4 (76)), 21–29. doi: <https://doi.org/10.15587/2706-5448.2024.303462>

1. Introduction

Digital platforms have fundamentally reshaped economic and social governance across the globe, acting as catalysts for change in both the marketplace and society at large. In the economic domain, platforms such as Amazon, Alibaba, and Uber have disrupted traditional industries by creating new market structures and altering competitive dynamics. Digital platforms leverage network effects to grow rapidly, often outpacing the regulatory frameworks designed to ensure fair competition and consumer protection [1]. The efficiency and convenience offered by these platforms have led to significant consumer adoption, but they also raise questions about market monopolization, data privacy, and the precarious nature of gig work [2, 3]. As such, digital platforms challenge existing economic governance models, necessitating updated regulatory approaches to balance innovation with market fairness and consumer rights.

Digital platforms have transformed how people connect, communicate, and access information, influencing everything from social interactions to political engagement. Platforms like Facebook, Twitter, and YouTube have become central to public discourse, enabling unprecedented participation and democratization of content creation [4]. However, these platforms also present challenges related to misinformation, online harassment, and the erosion of privacy, which have implications for social governance and the health of democratic institutions [5]. The role of digital platforms in social movements and political mobilization further emphasizes their influence on social governance, as seen in events like the Arab Spring and various global protests, where social media played a key role in organizing and amplifying public dissent [6].

The regulatory challenges posed by digital platforms highlight the complexity of governing these entities within traditional legal and institutional frameworks. The global nature of digital platforms, combined with their rapid

evolution and the cross-jurisdictional flow of data, complicates efforts to regulate them effectively [7]. In response, regions like the European Union have pioneered comprehensive regulations such as the GDPR to address data privacy and the Digital Markets Act to curb the anti-competitive practices of digital giants, setting a precedent for other jurisdictions [8]. These efforts reflect an ongoing global dialogue about how best to regulate digital platforms in a way that promotes innovation while protecting individual rights and societal values.

Disruptive Innovation Theory, as developed by Clayton Christensen, offers a compelling framework for understanding how digital platforms disrupt traditional market structures and the consequential shifts in economic dynamics. The theory posits that innovations often start from a niche market and gradually move upmarket, eventually displacing established competitors by offering services that are more convenient, accessible, and affordable [9]. Digital platforms epitomize this by leveraging technology to create new business models that challenge incumbent industries, from retail and media to transportation and accommodation. For instance, platforms like Amazon, Alibaba and Netflix have fundamentally altered retail shopping and content consumption habits, respectively, demonstrating how digital innovations can rapidly transform traditional markets. The theory is relevant to the current study as it provides a lens to analyze the mechanisms by which digital platforms catalyze shifts in market dynamics, consumer behavior, and, ultimately, the broader economy.

Disruptive Innovation Theory stresses the transformative impact these platforms have beyond economic competition, influencing social norms, labor markets, and regulatory frameworks. As digital platforms disrupt existing industries, they also create new governance challenges and opportunities. For example, the rise of gig economy platforms such as Uber and Airbnb have prompted debates around labor rights, employment classification, and urban housing policies [10, 11]. Digital platforms have disrupted economic activities and necessitate rethinking social governance structures to address worker protection and equitable access to services. Therefore, Disruptive Innovation Theory is relevant for understanding the economic shifts induced by digital platforms and analyzing how these shifts influence new forms of governance in response to the changing social and economic landscape. *The study aims* to provide a comprehensive understanding of the dynamics introduced by digital platforms on traditional markets and offer insights into the future of market structures in a digitally interconnected economy.

2. Materials and Methods

2.1. Transformation of industry dynamics. Digital platforms have become a transformative force within various economies by disrupting traditional market structures and operational models [12]. The disruption is multidimensional, affecting the modes of production, distribution, and consumption. At the core of digital platforms is their ability to facilitate direct interactions between many users, which disrupts traditional market intermediaries. The disintermediation effect has been thoroughly documented in industries such as hospitality and transportation, where platforms Airbnb and Uber have bypassed traditional service providers, connecting customers directly with service providers [13, 14].

This has altered the value chain and shifted the locus of market power from established firms to platform operators, who control access to consumers and data.

The disruptive nature of digital platforms also extends to the supply side of the economy. Platforms lower barriers to entry for suppliers, allowing small-scale producers and freelancers to reach global markets without the need for significant capital investment [15]. The democratization of market access challenges the dominance of large firms and reshapes industry hierarchies. Moreover, digital platforms have pioneered a shift toward an access-based rather than ownership-based consumption model. The growing preference for access over ownership is most evident in the rise of streaming services and car-sharing platforms. This shift has significant implications for the manufacturing and retail sectors, prompting businesses to adapt to a service-oriented model [16].

The disruption is both economic but also social, as digital platforms redefine the nature of work and employment. The gig economy, facilitated by digital platforms, has created a new class of labor that is flexible and independent but also precarious and unsecured [17]. This undermines traditional employment hierarchies and raises questions about the role of unions, labor rights, and social security systems. Furthermore, digital platforms accumulate and leverage data to gain insights into consumer behaviour, allowing for targeted marketing and personalized services. This data-centric approach gives platforms an advantage over traditional businesses that rely on less sophisticated market analysis [18]. The strategic use of data disrupts marketing and advertising industries but also has broader implications for privacy and data governance.

The disruption caused by digital platforms also has geopolitical implications. Digital platforms facilitate cross-border transactions and interactions, diminishing the economic barriers traditionally imposed by national borders. This challenges the regulatory capacity of individual states and necessitates international cooperation to manage the economic activities of global platforms [19]. Digital platforms disrupt traditional market structures and hierarchies by reconfiguring supply and demand dynamics.

2.2. The impact of digital platforms on employment patterns.

The advent of digital platforms has reshaped employment patterns, introducing a paradigm shift towards gig and freelance work. The transformation is characterized by the rise of precarious employment conditions where workers engage in short-term, task-based jobs without traditional employment protections and benefits. [20] highlight how digital labor platforms facilitate flexible work arrangements by allowing individuals to engage in paid work alongside other commitments, thus promoting economic inclusion. However, this flexibility often comes at the cost of job security and access to social protections, reflecting a double-edged sword of digital platforms' impact on employment patterns. The gig economy, facilitated by platforms such as Uber and TaskRabbit, exemplifies this trend, offering opportunities for non-specialists to enter the labor market but also raising concerns about the precarious nature of such work [21].

Furthermore, the operational mechanisms of digital labor platforms have implications for the labor market's structure and the nature of work itself. Platforms often implement algorithmic management systems that control work allocation, performance evaluations, and payment mechanisms, impacting workers' autonomy and bargaining power [22].

These systems can introduce new forms of labor subordination and control, where workers are subject to continuous surveillance and performance assessments based on customer ratings and algorithmic determinations. Consequently, the traditional employer-employee relationship is transformed, with digital platforms acting as intermediaries that exert significant control over the terms and conditions of work, often to the detriment of workers' rights and protections [23].

Moreover, the segmentation of the labor market facilitated by digital platforms exacerbates existing inequalities, potentially widening the gap between different worker groups. [24] argue that digital platforms contribute to labor market segmentation by creating distinct categories of workers, often based on skill levels, access to technology, and socio-economic status. This segmentation can reinforce disparities between workers, with those in lower-skilled, platform-mediated jobs facing more precarious conditions and limited access to labor rights. As such, the impact of digital platforms on employment patterns is multidimensional, offering new opportunities for workforce participation but also challenging traditional labor standards and exacerbating inequalities within the labor market [23].

2.3. The regulatory challenges posed by digital platforms.

The regulatory challenges posed by digital platforms transcend borders, affecting various political systems in distinct yet interconnected ways. In liberal democracies, the primary concern revolves around reconciling the innovation and economic benefits of these platforms with the need for consumer protection, data privacy, and fair competition. The United States, for instance, grapples with the application of antitrust laws to combat the monopolistic tendencies of major tech companies, a task complicated by the digital economy's inherent characteristics of network effects and economies of scale [1]. Similarly, the European Union has taken proactive steps with the General Data Protection Regulation (GDPR), the Digital Markets Act and the Digital Services Act, aiming to set stringent standards for data protection and to curb the power of digital monopolies, thereby reflecting a regulatory approach that prioritizes citizen rights over unchecked market expansion [8].

Contrastingly, in authoritarian regimes, digital platforms pose different challenges, often becoming tools for state surveillance, censorship, and information control. Countries like China exemplify this approach, where the government exercises tight control over digital platforms, integrating them into the state's surveillance apparatus and using them to monitor and influence public opinion [25]. This control extends to the regulation of content, suppression of dissent, and the promotion of state narratives, exhibiting a regulatory framework that prioritizes state security and stability over individual freedoms and privacy [26].

The divergent approaches between democracies and autocracies highlight the complexity of regulating digital platforms in a manner that respects and promotes both innovation and fundamental rights. In democratic contexts, the challenge lies in finding the balance between fostering innovation and protecting consumers from the potential harms of digital monopolies, data breaches, and privacy invasions. In contrast, the challenge for autocracies revolves around managing the tension between leveraging digital platforms for governance and control and the risk of stifling innovation and economic growth by over-regulating or excessively controlling these platforms [27].

Furthermore, the rapid pace of innovation in the digital realm often exceeds the speed at which regulations can be developed and implemented, leading to a regulatory lag that poses risks to consumer protection and market fairness. This lag is exacerbated by the need for regulators to possess a deep understanding of the technologies but also the foresight to anticipate future developments and their potential implications. The challenge is, therefore, not only to address current issues but also to create flexible, forward-looking regulatory frameworks that can adapt to ongoing technological evolution without stifling innovation [28].

The global nature of digital platforms necessitates international cooperation and dialogue to address these regulatory challenges effectively [27]. While each political system has its priorities and regulatory frameworks, the cross-border operations of digital platforms mean that actions in one jurisdiction can have ripple effects worldwide. There is a growing recognition of the need for a coordinated international approach to regulation, which can reconcile the diverse objectives of different political systems while ensuring that digital platforms operate in a manner that is transparent, accountable, and respectful of human rights and democratic values [7]. This requires dialogue among governments and engagement with stakeholders, including the platforms themselves, civil society, and the global community, to forge consensus on principles that can guide the regulation of digital platforms across diverse political and legal landscapes.

2.4. Research Methodology. The researcher employed a qualitative research methodology to explore the intricate dynamics of digital platforms' impact on market structures, labor rights, employment patterns, and the evolving regulatory landscape. The approach was instrumental in capturing the perspectives and experiences of individuals directly engaged with or affected by digital platforms. By conducting in-depth interviews with eight participants, including industry experts, regulators, and gig workers, the study gathered rich, descriptive insights into the complex nature of digital disruption and its societal implications. The choice of qualitative methodology facilitated a deeper understanding of the complex interplay between technology and socio-economic factors, allowing for a detailed exploration beyond what quantitative data could offer. This method aligns with the work of [29], who advocate for the use of thematic analysis in qualitative research as a flexible and robust tool for identifying, analyzing, and reporting patterns (themes) within data.

Thematic analysis was utilized to systematically categorize the data collected from the interviews, enabling the identification of key themes related to the impact of digital platforms. This analytical approach was pivotal in dissecting the different viewpoints and experiences shared by participants, thereby uncovering the underlying mechanisms through which digital platforms reshape economic and social landscapes. The methodology provides a structured yet flexible means to delve into the qualitative data by ensuring a comprehensive and coherent analysis that aligns with the research aims [29]. The thematic analysis enriched the study's findings with detailed narratives and experiences but further laid the groundwork for drawing meaningful implications and recommendations for policy and practice in the digital platform economy.

3. Results and Discussion

3.1. Impact of digital platforms on traditional market structures

3.1.1. Access to entry. Digital platforms, by virtue of their structural and operational models, have become a transformative force within various economies, disrupting traditional market structures and hierarchies. The disruption is multidimensional, affecting the modes of production, distribution, and consumption. Digital platforms facilitate market access and enable new forms of consumer engagement and personalization. By leveraging data analytics, businesses can gain insights into consumer behaviour and preferences, allowing them to tailor their offerings and marketing strategies more effectively [30]. This level of personalization enhances the customer experience and can lead to increased loyalty and sales.

«Digital platforms are disrupting traditional market structures by lowering barriers to entry for small businesses and enabling new forms of consumer engagement. Previously, you needed a large floor area in a commercial area to start a business, but now you can start a business from home and then list your products on digital platforms like Amazon, and you will have global reach» (No. 5).

The rise of digital platforms has fundamentally altered the landscape of entrepreneurship and business operations, dramatically lowering the barriers to entry for small businesses. Platforms such as Amazon, Etsy, and Shopify provide small businesses access to global markets without the need for significant upfront investment in physical infrastructure and marketing. This democratization of market access has enabled even the smallest businesses to reach customers far beyond their local geography, competing on a global stage [31]. Moreover, these platforms offer tools and services that support various business functions, including inventory management, payment processing, and customer service, further reducing the operational costs of running a business [32, 33]. Social media platforms like Instagram and Facebook have become vital marketing tools, enabling businesses to engage with customers directly, build brand awareness, and foster community around their products and services. As consumers increasingly turn to online shopping for convenience and safety, small businesses that embrace digital platforms are well-positioned to thrive in the digital economy.

3.1.2. Value creation through data and connectivity. The transformation of the economic environment through digital platforms is a hallmark of the 21st century, marking a significant shift towards an interconnected and digitized economy. Digital platforms introduce new efficiencies into the marketplace, disrupt traditional business models, and facilitate value creation through data and connectivity due to their architecture and global reach [32, 34]. These platforms leverage network effects, where the value of the service increases as more users join the platform, thereby creating a self-reinforcing mechanism that drives growth and innovation [35]. Thus, digitization of services reduces transaction costs and enhances operational efficiencies, contributing to a more dynamic and competitive economic landscape.

«In my opinion, digital platforms are transforming the economic environment by introducing new efficiencies, disrupting old businesses, and enabling value creation through data and connectivity. The adoption of digital platforms

reflects a substantial transition towards a more interconnected and digitised economy» (No. 7).

Digital platforms enable value creation in novel ways through the collection, analysis, and application of data. Data-driven insights allow for more targeted marketing, improved product development, and enhanced customer experiences. The ability of digital platforms to aggregate and analyze large datasets facilitates innovation in fields such as artificial intelligence and machine learning, further boosting the digital economy [36, 37]. Digital platforms foster collaboration and knowledge sharing across geographies and industries, leading to the emergence of new business models and opportunities for co-creation. The adoption of digital platforms underlines the importance of digital skills, infrastructure, and regulatory frameworks that can accommodate and foster digital transformation.

3.1.3. New business models. The adoption of digital platforms ushers in a paradigm shift in how businesses are conceptualized, operated, and scaled. Unlike traditional business models that rely on linear value chains where the company owns and controls the means of production and distribution, platform business models capitalize on the power of network effects and digital connectivity to facilitate interactions between different user groups, typically producers and consumers [35]. This model leverages sophisticated algorithms and data management techniques to match demand with supply, enhance user experiences, and optimize operations while minimizing the need to own physical assets.

«The adoption of digital platforms enables the development of new business models based on platform-mediated connections because digital platform business models rely on interactions between producers and customers through advanced algorithms and data management as opposed to traditional models that depend on the ownership of the means of production...a prime example is the disruption in the transportation industry by Uber and Lyft, which have challenged traditional taxi services» (No. 3).

Digital platforms such as Uber and Airbnb exemplify this new model by creating value primarily through the facilitation of transactions and interactions among users. These companies do not own the cars, properties, or goods on their platforms; instead, they provide the technological infrastructure and marketplace that allow individual providers and consumers to connect and transact [15]. This approach reduces capital expenditure for the platform operators and opens up new income opportunities for individuals and businesses that join the platform as service providers.

The success of platform business models depends on their ability to manage and analyze large volumes of data. Through data analytics, platforms can offer personalized experiences, improve service offerings, and create efficient matching algorithms that connect users based on preferences and behaviour [36–38]. The data-driven approach allows platforms to continuously refine and adapt their services to meet the evolving needs of their user base, fostering a dynamic ecosystem where both producers and consumers benefit from enhanced efficiency and value.

3.1.4. Impact on labor rights. In the gig economy, gig workers are classified as independent contractors rather than employees. This classification often exempts companies

from providing essential benefits and protections that are standard for traditional employees, such as health insurance, retirement plans, and unemployment insurance. Furthermore, gig workers face income instability due to the fluctuating demand for their services and the lack of a guaranteed minimum wage [39]. The absence of these protections and benefits compounds the uncertain nature of gig work and heightens the need for regulatory interventions to safeguard gig workers' rights.

«The rise of the gig economy has resulted in a transition towards flexible employment, often lacking protection for workers...these jobs have led to the deterioration of labour rights such as job security and adequate compensation... that is why you have seen Uber drivers demanding to be recognised as employees, not contract workers...» (No. 6).

The gig economy is characterized by short-term contracts and freelance work instead of traditional permanent jobs. Digital platforms such as Uber, Lyft, and TaskRabbit offer workers unprecedented flexibility and autonomy in their work. However, digital platforms present substantial concerns about the erosion of labor rights traditionally associated with full-time employment [17]. Additionally, the reliance of the gig economy on digital platforms for distributing work accentuates concerns about algorithmic management and surveillance. Algorithms determine work assignments, evaluate performance, and even terminate workers with little transparency and recourse for the affected individuals [40]. The opaque algorithmic governance raises issues about fairness, accountability, and the right of workers to contest decisions that affect their livelihoods. Research by [41] in the domain of food delivery services in South India revealed the spatial and temporal injustices inherent in digital platforms. These platforms often reinforce existing power dynamics and inequalities, resulting in unequal access to opportunities and resources. The algorithms used to select drivers and allocate routes may perpetuate the existing inequalities because of the biased data used to train the algorithms.

3.1.5. Bargaining power. Gig workers who seek to bargain for better pay or conditions face challenges as the platform's algorithms determine earnings based on factors often opaque to the worker [10]. The automated setting of fees by platforms can lead to a power imbalance between the platform and the gig workers. Since workers are typically classified as independent contractors, they lack collective bargaining rights and the ability to negotiate rates directly with the platform or their end clients [17]. This arrangement can result in unpredictable earnings and, in many cases, below minimum wage standards when considering the time spent waiting for jobs and the costs incurred by workers, such as vehicle maintenance for ride-hailing services or data charges for online tasks.

«It is difficult to bargain for a better fee or rate because the platform sets it automatically...they have destroyed labour unions» (No. 2).

Algorithmic labor management, in which digital platforms automatically set rates for tasks, leaves minimal possibility for individual negotiation. The opacity of the algorithms that set these rates exacerbates the issue, as workers have limited insight into how their pay is calculated or what factors might influence their earnings. The lack of transparency makes it challenging for workers to advocate for fairer compensation or to understand the parameters within

which they might optimize their earnings [42]. Additionally, the deactivation threat, where workers can be barred from the platform without clear justification, further undermines their ability to negotiate better terms.

3.1.6. Flexible work arrangements. The gig economy, which consists of freelance, temporary, and short-term labor supported by digital platforms, has brought about new levels of job flexibility and autonomy. The new labor market structure allows individuals to select tasks or projects on an ad-hoc basis, significantly differing from traditional 9-to-5 jobs. The appeal of the gig economy largely stems from the autonomy it offers, allowing workers to choose when, where, and how much they work, catering to personal schedules, responsibilities, and lifestyle preferences [42].

The gig economy represents an opportunity to balance work with personal life in a way that traditional employment does not permit. It can be particularly appealing to students, caregivers, or those with commitments that require a flexible schedule. With this flexibility, employees can tailor their work to their interests, skills, and career goals by selecting hours as well as the tasks and projects they want to work on.

«The advent of the gig economy has introduced a level of job flexibility previously unseen, which has become appealing to many because of its autonomy and ability to work for more than one employer» (No. 4).

The autonomy of the gig economy extends to the ability to work from anywhere, as many gig tasks can be completed remotely. This aspect of the gig economy has broadened the scope of opportunities for people in geographically isolated areas, providing access to a wider range of work options than available locally [39, 43]. Additionally, the digital platforms that facilitate gig work often offer an easy way for workers to market their skills to a broad audience, further enhancing their autonomy in managing their careers [44].

3.1.7. New job opportunities. The transformative impact of digital platforms on employment patterns is creating a wealth of new job opportunities within the tech sector but also democratizing access to tech jobs for individuals without traditional technology backgrounds. The shift is facilitated by the platforms' inherent demand for a diverse range of skills and the increasing availability of resources for self-education and skill development in technology-related fields [45, 46]. The proliferation of online learning platforms like Coursera, edX, and Udemy democratizes learning. These platforms provide accessible pathways for those looking to transition into tech careers, offering courses ranging from web development to AI and machine learning.

«From my perspective, digital platforms have substantially transformed employment patterns by creating new job opportunities in the tech sector... but I have also seen individuals without a technology background now taking tech jobs» (No. 8).

The advent of digital platforms has blurred roles between professions and created job opportunities for individuals from diverse backgrounds to access and engage in tech-related work. With the rapidly evolving nature of technology and the diverse skill sets required to navigate the digital landscape, the tech industry is increasingly valuing interdisciplinary knowledge and skills. Employers are now more open to hiring individuals from a variety of backgrounds, understanding that creativity, problem-solving

abilities, and a fresh perspective are as crucial as technical expertise in driving innovation [32, 47]. The transition enriches the tech sector with a diverse talent pool and exemplifies how digital platforms are transforming traditional employment paradigms.

3.2. Regulatory challenges

3.2.1. Sticky regulations. The assertion that governments are grappling with the fast evolution of digital platforms, leading to a predominance of reactive over proactive regulatory measures, illustrates a critical challenge in contemporary digital governance. This has engendered a regulatory environment that is often unable to address the monopolistic practices of technology companies effectively. The rapid development at which digital platforms evolve exceeds the speed at which traditional regulatory frameworks can adapt. [48] highlight that the digital economy's intrinsic characteristics, such as network effects and the role of data as a competitive asset, create a ground for monopolistic practices. These dynamics allow dominant players to establish and reinforce their market positions, often at the expense of consumer welfare and market competition.

«Governments are struggling to keep pace with the rapid evolution of digital platforms...resulting in reactive rather than proactive regulatory measures. That is why the current regulations are unable to address the monopolistic practices of big tech companies» (No. 1).

The reactive posture of regulatory bodies often means that interventions come too late after monopolistic practices have been entrenched and the competitive landscape has been irreversibly altered. For instance, the European Union's General Data Protection Regulation (GDPR), while pioneering, has been critiqued for its reactive nature and the significant compliance burdens it places on new market entrants, potentially entrenching the positions of established players [7]. Moreover, the dynamic and innovative nature of digital platforms means that they can quickly adapt to and circumvent regulatory measures.

[49] posits that the agility of digital companies in navigating regulatory landscapes can render traditional regulatory frameworks obsolete, necessitating a rethinking of regulatory philosophy from a prescriptive approach to one that is more principles-based and adaptive. Furthermore, the global reach of digital platforms adds another layer of complexity. [50] argue that the cross-border nature of digital services challenges national regulatory jurisdictions and enforcement capabilities. The global dimension necessitates international cooperation and harmonization of regulatory approaches, a process that is inherently slow and fraught with political and economic tensions.

3.2.2. Regulatory enforcement. The transnational nature of digital platforms indeed poses significant challenges for regulatory enforcement. The complexity emanates from the inherent characteristics of digital platforms, which often operate beyond traditional geographic and jurisdictional boundaries. The situation is further complicated by the reliance of most countries on the «source and residence-based rule» to ascertain the tax liabilities of businesses, which is not always straightforward in the digital economy.

The issue of data protection exemplifies the regulatory challenges posed by digital platforms. As [51] discuss, the global flow of data across borders on digital platforms challenges national data protection laws, which are typi-

cally designed within the context of national sovereignty. The European Union's General Data Protection Regulation (GDPR) attempts to address this by applying to entities outside the EU that process the data of EU residents, illustrating an extraterritorial approach to regulation [51]. However, this approach requires international cooperation and poses enforcement challenges.

«The transnational nature of digital platforms complicates regulatory enforcement on issues of data protection, intellectual property and taxation since most countries still apply old regulations to determine the tax liability of businesses» (No. 3).

The regulation of digital platforms on issues of data protection, intellectual property, and taxation is inherently challenging due to their transnational nature. The reliance on traditional «source and residence-based rules» for taxation and the territorial approach to regulation is increasingly inadequate. Digital platforms can generate significant economic activity in jurisdictions where they have little to no physical presence. This challenges the traditional «source and residence-based rule» used for tax purposes. As [52] notes, the Organisation for Economic Co-operation and Development (OECD) has been working on addressing the tax challenges arising from the digitalization of the economy, aiming to develop a consensus-based global solution. However, the implementation of new tax rules that reflect the digital economy's nature remains a work in progress, highlighting the need for international tax reform [52].

Moreover, digital platforms facilitate the global distribution of content, raising questions about jurisdiction and the applicable laws for copyright infringement cases. As [53] argues, the digital environment necessitates a reconsideration of intellectual property rights' territoriality principle, given the ease with which digital content crosses borders. The enforcement of copyright laws becomes complicated when infringing activities occur on platforms that operate globally, challenging national jurisdictions.

3.2.3. Skills shortage. The gap between technological innovation and regulatory capacity can lead to ineffective, outdated and counterproductive regulations. The complexity and technical specificity of digital technologies necessitate a deep understanding of how to regulate them effectively. [54] argue that the pace at which technologies such as artificial intelligence, blockchain, and the Internet of Things are evolving requires regulators to grasp the underlying technology but also anticipate its trajectory and potential societal impacts. Without a solid grounding in these technologies, legislators may struggle to develop regulations that adequately protect public interests without stifling innovation.

«The rapid advancement of digital technologies often outpaces the ability of legislators to understand and regulate them effectively especially when those in charge of creating regulations do not have a background in technology or law» (No. 7).

The lack of technological literacy among legislators can lead to a reliance on industry experts for guidance, which, while necessary, risks creating regulations that favor industry interests over public welfare. [55] observed that the technology sector's influence on policy-making can lead to regulatory frameworks that are more reflective of industry priorities than societal needs, underscoring the importance of technological expertise within regulatory bodies themselves.

The issue is further compounded by the dynamic nature of digital technologies, which often evolve more quickly than legislative processes allow. [56] highlights how the regulatory lag can result in a vacuum where new technologies operate without clear guidelines, potentially endangering consumer rights, privacy, and security. This calls for adaptive regulatory approaches that can evolve with technological advancements by ensuring timely and effective oversight. The challenge is not only understanding the technology itself but also its broader implications for society.

3.3. Discussion. Digital platforms such as Amazon, Etsy, and Shopify significantly lower barriers to entry for small businesses, democratizing access to global markets without the need for heavy initial investments in physical infrastructure. This evolution has engendered a shift in how businesses operate, stressing a transition from traditional brick-and-mortar establishments to online ecosystems that leverage data to drive consumer engagement and personalization. The agility of these platforms allows small enterprises to compete globally, fundamentally altering the dynamics of market competition and entrepreneurship.

The rise of platform business models through digital platforms introduces innovative ways of creating value, which are predominantly based on the use of data and connectivity to match supply with demand. Such platforms do not own the physical assets but create value by facilitating transactions between users. The transition challenges traditional business paradigms but also drives a surge in service efficiency and user experience customization. The network effect inherent in digital platforms further accelerates their growth and the diversification of services they can offer, thereby enhancing the economic landscape's dynamism and fostering a more competitive marketplace.

The impact of digital platforms extends beyond economic restructuring to societal shifts in the realm of employment. The gig economy, supported by platforms like Uber and TaskRabbit, reshapes labor markets by promoting flexible, freelance, and short-term work. This flexibility, however, comes with significant challenges, such as the erosion of traditional labor protections and the emergence of regulatory dilemmas. The classification of gig workers as independent contractors rather than employees denies them of essential benefits and exposes them to income instability. Consequently, this necessitates an urgent re-evaluation of regulatory frameworks to ensure they can effectively respond to the rapidly evolving digital landscape while safeguarding worker rights and fostering fair competition.

The need for an agile and internationally coordinated regulatory approach is evident. Such an approach should aim to address the current challenges but also anticipate future developments by ensuring that regulations evolve in tandem with technological advancements without stifling innovation. Furthermore, fostering technological literacy among lawmakers, adopting adaptive regulatory frameworks, and ensuring the inclusion of diverse perspectives are crucial steps towards achieving effective governance of digital technologies. While digital platforms have catalyzed significant economic and social transformations, ensuring that these transformations benefit society requires a collaborative effort among stakeholders, including governments, the tech industry, labor organizations, and the international community. Developing comprehensive, forward-looking regulatory frameworks that balance innovation with the

public good, protect consumer rights and ensure fair labor practices is imperative for harnessing the full potential of digital platforms while mitigating their negative impacts.

Future studies could explore the long-term effects of digital marketplaces on small business sustainability and local economies, particularly in emerging markets. Additionally, investigating the impact of artificial intelligence and machine learning on consumer behaviour and privacy within digital platforms could yield important insights. Moreover, further studies could examine the effectiveness of various global regulatory approaches in managing the monopolistic tendencies of major platforms. Time constraints and the scheduling of appointments with participants emerged as a significant limiting factor in the study. However, the researcher offered flexibility and provided multiple date and time options, which increased the likelihood of finding a mutually convenient slot.

4. Conclusions

The study explored the impact of digital platforms on traditional market structures. Digital platforms have disrupted traditional market dynamics, ushering in new efficiencies, transforming consumer engagement, and fostering unique levels of flexibility and autonomy in the workforce. However, the rise of the gig economy has also introduced intricacies on labor rights, such as uncertain working conditions and the erosion of traditional employment protections. It highlights the regulatory challenges posed by the transnational nature and rapid evolution of digital platforms. The existing regulatory frameworks, for instance, «source and residence-based rule» for taxation and traditional approaches to data protection and intellectual property, often fall short of addressing the challenges introduced by digital platforms. The pace of technological innovation frequently surpasses the ability of legislators, particularly those without a background in technology or law, to understand and effectively regulate these platforms. The regulatory lag poses risks to consumer protection, market fairness, and the protection of labor rights.

Conflict of interest

The author declares that he has no conflict of interest in relation to this study, including financial, personal, authorship, or any other, that could affect the study and its results presented in this article.

Financing

The study was conducted without financial support.

Data availability

The manuscript has no associated data.

Use of artificial intelligence

The author confirms that he did not use artificial intelligence technologies when creating the presented work.

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