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Competition in Sharing Economy: A Literature Review

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Abstract: The objective of this paper is to review the extant literature on competition within the sharing economy. In recent years, the rapid expansion of the sharing economy has produced both positive and negative effects, particularly on traditional industries. This study examines the advantages and disadvantages brought about by the sharing economy and the competitive pressures it imposes on traditional firms. Faced with these challenges, traditional companies must adopt strategies to enhance their competitive capabilities. Drawing on a broad range of literature, this paper also discusses comprehensive responses that may assist traditional industries in adapting to the rise of the sharing economy. Additionally, the study underscores the pivotal role of government regulation in moderating competition in the sharing economy. It explores the potential consequences of inadequate regulatory oversight and proposes actionable measures that governments can implement to address these competitive dynamics. The paper concludes by offering implications for future research and practical insights for both policy and industry stakeholders.

Keywords: sharing economy, competition, sharing platforms, traditional industries, government intervention.

1. Introduction

In recent years, the sharing economy has garnered significant attention from a wide array of stakeholders, including scholars, industry experts, government officials, and the general public. It has emerged as a powerful engine of growth for new business models and companies such as Uber, Airbnb, and DiDi, which, in turn, have generated increased employment opportunities across various sectors. Furthermore, the sharing economy has been recognized for its potential to foster sustainable development. For example, ride-sharing services like Uber and Lyft reduce urban traffic congestion and individual carbon emissions by promoting shared transportation. Similarly, platforms such as Airbnb optimize the use of existing housing resources, thereby decreasing the need for new construction. Co-working spaces like WeWork enhance space efficiency, while bike-sharing services such as Lime facilitate low-carbon mobility solutions.

Despite these benefits, the negative impact of the sharing economy on traditional business models has been relatively underexplored. Kathan, Matzler, and Veider highlight that traditional industries are increasingly vulnerable to the disruptions caused by sharing platforms.[1] For instance, Airbnb has exerted significant pressure on the hotel industry by offering affordable and diverse accommodation options, compelling traditional hotels to revise their pricing strategies and service offerings. Similarly, WeWork's flexible co-working spaces have disrupted conventional office leasing practices, leading to higher vacancy rates and forcing property owners to adopt more flexible leasing terms. This paper seeks to provide a comprehensive analysis of the dual impact of the sharing economy, while also proposing effective responses for both corporate entities and government bodies.

The first section of the paper examines the dual impact of the sharing economy. Kathan, Matzler, and Veider suggest that the sharing economy can contribute to sustainability if ecological consumption is prioritized by consumers. In this sense, the sharing economy serves as a key driver of sustainable development by improving resource efficiency, reducing waste, and cutting carbon emissions across multiple sectors. Zhang, Chen, and Raghunathan further support this view, indicating that cooperation between platforms and traditional firms can yield positive societal outcomes.[2] However, the misalignment between traditional consumption regulations and sharing models, as noted by Kathan, Matzler, and Veider can result in regulatory inconsistencies and accountability issues. This disconnect weakens traditional firms' competitiveness, diminishes market share, stifles innovation, and ultimately hampers their long-term growth and ability to adapt to evolving market conditions. Moreover, the intensified competition posed by sharing economy platforms has been widely recognized by scholars such as Demary [3], and Roma, Panniello, and Nigro [4], who have shown that competitive pricing strategies employed by sharing platforms present formidable challenges to incumbent firms.

In the second section, several potentially effective strategies for traditional companies are identified based on insights from leading experts and scholars. First, traditional firms should integrate dynamic pricing and wage models to better align supply and demand, as suggested by Bai, So, and Tang [5]. Second, self-regulation is an essential mechanism for managing competition within the sharing economy, as argued by Malhotra and Van Alstyne.[6] Third, collaboration between sharing platforms and traditional firms can mitigate the disruptive effects of the sharing economy, as demonstrated by Zhang, Chen, and Raghunathan. Finally, Aniji emphasizes the importance of information technology as a critical tool for traditional companies to counter the threats posed by sharing platforms.[7]

The third section, as explored by Yu, Tang, Shen and colleagues,[8] delves into the role of government in regulating competition within the sharing economy. The authors focus on the potential outcomes of market dynamics with or without governmental intervention, providing an in-depth analysis of how such regulations can influence the sharing economy landscape.

2. The Effects of the Sharing Economy on Traditional Companies

Demary delves into the impact of the sharing economy on traditional industries in this section. At its core, the sharing economy revolves around the collective use of goods, services, or knowledge. While this emerging economic model offers significant convenience to consumers, it also introduces intense competition for traditional businesses across various sectors. In many cases, this competition places traditional enterprises in a precarious position, threatening their development.

2.1. Positive Effects of the Sharing Economy on Traditional Companies

Sharing economy platforms generally streamline interactions by directly connecting service providers with consumers, thereby minimizing intermediary processes. For instance, ride-hailing platforms enable drivers to connect directly with passengers, effectively eliminating the need for vehicle ownership, maintenance, and management costs typical of the traditional taxi industry. Furthermore, these platforms offer more flexible, personalized services that cater to individual user preferences, enhancing customer satisfaction and stimulating consumer demand.

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There are two key advantages that the sharing economy offers to traditional businesses. First, the integration of sharing economy principles into traditional enterprises promotes ecological consumption, which is increasingly important to consumers. As Kathan, Matzler, and Veider argue, the sharing economy enables businesses to lower overall resource use, extend product lifecycles, and maximize utilization. By embracing these principles, traditional companies can reduce waste, curb overproduction, and contribute to the reduction of carbon emissions, thereby mitigating their environmental impact. Soltysova and Modrak illustrate this point using the example of SMEs (small and medium-sized enterprises), which have increasingly integrated sharing practices to enhance sustainability.[9] Numerous other cases demonstrate similar shifts: logistics giants like FedEx and UPS have collaborated with crowdsourced logistics platforms to share fleets, optimizing routes and reducing fuel consumption and emissions. Similarly, automotive companies such as BMW and Daimler have launched car-sharing services like ReachNow and Car2Go, advancing the adoption of electric vehicles while simultaneously participating in the sharing economy and lessening their environmental footprint.

Secondly, collaboration between platforms and traditional rental firms offers additional advantages. Zhang, Chen, and Raghunathan developed an aggregated model that abstracts the operational intricacies of the carpooling ecosystem, analyzing the interplay between platforms and rental companies as they compete for passengers. Their findings suggest that while cooperation may lead to reduced income for individual drivers, it ultimately improves societal welfare by addressing supply-side challenges related to drivers' self-scheduling. Moreover, this partnership between platforms and rental companies represents an opportunity to expand the rental market and increase demand for vehicles.

2.2. The Negative Effects of the Sharing Economy on Traditional Companies

While the sharing economy offers several benefits, it also poses significant challenges, many of which remain unresolved. This paper will examine the negative impacts of the sharing economy on traditional industries and explore potential countermeasures.

Kathan, Matzler, and Veider not only highlight the positive aspects of the sharing economy but also emphasize its adverse effects on traditional industries. A key issue is the misalignment between traditional consumption regulations and the emerging sharing economy models. This misalignment creates a competitive disadvantage for traditional companies. Sundararajan similarly points out that the new peer-to-peer business models often conflict with pre-existing regulatory frameworks.[10] For example, an entrepreneur who occasionally provides short-term accommodations through platforms like Airbnb is not classified as a traditional "hotelier," nor are individuals who offer ridesharing services through platforms like Lyft or Sidecar considered traditional "taxi drivers." This misalignment stems from the fact that regulations have not evolved at the same pace as technological advancements, leading to inconsistencies and accountability issues. Furthermore, as Kathan, Matzler, and Veider note, consumers increasingly favor transient modes of consumption that offer flexibility and adaptability in their daily lives. For instance, many drivers are drawn to platforms like Didi due to the flexibility, competitive compensation, and the consistent earnings per hour, which accommodates part-time and variable working hours.

The sharing economy's ability to attract a large consumer base through low prices and flexible supply-demand matching has resulted in a loss of market share for traditional companies. This shift forces traditional firms to adjust their pricing and service strategies, often leading to reduced profitability and higher operational costs. Demary discusses how the sharing economy intensifies competition between traditional and sharing-based companies. He identifies two primary reasons for this heightened competition. First, sharing platforms typically have lower barriers to entry, allowing a greater number of individuals and small businesses to participate in the market. This influx of new

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participants increases the supply side, thereby intensifying competition among both new and established players. Additionally, these low entry barriers contribute to fierce price competition, with sharing platforms offering significantly lower prices than traditional industries, according from Roma, Panniello, and Nigro. As Malhotra and Van Alstyne argue, sharing economy platforms benefit from the widespread availability of idle resources at minimal cost, a competitive advantage that traditional businesses, constrained by geographically limited resources, cannot easily replicate. Consequently, traditional companies find it difficult to lower their prices to compete with those in the sharing economy.

Moreover, sharing economy companies often operate outside the regulatory frameworks that govern traditional industries. Scholars such as Barry and Caron [11], Leaphart [12], and Stemler [13] have observed that sharing economy businesses frequently avoid compliance with existing regulations and tax obligations. This regulatory evasion prevents traditional market controls from effectively curbing the competitive advantage of sharing enterprises.

3. The Strategy of Companies

In this section, we will explore potential strategies and methodologies that could empower both traditional enterprises and sharing economy companies to achieve a competitive advantage in today's market landscape. Our analysis is organized around four key dimensions, each of which elucidates the rationale behind the summarized strategies.

3.1. Pricing

Pricing strategy is a critical component of any company's competitive approach, and this holds true in the context of the sharing economy. Bai, So, Tang and colleagues have emphasized the significance of establishing a reasonable pricing strategy, linking it to the effective alignment of supply and demand. They argue that appropriate pricing facilitates better matching between the "supply" from service providers and the "demand" from consumers, both of which are endogenously influenced by the wages and prices set by the firm.

Experts such as Daniels, and Lobel further advocate for the integration of dynamic pricing and dynamic wages. Dynamic pricing, which involves a variable commission that adjusts payment to service providers, has been extensively studied, including in idealized models by Cachon and colleagues.[14] Their research demonstrates that optimal contracts incorporating dynamic pricing can significantly enhance platform profits compared to those using fixed pricing or wages. Although static pricing may not yield maximum profitability, it often achieves near-optimal results. However, it is important to note that while dynamic pricing benefits platforms, it has been criticized for raising concerns about the welfare of service providers and consumers.

3.2. Self-Regulation

The importance of enhancing self-regulation is widely recognized, as noted by scholars such as Kathan, Matzler, and Veider. Malhotra and Van Alstyne have outlined measures to mitigate the negative aspects of the sharing economy, including the provision of free job training and the enhancement of self-regulatory mechanisms. Two key benefits of improving self-regulation are the advancement of scalable enforcement and the ability of governments to regulate marketing activities more effectively. It is crucial to acknowledge that government intervention plays a critical role in the competitive dynamics of the sharing economy, a topic we will further explore in Section 4.

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3.3. Cooperation

As previously discussed, collaboration between platforms and traditional companies can be beneficial for overall societal welfare. Such cooperation could serve as a strategy to mitigate the disruption caused by the sharing economy. Nie provides a pertinent example from the taxi industry, demonstrating that e-hailing applications can enhance the capacity utilization of traditional taxis, thereby fostering a symbiotic relationship between platforms and traditional businesses.[15]

3.4. Technology

The utilization of technological tools and innovations is paramount for traditional enterprises to effectively compete in the context of the sharing economy. Technology creates new value propositions that cater to evolving consumer needs. It allows traditional businesses to engage with customers in more personalized and responsive ways, leveraging data analytics to understand and predict consumer behavior, thus retaining customer loyalty amidst competition from sharing economy alternatives.

Aniji emphasizes the crucial role of information technology in mitigating the threats posed by the sharing economy. In his study, Aniji highlights the similarities between traditional and sharing economies, noting that both can utilize the product-service model to meet consumer needs. He advocates for the promotion of Intelligent Product Service Systems (IPSS) as a key strategy for traditional companies to harness the benefits of the sharing economy, thereby diminishing its potential threats.

4. The Role of Government in the Sharing Economy

4.1. Government's Role in Competition

The government plays a pivotal role in shaping the competitive dynamics within the sharing economy. This section delineates the government's role in regulating market operations and competition, examining scenarios both with and without government intervention. Additionally, we will summarize the measures that governments should adopt to ensure orderly market competition within the sharing economy framework.

The theoretical foundation for this discussion is primarily based on the work of Yu, Tang, Max Shen and colleagues, who analyzed the impact of regulatory policies inspired by actions taken by the Chinese government in 2017 and the New York City Council in 2018. These policies, which set a "maximum" limit on the number of registered ride-hailing drivers, were found to have significant effects on the welfare of various stakeholders, including consumers, taxi drivers, ride-hailing companies, and independent drivers. The study concluded that, in the absence of government intervention, ride-hailing services could drive traditional taxi industries out of business. However, well-designed regulatory policies could better balance competing objectives. Moreover, the study suggests that reforming the traditional taxi industry, such as by adjusting fare rates, could enhance social welfare without resorting to stringent regulations on ride-hailing services. Thus, it is evident that government regulation is essential to prevent sharing economy companies from completely displacing traditional industries.

Numerous scholars have analyzed the government's role in the competition between sharing economy companies and traditional businesses. Cohen and Sundararajan underscore the transformative impact of the sharing economy on traditional markets, emphasizing the need for regulatory approaches that balance innovation with the preservation of established business models. [16] In their earlier work, they highlights the challenges posed by traditional regulatory frameworks in keeping pace with the rapid advancements in the sharing economy, advocating for adaptive

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mechanisms to ensure fair competition and consumer protection.[17] Botsman expands on this by providing a comparative analysis of governmental responses, illustrating that the effectiveness of regulation varies according to local market conditions and the specific challenges faced by traditional industries.[18] This perspective underscores the necessity for context-sensitive regulatory strategies. Khan and Foster further connect these discussions by examining how government policies can facilitate the transformation of traditional industries in response to the sharing economy, enabling a more harmonious coexistence between these sectors.[19]

4.2. Governmental Measures

Given its crucial role in ensuring market competition, the government must implement measures to foster a fair and orderly market environment within the sharing economy. These measures should not only promote innovation and economic growth but also safeguard the interests of traditional enterprises and consumers. In this section, we compile a range of strategies identified by experts and scholars that governments can adopt to achieve these objectives.

Ensuring fair taxation and eliminating opportunities for tax arbitrage are critical measures identified by Yu, Tang, Shen, and colleagues. For example, traditional taxi companies are often subject to various taxes that ride-sharing drivers on platforms like Uber or Lyft may avoid, creating a competitive imbalance. To address this, governments could require platforms to report earnings to tax authorities and consider implementing a withholding tax system, where taxes are automatically deducted from payments to service providers. These measures would level the playing field, ensuring that all market participants contribute fairly to the economy.

Furthermore, governments must enhance the quality of review systems and ensure public access to accurate information, as noted by Aniji. As Schor notes, the rapid expansion of peer-to-peer platforms has often outpaced the development of corresponding consumer protection laws, leading to potential information asymmetry where consumers may lack critical details about the services or products they purchase.[20] To mitigate these risks, governments should mandate that platforms provide clear and comprehensive information about service providers, including credentials, user ratings, and terms of service. Additionally, platforms should be obligated to disclose any potential conflicts of interest or biases in their algorithms that might influence search results or pricing. Implementing such regulations would not only enhance consumer trust but also align with the principles of fairness and transparency, as emphasized by Botsman, fostering a more equitable and informed marketplace within the sharing economy.

5. Conclusion

In conclusion, this paper has provided a comprehensive review of the multifaceted dynamics of competition within the sharing economy, offering insights into its implications for traditional industries, consumers, and regulatory frameworks. The findings underscore the dual nature of the sharing economy, which, while driving innovation and efficiency, simultaneously challenges the sustainability of established business models. Traditional firms are compelled to adapt through strategic innovations such as dynamic pricing, self-regulation, and technological integration. However, these measures alone may not suffice without robust government intervention to ensure fair competition and protect public interests. The critical role of government in moderating market dynamics has been emphasized, particularly in the context of ensuring tax fairness, transparency, and consumer protection. As the sharing economy continues to evolve, future research should focus on the long-term impacts of these competitive shifts, the effectiveness of regulatory strategies, and the potential for collaboration between traditional and sharing economy enterprises to foster a more balanced and equitable marketplace. This study contributes to the ongoing discourse by offering

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practical recommendations for policymakers and industry stakeholders, ultimately advocating for a harmonized approach that promotes both innovation and economic stability.

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