



Paradoxes of the Sharing Economy: A Pandemic Perspective

Dinara Davlembayeva and Savvas Papagiannidis¹

Newcastle University Business School, UK

Abstract. The sharing economy was expected to bring sustainable transformations towards social welfare, economic growth and environmental preservation. Yet it has not always lived up to these expectations. After the COVID-19 pandemic, societal benefits may become more elusive, considering the social and economic disruption that the pandemic has caused. The pandemic has made rethinking the sustainable pathways of platform-based entrepreneurship even more pressing. This conceptual paper starts by discussing the social, economic and environmental paradoxes of the sharing economy before the pandemic. The paper explores the roots of contradictory insights by analysing the role of normative, economic and digital regulatory mechanisms governing relations within platforms. In turn the paper analyses the effect of COVID-19 on platform regulatory mechanisms and their potential impact on the social, economic and environmental dimensions of sustainability. The paper contributes to our understanding of the mechanisms underpinning sharing economy practices and can help probe the future of the sharing economy.

JEL: L26, O33, O35.

Keywords: sharing economy, entrepreneurship, sustainability, paradoxes, COVID-19, pandemic.

1. Introduction

In many markets, sharing platforms, such as Uber, Airbnb and Couchsurfing, have replaced traditional firms. These platforms are digitally-mediated communities and marketplaces that combine and exploit market and organisational mechanisms in such a way as to coordinate the participation of providers and consumers in the redistribution of underutilised resources (Constantiou et al. 2017; Frenken and Schor 2017). They have given rise to a new form of economic relations, called the sharing economy, which is more dependent on social structures (Martin 2016). Increasing people's engagement in the new form of economic relations raises the interest of entrepreneurs and venture investors (Sundararajan 2016; Wallenstein and Shelat 2017). The emergent system has gained rapid popularity because it is more attuned to users' needs than traditional economic exchange.

In contrast to traditional market transactions, the sharing economy enables people to use goods and services without possessing them. The consumption is

1. savvas.papagiannidis@ncl.ac.uk, +44 (0) 191 2081598, Newcastle University Business School, 5 Barrack Road, Newcastle Upon Tyne, UK, NE1 4SE.

mediated by Internet platforms, empowering consumers to co-produce promised offerings (Belk 2014b). Early researchers claimed that the redistribution of resources for temporary use through online platforms could be instrumental in delivering benefits which go beyond an economic nature (Munoz and Cohen 2017). Users receive access to resources that otherwise would not be affordable, reuse underutilised goods, embark on new social relations, and enjoy increased efficiency and reduced costs, among other benefits (Botsman and Rogers 2011; Frenken and Schor 2017). Scholars argued that the sharing economy was a form of social entrepreneurship and an equitable system of sharing the wealth among vulnerable social classes (Acquier and Carbone 2018). However, the emergent socio-economic system has not always lived up to the expectations.

The COVID-19 pandemic and the social and economic stagnation it has produced also resulted in questioning the role of the sharing economy in terms of societal wellbeing and economic sustainability. The pandemic has transformed consumers' expectations and strengthened concerns about the safety standards of goods and services provided in the sharing economy (Deloitte 2020). Consumer preferences for traditional market providers have resulted in economic losses and unclear prospects for platform employees and micro-entrepreneurs. The pandemic and its potential prolonged effect on individuals' interaction, lifestyle and consumption mean that it is necessary to revisit the implications for the sharing economy and the impact on practices in a new light. In doing so, such an analysis can help pave the way for the future development of the sharing economy.

Before the pandemic, the literature had produced divergent arguments on the impacts of the sharing economy on social, economic and environmental sustainability (Botsman and Rogers 2011; Liu and Chen 2020; Gössling and Hall 2019; Frenken and Schor 2017; Davlembayeva et al. 2019). Some researchers envisioned the new economic system as a grassroots movement towards a fair society, operated through democratic and transparent mechanisms (Botsman and Rogers 2011; Hamari et al. 2016). It was considered to be a system reducing social inequalities, bringing social norms and acts (e.g. solidarity, social bonding, altruism) into the forefront of relations to counterbalance the effect of profit-driven capitalistic institutions (Bucher et al. 2016). At the same time, past research considered many challenges that hinder the pro-social and ecological benefits from materialising (e.g. the violation of the rights of platform users, strong commercial orientation, overconsumption concerns) (Gössling and Hall 2019; Baber 2019; Chen et al. 2020). Prior research shed light on the multifaceted nature of the sharing economy by analysing its conceptual boundaries and practices (Acquier et al. 2017). However, the societal impacts were left unexplored. Other scholars problematised certain contradictory effects of the sharing economy, yet without delving into the roots of the contradictions (Murillo et al. 2017). To complicate things further, the pandemic and social distancing have resulted in restrictions to social interactions. They challenge the

fundamental underlying principles of the sharing economy (i.e. non-ownership and crowd-based consumption), which were designed to address societal benefits. Considering the transformational impact of the pandemic on sharing economy practices, the analysis of paradoxes and their roots can inform future research directions. By highlighting the contradictory arguments, it can help provide actionable insights into the fundamental elements of the socio-economic system, enabling both negative and positive impacts. It will also help develop an understanding as to how these elements may have changed during the pandemic.

Given the above, it is important first to analyse the paradoxes of the sharing economy before the pandemic. Such an analysis can offer a starting position to understand how the emergent socio-economic system may develop in a post-COVID-19 world. More specifically, this paper pursues two objectives. The first objective is to grasp a comprehensive insight into the research in the domain of the societal implications of the sharing economy. To address this objective the paper analyses and structures the findings on paradoxical implications in social, economic, and environmental domains. The study constructs a conceptual framework explaining the dependence of societal implications on informal regulatory mechanisms embedded in sharing economy relations (i.e. social norms, economic rationale and digital intermediation). The paper also discusses the role of formal governmental regulations impeding or facilitating those implications. Secondly, the paper analyses how mechanisms governing sharing economy practices are likely to be transformed by COVID-19 and what societal implications those transformations may entail.

By addressing the above objectives, the paper makes four contributions. First, the paper provides a critical analysis of the societal impact of the sharing economy, which has been debated to date. The conceptual framework enriches the understanding of the conditions underpinning sharing economy consequences. Second, the paper contributes to the literature by considering the potential implications of the pandemic on sustainability and probing the future of the sharing economy. The third contribution is that the evaluation of formal and informal regulatory mechanisms embedded in new socio-economic relations can facilitate the understanding of the drivers of entrepreneurship. Fourth, the analysis of the roots of the paradoxes and the role of digital intermediation can have practical implications for the technological development of sharing economy platforms.

2. The Sharing Economy and its Paradoxes

The sharing economy is “*a socio-economic system enabling an intermediated set of exchanges of goods and services between individuals and organisations which aim to increase efficiency and optimisation of under-utilized resources in society*” (Munoz and Cohen 2017, p. 21). The system is governed by embedded

mechanisms regulating exchange. Regulatory mechanisms reflect the social, economic and digital underpinnings of relations. From the sociological point of view, the sustainability of relations is dependent on the degree to which people follow social norms and rules, such as altruistic motives, collective identification and other social factors (Bucher et al. 2016). From an economic point of view, the exchange is underpinned by the rationale of saving money or getting compensation for the resources people redistribute and reuse (Belk 2014b). For-profit transactions introduce the market logic of exchange, conducive to the development of competitive strategies and stronger customer orientation (Acquier et al. 2017). From the technological point of view, relations are regulated by dynamic pricing systems and algorithms matching parties on both sides of the platform and evaluating the costs of and rewards for transactions (Heylighen 2017). The trustworthiness of relations is captured by feedback rating systems serving as trust-building mechanisms. Human supervision is replaced by dynamic tracking and control, while hierarchical human interaction is substituted by decentralised digitalised decision making (Rosenblat and Stark 2016; Heylighen 2017).

The socio-economic properties of digitally-enabled exchanges bring societal value across the individual, institutional and environmental levels. At the individual level, collective consumption can result in the generation of new economic and social networking opportunities. These can be the output of rental-based revenues, reduced transaction costs and the feelings of solidarity and altruism developed through peer-to-peer interactions (Munoz and Cohen 2017; Davlembayeva et al. 2020; Ferrari et al. 2020). On an institutional level, the sharing economy affects the performance of incumbent firms, industries and legislative frameworks due to the digitally-enabled distribution of economic resources among people (Gurran et al. 2020; Fiorentino 2019; Williams and Horodnic 2017). Finally, on an environmental level, access-based temporary use of collective resources decreases the production of new goods, reduces the generation of waste and preserves natural resources (Griffiths et al. 2019; Gössling and Hall 2019; Tussyadiah and Pesonen 2015). Such impacts can create sustainable outcomes across different spheres of life (Botsman and Rogers 2011; Liu and Chen 2020; Gössling and Hall 2019; Frenken and Schor 2017). Still, arguments exist that the sharing economy cannot fully accommodate users' needs and address ethical standards (Simonovits et al. 2018; Pankov et al. 2019; Edelman et al. 2017; Törnberg and Chiappini 2020; Hui et al. 2018; Murillo et al. 2017).

The image of the utopian society created by the sharing economy is clouded by contradictory insights into the impacts that it has on the transition towards a sustainable society, economy and environment. From the perspective of social sustainability, collaborative consumption creates unintended consequences on social inclusion, entrepreneurial empowerment and collectivism (Mazzella et al. 2016; Sundararajan 2016; Ferrari et al. 2020; Simonovits et al. 2018; Belk and

Llamas 2012; Fleming et al. 2019). In terms of the economic domain of sustainability, sharing economy enterprises have a debatable impact on the establishment of an egalitarian economic system and diversified market structures (Langley and Leyshon 2017; Fleming et al. 2019; Lang et al. 2020; Gurran et al. 2020). Environmental sustainability has been questioned due to the overconsumption paradox resulting from the increased affordability of goods (Lee et al. 2014; Frenken and Schor 2019). The contradictory insights are rooted in the polarity of values and motives promoted by the informal social and economic mechanisms governing relations. The normative regulation supports the maximisation of benefits for the community (Schneider 2017). The economic rationale, in turn, upholds personal self-maximisation. Ideally, positive implications are endorsed by the effective alignment of self-benefit and the common good (Belk 2014a). In practice, the balance of social norms and economic rationale is difficult to achieve across multiple platforms. Platforms vary in the ways they utilise algorithmic management, which can unbalance the socio-economic underpinnings of relations. Negative implications of informal regulation are facilitated by the current legislative framework, which is not fully aligned to monitoring and controlling the relations of actors and the market impact of platforms (Murillo et al. 2017; Cannon and Summers 2014). Given the above, the following sections will discuss the paradoxical impacts on the social, economic and environmental aspects of sustainability through an analysis of the informal and formal regulatory mechanisms underpinning them. The analysis of the social norms, economic rationale and digital intermediation governing relations between platform actors makes it possible to explain the causes of the paradoxes.

2.1. Social Paradoxes

Social Inclusion vs Social Exclusion: There are contradictory statements about the degree to which participation in the sharing economy gives access to society from an economic, social and cultural perspective (Hui et al. 2018; Ferrari et al. 2020; Zhang et al. 2019). The three perspectives reflect the temporary state of being voluntarily or involuntarily isolated from economic resources (e.g. job, money), social networks (e.g. family, friends) and cultural equality (e.g. integration into cultures, communities) (Huxley et al. 2012; Atkinson 1998).

From an economic perspective, inclusion has become possible through necessity-driven entrepreneurship. It happens when people in resource-constrained conditions and with limited employment opportunities adopt sharing economy business models to start their own micro-business (Hui et al. 2018; Ferrari et al. 2020). Refugees Welcome is an example of a community-based micro-business. It was found to help vulnerable members of society address housing needs by matching hosts and migrants (Ferrari et al. 2020). Such

grassroots social platforms facilitate access to basic resources, while adhering to the principles of solidarity (Ferrari et al. 2020). They are based on the complementarity of the social norm and economic rationale. Social norms are represented by altruism and moral obligations, acting as mechanisms balancing the economic rationale of exchange. The norm of altruism both encourages an individual's voluntary contribution to the social group's utility and morally obligates them to reciprocate (Uehara 1995; Sugden 1984). Social mechanisms reduce opportunistic behaviour and facilitate the provision of economic rewards to deprived members of the community. However, the strong reliance on algorithmic management of platforms could potentially diminish the effectiveness of social regulatory mechanisms.

Digital intermediation can affect the generation of social norms in three ways. First, the virtual intermediation of exchange reduces social interaction. By replacing face-to-face interaction with automatic systems processing orders, managing prices and customer relations (Wentrup et al. 2019; Rosenblat and Stark 2016), actors develop wide social networks with high connectivity (number of actors in the network) but a low density of relations. Although high connectivity can help address market demand, it inhibits the development of relational social capital (i.e. norms, obligations, motivations) and relational stability (Nahapiet and Ghoshal 2000). Second, digital intermediation can facilitate the generation of asymmetric ties, whereby the outcome of exchange for different parties is disproportionate. Revenue distribution among platform and providers and labour conditions can be more favourable to platforms (Sinclair 2016). In off-peak periods, contracted employees are paid less than employees in traditional market sectors, making the economic security of participants an illusory outcome (Ahsan 2018; Friedman 2014). Third, the lack of relational social capital increases the role of negotiated reciprocity, which is the basis of pure market-based transactions (Sahlins 1974; Belk 2010). In line with negotiated reciprocity, access to economic resources is provided to people who are able to pay, thus downplaying the role of voluntary self-sacrificing contributions (Belk 2010). As a result, digital management can boost the growth of asymmetric ties, network connectivity and the role of negotiated reciprocity, which makes exchange relations unsustainable.

From the cultural diversity perspective, inclusion is rooted in the degree to which providers and consumers perceive collaborative consumption to be a social initiative or a source of economic gain. Cultural diversity is possible when there is interdependence between digital governance and the salience of social norm driving relations. For example, some hospitality platforms encourage the integration of foreigners in local communities. They help change stereotypical perceptions and the discriminatory attitudes of locals towards migrants seeking accommodation through sharing apps (Ferrari et al. 2020). However, when collaborative consumption is driven by the attainment of economic gains, such relations can contribute to social exclusion. Digital intermediation is exploited for

marketing purposes, facilitating cultural insecurity and ethnic intolerance (Simonovits et al. 2018; Pankov et al. 2019; Edelman et al. 2017; Törnberg and Chiappini 2020). For example, empirical insights into accommodation sharing through Airbnb have shown that discriminatory tactics were embedded in marketing campaigns to advertise apartments in ethnic-minority neighbourhoods. Hosts promoted an exotic experience by bringing up the colonial roots of a local community. Instead of blending two cultures, tourists are shown the inferiority of locals (Törnberg and Chiappini 2020). Also, the exposure of the personal identity of providers on digital platforms causes negative consequences associated with intolerance towards ethnic minorities. Such unfavourable implications are evidenced by the disproportionate demand for rides and apartments offered by providers of different ethnic backgrounds (Simonovits et al. 2018; Pankov et al. 2019; Edelman et al. 2017).

The inclusion of people in social networks is facilitated by bridging social ties that are produced in interactions between platform actors. Bridging ties help develop heterogeneous networks through access to diverse social groups and classes (Zhang et al. 2019; Ferrari 2017). They benefit micro-entrepreneurs as they foster the development of a wider scope of potential users and demand. However, the degree to which random interactions bring meaningful connection for future transactions is questionable for two reasons. First, when digital intermediation is used for criteria-based matchmaking between providers and consumers, social connections becomes weak. The interactions cannot be typically sustained beyond the first transaction. Second, digital intermediation creates socially exclusive conditions for the manifestation of favouritism towards certain groups of participants. Due to the transparency of platform transactions, users can evaluate parties not only using objective benchmarks, but also individual and social characteristics (Ferrari 2017). For example, scholars have provided evidence of the defeminisation of time-banking employment (del Moral-Espín and Pais 2018) and underrepresented elderly people among accommodation hosts (Pankov et al. 2019). Hence, for some social groups access to communities is more challenging.

The balance of power: Researchers have argued that the sharing economy is the manifestation of a democratic movement directed at the empowerment of people involved in its transactions (Mazzella and Sundararajan 2016). The digital governance of relations produces flexible working conditions and low entry barriers to business compared to traditional forms of entrepreneurship (Hui et al. 2018). However, the degree of entrepreneurial flexibility and empowerment depends on platform properties. Platforms differ by the level of organisational support involved in the platform structure (Sundararajan 2016). When sharing economy enterprises involve little organisational hierarchy, they resemble micro-entrepreneurship initiatives, giving providers more flexibility in transactions (Sundararajan 2016; Hui et al. 2018). Micro-entrepreneurs are not restricted by

the control embedded into platform governance. This enables them to develop a preferable way to manage customer relationships and work. Typically, such entrepreneurs use community-based approaches for coordinating transactions, based on trust and commitment to a community (Hui et al. 2018). Therefore, entrepreneurial initiatives managed by digital systems and regulated by social normative mechanisms can be considered to be a “social elevator”, enabling the transition from the status of “unemployed” to “micro-entrepreneur”.

When sharing economy providers become members of big platforms with an established organisational hierarchy, they may lose entrepreneurial freedom and empowerment (Sundararajan 2016). Big platforms act as employers, leveraging digital intermediation for their own benefit rather than hired contractors. They are driven by an economic rationale, which is often seen as big platforms exploiting their providers (Ciulli and Kolk 2019). First, due to the decentralised system of relations, the negotiation of payment, working conditions and complaints during shifts becomes challenging (Carmody and Fortuin 2019). Although the drivers have the right to start their duties at a time of their choosing, once they start their shifts, they get rigorously evaluated by algorithmic-based systems (Rosenblat and Stark 2016; Etter et al. 2019). Second, digital intermediation makes it difficult to define the status of platform providers. They are considered to be freelancers/independent contractors, who are neither employees nor free entrepreneurs (Wentrup et al. 2019). Big platforms use the gaps in the current regulatory framework to establish labour conditions, implying little platform accountability for their employers. For example, drivers often take the liability for traffic incidents, while digital workers are not provided with any social security package, health insurance or pension (Murillo et al. 2017; Perritt Jr 2019; Ravenelle 2019). Third, due to the focus on economic gains, platforms prioritise customers’ experience and service orientation at the expense of providers’ rights (Murillo et al. 2017). Digital mediation makes the control and surveillance over workers stricter through embedded rating systems working as trust mechanisms. On one hand, high dependency on client ratings means that service quality is judged primarily and subjectively by a client. In order to earn good feedback and a good reputation among clients, the providers can be exposed to higher stress and the risk of overworking. The fear of financial risks and physical workload undermine the wellbeing of providers (Chen et al. 2020). Such procedures of maintaining client-provider relationships can be perceived as unfair by platform employees, reducing trust in the platforms and commitment to long-term cooperation (Wentrup et al. 2019; Chen et al. 2020). On the other hand, digital rating systems serve as a measure to ensure transparency, clients’ safety and service quality. Hence, trust-mechanisms can make workers the most vulnerable chain in client-provider-platform relations (Chen et al. 2020).

The literature argues that platform providers have the right to choose and regulate the level of autonomy they wish to have. They can work as free agents (not reporting to any platform) or casual earners (not regular contractors of

platforms). Necessity-driven providers of platforms are financially strapped and unable to secure a traditional job (Ahsan 2018). For them, the freedom to choose whether to be a part of a big platform is an illusion. As dominant platforms have a higher capacity to accommodate demands and a bigger customer database (i.e. market potential), economic reasons effectively limit workers' choices (Gössling and Hall 2019). Therefore, providers' work choices partly depend on their economic conditions and the alternatives they have when it comes to generating income.

Collectivism vs Individualism: The sharing economy can foster collectivism, as it resides in the principle of communal and collective practice (Belk 2014b). On one hand, participation in online communities is a way to gain social support among peers and facilitate collective wellbeing through collaborative economic and social activities (Belk and Llamas 2012). On the other hand, participation in the resource exchange can be considered a form of individualism, meaning that all parties embark on transactions to maximise personal gains (Fleming et al. 2019; Martin, 2016). The contradictory arguments about the effect of collaborative activities on collectivism or individualism are rooted in the displacement of promises each practice entails and the different regulatory mechanisms they are based upon. Even though the sharing economy encompasses a diversity of practices, it is typically benchmarked against community-oriented and altruistic principles (Ciulli and Kolk 2019, Etter et al. 2019). Practices vary in many dimensions, including the normative mechanisms driving relations, the role of economic utility and the role of platform intermediation (Acquier et al. 2017).

According to Acquier et al. (2017), all sharing economy transactions fall into three practically different types of exchange, namely a community-based economy, an access-based economy or a platform economy. The community-based economy (i.e. social sharing) includes grassroots enterprises, which support the exchange of resources without monetised agreements and are driven to improve the community's wellbeing. The exchange is underpinned by normative mechanisms ensuring the social bonding of people within the community (Acquier et al. 2017). For example, Couchsurfing represents non-commercial hospitality exchange, reflecting the collective usage of accommodation (Netter et al. 2019). In contrast to the community-based economy, the access-based and platform economy are far less oriented towards collectivism. The key feature of such enterprises is an environmental mission implemented through the exchange of underutilised resources (e.g. Zipcar and Autolib). They utilise digital technologies to generate an economic value from the exchange of idle goods and use an economic rationale to manage relations between the parties of transactions (Acquier et al. 2017).

The majority of practices discussed in the literature are inherently commercial and rarely involve solidarity and trust as building blocks of interactions (Wentrup et al. 2019; Fleming et al. 2019; Gurran et al. 2020). Weak

orientation towards communal goal attainment has negative implications for sharing economy providers and the sustainability of enterprises in general. Despite communal promises of collective wellbeing, digital intermediation in collaborative relations decollectivises and dehumanises the interaction between employees (providers) and employers (platforms) (Fleming et al. 2019). Also, a high level of commercial expectations of the exchange devalues the role of socialisation and social identification with the platform (Gleim et al. 2019). As a result, the lack of trust, human interaction and belonging to the community contribute to the feeling of providers' personal isolation (Wentrup et al. 2019). Perceived isolation increases the perception that employees are alone in the struggle for their economic survival (Fleming et al. 2019). Therefore, firms with a culture that lacks social bonding, commitment and collective orientation cannot sustain lasting and trustworthy relations between employees and platforms.

2.2. Economic Paradoxes

Egalitarianism vs Capitalism: Early on, the literature suggested that the sharing economy was a new economic system offering economic opportunities (i.e. economic egalitarianism) equally distributed among all subjects of the population (Langley and Leyshon 2017; Guillemot and Privat 2019). Such an economic system embraces digital intermediation and normative regulatory mechanisms fostering collective wellbeing. Digital intermediation democratises the entry requirements for micro-entrepreneurship, enabling people to receive economic gains by exploiting their own resources (Hui et al. 2018; Si et al. 2020; Fiorentino 2019; Ferrari et al. 2020). Social norms encourage initiatives that otherwise would have been impossible. For instance, the funding of start-ups is possible by collecting donations and investments through crowdfunding platforms (Si et al. 2020; Kaartemo 2017). Entrepreneurs can prioritise community development over competition, privacy over self-marketing and stability over venturesome decisions, which leads towards a more egalitarian society (Hui et al. 2018). Economic opportunities created by the sharing economy can help withstand unemployment and unexpected socio-economic disruptions (Ferrari et al. 2020; Hui et al. 2018). Hence, the sharing economy has been regarded as a solution for financially vulnerable subjects of the society to receive resources and opportunities, which can buffer economic instability and uncertainty (Fiorentino 2019; Hui et al. 2018).

However, expecting the sharing economy to develop economic egalitarianism may be too optimistic. Driven by the economic rationale, many platforms leverage digital functions (i.e. a decentralised form of decisions, communication and demand-supply matching) to create an inequitable distribution of rewards between providers and platforms (Ahsan 2018; Murillo et al. 2017; Baber 2019). On one hand, the digitalisation of processes can create an

asymmetry of information and power among suppliers, customers and platforms. Such asymmetry results in little control over prices and relationship management by the supplier compared with other parties to the transactions (Rosenblat and Stark 2016). On the other hand, the digital regulation of provider-customer relations enables platforms to classify their workers as independent contractors (Rosenblat and Stark 2016; Murillo et al. 2017). Such an employment status is financially insecure, as it entails unstable income and platforms' limited liabilities (Baber 2019). Moreover, big platforms use the network effect and investments to intensify unequal wealth distribution, disrupt market conditions and lobby in support of their interests (Murillo et al. 2017; Chalmers and Matthews 2019). The network effect is the capability to convert users into prosumers. This means that platforms can be scaled up efficiently (i.e. increase the number of participants), whereby each participant attracts users on both the demand and supply sides (Constantiou et al. 2017). While the network effect ensures high demand for the platform's services, it challenges working conditions. With the increasing number of actors in the network and bigger investments, the altruistic value of social exchange becomes weaker, while the market rationale becomes stronger. Such types of entrepreneurship are manifested as an extreme form of capitalism, which hinders communal prosperity (Fleming et al. 2019).

Market Diversification vs Monopolisation: Arguably, the sharing economy can contribute to the diversification of markets (Sotiriadis and Van Zyl 2017; Bó and Petrini 2019; Gössling and Hall 2019). Digital intermediation gives users access to diverse resources in a time- and cost-efficient way (Henten and Windekilde 2016). The increased diversity of goods and products circulated in markets introduces competition, and creates the complementarity of resources, thus filling the gaps in incumbent industries. For example, accommodation sharing platforms affect the development of tourist infrastructure by increasing the variety of accommodation offerings (Gurran et al. 2020). Also, the sharing economy revitalises incumbent firms by fuelling the transformation of their existing business models and increasing productivity (Kim et al. 2018). For example, the integration of the services inherent to platforms has disrupted the business models of some incumbent firms. Leading automotive manufacturers introduced car-sharing services, while some hospitality companies started offering the rental of residential apartments similar to what Airbnb providers offer (Murillo et al. 2017; Gurran et al. 2020).

In the long-term, digital intermediation catalyses the demand and supply capacity of platforms, due to the network effects (Lang et al. 2020). The rapid growth and the dominance of particular platforms in the market undermine competition and create monopolies (Katz 2015; Gössling and Hall 2019). Evidence suggests that the biggest market shares in each sector are often owned by a single company, like Uber in ridesharing, Kickstarter in crowdfunding, Craigslist in professional services, and Etsy in the product marketplace (Murillo

et al. 2017; Frenken and Schor 2019). Digital peer-to-peer platforms have marketing capabilities of controlling and manipulating public opinion that are not available for traditional firms (Bó and Pettrini 2019). That means that the network effects of big market players ensure high demand and income stability for their providers, but make the survival of small sharing economy enterprises challenging. The regulatory status quo can exacerbate unfair competition. Using the gaps in existing laws, platforms circumvent conventional rules of markets, fuelling the creation of the grey economy (Elert and Henrekson 2016). While legal liabilities and tax obligations can slow down the operations of traditional industry players, platforms can benefit from less bureaucratic and costly operations. Hence, current legal conditions and digital capabilities have created fruitful conditions for the sharing platforms to grow and replace incumbent firms.

2.3. Environmental Paradox

Mindful Consumption vs Overconsumption: The sharing economy is considered to be a tool for the transition from overconsumption to the mindful use of resources (Melo et al. 2019; Zhu et al. 2018; Cohen and Munoz 2016; Lee et al. 2014). Access and exchange of underutilised resources through digital platforms could potentially reduce the demand for the production of new goods. Reduced consumption can contribute to the preservation of natural resources, waste reduction and a decrease in pollution resulting from production and utilisation (Gössling and Hall 2019). For example, carsharing platforms made claims about the substantial reduction in privately owned cars on roads in the near future and the contribution to cutting carbon emissions (Lee et al. 2014). Such initiatives have spurred innovative start-ups focusing on the development of environmentally friendly transport systems, promising the sustainability of urban infrastructure (Meil 2018). In some geographical areas, the promotion of ride-hailing platforms has brought fruitful results in the reduction of air pollution (Zhu et al. 2018). Also, it was claimed that the use of accommodation sharing platforms promotes green consumption habits. In support of the claim, the statistical data confirm the reduction in energy, water consumption and waste generation (Murillo et al. 2017).

The effects of collaborative modes of consumption can also have a negative impact on the environment, though, by encouraging and facilitating excessive demand for products and services (Frenken and Schor 2017; Menor-Campos et al. 2019). For example, empirical findings confirmed the correlation between the use of peer-to-peer accommodation and the frequency of journeys, which leads to an increase in carbon emissions (Gössling and Hall 2019; Tussyadiah and Pesonen 2015). The overconsumption of shared resources can be explained by the perceived affordability of idle resources (Gössling and Hall 2019; Murillo et al. 2017). Also, the negative environmental implication of the sharing economy

could be manifested by the increase in the demand for new products. The first round of underutilised resource distribution can cause a rebound effect. The rebound effect takes place when the efficiency of underutilised resource redistribution is offset, due to the spending of earnings on a new product. Hence, for access-based consumption to bring positive environmental implications, all behaviours incurred by collaborative practices need to be analysed against the sustainability goal (Frenken and Schor 2017).

The overconsumption paradox is rooted in the degree to which collaborative enterprises reflect communal orientation or the means to maximise economic rewards. From the perspective of the economic rationale, the majority of commercial collaborative practices operate based on market logic and the economies of scale (Geissinger et al. 2020). Platforms aim to maximise profit and sales growth, which is why they build their marketing strategies around customers' incentivisation to reinforce consumption (Ciulli and Kolk 2019). From the social perspective, the strong communal orientation of businesses can work as a balancing mechanism to offset the impact of the overconsumption consequences incurred by the market drivers of the sharing economy. The expectations about sustainability outcomes become the normative boundaries determining the behaviour of platform entrepreneurs (Pankov et al. 2019). On one hand, the strong communal value of collaborative practices can affect the utilisation of non-owned resources so it would have a positive environmental impact. By promoting the careful use of collective resources, entrepreneurs can hold back the process of their depreciation, amortisation and their subsequent replacement with new products (Liu and Chen 2020). On the other hand, entrepreneurs driven by social norms do not exploit marketing capabilities just to increase profits, but rather participate in the sharing economy to encourage communal prosperity (Hui et al. 2018).

2.4. Regulatory Paradox

Regulation by Deregulation: Digital governance, social normative underpinnings of relations and the economic rationale make the sharing economy a system fully governed by informal mechanisms (Ahsan 2018; Laurell and Sandström 2017; Etter et al. 2019). The economic rationale of exchange emphasises gains in transactions. Moral and social norms underpinning relations affect the balance between perceived rewards and the costs borne by the parties (Laurell and Sandström 2017). The parties in transactions are supposed to develop trust and commitment over time through the experience of long-term gains over short-term sacrifices (Ndubisi et al. 2016). Trust determines commitment to platforms, as it reflects the belief that the platform can be relied upon (Gleim et al. 2019; Wentrup et al. 2019). Normative governance mechanisms and the economic rationale are reconciled by digital intermediation, which is expected to mitigate the

opportunistic behaviour of the parties in exchange (Acquier et al. 2017; Wentrup et al. 2019). For instance, trust-mechanisms, dynamic pricing systems, rating systems and ubiquitous surveillance ensure that customers receive the value for the money they pay, and that interactions are transparent and safe (Rosenblat and Stark 2016; Etter et al. 2019; Chen et al. 2020; Shao and Yin 2019; Gonzalez-Padron 2017).

Contrary to the social norms of relations, digital intermediation can favour opportunism in two ways. First, it encourages the disproportional distribution of benefits among the three exchange parties (i.e. platform – customer – provider). Algorithms are coded with asymmetries of information in terms of the margin for the price of a ride, which benefits platforms and gives little freedom to providers (Ahsan 2018). Providers can also experience a lack of organisational support due to digital intermediation. Digital communication displaces the interaction between workers and platform management, resulting in a lack of emotional investment fostering long-term relations (Wentrup et al. 2019). It largely makes platforms unaccountable for their employees' misbehaviour, property damage, license and insurance payments (Etter et al. 2019; Murillo et al. 2017). The non-accountability of sharing economy enterprises can challenge the prospect of the long-term sustainability of sharing economy business models (Carmody and Fortuin 2019).

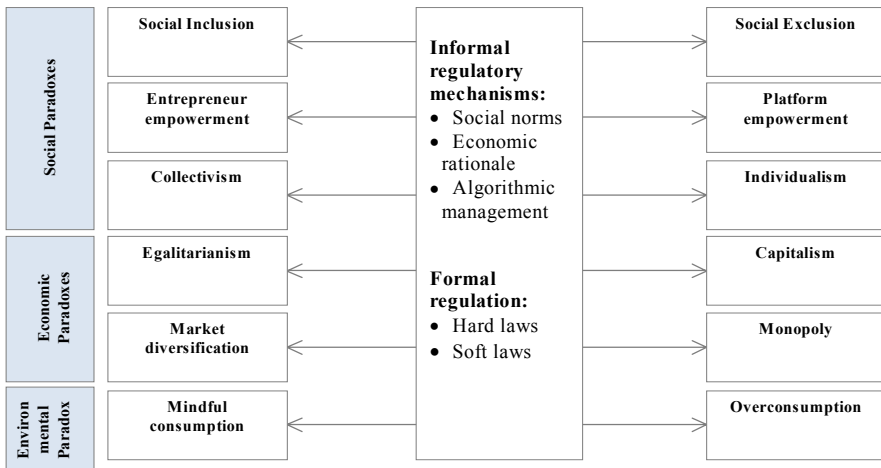
Second, digital intermediation challenges the application of formal mechanisms regulating the activities of platforms on markets. Digital platforms represent new forms of organisations that have better opportunities for competing with well-established firms (Park et al. 2019; Etter et al. 2019). Not having to comply with insurance, inspection and licensing procedures has reduced institutional bureaucracy and has given platforms a competitive advantage compared to traditional providers. Platform-based entrepreneurship has grown fast as it implies fewer costs involved in labour support and incentives (Ahsan 2018). Although such conditions can be demotivating for employees, they enabled fast gains and profitable spontaneous opportunities (Sundararajan 2014). The drawbacks of the regulation of relations between the parties of exchange and the market structure suggest that the sharing economy needs a formal regulatory hand, although it may make it similar to a traditional form of an economic system (Ahsan 2018; Etter et al. 2019).

To balance the positive and negative implications of informal regulatory mechanisms embedded in platforms, governments need novel regulatory approaches. Governments can use various combinations of soft and hard laws to address legal concerns (Etter et al. 2019). A soft approach is to incentivise platforms and providers to take liabilities through direct and indirect measures. Direct measures may require reporting data about customers in exchange for tax exemption (Williams and Horodnic 2017). However, such an approach would not address all regulatory areas and create a trade-off between costs and gains depending on the situation. Indirect approaches imply the initiatives directed at

altering people’s views towards more compliant behaviour by stimulating commitment and moral rules (Williams and Horodnic 2017). Also, there could be innovative approaches adopted to off-set the ethical concerns. For example, ShepraShare app is a smart regulation tool that can be used to address the violation of the rights of platform drivers. It helps drivers track their expenses, earnings and working opportunities. The use of metrics and actual performance information integrated with data-driven governance systems is a step towards the deregulation of the sharing economy industry without causing ethical issues (Mutiarin et al. 2019).

To summarise the above, social norms, the economic rationale and digital intermediation govern triadic relations between providers, platforms and consumers, and they moderate the social, economic and environmental paradoxes. To balance the positive and negative effects of the sharing economy, governments need to complement informal regulatory mechanisms with innovative regulatory approaches and a combination of soft and hard rules. Figure 1 presents the conceptual diagram showing the interrelationship of regulatory mechanisms, the paradoxes and their relation to the group of societal impacts. Specifically, social inclusion, providers’ empowerment, a collectivistic society, an egalitarian economic system and mindful consumption result from exchange governed by flexible digital management and strong social norms. Digital intermediation facilitates the distribution of diverse resources, contributing to market diversification. In contrast, stringent digital management and the prevalence of the economic rationale increase the impact on social exclusion, platforms’ empowerment, an individualistic society, the capitalistic economic system and overconsumption. Networking capabilities of algorithmic management fuel the impact on market monopolisation.

Figure 1: Regulatory mechanisms and paradoxes in the sharing economy



2.5. The Sharing Economy in the Post-Pandemic World

The spread of COVID-19 has deeply affected the population worldwide. The epidemic has triggered changes in individuals' behaviour and cognition and prompted responses from organisations and governments. Firstly, the pandemic has impacted psychological wellbeing, inducing a feeling of anxiety and stress (Wang et al. 2020; Pakpour and Griffiths 2020), reshaping individuals' communication and interactions within and outside their communities. People were forced to refrain from any risk-related activities (e.g. collective resources and practices) (Lutz and Newlands 2018; Cherry and Pidgeon 2018). Secondly, the psychological state of uncertainty and fear during the pandemic is reducing trust in organisations and policy-makers (Balog-Way and McComas 2020). Thirdly, governments have imposed social distancing and social isolation rules that will be in effect until the epidemic curve has been flattened. Fourthly, the pandemic has been gradually plunging the world economy into the deepest stagnation due to preventive measures, leading to the reduction of industry output and the workforce across economic sectors (Seetharaman 2020; World Bank 2020). Finally, digital technologies and online applications have come into play to ensure the continuity of business services, maintain life-sustaining activities and virtual social interactions (Beaunoyer et al. 2020; Papagiannidis et al. 2020). The changes across all spheres of life affect the social, economic and digital mechanisms governing relations, as well as the social, economic and environmental dimensions of sustainability.

Social dimension: Social distancing, psychological states and the increased use of online services have consequences for sharing economy providers in terms of social exclusion. The major negative implication of the fear of disease and reduced social interaction is the drastic decrease in consumer interest in platform offerings, mainly transportation and accommodation services. The rides across the Lyft and Uber platforms have dropped by 75- 80 percent, although food delivery by Uber has increased by 89 percent since 2019 (Conger and Griffith 2020). Currently, international tourism is suffering a decline of 60 percent and it is estimated to decrease by a further 20 percent (OECD 2020). The lift of constraints in the future will not dramatically change social practices, though, as people feel less inclined to use services requiring physical interaction after the coronavirus threat is alleviated.

The lack of intensive social interactions challenges the development of solidarity within platform communities. Given that social norms work as a mechanism facilitating reciprocity (Uehara 1995), voluntary contributions (Sugden 1984) and social network development (Ferrari 2017; Ferrari et al. 2020), the diminishing power of normative regulation could limit economic and social integration in two ways. First, reduced collaborative practices might undermine entrepreneurship due to reduced capitalisation opportunities and

capabilities by sharing goods and services. Weak solidarity in the community can hardly motivate its members to reciprocate when they are not obliged to. Second, the pandemic is likely to bring a new norm whereby the selection of receivers and suppliers will be based on geographical locations depending on how affected they have been. Hence, the coronavirus outbreak could increase social exclusion by limiting access to economic resources, social network development and cultural integration.

Weak trust in platforms and the need for stricter digital intermediation has an impact on the balance of power between platforms and providers. Trust in platforms has been weakened against the background of recent workforce layoffs and offices closures by Airbnb and Uber globally (Preetika Rana 2020; Conger and Griffith 2020). The reduced role of trust undermines relational governance, which has a negative effect on the empowerment of sharing economy entrepreneurs. Since users are growing more reliant on algorithmic management to regulate within-platform relations (consumer-platform-provider) the role of social norms in regulating sharing economy relations gets minimised further. Given the current regulatory framework, providers have been experiencing less control over transactions, and less freedom and opportunities since the start of the pandemic than ever before.

Social distancing and fear-induced precautionary measures have shaken the orientation of many platforms towards collectivistic society development. Collective use of resources has become increasingly avoided, as shared goods and collaborative practices present health risks (Deloitte 2020). The decline in access-based consumption has necessitated that platforms abandon the community culture, which they had strongly promoted before. These events are leading to a decline in the social normative underpinnings of platform relations. To keep business afloat, sharing economy companies followed economic rationality and left thousands of platform workers across accommodation and transportation sectors unemployed (Ovide 2020; Paul 2020). Weak communal orientation can hardly drive entrepreneurial initiatives benefiting social wellbeing rather than personal interest maximisation. Moreover, given the current labour regulations, the limited responsibility of platforms for their contractors indicates that the sharing economy reinforces the principle of personal survival over group interests. Although Airbnb and Uber have been lobbying the governments to support their suppliers, the general regulation is more likely to stay unchanged in the near future (Burns 2020). The current situation will not only undermine the development of collectivism but could affect the wellbeing of sharing economy participants.

Economic dimension: Social distancing and economic recession have put a strain on key sharing economy market players which have been promoting the capitalistic economy. The economic losses are dramatic for platforms, where interaction between stakeholders is based on the economic rationale. The

monopolistic power of these for-profit platforms had been fuelled by networking capabilities and transaction turnover (Murillo et al. 2017; Chalmers and Matthews 2019; Lang et al. 2020). When such conditions disappeared almost overnight, big companies experienced significant decline in demand. For example, Lyft had a net loss of almost 100 million US dollars during the first two months of the pandemic (Conger and Griffith 2020). In contrast, in conditions of economic volatility and social panic, sharing platforms that are driven by solidarity, altruism and social bonding provide better conditions, as they offer more flexibility in terms of business entry and exit (Sundararajan 2016; Hui et al. 2018). Therefore, small community-based enterprises in the long-term perspective can be revived to drive community goals and the development of an egalitarian society.

Given the above, the impact the pandemic has had on the dominant sharing economy companies and the voids created could lead to the diversification of markets. The change in the market structure may be rooted in the redistribution of power between market-oriented and social-oriented platforms. The decline in demand for sharing economy services suggests that the platforms primarily based on economies of scale will experience challenges in the future. By losing market share, big platforms lose the opportunity to exploit the network effects, which have been considered the barrier to competition and the prerequisite of monopolisation (Katz 2015; Gössling and Hall 2019). Rather than focusing merely on cost advantage, platforms will need to consider other factors too. For example, entrepreneurs could sense the opportunities caused by the change of lifestyle and adapt accordingly. For example, social distancing and travel restrictions have contributed to the emergence of new services, such as the rental of holiday trailers (Smith 2020). Another factor to consider is the strengthened communal orientation of many consumers. For example, a recent survey found that after the pandemic outbreak, users have developed solidarity with small local producers and have strengthened preferences towards local goods over the ones provided by big suppliers (Deloitte 2020). The above does not mean that existing market leaders may not be able to respond. For instance, Liftshare, Karshare, and Hiyacar pivoted their resources to serve the healthcare sector by providing safe transport to workers (CoMoUK 2020). Jumio offered AI-powered, identity verification solutions to organizations involved in COVID-19 propagation (Jumio 2020). TaskRabbit got involved in charitable work too. The platform launched a program to connect volunteers, vulnerable people and organizations in need of services (TaskRabbit 2020). Such examples may encourage changes to business models that are more community oriented and socially responsible.

Environmental dimension: During the pandemic the psychological factor reflecting the fear of contracting the virus redefined users' norms and consumption behaviour. The concept of non-ownership of resources inherent in sharing economy practices put the environmental value of sharing to the test. A

survey found that users perceive shared goods to represent a higher risk of infection, which is going to drive their behaviour in the future. For example, due to healthcare concerns, the willingness to use shared transport is expected to drop by a third (Deloitte 2020). Pro-health behaviour will prevail over pro-environmental norms. That means that the use of non-owned resources gets minimised and contact with strangers is reduced to eliminate the possibility of contracting the virus, irrespective of the environmental benefits of collaborative practices.

Users' safety concerns will affect the environmental impact of the sharing economy transportation sector in three ways. First, along with reduced demand for non-owned resources, the purchasing demand for new goods which have been typically accessed through platforms (e.g. cars, bicycles and secondary equipment) will most likely resurge. Higher demand will increase manufacturing input and output, thus intensifying waste generation, the release of hazardous substances and the consumption of energy and other natural resources. Second, health threats may shift the interest to less sustainable, but commercially efficient services within the same sharing economy sectors. For example, although only 5-8 percent of surveyed people perceive ridesharing, carsharing and carpooling to be safe (Andersson et al. 2020), these services are likely to have different growth/decline dynamics in the future. Ridesharing is a commercial service of using a privately-owned vehicle for a ride. In contrast to carpooling and carsharing, ridesharing is safer, as cars are not shared between a group of people for travel or commuting. The latter, though, needs passengers' trust that drivers implement safety measures prior to each ride. People who cannot afford the purchase of a new car but prefer not to use public transport are most likely to switch from carpooling/carsharing to ridesharing services. For instance, according to a survey conducted in the USA, around 9% of respondents changed preferences from using public transport to shared rides (Ridecell Inc. 2020). As rides can significantly minimise sharing the same space with strangers, the frequency of rides is expected to increase, leading to a growth in carbon emissions into the atmosphere. Third, lifestyle changes due to the pandemic are likely to correlate with an increase in waste generation. It is forecasted that the pandemic will result in a permanent shift to home deliveries and, in turn, the growth of food delivery platforms, such as UberEats. After the first lockdown, a survey of UK shoppers showed that the preference for online shopping increased by 29 percent. Most of the shoppers plan to continue using online purchases and delivery after the pandemic (Lumina Intelligence 2020). The surge in home deliveries has contributed to an increased demand for packaging (Feber et al. 2020). This means that the rising activity of food delivery services increases waste generation, potentially having a disastrous impact on the environment.

3. Conclusion

The COVID-19 outbreak has questioned the sustainability of the sharing economy as it affected consumer choices and working conditions in collaboration-based entrepreneurship. Against the backdrop of already existing concerns about the contradictory societal impacts of the sharing economy (Botsman and Rogers 2011; Liu and Chen 2020; Gössling and Hall 2019; Frenken and Schor 2017), the pandemic has exacerbated the need for exploring the positive and negative implications before and after the crisis. Therefore, this paper aimed to analyse the embedded formal and informal mechanisms of the sharing economy causing paradoxes and to discuss how COVID-19 is transforming these mechanisms and their impacts.

To address the first objective set out by the study, the paper provided an analysis of the paradoxical implications in the social, economic and environmental domains that had been discussed in the literature. It was found that social norms, economic rationale and digital intermediation regulating relations have varying impacts on social inclusion, the balance of power in platform-provider relations, the collective social system, the economic system, market structure and consumption patterns. The paper also discussed the role of formal governmental regulations impeding or facilitating those implications. To address the second objective, the paper analysed how the COVID-19 pandemic is affecting the social norms, economic rationale and digital governance, and what transformations in users' practices those changes entail. The paper provided insight into how the pandemic is influencing the roots of the paradoxes and, in turn, the paradoxical implications for social, economic and environmental sustainability.

3.1. Recommendations for Future Research

The conceptual analysis calls for deeper research on four fronts to address the paradoxes and enhance the understanding of sharing economy implications. Future research needs to empirically examine social, economic and environmental implications in the post-pandemic world. Researchers should observe how the current socio-economic situation is transforming users' values, motives and preferences, what impacts those transformations have and which technological capabilities of platforms help tackle social, economic and environmental needs. Also, there is a need to explore informal and formal regulatory mechanisms that would help facilitate or impede the implications.

Social Perspective: Future research needs to empirically examine the long-term effect of COVID-19 on social integration. While the literature offers evidence about the correlation between sharing and social inclusion (Davlembayeva et al. 2020), future studies need to revisit the impact given the social isolation measures

that are taking place. It is important to examine users' perception at two points in time, as the effect of restricted sharing practices on social inclusion can be curvilinear. In the short-term, the introduction of restrictions can have a negative impact. However, since a physical distancing rule applies to all spheres of lives, the members of sharing economy platforms may adapt to the new conditions and feel less socially excluded. It is important to consider the moderating factors when examining user perceived outcomes. For example, the perception of social inclusion can differ depending on the type of platform, as certain forms of users' practices have been particularly affected by the coronavirus outbreak, such as social dining and indoor entertainment. Also, following Social Comparison Theory, the perception of negative impacts vary for people with different comparison groups. Perceived social exclusion can be higher for those people who only focus on the sharing economy community while overlooking how the pandemic has undermined the wellbeing of other social groups. Hence, future research could examine which comparison benchmarks platform users employ to evaluate the losses they bear due to the crisis. Finally, future research could extend the boundaries of the current knowledge about the balance of power between platforms and providers. Given that the digital intermediation of social interactions has become essential, scholars need to investigate how the current pandemic circumstances have affected the providers' perception of contractual employment conditions.

Technological innovations can be helpful in tackling the challenges that the parties to transactions experience. Current digital systems are designed to work as trust mechanisms and price-matching systems, alleviating users' concerns in regards to service/product quality and the management of relations (Rosenblat and Stark 2016; Etter et al. 2019; Chen et al. 2020; Shao and Yin 2019; Gonzalez-Padron 2017). However, they are loosely adjusted to the needs of providers. Therefore, future research needs to focus on algorithms that can address issues with trust in platforms and the asymmetry of power/information in relations between providers and platforms.

Economic Perspective: The disruptions in the sharing economy sector provide multiple avenues for business management scholars to analyse the development of new business models creating greater values. Future research could study existing sharing economy companies and the pathways they have taken to diversify their platform offerings. On one hand, such research is important to build business cases on change management in the sharing economy. On the other hand, in-depth insight into business model transformation will make it possible to see how the changes benefit stakeholders and maximise company profits. Apart from empirical evidence, future research needs to conceptualise potential scenarios of business model innovation to make business adaptable to the current pandemic reality. It is important to evaluate the technological resources required to enable innovation, the procedures required to ensure customer safety and security, and offerings addressing new lifestyles and preferences.

Future scholarly works could provide interdisciplinary insights into the discrepancies there might be between consumers' and companies' responses to the health threat. The transformation of business processes and services could be based on the understanding of users' psychological and behaviour adaptive mechanisms. Given the pace at which the market is changing, the management literature should develop roadmaps with the potential directions for companies in addressing consumers' threats. Since the sharing economy platforms are dissimilar in terms of their value offerings, such roadmaps may be needed for each sector.

Environmental Perspective: From the consumer behaviour perspective, the use of platforms before and after the COVID-19 outbreak needs examining to find out the impact on mindful consumption habits. Researchers need to bring evidence as to how the pandemic has affected the preferences and values of the participants of sharing economy platforms. Specifically, they need to examine how the fear of contracting the virus shapes the consumption habits of users. Secondly, it is important to delineate values from the benefits of consumption. As prior research indicated, although users appreciate environmental benefits, this is the weakest motive underpinning sharing practice. Reduced costs of resources prevail over altruistic and environmental values (Davlembayeva et al. 2020; Barnes and Mattsson 2016). Considering the strong economic upheaval and income loss in a wide segment of the population, future studies need to examine whether health concerns outweigh the economic value of collaborative consumption.

From a market and platform perspective, future research could analyse the sharing economy markets and identify which sectors have seen growth and decline and why. Also, researchers could investigate how platforms reacted to market disruptions. Since some forms of sharing practices are safer but less sustainable (e.g. ridesharing compared to carpooling), the pandemic might have caused incremental changes of market offerings, which are potentially not beneficial for the environment.

Regulatory Mechanisms: To move forward research in the area of informal regulatory mechanisms, further research is needed to categorise platforms based on the mechanisms that regulate relations. The development of the framework can inform future studies about the social, economic and environmental consequences that each type of platform entails. These will help reduce the contradictory interpretation of the sharing economy impacts. Also, research could bring new insights into the range of practices performed in the sharing economy, and the normative and technological differences in relationships carried out across platforms. As this paper has suggested, contradictions about impacts are often caused by the literature trying to use a "one-size-fits-all" approach. In addition, scholarly effort is typically invested only in a few dominant platforms (e.g. Uber, Airbnb) (Gurran et al. 2020; Törnberg and Chiappini 2020; Heo et al. 2019;

Rosenblat and Stark 2016). Such a narrow focus can leave other business models based on the sharing economy under-researched. The examination of diverse sharing economy practices is important, considering that they differ by the degree of social capital reproduction (ties, moral obligations, shared vision), the economic utility of relations and the functionality of digital intermediation (Bucher et al. 2016; Belk 2014b; Kim and Yoon 2016; Heylighen 2017).

With regard to formal regulatory mechanisms, current literature points to the regulatory drawbacks of the current legal system, as well as the consequences of the formal regulatory framework for industries disrupted by the sharing economy (Bick 2019; Alrawadieh et al. 2020). However, little attention has been paid to the development of clear scenarios of potential legal interventions and the consequences that such interventions can have at an individual (platforms, providers, consumers) and institutional levels (markets, the economy). Given that policy evaluations around platform offerings are challenging (Ferreri and Sanyal 2018; Gurran et al. 2020), future research could investigate the combinations of soft and hard laws, direct and indirect measures that can be used to address the social, economic and environmental paradoxes (Etter et al. 2019; Williams and Horodnic 2017).

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