DIGITALISATION

PIDE Working Papers
No. 2022:14

Digitalisation and Disruption—Consequences for Business and Theory

Mariam Mohsin
Fizzah Khalid Butt

Pakistan Institute of Development Economics
Islamabad, Pakistan

E-mail: publications@pide.org.pk
Website: http://www.pide.org.pk
Fax: +92-51-9248065

Designed, composed, and finished at the Publications Division, PIDE.

PIDE Working Papers
No. 2022:14

Digitalisation and Disruption—Consequences for Business and Theory

Mariam Mohsin
Pakistan Institute of Development Economics, Islamabad.

and

Fizzah Khalid Butt
Pakistan Institute of Development Economics, Islamabad.

PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMICS
ISLAMABAD
2022

C O N T E N T S

List of Tables

ABSTRACT

Purpose: As the resource-ownership concept has moved towards resource-accessibility (Belk, 2007), numerous innovations have emerged in how business is conducted. One such new form of business is sharing economy, which has received instantaneous popularity and research attention.

Design/Methodology: In a theoretical paper, we argue that since this is a new and fundamentally different form of organising, it would be a great leap to assume that our traditional theories of management and business models would suffice to explain sharing economy.

Findings: We identify some of the gaps in the literature that pertain to the consequences of sharing economies and thus present a detailed account of their potential economic, social, legal, technological, and environmental consequences.

Originality/Value: Research on the sharing economy mainly focuses on its disruptive impact on traditional firms and the consequent strategies they can adopt to maintain their relevance. This paper focuses on the economic, social, and theoretical consequences of this new form of organising.

Research and Policy Implications: Based on our taxonomy of consequences, we recommend questions for further research and areas that require immediate policy decisions.

Keywords: Sharing Economy, Collaborative Consumption, Digitalisation, Disruption

INTRODUCTION

Belk (1988) proposes that one is what one owns. However, over 25 years, this conception underwent a considerable change. With the advent of the internet and the introduction of digitalised start-ups, Belk expresses that identity has become less contingent on ownership, and from being ‘what one owns’, one can be defined as ‘what one can access’ (Belk, 2013: 1595). In his 2007 article, ‘Why Not Share Rather Than Own’, Belk argues that millions of private car owners travel alone each day and how this could be exchanged with a sharing settlement, where the same amount of travelling could be done with fewer cars and no ownership.

With the flurry of recent research attention (Hossain, 2020) to business practices that are describable as access-based (Bardhi & Ekhardt, 2012), collaborative consumption (Botsman & Rogers, 2010), digitalised public spaces (Parrika & Caplan, 2013) or sharing economies or sharing systems (Belk, 2010; Lamberton & Rose, 2012), it is evident that the digitalisation of public space has already marked a huge footprint on the nature of the business all over the world (Cverlin, 2022).

The idea of innovation, digitalisation and sharing economy has changed the landscape of business activity (Shaikh, et al. 2020). This research attention, therefore, corresponds to the apparent increase in businesses that run on the sharing economy concept (Lessig, 2008). Davis (2015) notices a noticeable decline in the number of corporations in the U.S. There has also been a constant decline in the number of traditional corporations in Pakistan in the past decade (State Bank of Pakistan, 2011, 2014, 2015).

As firms are moving away from the concept of "organisation" as we knew it towards the concept of "organising", with more focus on the processes (Clegg, et al. 2008: 42), it is possible that the management of the business processes underpinning the new sharing economies may not be explained by the existing theories of corporate governance (Davis, 2015), and therefore, there is need for theoretical, conceptual and empirical explanations of these processes (Le Dieu, 2013).

A large body of literature has studied the processes underlying sharing economies (e.g. Belk, 2013; Harris & Krueger, 2015; Sundararajan, 2016). Also, a considerable part of the literature on the topic studies the effects of such business models (e.g. Belk, 2010, 2013, 2014, Botsman & Rogers, 2010; Lamberton & Rose, 2012). However, most studies investigating the consequences of sharing economies are focused on the effects they will have on traditional business models (Lamberton & Rose, 2012), leaving room for research on the consequences affecting other stakeholders.

This partial research attention also explains the lack of specific theories and models that explain internet-based business models. Despite the recent research attention to sharing economies, most of the existing management theories on the material forms of organisation offer implications to these forms of organisation (Lamberton & Rose, 2012). The increasing number of virtual organisations with minimum or no physical presence calls forth theories that address a more digitalised form of organising. We argue that it would be a great leap forward to assume that existing models of corporate governance apply to digitalised corporations as well.

Davis (2015, 2016) points out the need for research that looks into the social consequences of sharing economies and asserts that is a need for research that investigates the nature of the social audit for these new business models. This research attempts to respond to this gap in the literature. It aims to investigate that in a sharing economy, where the business process interconnectedness is more virtual, to what extent could the organisations take responsibility for the consequences of actions of the multiple stakeholders involved in the multiple business process models? What will be the nature of the social audit? How will the concepts of social responsibility and accountability be applied to these corporations? More specifically, the research aims to delineate the multiple economic, social, environmental, legal and technological consequences of sharing economies that all, in turn, affect the way societies function.

This paper contributes to the literature in three primary ways. First, it attempts to delineate the social consequences of sharing economies and seeks to identify the various effects these businesses have on stakeholders other than those studied in the extant literature. This contribution is essential because it not only has the potential to identify unique consequences that existing traditional corporations do not pose, but it also carries the prospect of offering definitive implications for theory and governance and public policy. Second, building upon the first contribution, this study argues that the existing theories of organisations do not fully explain sharing economies and thus provides theoretical arguments in favour of new theories that explain sharing economies. Building upon the assumptions of transaction-cost economics, this study offers features that distinguish sharing economies from traditional business models and argues in favour of the need for a new theory of the firm. Third, this paper specifically examines sharing economies' economic, social, legal, environmental and technological consequences. Once more, this contribution has the prospect of offering insights not only into theory but to policy-making bodies.

The paper is structured into five sections. The section following the introduction is a review of the relevant literature. We divide the literature into a thematic table to outline the similarities and differences among the arguments presented. Based upon the thematic analysis of literature, we present an account of the areas yet to be studied, citing post-colonial theory to present arguments suggesting the unique effects that sharing economies might pose upon labour.

The third section contains a stylised case study of Careem—a car booking service offering services in Pakistan and some Middle Eastern countries. The case presents anecdotal evidence of the consequences of sharing economies, as discussed in the literature review section.

The fourth section contains an overarching discussion of the arguments presented in the paper and identifies the economic, social, legal, environmental and technological consequences of the sharing economy. In this section, we provide speculative arguments for the effects of sharing economies and propose future research questions that have implications for theory and practice.

The fifth section concludes the paper.

LITERATURE REVIEW

Lamberton and Rose (2012: 109) define sharing economies as “marketer-managed systems that provide customers with the opportunity to enjoy product benefits without ownership”. Parikka and Caplan (2013) define such business models as digitalised public spaces that operate as a mode of production and a habit of sharing, and a way of combining that allows an affordance that enables the public to connect, collaborate and produce in new ways. The sharing economy has been framed as a critical, diverse, and complex phenomenon (Hossain, 2021). Martin (2015) provides an account of the six different ways it has been framed based on his exploratory analysis of sharing economies.

First, some authors have framed sharing economy as an economic opportunity. Second, some have referred to it as a sustainable form of consumption. Third, it has been referred to as a pathway to a decentralised and sustainable economy. On the other hand, researchers have also resisted and criticised the niche employed by the first three framings—they argue that the sharing economy also poses unavoidable consequences. Thus, a fourth framing refers to the shared economy as creating unregulated marketplaces. Fifth, it is said to reinforce the neoliberal paradigm; sixth, it is referred to as an incoherent field of innovation.

For the sake of this paper, we define sharing economies as an aggregated form of a business model that provides a digitalised market space that attracts both buyers and suppliers for a convenient connection. The models are fueled by the developments in information technology and the availability of excess resources.

Belk (2007) proposed an optimistic model of sharing where he argued that the then-current mode of human life was moving away from sharing rather than towards it. He argued that what used to be a family telephone, for example, is now replaced with a personal cellphone, and thus the situation for sharing was rather pessimistic. He argued that sharing could be an alternative to private ownership. Almost a decade later, with the advent of Web 2.0 and an outbreak of sharing business, Belk (2014) studied the similarities and differences among sharing economies and examined the degree to which several portions of the "sharing economy" actually involve sharing. He explains why these business models have stirred a vast amount of research attention within a brief period. He studies the extent to which these models pose challenges for the traditional corporation. Belk’s study includes a review of relevant literature and an analysis of media accounts of the developments in these settings. His analysis is based on the premise that the sharing models share two similarities: first, they use a temporary, non-ownership model and second, they rely on the internet.

On similar notes, Heinrichs (2013) also outlines the reasons that prove shared economy as a new pathway to sustainability. He argues that despite attempts to devise environmentally friendly business policies, the existing modes of business do not generally create an ideal scenario for sustainability. The sharing economy models allow users to rely less on the ownership-intensive capitalistic business model towards an ownership-free mode of usage, where goods become services. Thus, shared economy models are resource and energy efficient and have the potential to change the entire consumption patterns of the markets.

Lamberton and Rose (2012: 109) also argue that sharing economies have the potential to be “lethally disruptive” and that some traditional corporations, and sometimes entire industries, need to rewire themselves in order to survive. They argue that the growing importance and disruptive potential of sharing economies are felt not only by management researchers but also by potential competitor business models. Following this lead, some traditional corporations are translating some of their systems into sharing economies; for example, Mercedes, an automobile manufacturer, entered the car-sharing business (Botsman & Rogers, 2010). However, they argue that despite the growing number of internet-based businesses and sharing economies, there is little that the literature can offer to practitioners because there is little research that attempts to answer the problems these businesses face. Also, they assert that no models or theories explain these forms of organising. Their research provides a framework that differentiates different forms of sharing economies across two axes, rivalry and exclusivity.

Maltzer, et al. (2015) also stressed the disruptive effects that sharing business models could pose on traditional business models and suggested that while ownership had always been a preferred mode of access to products, sharing is constantly becoming a popular alternative to ownership. They posit that the exponential growth of sharing systems, coupled with the ease with which the internet allows them to be used, is set out to change the nature of the modern marketplace. They propose six ways traditional businesses can respond to the growing popularity of the alternate sharing models.

Botsman and Rogers (2010) discuss the opportunities that have surfaced due to the increase in the popularity of sharing economies. They posit that while these businesses vary tremendously in scope and purpose, they are redefining the very nature of business and the creation, valuation and exchange of goods and services. They discuss how these models of business have the potential to change the world. However, instead of discussing the consequences of these models, they discuss the opportunities businesses can avail to remain relevant in the continuously changing market. In another paper, Botsman (2014) argues that sharing is not a concept only relevant to start-ups and discusses how existing traditional corporations can involve in sharing and benefit from it. She posits that collaborative or sharing models innovate around five major problems—redundancy, broken trust, limited access, waste and complexity—and firms can avail massive unexploited opportunities by providing unique solutions to these problems.

Similar to the work of Botsman and Rogers (2010), Williamson and De Meyers (2012) also suggest that with a loose coupling of the ecosystems, firms can exploit globally accessible opportunities. They discuss the nature of the consumption in the existing market and posit that twenty-first-century customers demand more complex, more integrated solutions to their problems which are not easy for a few specialised business units to meet. The relevant knowledge and capabilities are abundant, distributed among prospective players, and dotted worldwide. Combined with the world's present volatility and uncertainty, these developments require a systematic set of interactions and activities among businesses that can be rapidly and adaptably reconfigured.

Williamson and De Meyers argue that these challenges are complex for a sole, vertically-integrated organisation to meet. Nonetheless, until recently, the market was believed to be the only viable alternative—the market that comprised of a huge number of players who individually and sometimes shortsightedly reacted to price and volume signals and were deficient in any systems for coordination and shared the evolution of their professional capabilities. When faced with the need for these players to depend on the sharing of complex knowledge, the market often fails; it works only when the knowledge being shared is simple and routine. They suggest that a possible resolution to this challenge may be viewing the market as a business ecosystem – a network of players that co-develop their competencies and align their investments to generate added value and increase efficiency. After a detailed account of the loosely-coupled business ecosystems, they provide six keys to help firms unlock the ecosystem advantage.

Sundararajan's (2016) argument revolves around the nature of sharing economy and explains the rationale behind the concept. He compares four sharing-system firms along different characteristics to posit that sharing economies exist on multiple scales and levels. He further builds his argument mainly on the notion from Airbnb Founder, Brian Chesky's interview in *Today* Magazine, positing that 'The stuff that matters in life is no longer stuff. It's other people. It's relationships. It's experience." (Today, 2013). He further discusses how with the advent of the Web 2.0, it has become possible to minimise redundancy and underutilisation of assets. The enabling power of the internet has reduced the need for ownership through easy online access to assets. However, with a detailed narrative of the benefits of sharing economy, Sundararajan also presents an argument regarding the labour-related consequences of sharing economy. Based on survey results from Harris and Krueger (2015), he argues that the decline in self-employment evident throughout the late twentieth century is changing drastically. He reports that most self-employed individuals and independent contractors would not change their term of employment for a more permanent one.

The lack of theorising specific to sharing economy, as observed by Lamerton & Rose (2012), also pointed out by Davis (2015, 2016), suggests that even if the sharing economy model of business is not representative of business in general, there is a pressing need for a new theory of the firm that explains these models of business. He argues that when Jensen and Meckling published their famous and counter-intuitive theory of the firm in 1976, only a fraction of the American economy was listed on the stock exchange and even fewer of those listed firms had dispersed ownership. However, despite his emphasis on the need for theorising, Davis's line of argument differs from most of the research that focuses on the disruptive nature of sharing economies. He argues, somewhat counter-intuitively, that the rise in income disparity in the United States is not due to capital-intensive corporations but to the decline of such corporations. He observes that platform businesses, like Uber, reduce the cost of using the price system, which according to transaction-cost economics, is the rationale for the firm's existence in the first place. According to Davis, these forms of organising acquire means of production on an ad-hoc basis instead of making long-term investments. Thus, traditional corporations are mostly the costlier option in the make-buy decision.

Moreover, Davis (2015) points out that the new wave of Uberisation creates a threat that converts jobs into tasks. Therefore enterprises can now easily rent what they used to buy, and therefore, to the detriment of labour, employee-free organisations are becoming more and more feasible. This argument stands in contrast with what is proposed by Sundararajan (2016) in self-reported data collected from self-employed workers and independent contractors.

Based on the review of selected literature, we have divided research on sharing economies into four major themes, (1) effects on traditional firms, (2) benefits of sharing economies, (3) strategies for traditional firms to respond to sharing economies and 4) Social consequences of sharing economies. These themes are exhibited in Table 1.

Table 1

Themes

	Effects on Traditional Firms	Benefits of Sharing Economies	Strategies For Traditional Firms to Respond to Sharing Economies	Social/ Economic
Belk (2007, 2010; 2013, 2014)	X			
Botsman & Rogers (2010)		X		
Botsman (2014)		X	X	
Lamberton & Rose (2012)	X			
Maltzer, et al. (2015)	X		X	
Davis (2015, 2016)	X			X
Williamson & De Meyer (2012)		X	X	
Sundararajan (2016)		X		X
Heinrichs (2013)		X		
Zervas, et al. (2013)	X			

Based on the trends in the literature, it is evident that most of the current research on sharing economy is either focused on how these models affect existing businesses or on the benefits of these models and the opportunities that these models have created, which the traditional businesses can avail. As discussed by Martin (2015), the last three framings have received little attention because there is little research that discusses the social consequences of these models. Of the papers that do discuss the social consequences, some have focused on the positive consequences like increased environmental sustainability (e.g. Sundararajan, 2016), while there is even more limited attention on the negative social consequences. Davis (2015, 2016) has focused on these negative consequences.

In the upcoming parts of this paper, we discuss the negative consequences that the sharing economy model of business has the potential to cause. The following section covers a stylised case study containing anecdotal evidence of the concerns surrounding such negative consequences.

Careem—A Case Study

Careem is a Dubai-based transportation company that operates a car-booking service through an app-based system. It operates in about 100 cities across 14 countries and plans to grow the network into other regions. It offers its services to riders who schedule an immediate pick-up, as well as for a later time on the Careem mobile phone app - aiming to produce a service that can respond to an important local mobility problem. Both the co-founders, during their corporate careers, felt the need for a service that provides hassle-free, reliable transport service. Thus Careem was established to solve the availability of reliable transport services to corporate clients.

Having started its services in July 2012 as a website-based, privately owned organisation, Careem has evolved over the years into a highly demanded service beyond the corporate world. Thus, Careem began to offer its services to individuals looking for a car ride for daily use. The vision, from the beginning, was to tailor the service to the local needs of all the markets that Careem caters for. In Pakistan, Careem is the sole competitor of Uber, an international giant in the car-booking industry. According to unofficial news sources, it has successfully grabbed a significant market share from Uber (*The Express Tribune*, 2016).

According to CrunchBase (2016), a database of the start-up ecosystem consisting of investors, operated by TechCrunch, an online publisher of technology industry news, as of today, Careem secured funding of 71.1 million U.S. Dollars with a start seed funding of 1.7 million U.S. Dollars in 2013 by STC Ventures. About a year later, Careem received funding of 10 million U.S. Dollars from STC Ventures and Al Tayyar Travel Group. In November 2015, Careem announced another Series C investment of US$60 million by the Abraaj Group.

Despite the rapid growth and apparent market success, Careem, and its competitors, have been faced with several controversies, such as exposing the public to risks, exploiting uninsured drivers, and lying about their operations. Careem and Uber drivers have been fined over illegally operating internationally (Brisbane Times, 2014). Moreover, in a famous case, Careem and Uber faced heavy criticism in Egypt owing to its hiring drivers without valid licenses (*Arabian Times*, 2015).

These cases signify one serious concern. In business models where the firms that the client establishes contact with does not produce the service that they offer, but rent them instead, there remains a chance of unsolicited practices on part of both the parties, much to the detriment of the other party that the firm is in a professional relationship with. On the other hand, if it is argued that there is no professional relationship between the firm and any other parties that it is renting service to or from, there is an even greater concern. Could governments and civil bodies allow such convenient business activity with little or no moral and social responsibility?

These events point out two significant apprehensions. First, there is an urgent need for social responsibility models that can encompass the activities of the sharing economy businesses. Academic literature currently does not offer any implications to sharing economy practitioners on how to conduct social audits of their firms. Secondly, on the policy level, there is a need for governance systems specific to these firms, which consider the ephemeral nature of professional relationships between the service supplier, the firm and the service consumer.

While, at this point, our case study is primarily anecdotal and only provides basic direction towards the presence of unexplored consequences, we believe that further case studies and empirical investigations of such models can bring about more unanswered questions to the surface.

In the next section, we attempt to discuss these firms' social consequences, especially labour-related social consequences. We also attempt to theorise and propose basic mechanisms that could be used as a point of reference for a social audit of these firms.

DISCUSSION

There are several social implications of the increasing sharing economy trend, of which few have been highlighted by literature thus far. Based on literature, facts and rationalised arguments, we present a taxonomy of the consequences of the sharing economies (Table 2) and argue how all of these consequences have social underpinnings.

Economic Consequences

The economic environment and systems that developed due to the industrial revolution were rife with information asymmetry. Vast distances between regions, countries, and continents amplified the market irregularities, such as demand-supply gaps, pricing issues and a trading system different from today's information-centric business (Mahadevan, 2000). The concept of bounded rationality (March, 1978; Simon, 1991) was relevant to this economic system, where agents either lacked sufficient information or the capacity to process it, thus allowing for irregularities. According to Mahadevan (2000), the information asymmetry inherent in the traditional business models created economic incentives and opportunities for arbitrage which were exploited first by traders and brokers and later by digitalised forms of organising, including sharing economy. This economic system called for labour specialisation to increase per-person productivity in the wake of masses of unskilled labour and underutilised potential (Smith, 1937). The system depended heavily on acquiring resources, including raw materials, labour and technology, which Davis (2015) refers to as buying.

The sharing economy was built on the advancement in communication technology, which reduced information asymmetry and increased the capacity to process information (Stewart & Zhao, 2000). The inventions for the constant flow of rich data between various entities and the ability to process the data in real-time provided unique opportunities for innovation. Players in sharing economies exploit technological advancements to enable greater value from the same resources. This constant flow of information also allows for a loosely coupled model of business to exist, which is less reliant on acquiring resources and is more focused on accessibility and information. Extant work (e.g. Lamberton & Rose, 2012) observes this fundamentally different grounding of sharing economies from traditional models of business and calls for new theories that explain the mechanisms underlying these sharing economies and the processes that result in potentially different consequences.

The economic consequences of sharing economies have received research attention in studies that have investigated the economic opportunities (e.g. Botsman & Rogers, 2010; William & De Meyers, 2012; Sundararajan, 2016) and effects of sharing economies on traditional firms (Lamberton & Rose, 2012; Maltzer, 2015). Martin's (2015) review also recognises these two framings of sharing economy and observes the ones having received the most research attention.

We argue that with the advent of sharing economy, there have been both positive and negative economic consequences. While most extant literature focuses on the positive consequences, little has been done to investigate the negative consequences (Davis, 2015, 2016). For example, Davis (2015) points out that converting jobs into tasks is detrimental to labour but does not explain how. On the other hand, Sundararajan (2016) argues that the effects on labour are positive and that labour in the sharing economy has more agency and freedom. While there are arguments on both sides, and it is difficult to assume that the worker is in an unequivocal deficit, it is still reasonable to assume that the concept of exploitation of labour cannot be discounted altogether in sharing economy (Scholz, 2012).

In a Marxist critique of digital labour, Fuchs (2015) also argues on the same lines. He asserts that owing to neoliberalism, the global capitalist crisis and the logic of commodification of everything, there is a need to return to critical theory. He argues that Smythe's (1960) conception of the audience commodity has regained significance in the discussion about the exploitation of digital labour in the digitalised economy. Fuchs argues that the exploitation of digital labour implicates alienation and coercion practices, somewhat supporting Davis's argument. These arguments, however, require added empirical investigation for further theorising.

One economic consequence that has been ignored by sharing economy literature, but has been discussed in the literature on automation since the 1980s, is the effect of automation and mechanisation on unemployment (Furnham, 1982). As also observed in the case of Careem, there has been a significant setback to the taxi industry, rendering many full-time taxi drivers underemployed. Again, apart from theoretical understanding, there is a serious need for policy and legislation to ensure a sustainable labour market.

Social Consequences

The literature says little about the social consequences of sharing economies. The latest review of the literature by Martin (2015) does not mention the effects these models of business have or may have on social systems. During our review, we only found one passing mention of a social consequence in Belk's (2007) work. Belk argues that consumerism had caused previously shared household items, like radios and home computers, to be replaced by individual items, like smartphones and laptops; however, with the new wave of sharing economy, there is chance that such redundancy of resources will be reduced.

On the other hand, we did not encounter any work that studies the negative social consequences of sharing economies. We attempt to argue, in line with the argument presented by Fuchs (2015), that the commoditisation of anything and everything has caused previously not-for-sale items to be converted into a resource. For example, in a post-colonial setting like Pakistan, where the concept of sharing economy is not inherent but acquired, there are several social implications that are unique and contextualised. Sharing, which before the model of sharing economy, was a not-for-sale concept, has now become an opportunity to make money. Anthropological studies conducted in this part of the world have identified hospitability towards guests (e.g. Ahmed, 2000) and sharing with neighbours (Tyler, 2015) as integral parts of social life. It is understood that how societies organise their resources impact the overall functioning of society (Milbraith, 1989). Thus, research is needed to study the effects of sharing economies of social lives, especially in post-colonial settings where these concepts are not born but adopted as given. In this context, we could argue that the sharing economy could be viewed as an extension of capitalism into the limits previously out of its bounds. For example, through sharing economies and commoditisation of accommodation (like Airbnb), a capitalist can earn through the mere act of another individual having a guest stay at his/her place.

For several reasons, post-colonial theory is relevant to studying the social consequences of sharing economies. First, like most traditional industrial models (Alavi, 1972), sharing economies were conceptualised and born in western countries (Sundararajan, 2013). They were based on the social needs derived from those societies (Hamari, et al, 2015). While in the excessive-consumption-based Western economies, sharing economies may have significant appropriability, there are reasons why we might doubt that the situation in non-western societies will be the same.

According to Hamari and colleagues, the needs that led to the rise of sharing economies included sustainability, enjoyment, reputation and economic benefits. They collected data from Finland, a developed country with different cultural arrangements than most developing countries. There is a need for research that studies the socio-cultural changes that have arisen as a consequence of sharing economy. Second, post-colonial theory deals with marginalised voices (Alavi, 1972); while research on technology and sharing is primarily conducted in developed countries and generalised worldwide. Kilduff and Mehra (1997) argued the notion of generalised theories and called for more contextualised research and, thus, more explanatory of localised concepts.

Legal Consequences

The literature and the precedents of existing businesses have also identified several legal repercussions. For example, the case study on Careem shows a sketchy example of a lack of legal structures and the potential legal consequences of such a lack. From a lack of unlicensed drivers to the safety and security of both the buyer and supplier of sharing services such as travel or accommodation, there are several legality concerns surrounding the sharing economy model. As Martin (2015), in one of the framings of sharing economy, observes, there is potential for this form of organising to be an unregulated for of innovation that needs to be paid attention to.

Moreover, as the workers become less of workers but individual contractors of service (Davis, 2015), there are apparent differences in employment patterns. There are potential legal aftereffects related to employee old-age benefits, pension and gratuity plans and other social safety nets.

Environmental Consequences

According to Hamari, et al. (2015), environmental sustainability is one of the major tenets of sharing economy. They argue that participation in sharing economy is generally anticipated to be highly ecologically sustainable (Prothero, et al. 2011). Recent developments advocate that sharing economy platforms allow for a sustainable marketplace (Phipps, et al. 2013), and improve consumption's social, economic and environmental consequences to meet the requirements of both existing and forthcoming generations.
Heinrichs (2013) also argues that the collaborative lifestyle resulting from the sharing economy is a pathway to sustainable living through reduced depletion of natural resources and the environment.

Technological Consequences

The advent of sharing economy and the constant increase in the sophistication of technology is yet to reach the standardisation of platforms. While still in its nascent stages, this form of business requires further research that investigates further technological impacts of sharing economies.

Another important but still ignored technological impact concerns data. This area overlaps technological and legal concerns and presents huge room for research. With the resource-based business model shifting to access and information-based models, data is becoming the most sought-after resource and the most viable source of competitive advantage. Companies like Google and Facebook have rich databases containing all forms of information about individual and group behaviours and mobility patterns etc. are currently using this data as the primary source for gaining a competitive edge. However, in the long-term, some critical questions are: who owns this data and protects it? How much access do government agencies have to this data? What happens to individual privacy and confidentiality? How do individuals respond to such concerns? And most importantly, how certain is the security of this data?

Based on the above discussion of consequences, we propose a basic taxonomy of the consequences of sharing economy in Table 2.

Table 2

Taxonomy of Consequences of Sharing Economy

	Positive Impacts	Negative Impact	Potential Research Questions
Economic	Low cost for customers Flexibility and independence for worker Value-based payments Lower cost of organising work Greater opportunities for people with fewer resources Extraction of more value from the same resources Emphasis on and value of specialised workforce	The exploitation of labour in new forms An offshoot of a neo-liberal lifestyle Over-commoditisation Lack of job-security Unemployment Reshuffling of power structures Less work and less payment for untrained workers Evolution of internet conglomerates	What are the effects of sharing economy on traditional capitalism? Is the neo-liberal paradigm guiding sharing economy? How does sharing economy deal with employee old-age benefits? Is technological advancement creating unemployment?
Social	Value of relationships Increased sharing Less consumerism	Selling what wasn't sold Cultural impacts on social systems Hazards for customers	What will be the effects of sharing economy on social life, especially in post-colonial, collectivistic societies?
Legal	Less regulated transactions	Security concerns Unlicensed drivers and unregistered workers Unregulated market No employee Old-age Benefits	Suggestions for legal policy regarding security and other concerns that emerge from the sharing economy? How can the state monitor sharing economy?
Environmental	Decreased carbon emissions Reduced depletion of the natural environment Reduced use of non-renewable energy and other forms of resource		
Technological	Sophistication of technology Standardisation of platforms	Data-related concerns: ownership Data-related concerns: privacy, confidentiality and security	What are the psychological impacts of publicised personal data? How do individuals respond to data-related security concerns?

CONCLUSION

In this paper, our approach was primarily speculative. We identified gaps in the literature related to the consequences of sharing economy. We have provided a list of potential consequences and questions for future research based on arguments from parallel literature, theory and practice. This research is a preliminary attempt to open up avenues of questions relating to the commotions that do or might take place in social lives as a result of sharing economies.

Theoretically, we propose some concerns surrounding sharing economies and contribute to the literature by providing preliminary inductive evidence of unwarranted events that remain unaccounted. On a practical level, we identify gaps in policy and call for more empirical work on the consequences of sharing economy that informs public policy and enables governments to take measures pertaining to such consequences.

REFERENCES

Alavi, H. (1972). The state in post-colonial societies Pakistan and Bangladesh. *New Left Review*, (74), 59.

Ahmed, A. (2000). Understanding the Taliban Case Through History and the Context of Pukhtunwali. *Cambridge Anthropology*, 86-92.

Arabian Times (2015). Entrepreneurs of the Week: Magnus Olsson and Mudassir Sheikha—Careem. Available at: http://www.arabianbusiness.com/entrepreneurs-of-week-magnus-olsson-mudassir-sheikha-careem-612356.html

Bardhi, F., & Eckhardt, G. (2012). Access based consumption: The case of car sharing. *Journal of Consumer Research*, *39*, 881–898.

Belk, R. (1988). Possessions and the extended self. *Journal of Consumer Research*, *15*, 139–168.

Belk, R. (2007). Why not share rather than own? *Annals of the American Academy of Political and Social Science*, 611, 126–140.

Belk, R. (2010). Sharing. *Journal of Consumer Research*, 36, 715–734.

Belk, R. (2013). Extended self in a digital world. *Journal of Consumer Research*, 40, 477–500.

Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, *67*(8), 1595-1600.

Botsman, R. (2014). Sharing's not just for start-ups. *Harvard Business Review*, *92*(9), 23–25.

Botsman, R., & Rogers, R. (2010). *What's mine is yours: The rise of collaborative consumption*. New York: Harper Collins.

Brisbane Times (2014). Taxi council of queensland declares war on uber. Available at: http://www.brisbanetimes.com.au/digital-life/smartphone-apps/taxi-council-of-queensland-declares-war-on-uber-20141119-11prdl.html

Clegg, S., Kornberger, M., & Pitsis, T. (2008). *Managing & organisations. An introduction to theory and practice*. London: SAGE Publications.

CrunchBase (2016). Retrieved from: https://www.crunchbase.com/organization/careem/funding-rounds on Dec 27, 2016

Cverlin, M. (2022). Regulating digitalisation: Sharing economy and the case of Uber in Dubrovnik. *Suvremeni Mediteran*, *1*(1), 40–57.

Davis, G. F. (2015). What Might Replace the Modern Corporation: Uberisation and the Web Page Enterprise. *Seattle UL Rev. 39*, 501.

Davis, G. F. (2016). *The vanishing American corporation: Navigating the hazards of a new economy*. Ann Arbor, MI: Berrett-Koehler Publishers.

Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, *32*(4), 1246–1264.

Fuchs, C. (2015). Dallas Smythe Today–The audience commodity, the digital labour debate, Marxist political economy and critical theory. Prolegomena to a digital labour theory of value. In *Marx and the Political Economy of the Media* (pp. 522–599). Brill.

Furnham, A. (1982). Explanations for unemployment in Britain. *European Journal of social psychology*, *12*(4), 335–352.

Hamari, J., Sjöklint, M., & Ukkonen, A. (2015). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology*.

Harris, S. D., & Krueger, A. B. (2015). A Proposal for Modernising Labour Laws for Twenty-

First-Century Work: The "Independent Worker". *The Hamilton Project, Discussion Paper*, *10*.

Heinrichs, H. (2013). Sharing economy: a potential new pathway to sustainability. *GAIA-Ecological Perspectives for Science and Society*, *22*(4), 228–231.

Hossain, M. (2020). Sharing economy: A comprehensive literature review. *International Journal of Hospitality Management*, *87*, 102470.

Islam, N. (2004). Sifarish, sycophants, power and collectivism: administrative culture in Pakistan. *International Review of Administrative Sciences*, *70*(2), 311–330.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs

and ownership structure. *Journal of financial economics*, *3*(4), 305–360.

Kilduff, M., & Mehra, A. (1997). Postmodernism and organisational research. *Academy of Management Review*, *22*(2), 453-481.

Lamberton, C. P., & Rose, R. L. (2012). When is ours better than mine? A framework for

understanding and altering participation in commercial sharing systems. *Journal of Marketing*, *76*(4), 109–125.

Lessig, L. (2008). *Remix: Making art and commerce thrive in the hybrid economy*. NewYork: Penguin.

Le Dieu, P. (2013). Digital Public Space–A Challenge. In D. Hemment, B. Thompson, J. L. de Vincente & R. Cooper (eds.): *Digital Public Spaces*. Manchester: FutureEverything

Mahadevan, B. (2000). Business models for Internet-based e-commerce: An anatomy. *California management review*, *42*(4), 55–69.

Malhotra, A., & Van Alstyne, M. (2014). The dark side of the sharing economy… and how to lighten it. *Communications of the ACM*, *57*(11), 24–27.

March, J. G. (1978). Bounded rationality, ambiguity, and the engineering of choice. *The Bell Journal of Economics*, 587-608.

Martin, C. J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism?. *Ecological Economics*, *121*, 149–159.

Matzler, K., Veider, V., & Kathan, W. (2015). Adapting to the sharing economy. *MIT Sloan Management Review*, *56*(2), 71.

Milbrath, L. W. (1989). *Envisioning a sustainable society: Learning our way out*. Suny Press.

Parikka, J., & Caplan, P. (2013): Digital Common Space: Remixability. In D. Hemment, B. Thompson, B., Hemment, D., Cooper, R., & Gere, C. (2013) Constructing a Digital Public Space. In D. Hemment, B. Thompson, J. L. de Vincente & R. Cooper (eds.): *Digital Public Spaces*. Manchester: FutureEverything

Phipps, M., Ozanne, L., Luchs, M., Subrahmanyan, S., Kapitan, S., & Catlin, J. (2013). Understanding the inherent complexity of sustainable consumption: A social cognitive framework. *Journal of Business Research, 66*(8), 1227–1234

Prothero, A., Dobscha, S., Freund, J., Kilbourne, W.E., Luchs, M.G., Ozanne, L.K., & Thøgersen, J. (2011). Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy & Marketing, 30*(1), 31–38.

Scholz, T. (ed.). (2012). *Digital labour: The Internet as playground and factory*. Routledge.

Shaikh, A. A., Sharma, R., & Karjaluoto, H. (2020). Digital innovation & enterprise in the sharing economy: An action research agenda. *Digital Business*, *1*(1), 100002.

Simon, H. A. (1991). Bounded rationality and organisational learning. *Organisation science*, *2*(1), 125–134.

Smith, A., 1937. *An inquiry into the nature and causes of the wealth of nations*. Рипол Классик.

Smythe, D. W. (1960). On the political economy of communications. *Journalism & Mass Communication Quarterly, 37*(4), 563-572.

Stewart, D. W., & Zhao, Q. (2000). Internet marketing, business models, and public policy. *Journal of Public Policy & Marketing*, *19*(2), 287–296.

Sundararajan, A. (2013). From Zipcar to the sharing economy. *Harvard Business Review*, *1*.

Sundararajan, A. (2016). *The sharing economy: The end of employment and ther rise of crowd-based capitalism*. MIT Press.

State Bank of Pakistan (2011). Financial Statements Analysis of Companies (Non-Financial) Listed at Karachi Stock Exchange (2006-2011). Available at: http://www.sbp.org.pk/departments/stats/bsa.pdf

State Bank of Pakistan (2014). Financial Statements Analysis of Companies (Non-Financial) Listed at Karachi Stock Exchange (2009-2014). Available at: http://www.sbp.org.pk/departments/stats/FSA-2009-14.pdf

State Bank of Pakistan (2015). Financial Statements Analysis of Companies (Non-Financial) Listed at Karachi Stock Exchange (2010-2015). Available at: http://www.sbp.org.pk/departments/stats/FSA-2010-15.pdf

The Express Tribune. (2016). This Pakistani helped raise $350 million to slaughter Uber. Available at: http://tribune.com.pk/story/1268864/pakistani-helped-raise-350-million-slaughter-uber/

Today (2013). Airbnb founder wants you to open your doors to strangers — and let them sleep over Available at: http://www.today.com/news/airbnb-founder-wants-you-open-your-doors-strangers-let-them-1C9138916

Tyler, K. (2015). Attachments and connections: a ‘white working-class’ English family’s relationships with their BrAsian ‘Pakistani’ neighbours. *Ethnic and Racial Studies*, *38*(7), 1169–1184.

Williamson, P. J., & De Meyer, A. (2012). Ecosystem advantage. *California Management Review*, *55*(1), 24–46.

Zervas, G., Proserpio, D., & Byers, J. (2013). The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry. *Boston U. School of Management Research Paper*, *16*, 2014.

Pakistan Institute of Development Economics
Post Box No. 1091, Islamabad, Pakistan

www.pide.org.pk