The Sharing Economy: What is it and where is it going?

By:

Samuel Nadler
B.S. Finance and International Studies
Indiana University, 2005

SUBMITTED TO THE MIT SLOAN SCHOOL OF MANAGEMENT
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF BUSINESS ADMINISTRATION AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2014

© 2014 Samuel Nadler. All Rights Reserved.

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part in any medium now known or hereafter created.

Signature of Author:

Signature redacted

MIT Sloan School of Management
May 9, 2014

Certified By:

Signature redacted

William Aulet
Senior Lecturer, Managing Director, Martin Trust Center for MIT Entrepreneurship
May 9, 2014

Accepted By:

Signature redacted

Maura Herson
Director MBA Program
May 9, 2014
The Sharing Economy: What is it and where is it going?

By:

Samuel Nadler

Submitted to MIT Sloan School of Management
On May 09, 2014 in Partial Fulfillment of the
Requirements for the Degree of Master of Business Administration

Recent societal forces, combined with advances in technology, have led to the creation of the sharing economy, a 21st century socio-economic system built on the sharing of human and physical assets. This dissertation describes the key attributes and criteria that differentiate the multiple sharing economy systems, describing influential forces of recent national and global economic conditions, greater public awareness of the deterioration of the environment, a growing desire for community engagement, and continued development of new technologies. The work also analyzes three different industries - transportation, hospitality, and consumer-based services -- as a means of understanding how sharing economy models have achieved success and how they affect the overall economy and established industries. Finally, my analysis suggests that future sharing economy concepts will need to focus more on providing on-demand service verticals, utilizing the asset of time even more than physical assets.

Thesis Supervisor: William Aulet
Title: Senior Lecturer, Managing Director, Martin Trust Center for MIT Entrepreneurship
This page intentionally left blank
Acknowledgements

I would like to thank my thesis advisor, Bill Aulet, for supporting me throughout this process, while helping and inspiring me to pursue my entrepreneurial adventures. I would also like to thank Maura Herson and Heather Dill Petithory, of the MIT MBA program office, who have been a great resource throughout my experience at MIT. I am grateful to MIT Sloan for giving me the opportunity to receive my master's degree, while taking somewhat of an unconventional approach. Marilyn Levine from the MIT Writing & Communication Center who provided valuable guidance throughout writing this thesis. I would like to thank my Sloan friends and core team for being available to discuss ideas and providing a constant source of encouragement. Finally, I would like to thank my wife Lorena for always supporting my endeavors.
This page intentionally left blank
Table of Contents:

1.0 Introduction .................................................................................................................................................... 8

2.0 The Sharing Economy .................................................................................................................................... 9
A 21st Century Socio-Economic Revolution ....................................................................................................... 9
The Emergence and Adoption of the Sharing Economy ......................................................................................... 13
   Technology ........................................................................................................................................................ 13
   Economic Conditions and Incentives ................................................................................................................ 16
   Environmental Factors ....................................................................................................................................... 21
   Community Involvement ................................................................................................................................. 22
Obstacles to the Sharing Economy ........................................................................................................................ 24
   Laws and Regulations ....................................................................................................................................... 24
   Lack of Trust ..................................................................................................................................................... 26
   Difficulties Measuring Economic Activity ...................................................................................................... 28
   Imbalance of Supply and Demand ................................................................................................................ 29
Impact on Established Industries .......................................................................................................................... 30
   Transportation Industry Disruption ................................................................................................................ 30
   Fashion Industry Disruption .......................................................................................................................... 31
   Media Industry Disruptions ............................................................................................................................ 32

3.0 Sharing Economy Case Studies ..................................................................................................................... 34
Zipcar: The Business Model .................................................................................................................................. 35
   History .............................................................................................................................................................. 35
   Impact: Users .................................................................................................................................................. 36
   Impact: Industry ............................................................................................................................................. 37
   Zipcar Framework .......................................................................................................................................... 38
   Lessons Learned ........................................................................................................................................... 39
Airbnb: The Business Model .................................................................................................................................... 39
   History .............................................................................................................................................................. 40
   Impact: Users .................................................................................................................................................. 40
   Impact: Industry ............................................................................................................................................. 44
   Airbnb Framework ......................................................................................................................................... 47
   Lessons Learned ........................................................................................................................................... 48
TaskRabbit: The Business Model .......................................................................................................................... 48
   History .............................................................................................................................................................. 49
   Impact: Users .................................................................................................................................................. 49
   TaskRabbit Framework .................................................................................................................................. 51
   Lessons Learned ........................................................................................................................................... 52

4.0 What's next for the Sharing Economy? .......................................................................................................... 52
Service Verticals ....................................................................................................................................................... 53
   Eliminating High Infrastructure ....................................................................................................................... 55
Business-to-Business Concepts ............................................................................................................................ 56
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Bureau of Labor Statistics)</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>(Latitude Research)</td>
<td>33</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>5</td>
<td>(The currency of the new economy is trust)</td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>(The currency of the new economy is trust)</td>
<td>42</td>
</tr>
<tr>
<td>7</td>
<td>(The currency of the new economy is trust)</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>(Netbase)</td>
<td>45</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>51</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>56</td>
</tr>
</tbody>
</table>
1.0 Introduction

Over a decade ago, open source software proponents and environmental activists gave voice to a growing urgency to create new economic models to address the planet’s finite resources and launch new opportunities for businesses, organizations, and individuals. First coined by economists Marcus Felson and Joe Spaeth back in 1978 as “collaborative consumption,” today the sharing economy has been widely embraced and practiced as a means of facilitating sales, rental, and barter transactions – with such a profound impact that, in 2010, Time Magazine named this economic trend as one of ten “ideas” poised to change the world. However, the evolution of such change is by nature fraught with complexities. Start-ups utilizing sharing economy models are rapidly overtaking established industries with high barriers to entry. These industries have been disrupted and forced to re-evaluate their strategies. At the same time, to continue to capitalize on the sharing economy’s rapid growth, it has become increasingly critical for aspiring entrepreneurs to be able to identify the next big market opportunities.

Given the overwhelming media coverage and sharing economy literature generated over the last few years, this dissertation presents an overview of the key attributes and criteria that differentiate the multiple sharing economy systems and describes the influential forces of recent national and global economic conditions, greater public awareness of the deterioration of the environment, a growing desire for community engagement, and continued development of new technologies. In

---

1 (Bainbridge, 2013)
2 (Walsh, 2011)
Section Two, I also discuss the key factors leading to the birth of the sharing economy, the benefits to individuals and businesses, and the challenges and obstacles presented by recent laws and regulations. Section Two is completed with a glance at the breadth of the sharing economy and its impact on specific industries.

Section Three investigates three different industries – transportation, hospitality, and consumer-based services — as a means of understanding how sharing economy models have achieved success. To facilitate this discussion, I have selected three popular sharing economy businesses representing these different industries, applying a straightforward framework that sheds light on their similarities and best practices. Finally, Section Four applies lessons from the development of the sharing economy to forecast future opportunities and predicts trends that are likely to gain traction and consumer appeal in the coming years.

2.0 The Sharing Economy

A 21st Century Socio-Economic Revolution

Today, without ever taking out their wallets, individuals with smart phones can locate and unlock a bicycle for their commute to work, and upon arrival, they can return the bicycle to a designated new location and only pay for the specific amount of time used. This is but a single example of the micro-scale reach of the sharing economy, a 21st century phenomenon that has established a new global economic system so ubiquitous that it has been compared to the Industrial
Revolution for its profound impact on the economy, society, and culture of the world.\(^3\)

Sharing economy concepts are able to reduce search costs, reduce transaction costs, and increase convenience. In *What's Mine Is Yours: The Rise of Collaborative Consumption*, Rachel Botsman described the new social and economic systems as “driven by network technologies that enable the sharing and exchange of assets from spaces to skills to cars in ways and on a scale never possible before.”\(^4\) Botsman notes that these new systems enable assets previously unavailable or not conveniently available, to become widely accessible.

While most of us would agree that the definition of “sharing” is to use something, usually a finite good, with others free of charge, it must be noted that concepts that facilitate transactions among individuals through the use of advanced technology are not necessarily “pure sharing” concepts, even though they share some similar qualities. What is similar among these sharing economy systems is their ability to expedite the connection, transaction, and payment between buyers and sellers. These expedited transactions affect many types of businesses and institutions: for-profit business, non-profit organizations, and for-benefit enterprises have utilized models within the sharing economy for economic or social benefit. Whether created for economic gain or for the benefit of society, the unifying theme is an improved use of assets, focusing the benefits of participation on access and not ownership, emphasizing efficiency and practicality over consumption.\(^5\)

\(^3\) (Sacks, 2011)
\(^4\) (Botsman, 2012)
\(^5\) (Gansky, 2010)
Even so, the use of the now popular term “sharing economy” currently applies more to for-profit businesses that facilitate an improved utilization of typically physical assets, usually through paid access, than “pure share” concepts operating closer to the more traditional definition of the verb “to share.”

Through the benefits of on-demand access the use of assets is maximized and the convenience of participants is greatly enhanced. Enabled through advancements in mobile technology, GPS enabled devices, and social networks; on-demand access is critical for individuals to feasibly introduce sharing economy concepts into their lives.6 Using these technologies, individuals can now circumvent traditional middlemen and redefine typical market relationships. By participating in these new market relationships, individuals are now more empowered than ever to conduct economic transactions without the interference of traditional businesses.7

As straightforward as this economic shift appears, there are actually multiple businesses and platforms operating within the sharing economy. Lisa Gansky, author of The Mesh, does an effective job of describing the various business concepts by dividing them into two models. The first is called the “Full Mesh” model, in which companies own assets and aspire to profit from them by leasing them through multiple transactions simplified by technology.8 One example of a “Full Mesh” model is Zipcar, which maintains a fleet of cars and provides on-demand access to members at an hourly or daily rate. This differs from the traditional car rental

---

6 (Gansky, 2010)  
7 (Owyang, Tran, & Silva, 2013)  
8 (Gansky, 2010)
model because customers, through mobile platforms, can access cars immediately in numerous locations, never interacting with a Zipcar employee or having to visit a rental agency. Furthermore, Zipcar offers very short-term hourly rates, making renting a car a feasible option for a trip to the supermarket.

The second model is the “Own-to-Mesh” model, in which third parties develop a platform to connect individuals with goods or services, often providing economic incentives for all who participate.9 An example of an “Own-to-Mesh” model is Uber, a mobile platform that connects automobiles for hire, such as taxi and private car services, to passengers. The Uber “Own-to-Mesh” model quickly connects a driver and a passenger instantaneously, processes the payment online, and pays the driver his fee. In contrast to Zipcar, Uber does not own the fleet of cars utilized for its services. The drivers themselves personally own the cars.

In the same effort to describe this new economic trend, there are other categories identified by Botsman that can help delineate the concepts operating within the sharing economy. The first category, called “Product Service Systems,” includes “a service that enables multiple products to be shared or products that are privately owned to be shared or rented peer-to-peer.”10 This category includes both the Zipcar and Uber concepts. Unlike the “Full Mesh” concept category, the “Product Service Systems” category does not place importance on the ownership of the asset, but rather highlights the type of transaction. Another sharing economy category, according to Botsman, is the “Redistribution Market,” which describes the use of social networks or online platforms to facilitate the re-sale or exchange of used

---

9 (Gansky, 2010)
10 (Botsman & Rodgers, 2010)
goods. Thred-up, a platform primarily to trade children's clothing, is an example of a "Redistribution Market." The difference between a "Redistribution Market" and an "Own-to-Mesh" category is the type of transaction: "Own-to-Mesh" platforms facilitate the rental of under-utilized assets, while "Redistribution Markets" platforms focus on the exchange of used assets. And a third category Botsman identifies is "Collaborative Lifestyles," platforms that allow individuals to share non-physical assets such as time and expertise. An example of a "Collaborative Lifestyle" platform is TaskRabbit, an online platform that connects individuals with deliveries or errands to be made with "rabbits," people willing to do them for a fee.

The Emergence and Adoption of the Sharing Economy

A combination of four forces over the past several years has spurred the creation and accelerated the adoption of the sharing economy. The four most influential forces are: 1) new technological advancements; 2) recent national and global economic conditions; 3) a greater public awareness of the deterioration of the environment; 4) and a growing need for community engagement. A confluence of these factors has not only made the sharing economy possible, but it has greatly increased its adoption and spread its appeal to the masses.

Technology

Of these four driving forces, technology is perhaps the most tangible external factor in the creation, acceleration, and adoption of the sharing economy. The

11 (Botsman & Rodgers, 2010)
12 (Botsman & Rodgers, 2010)
combined use of mobile and GPS enabled devices, online payment platforms, and social networks contribute to the ease of conducting transactions and building trust. Without advancements in technology, many of these underutilized assets would not be available in the marketplace on a scale that made the sharing economy possible.

Likewise, the increasing use of smartphones in the US mobile market is a major influence. According to a 2013 study by Nielsen, smartphone penetration has grown to 64% of mobile device users within the US. Among the younger generation from 25-34 years, the penetration of smartphones is above 80%. Mobile devices dramatically increase the ability of customers to rapidly access sharing platforms and locate desired goods or services through GPS. Previously, users had to communicate with a network using home computers. However, with the improved processing power and the speed of wireless connectivity of recent mobile devices, most sharing economy transactions are being executed over mobile devices. For several new sharing economy platforms, such as ride-sharing concepts Uber and Lyft, the platform is only accessible through their mobile applications. The increased adoption of powerful mobile devices permits participants in the sharing economy greater flexibility where and when they choose to access goods and services. This flexibility increases the convenience factor of the sharing economy, one of the most critical incentives for users. In a recent survey of

---

13 (Owyang et al., 2013)  
14 (Nielsen, 2013)  
15 (Nielsen, 2013)  
16 (Rosenberg, 2013)
over 90,000 users of the sharing economy models, convenience was the number one reason why they participate.\textsuperscript{17}

Online payment systems also play a critical role by facilitating payments in the sharing economy.\textsuperscript{18} In many transactions, the seller and the buyer do not meet personally. The use of efficient online payment platforms has broad appeal to both buyers and sellers. The ability to streamline the process to engage in sharing economy transactions increases the level of convenience and allows users to participate more frequently.

Social networks are imperative to building trust within the sharing economy.\textsuperscript{19} Social networking helps mitigate the critical trust gap in allowing a stranger to use one's car, home, or other personal items. When sharing economy concepts require users to use social profiles, it reduces the risk of entering into a transaction.\textsuperscript{20} By allowing users to connect through social networks, sellers can view the profiles of potential renters and have initial conversations with them. Building a trustworthy online brand is imperative for both sellers and buyers to fully take advantage of the sharing marketplace; social networks make this process possible.

\textsuperscript{17} (Owyang, Samuel, & Grenville, 2014)  
\textsuperscript{18} (Owyang et al., 2013)  
\textsuperscript{19} (Botsman & Rodgers, 2010)  
\textsuperscript{20} (Botsman, 2012)
**Economic Conditions and Incentives**

Recent economic conditions are arguably the most influential factor setting the conditions for the sharing economy's conception.\(^{21}\) During the last five years, the major world economies have experienced a severe economic downturn. In the United States, monthly unemployment averaged 9% from 2009 to 2012, compared to 5% from 2006 to 2008.\(^{22}\) Figure 1 illustrates the rise in U.S. unemployment after 2008.

![Figure 1](image-url)

*Figure 1 (Bureau of Labor Statistics)*

Furthermore, the median household income within the US, after adjusting for inflation, dropped from $55,627 in 2007 to $51,017 in 2012.\(^{23}\) The US and the world’s economies have been deteriorating at the same time the concepts within the sharing economy were gaining traction. Economic incentives exist for both

\(^{21}\) (Gansky, 2010)  
\(^{22}\) (Bureau of Labor Statistics, 2013)  
\(^{23}\) (United States Census Bureau, 2010)
individuals and businesses to participate within the sharing economy, which in turn has greatly helped to accelerate adoption.

**Alleviating the Burden of Ownership**

For many users, the sharing economy can help incentivize a possession-reduced lifestyle by minimizing the need to own certain goods. Over the last half century, Americans have placed a high value on personal ownership, which has become a marker for personal economic success: personal wealth is typically judged, at least on the surface, by what type of home, car, or clothes a person owns. However, ownership of assets requires large capital expenditures, maintenance costs, and sometimes storage and disposal costs.\(^{24}\) When individuals can obtain on-demand and instantaneous access to a variety of goods without significant expenditures, the appeal of ownership is reduced.

Prior to the sharing economy's adoption, if a person needed a car for transportation, the most economical options were to purchase or lease. This required a substantial initial expenditure plus typically a monthly payment for multiple years. However, in reality, cars -- an asset with a relatively high initial cost and monthly payments-- are hardly used: recent calculations have estimated that cars worldwide are parked between 92% and 96% of their useful lives.\(^{25}\)

By using the sharing economy, people no longer have to save for extended periods of time to have access to a car, and other goods, whenever they want. Cars can be accessed instantaneously; costing only the exact amount of time the car is in

\(^{24}\) (Gansky, 2010)  
\(^{25}\) (Barter, 2013)
use. Through its use of new technologies, the sharing economy can provide this increase in accessibility, reducing the costs of using certain assets to a per-use basis and eliminating the costs associated with ownership. More specifically, it has been estimated that individuals who use car-sharing services instead of owning a car saved $500 a month on average. Moreover, because of the reduced costs associated with access, as opposed to ownership, users of the sharing economy may be able to use goods superior to those they would have purchased without such access. Hence, the ability of participants to avoid the cost of ownership has become an attractive alternative to ownership, especially given the current unstable national and global economic conditions.

Enhancing Individual Earning Potential

Beyond reducing the burden of ownership, sharing economy models also create more opportunities for additional earnings. First, individuals in financial need can make money on their underutilized assets already purchased by accessing “Own-to-Mesh” platforms. For example, “micro-prenuers” who have an unused bike or an extra parking spot can monetize this idle inventory through “Own-to-Mesh” platforms to others looking to utilize those assets for a short-period of time.

A study performed by Airbnb stated that homeowners using their platform made annually between $6,900 and $9,300 depending on the amount of space they offered. This additional income can have a significant impact on an individual’s

---

26 (Rosenberg, 2013)  
27 (Gansky, 2010)  
28 (Botsman, 2012)  
29 (Geron, 2012)
quality of life. As a recent *New York Times* article about the sharing economy points out, "the skills for any good job keep rising - {but} a lot of people who might not be able to acquire those skills can still earn a good living by building their own branded reputations, whether it is to rent their kids' rooms, their cars or their power tools." \(^{30}\) The author implies that even in a changing and more competitive labor market, individuals using the sharing economy can find alternative means to support themselves. The safety net and additional income provided to these "micro-preneurs" is a critical factor in the recent growth and popularity of the sharing economy and will also prove to be an influential factor in the future evolution of the sharing economy.

**Incentives for Businesses**

Economic incentives also are available to businesses that choose to operate within sharing economy models. Through the "Full Mesh" model, businesses are able to generate higher profits from an improved utilization of their assets by monetizing excess or idle inventory. The transition to higher asset efficiency increases profit potential as "Full Mesh" models are able to re-sell access to an asset multiple times at a potentially higher frequency. Incentives also exist with the "Own-to-Mesh" model, as businesses take a percentage of the transaction from individuals who provide access to their underutilized personal possessions. The "Own-to-Mesh" model allows for businesses to scale at a pace that wasn't previously possible. The ability to scale up so quickly with an "Own-to-Mesh" model is due to the fact that the company does not have to own any of the assets.

\(^{30}\) (Friedman, 2013)
Benefits of Improved Service and Customer Loyalty

An additional benefit for companies operating within the sharing economy is a rejuvenation of customer service. Traditionally, companies remain detached from the customers, either by selling to them through distributors or making one-time final transactions. In contrast, through the "Full Mesh" model, companies now have direct and frequent access to their customers.\(^{31}\) This on-going contact provides a constant feedback loop permitting customized services and improved product offerings, which eventually can lead to greater profits.\(^{32}\) As Gansky puts it, "Frequent, transparent contact with customers and partners equips Mesh businesses to spot problems, trends, and opportunities early. They can respond rapidly to strengthen customer trust or update their offerings."\(^{33}\) An advantage for customers is that companies within the sharing economy need to continually provide good service to establish a continuing relationship with the customer. This is obviously not a goal for businesses that provide one-time buy-sell transactions.

To compete, companies within industries threatened by sharing economy models can adopt new 'company-as-a-service' strategies offering customers continuous access to some products or services, in contrast to exclusively selling goods.\(^{34}\) The 'company-as-a-service' strategy improves adaption to this changing marketplace. For instance, a high-end handbag company can implement "Full Mesh" platforms for some of its products, potentially allowing customers to try out the newest products on a need basis, enticing them to buy the products sometime in the future.

\(^{31}\) (Gansky, 2010)
\(^{32}\) (Gansky, 2010)
\(^{33}\) (Gansky, 2010)
\(^{34}\) (Owyang et al., 2013)
future. Those companies that embrace the sharing economy models will reap additional economic gains by becoming more closely connected to their customers through repeat transactions, which in turn gives companies the opportunity to change their product or service offerings frequently to meet customer needs, further improving the customer experience and customer loyalty associated with the brand.35

These advantages align with the economic forces that helped create the sharing economy. Thus, the economic consequences of the Great Recession of 2008 were in effect influential drivers spawning the new incentives and benefits of the sharing economy.

Environmental Factors

The influential driving force of the sharing economy is the growing public concern about the adverse effects society inflicts on the environment.36 It is scientifically proven and widely accepted that excess greenhouse gases emitted through the burning of fossil fuels is accelerating climate change and environmental damage.37 Modern consumers are becoming increasingly environmentally conscious and are more inclined to purchase products that have been sustainably produced. Environmental consciousness on consumer decisions has influenced many companies to adopt more sustainable practices in an effort to develop goodwill with consumers.

35 (Gansky, 2010)
36 (Gansky, 2010)
37 ("Global Climate Change," n.d.)
In the sharing economy, the focus on an improved utilization of assets creates positive environmental effects. An asset available for use through a “Full Mesh” or “Own-to-Mesh” platform with a vast network of users is less likely to be idle and will be used more efficiently. This higher-utilization aspect has positive implications for the environment by reducing overall production needs. If assets are utilized more efficiently, their production is more environmentally justified, aligning with consumers’ greater perception of environmental consequences. High utilization also creates incentives for more durable products. Goods will require more durable design to withstand the additional usage. This creates incentives for companies to improve product design, enabling more economic returns for assets with longer lives. Reduced production and more durable products support recent societal trends toward making environmentally conscious purchasing decisions.

**Community Involvement**

A growing need for more community involvement is also driving the adoption of the sharing economy. It can be argued that the increased use of online social networks actually increases feelings of isolation and disconnection. Within this context, the sharing economy offers new opportunities to personally interact with strangers in both online and offline environments. While this may be unappealing to some, it is an incentive to others. A recent sharing economy study performed by Latitude, a Massachusetts-based creative research company, showed that 78% of those they surveyed thought that their recent online communications

---

38 (Gansky, 2010)  
39 (Gansky, 2010)  
40 (Milner, 2010)
made them more willing to share with other members of their community. This type of sharing can increase community interactions by creating a platform for individuals to discuss common activities, leading to a more fulfilling experience. For example, Airbnb is a platform that not only provides an increase in the overall supply of travel accommodation options, but it also offers an authentic local experience and an opportunity for a personal connection, practically unachievable for most hotel chains. In an analysis of consumer preferences, Rachel Botsman found that there has been a recent shift in consumer priorities to more community engagement. More specifically, consumers want to return to more simplistic and personal transactional relationships. In the past, marketplaces involved more personal interactions, allowing consumers to know the people with whom they were doing business. But as ecommerce became widely practiced in the late 90's, as Botsman notes, the interaction between buyers and sellers became less personal. Yet, participation in the sharing economy has created new opportunities to access assets online with an added level of personal engagement. As a result, Botsman hypothesizes that the preference among consumers for more community engagement will generate more transparency, a better understanding of where and from whom the products and services are coming from.

Therefore, sharing economy models have improved the transparency of online transactions more than their e-commerce predecessors. With most "Own-to-Mesh" platforms, the seller generally has a Facebook or personal profile available

---

41 (Gaskins, n.d.)
42 (Botsman & Rodgers, 2010)
43 (Botsman & Rodgers, 2010)
for viewing, along side the asset they are listing. This added level of transparency for sharing economy models not only builds the trust required for the sharing economy to operate effectively, but also allows consumers to feel more engaged with the local community and the person behind the transaction.

**Obstacles to the Sharing Economy**

Even though many aspects of the sharing economy have aligned with current economic and societal trends, which in-turn has accelerated its adoption, the sharing economy still faces a significant number of obstacles. Established businesses who feel that their sharing economy competitors are not competing on an even playing field work to create obstacles by pressing for laws and regulations to restrict sharing economy activities. However, some obstacles are solely a result of sharing economy activities being blended with old consumer habits.

**Laws and Regulations**

The sharing economy is still evolving, but its disruptive nature for many industries has caused affected business owners to become vocal. As a result, established businesses seek to pressure law makers to pass laws and regulations that will interfere with businesses using sharing economy models. A major obstacle is the traditional policies and regulations associated with established industries. The most common are the many permits and licenses, such as taxi permits and hotel licenses, required of traditional businesses. Historically, regulatory policies and insurance structures were created to protect relationships between businesses and
individuals. For example, in the hotel industry, policies were created to ensure that hotels were cleaned to a certain standard and that their structure abided by fire and structural regulations for the number of their guests. However, in the sharing economy, transactions between peers are commonplace, and as they increase, the regulatory policies applied to businesses in the same industry are not being followed. Therefore, it is more difficult for regulatory bodies to track all the individual participants within the sharing economy who do not and cannot pay industry taxes or acquire licenses.

More specifically, Uber, Lyft, and other ride-sharing businesses have encountered aggressive resistance from taxi companies in most major cities. The taxi companies insist that ride-sharing businesses bypass the established transportation regulations and licensing costs. In San Jose, California, a potential taxi driver must pass a written test, a drug test, and pay $464 in fees. Companies operating taxis, and the drivers themselves, must also have business licenses. However, nationwide, these regulations do not generally apply to individuals operating in the sharing economy. Uber and Lyft drivers do not have to pass the same tests or pay the same fees as taxi drivers.

Currently, the application of industry regulations to sharing economy concepts has been sporadic. One apartment owner on Airbnb was threatened with

---

44 (Cooke, 2013)
45 (Cooke, 2013)
46 (Wilonsky & Bush, 2013)
47 (Layton, 2013)
48 (Layton, 2013)
$40,000 in fines by the city of New York for operating an illegal hotel.\textsuperscript{49} The reason that individuals are being threatened and fined, as opposed to companies providing the online platform, is due to the Federal Communications and Decency Act of 1996.\textsuperscript{50} This law was initially developed to protect Internet companies from being held liable for pornographic images, but it has served as legal protection for sharing economy platforms that potentially infringe on current preventative regulations and licensing requirements. This places the liability of infringing on the law with the participants, not the platform.

The threat of the sharing economy to established industries activates political and lobbying efforts to create barriers to entry and regulatory obstacles. However, the more successful sharing economy concepts are not standing by, passively observing the outcome of this regulatory debate. Many sharing economy businesses have policy departments that engage political support and generate community activity. As sharing economy models continue to grow and obtain the market share of incumbent competitors, the issue of regulatory fairness is becoming a critical factor in the growth of the sharing economy.

\textit{Lack of Trust}

Trust encourages participants to engage in the sharing economy. Understandably, people may feel uncomfortable allowing strangers to stay in their house or use their car. In an article in \textit{Boston Magazine}, Janelle Nanon noted that people might resist participating in the sharing economy due to “an aversion to

\textsuperscript{49} (Nanon, 2013)  
\textsuperscript{50} (Fickenscher, 2013)
sharing that's rooted in the fear of strangers, germs, and awkward encounters."  

While these concerns are valid and will prevent some people from participating, it is possible with time that many of these concerns will recede. In urban areas, most individuals already share many things with other strangers, such as busses, elevators, and sometimes tables at restaurants. The transition to sharing cars, bikes, or boats will not be a significant one. Through linking social networks, reputation tracking, and a two-way ratings system, start-ups within the sharing economy have attempted to make people more willing and confident to open their homes, or other belongings, to strangers.

In a TED talk, Rachel Botsman speaks of the three trust waves our society has faced with the Internet. The first wave began when people became comfortable with sharing information online, which has been reinforced with social networks. The second trust wave involved people trusting online payment systems used in e-commerce. The third and current trust wave is connecting to trustworthy strangers online.  

Companies within the space are already striving to generate the needed level of trust for individuals to participate in the sharing economy. For instance, Airbnb creates trust for users through a process of verifying the IDs of hosts, a review and ratings system of both hosts and guests, and a message system to establish prior contact. In addition, Airbnb also handles the money involved in every transaction and provides insurance, up to $1 million, for every booking.

The ideal goal would be to have a reliable trust rating system that followed users

---

51 (Nanon, 2013)
52 (Botsman, 2012)
54 ("Trust and Security: Airbnb," n.d.)
throughout their multiple transactions across various platforms, similar to a financial credit score.\textsuperscript{55}

While the current online reputation systems and the efforts to develop trust should be improved, many existing users of the sharing economy seem to place enough credibility on the current system to develop the trust necessary to conduct transactions. With time, as these interactions become more widely utilized, online reputation tracking will advance, improving the overall experience of both parties.

\textbf{Difficulties Measuring Economic Activity}

Measuring economic activity within the sharing economy may become a challenge for government and financial institutions.\textsuperscript{56} Historically, economic measurement has been focused on production. With the sharing economy, a large focus is placed on re-utilization to provide economic gains. As many transactions occur between individuals, it will be harder for the government to obtain the economic information. This is important because the government measures economic activity to better understand the financial health of the nation and also to compare progress against other countries.\textsuperscript{57} The lack of a clear method to measure economic activity is not a critical obstacle to the success of the sharing economy, but it is important to consider as the growth of the sharing economy could create a significant impact on the overall economy. If the sharing economy continues to expand and more individuals reap economic benefits from participating, additional methods will need to be developed to measure the economic activity.

\textsuperscript{55} (Sacks, 2011)
\textsuperscript{56} (Geron, 2012)
\textsuperscript{57} (Richardson, 2009)
Imbalance of Supply and Demand

An imbalance of buyers and sellers can affect the functionality of a marketplace. In theory, sharing economy concepts usually sound very advantageous. Concepts propose an increase in convenience, lower costs, and economic incentives. However, both over-supply and over-demand have been obstacles for concepts within the sharing economy. When there is a large imbalance in supply and demand, participants will not find usefulness in the market and the concept will not survive.

The individual economic incentives provided to sellers or renters through many sharing economy concepts has created in some cases an excess of supply and very low levels of demand.\textsuperscript{58} In their beginning stages, Airbnb had to develop special strategies to generate the necessary demand to make its marketplace functional, such as improving photos and descriptions and placing artificial price ceilings.\textsuperscript{59} Creating supply has also been a challenge for some sharing economy concepts. Thred-UP, the start-up that allows parents to exchange children’s clothing, initially had to fund its own supply.\textsuperscript{60} It also helped incentivize supply by providing redeemable credits for users who participate on the supply side.\textsuperscript{61} In a more long-term strategy to balance supply and demand, Uber recently announced a partnership with auto manufacturers and financing companies to lower rates for qualified drivers.\textsuperscript{62} In order to build a successful platform, matching supply and

\textsuperscript{58} (Cooke, 2013)
\textsuperscript{59} (Sacks, 2011)
\textsuperscript{60} (Sacks, 2011)
\textsuperscript{61} (Sacks, 2011)
\textsuperscript{62} (Lawyer, 2013)
demand to keep all users satisfied will be a critical challenge for sharing economy concepts in the future.

**Impact on Established Industries**

Sharing economy models have been introduced to various industries, such as the transportation, fashion, and the media industry, in a very short amount of time. In some industries the impact is yet to be defined or potentially negligible, while in others the sharing economy concepts can be complimentary to the traditional business within the industry. However, there are examples of sharing economy concepts completely destroying the traditional players in a particular industry. The following paragraphs will outline a few of the industries that have been disrupted by either “Full Mesh” or “Own-to-Mesh” models.

**Transportation Industry Disruption**

Both “Full Mesh” and “Own-to-Mesh” platforms have had success in the car-rental industry and the taxi industry. Zipcar, Uber, and Lyft are examples of the more popular car and ride-sharing platforms causing disruption; however the type of disruption within each industry is significantly different.

Zipcar’s threat to the traditional car-rental business prompted the Avis Budget Group to purchase it and incentivized many other agencies to create their own car-sharing platforms. The car-rental industry appears to consider car-sharing a complimentary product, as there are obvious synergies between the current fleet of rental agencies and car-sharing concepts.
Uber and Lyft's impact on the taxi industry is still being defined, but the long-term impact appears to be detrimental to the taxi industry. One example of their disruptive impact is that a cab company in San Jose, California, claimed that ride-sharing platforms have reduced their revenues by 30%. The impact Uber and Lyft have on the taxi industry appears much more detrimental because current incumbents within the taxi industry do not have the ability to purchase all the independent operators within these “Own-to-Mesh” platforms, as did the Avis Budget Group with the “Full Mesh” Zipcar concept. Furthermore, the driving experience of car-sharing and car renting is fairly similar whether you rent the car for an hour or for a week. However, the experience between an Uber and a taxi is significantly different. For example, there is no driver rating system for your typical taxis; therefore, drivers have less incentive to give their customers a quality experience. In addition, the technology of Uber and Lyft also reduce transaction costs and add convenience to the experience by processing the payment online in the moment, providing a map of the route taken, and streamlining the order process. These additional benefits, which are currently not available in common taxis, will make the taxi industries' ability to compete with ride-sharing concepts much more difficult.

**Fashion Industry Disruption**

In the fashion industry, both “Full Mesh” and “Own-to-Mesh” models have gained traction. Rent the Runway, a “Full Mesh” model, provides fashionistas the ability to rent high-end clothing and jewelry, while Thred-UP, the “Own-to-Mesh”

63 (Layton, 2013)
model for predominately used children’s clothing, gives parents a cost-saving solution to purchasing clothes that are quickly out-grown. Within the fashion industry, these concepts appear to be complimentary. They are complimentary in the sense that they allow potential customers to try high-end brands and styles without first having to purchase them, and, in addition, sharing economy fashion concepts could provide brand access to a demographic that could normally not afford them.

**Media Industry Disruptions**

The media industry has been one of the most affected industries, disrupted by platforms that share access to digital media. Netflix, an online provider of digital movies that offer users unlimited access for a monthly subscription, has shattered the retail movie rental industry. Blockbuster, the famous movie rental retail operation, had several thousand stores across the United States and the rest of world, yet within a few years, the accessibility and popularity of sharing digital content caused Blockbuster to go bankrupt and close all of their retail locations.

Other industry examples occupied by sharing economy concepts include the financial services industry, where companies like Lending Club facilitate peer-to-peer lending, eliminating banks from the process and thus reducing fees and making loans more accessible to some. The office rental industry also has sharing economy concepts with platforms that offer on-demand shared office space rented by the day or the hour.

---

64 (Stelter, 2013)
65 (Stelter, 2013)
As seen in Figure 2, below, Latitude Research illustrates the spectrum of industries that have been affected by the sharing economy, with predictions of where opportunities still remain.

Figure 2 (Latitude Research)

Overall, sharing economy concepts can succeed for various product types and services, resulting in new sharing economy start-ups introduced into multiple types of industries. Knowing which industries provide the next big opportunities for "Full Mesh" or "Own-to-Mesh" platforms will be a critical for aspiring entrepreneurs looking to capitalize on the growing sharing economy trends.
**3.0 Sharing Economy Case Studies**

To predict future trends in the sharing economy, it is important to understand how previous sharing economy models achieved success. In this section, I analyze three popular sharing economy businesses – Zipcar, Airbnb, and TaskRabbit. Through a horizontal comparison using the below framework, it is possible to see how a particular concept satisfies critical criteria of the sharing economy and how each specific model compares to its potential substitutes in its respective industry. Substitutes being the traditional businesses that offer similar products or services but do not operate as sharing economy concepts. Once each sharing economy model has been compared to its potential substitute in its respective industry, I will distinguish the sharing economy best practices within these companies.

<table>
<thead>
<tr>
<th>Asset:</th>
<th>Asset:</th>
<th>Value:</th>
<th>Frequency of Use:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Case:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sharing Economy Concept</th>
<th>Substitution</th>
<th>Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Incentives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Involvement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 3*
An analysis of Zipcar, a sharing economy transportation company, will help detail how the execution of a “Full Mesh” model satisfies critical sharing economy criteria and how the transportation industry has responded to its success. Airbnb, a sharing economy hospitality company, is another model chosen to demonstrate an “Own-to-Mesh” model and to illustrate how this Airbnb sharing economy criteria differs from the Zipcar criteria. Finally, TaskRabbit, a consumer-services company, has been chosen because it allows us to examine a model that maximizes the utilization of a more unconventional resource, time.

**Zipcar: The Business Model**

Zipcar provides its members on-demand access to its fleet of automobiles. Members have the choice of paying for the cars’ usage through either hourly or daily rates, ranging from $7 an hour to $84 a day, or through monthly subscription services. Zipcar is generally located in urban areas and college campuses throughout the United States, Canada, the United Kingdom, Spain, and Austria.

**History**

In 2000, Zipcar was launched in Boston, MA with its first fleet of cars from an initial investment of $75,000.\(^{66}\) Within two years, the concept was already in multiple cities and had raised millions of dollars in venture-backed funding.\(^{67}\) By April 2011, Zipcar became a publicly traded company and had reached a total of 767,000 users with 11,000 automobiles in operation. Finally, in early 2013, the

---

\(^{66}\) (Eha, 2013)  
\(^{67}\) (Eha, 2013)
traditional car rental company, Avis Budget Group, purchased Zipcar for $500 million.68

**Impact: Users**

Because of its focus on asset utilization, widespread consumer penetration, and its strong global presence, Zipcar has become a classic sharing economy success story. First, Zipcar has been able to change the behavior of its member base. After studying its members' car usage habits for one year after its Baltimore launch, Zipcar was able to identify how much its members' habits had changed since they had gained access to the car-sharing service. The survey showed that due to the Zipcar service nearly 50% of its members were able to avoid purchasing a car.69 This change in consumer habits was found to generate economic incentives by not only eliminating the cost of owning cars but also reducing car production and toxic emissions. Additional evidence supporting the positive impact of car sharing is confirmed by another recent study in ten major metropolitan markets70 where car sharing is widespread; for every one vehicle available to the sharing economy, another 32 vehicle purchases are avoided. This reduction in vehicle purchases is expected to result in 1.2 million in avoided car purchases for manufacturers by 2020.71 This evidence validates the impact a sharing economy concept can have on a large industry.

---

68 (Eha, 2013)
69 (Clendaniel, 2011).
71 Ibid.
Impact: Industry

As a result of the growth and appeal of Zipcar, the transportation industry has been forced to reconsider its strategy. Due to its impact on changing consumer habits, many traditional car rental companies attempted to adopt or purchase a car-sharing strategy, taking an adoptive approach to sharing economy concepts.

The Avis Budget Group acquired Zipcar because they believe that Zipcar is an independent yet complimentary offering to their traditional car rental services. As the chief executive officer and chairman of Avis Budget Group stated: “I’ve been somewhat dismissive of car sharing in the past. But what I’ve come to realize is that car sharing ... is complementary to our traditional car rental model.” Multiple other rental agencies and car manufacturers, such as Hertz, Enterprise, U-Haul, BMW, and VW, have also initiated car-sharing platforms. What happened was that the traditional rental agencies recognized the value that a car-sharing platform for short-term usage added to their business by improving the utilization of their current fleet. Furthermore, traditional companies, by incorporating car-sharing technology, now have improved and decentralized the steps to rent a car — benefitting both the company and the customer. Minimizing the transaction barriers and the associated infrastructure will facilitate a higher volume of bookings and reduce costs. In the case of car manufacturers, such as BMW and VW, a car-sharing program will allow customers to test drive a product, which may entice them to purchase it.

---

72 (Currie, 2013)
73 (Kell, 2013)
74 ("Volkswagen becomes latest automaker to enter car-sharing business," 2011)
75 (Brown, 2013)
The auto industry realized that car-sharing technology that provides on-demand access improved the utilization of their already enormous fleets. After the execution of their “Car Sharing Outlook Study,” Mark Wakefield, managing director of AlixPartners, stated, “The auto industry can be bypassed by these trends or can seize the opportunity to get out in front of them. It can do this by addressing the dissatisfaction with car ownership that many people, especially urbanites, feel today, but also by leveraging the new technologies underpinning car sharing, being relevant in auxiliary services and adapting to what some are calling the new ‘sharing economy,’ where pay-by-use is often preferred over ownership for many types of products.”

Zipcar Framework

By applying the above framework to Zipcar, it is easy to see how this concept provides an added value proposition to its more traditional substitutes of owning and renting a car. Zipcar satisfies almost all the critical criteria that incentivize users of the sharing economy and has a clear and differentiated use case. Like the original sharing economy concepts, Zipcar was able to identify an asset-class of high value with infrequent use by upper income users.

76 ("AlixPartners Study Indicates Greater Negative Effect of Car Sharing on Vehicle Purchases," 2014)
### Figure 4

**Lessons Learned**

The combination of accessibility and economic incentives has made Zipcar a successful sharing economy model. For urban residents, the improved value proposition of Zipcar has influenced both rental agencies and auto manufacturers to implement or develop similar models.

**Airbnb: The Business Model**

Airbnb is an online “Own-to-Mesh” platform that connects travelers to property owners with short-term residential space to rent. Airbnb provides
homeowners with the ability to publish an online listing, while guests are able to search from a wide variety of posted listings that meet their criteria. Airbnb manages the payment system between the host and the guest. Airbnb takes a fee of between 9 to 15% of the reservation; the host pays a 3%, while the guest pays the rest.77

History

Airbnb is the creation of two Rhode Island School of Design students living in San Francisco in 2007. The idea originated out of an incident where a design conference in San Francisco caused limited vacancy for hotel rooms in the entire city. During the weekend of the conference, Airbnb founders Joe Gebbia and Brian Chesky created a website to rent out an air mattress to three guests in town for the weekend.78 From this beginning, the founders formulated a business plan based upon renting space using a sharing economy model. Within a few years, Airbnb has booked millions of nights in thousands of cities in hundreds of different countries, creating accommodations for cheaper prices than traditional sources.79

Impact: Users

The concept has been attractive to consumers for a variety of reasons. In a study performed by Priceonomics, renting an Airbnb listing provides cost savings between, on average, 21.2 and 49.5% compared to hotel prices.80 The savings were greater if the guest rented a private room compared to an entire apartment. The

77 (“Help and Questions: Airbnb,” n.d.)
78 (Salter, 2013)
79 (Salter, 2013)
80 (Priceonomics, 2013)
economic incentives benefit not only the traveler, but hosts also have the opportunity to earn several thousands of dollars a year.\textsuperscript{81} Clearly, the Airbnb platform is successful in creating a marketplace by significantly reducing the search and transactional costs for an asset that was previously tedious and relatively expensive to rent on a very short-term basis.

Thus, Airbnb has achieved lower travel accommodation prices by creating more supply.\textsuperscript{82} The following series of figures show heat maps of the listed properties of Airbnb throughout Paris from 2008 to 2012. The pink areas represent the concentration of Airbnb listings. From these heat maps, the popularity and growth of Airbnb is evident, and it is also clear how this concept has drastically increased hotel accommodations in Paris.

\textsuperscript{81} (Geron, 2012)
\textsuperscript{82} (Choudary, 2013)
Figure 5 (The currency of the new economy is trust)

Figure 6 (The currency of the new economy is trust)
This decrease in cost has also had a significant impact on the behavior of travelers who use the platform.\textsuperscript{83} Airbnb users spend less on accommodations and stay almost twice the amount of time than hotel guests.\textsuperscript{84} Because travelers stay longer in a city, they spend more money over the duration of their trip.\textsuperscript{85} Airbnb conducts its own economic studies to measure the impact and use of its platform in various cities. A recent study conducted to measure the impact of Airbnb on the New York economy estimated that Airbnb created more than $600 million in economic activity in one year, from August 2012 to July 2013.\textsuperscript{86} While there are strong economic incentives for Airbnb users, there are also more opportunities for

\textsuperscript{83} (Choudary, 2013)
\textsuperscript{84} ("New Study: Airbnb Generated $632 Million in Economic Activity in New York," 2013)
\textsuperscript{85} ("New Study: Airbnb Generated $632 Million in Economic Activity in New York," 2013)
\textsuperscript{86} ("New Study: Airbnb Generated $632 Million in Economic Activity in New York," 2013)
community engagement. Guests make valuable personal connections with local hosts through Airbnb -- not possible with the traditional hotel industry.87

**Impact: Industry**

In just a few short years, Airbnb has dramatically changed the travel accommodation landscape in major metropolitan markets. Airbnb has over 500,000 properties listed worldwide, with 150,000 guests hosted each night.88 This phenomenal growth makes it reasonable to assume that Airbnb will be the largest supplier of travel accommodation in the near future. In a 2013 study analyzing the growth and impact of Airbnb in Austin, Texas, it was estimated that for every 1% increase in the Airbnb market supply, there was a .05% decrease in hotel revenue within the same market.89 Furthermore, the recent popularity of Airbnb has created a significant degree of loyalty among its users, compared to traditional hotel brands, indicating another long-term obstacle for traditional hoteliers. In the figure below, Netbase compared the brand passion of consumers among different travel accommodation options.90 According to this study, Airbnb ranks positively on the sentiment range and the highest on the passion range.

87 (Nanon, 2013)
88 (Singh, 2013)
89 (Zervas, Proserpio, & Byers, 2014)
90 (Owyang, 2013)
Even so, not everyone is positive about the recent growth of Airbnb. Some critics have stressed the negative externalities forced on non-collaborators. Some of the concerns raised are that short-term guests will not follow rules regarding noise or cleanliness, and that this will severely inhibit the cultivation of resident communities.

The impact of Airbnb on the hotel industry is still questionable. Some within the industry believe that the impact will be negligible, and that the hotel industry will continue its operations and growth, as usual. In an article by Hotel News Now, Michael Flaxman, former COO of the Americas for Accor, said when he was asked about Airbnb, “I don’t think it’s a serious threat to the traditional, conventional hotel business. It’s just another aspect of our hospitality industry.” Ultimately,

---

91 (Zervas et al., 2014)
92 (Zervas et al., 2014)
93 (Mayock, 2013)
Flaxman and others in the industry consider Airbnb to be a niche product that cannot compete with the services and reputation of major hoteliers. At the same time, others within the industry see Airbnb as a potential threat, encouraging governmental bodies to take a more active interest in creating regulations that would impede the ability of hosts to rent out their properties. As Richard Solomons, CEO of InterContinental Hotels Group, stated, “But what about fire and life safety, what about food safety, what about security issues, what about cleanliness – all those things that we [hoteliers] are required to keep to a standard? What about paying tax?” \(^9^4\) In any case, because traditional hotels are influential with governments as taxpayers and employers, the possibility of increased regulation is gaining momentum just as services like Airbnb become major operators.\(^9^5\)

Other than encouraging regulatory obstacles, the hotel industry appears not to have yet develop an effective strategy. For example, there could be an acquisition strategy similar to Avis Budget Group with Zipcar, yet the synergy between Airbnb and, for example, Hilton, is less obvious than the synergy between the Avis Budget Group and Zipcar. Airbnb is an “Own-to-Mesh” model and does not own their properties; whereas Zipcar owns their fleet of cars. Also, the typical Airbnb guest criteria may differ significantly from the users of Zipcar, who place high priorities on cost savings, convenience, and the environment.

While it is likely most Airbnb travelers are also concerned with cost savings and convenience, they also seek other qualities, such as personalization and

\(^9^4\) (Thomas, 2014)  
\(^9^5\) (Thomas, 2014)
genuineness. This advantage for Airbnb is difficult for large hotel brands to replicate because they seek to provide a high level of consistency within their service, resulting in a more homogeneous experience.

Hotels can compete with the cost savings and personalization of services like Airbnb by offering a better service with a higher standard of quality. Hotels can use their local contacts and influence to develop more intriguing itineraries for their guests. Finally, by creating relationships with local restaurants, the symphony, and theaters, hotels can improve their reputation by communicating their role within the local economy. While the adoption of sharing economy trends may be a more difficult step for the hotel industry than for the car rental industry, this challenge could be met by those in the hotel industry willing to adopt some of the attractive features of Airbnb while also preserving their more traditional benefits.

**Airbnb Framework**

Airbnb satisfies all the criteria of a successful sharing economy concept and out-performs their substitute offering, hotels, by using economic incentives and community involvement. Airbnb is highly accessible, as there is a large amount of supply now available. Participants are offered attractive economic incentives. The streamlined process results in a high level of convenience. The environmental impact is low as no new hotels need to be built to accommodate the increasingly large number of Airbnb customers. Finally, and most importantly, Airbnb offers a window into the lifestyle of local residents and the opportunity of a more genuine

---

96 (McCarthy, 2014)
97 (McCarthy, 2014)
98 (McCarthy, 2014)
local community experience. Hotels only compare in their accessibility and convenience.

**Figure 9**

**Lessons Learned**

The framework helps highlight the importance of community involvement in these concepts. Many Airbnb users want a community experience, which cannot be achieved by hotels that do not participate within the sharing economy. These connections can be created in multiple ways, but creating them will help satisfy that community requirement many consumers are seeking.

**TaskRabbit: The Business Model**

TaskRabbit offers a platform that allows individuals to outsource small errands or tasks, such as mowing lawns or grocery shopping, to others. The online
marketplace posts listings of jobs or errands with the maximum price the user would be willing to pay to get the job completed. “Rabbits,” individuals ranging from 21 to 72 years old interested in executing tasks then bid on posted jobs online. The bids are then either accepted or rejected by the user who posted. TaskRabbit takes a cut, between 12 and 30%, from the final price of an executed job. “Rabbits” have scores and can gain points and recognition through completing more jobs and better customer reviews. Having a higher score increases a “rabbit’s” chances of receiving acceptances for the bids they place. The underutilized asset, being shared in all TaskRabbit posts, is primarily time but also skills in some cases.

**History**

TaskRabbit began in 2008 as RunMyErrand, the creation of Leah Busque, a former software engineer from IBM. Within the next two years, Busque moved her team to San Francisco, and by 2011, the company had over 2,000 active “rabbits,” and by the end of that year, the company was generating revenues of $4 million a month. Currently, at the end of 2013, TaskRabbit is operating in 19 major U.S. markets and has also recently expanded to the U.K.

**Impact: Users**

TaskRabbit is attractive to users for many reasons. Primarily, TaskRabbit has proved to be a way for “rabbits” to earn an additional income by performing

---

99 (Hoshaw, 2011)  
100 (Tsotsis, 2011)  
101 (Tsotsis, 2011)  
102 (Yeung, 2013)
tasks that were previously not feasible without an online marketplace. According to the founder of TaskRabbit, Leah Busque, full-time “rabbits” can make an income of $5,000 dollars a month.

For most, the ability to outsource daily errands was not a feasible option until the creation of TaskRabbit, as prior to this there was not a significant personal services industry for daily tasks. However, by creating an efficient marketplace for impromptu projects, TaskRabbit has created an evolving trend for the future of labor markets and employment opportunities. These micro-task opportunities have given aspiring freelancers and “micro-preneuers” more access to non-traditional means of generating income.

While many believe this creates a positive impact on the economy as out-of-work individuals can find a rapid alternative to generating sustainable income, others believe the freelance and micro-task trend will have a negative impact on future labor markets. The negative impact concerns a potential reduction in bargaining power, job security, and benefits in an economy where unskilled workers become much less competitive than today. In 2005, this segment of the labor force represented between 1.8% to 4.1% of the labor market and it is estimated to have doubled since that time.

---

103 (Tsotsis, 2011)
104 (Cronin, 2013)
105 (Kuttner, 2013)
106 (Cronin, 2013)
**TaskRabbit Framework**

Although TaskRabbit captures the accessibility and convenience criteria, as the Framework below shows, the very nature of this sharing economy concept – which essentially saves time rather than money – does not at first appear to offer comparably high economic incentives to its customers; yet obviously saving time is for all practical purposes the very condition necessary for economic incentive-building. Moreover, as a service vertical, TaskRabbit offers economic incentives to the supply side by giving independent contractors more opportunities for employment.

![TaskRabbit Framework Table](image)

*Figure 10*
Lessons Learned

Again, while the economic incentives do not appear as strong as the previous two examples, TaskRabbit has been successful largely because it offers a high level of convenience and accessibility. All three concepts excelled by generating higher levels of convenience and accessibility than current substitutes. These two factors are fundamental to developing the value proposition for a potential sharing economy concept. As explained below, the service vertical model, one that focuses primarily on convenience and accessibility, is a major wave of the future.

4.0 What’s next for the Sharing Economy?

New concepts within the sharing economy will continue to generate new ways of offering accessibility rather than ownership. As technology improves, participants will have even lower transaction costs for accessing the assets they desire and credible online reputation systems will help generate trust in these online connections. As technology investors continue to invest in concepts within the sharing economy, more and more entrepreneurs will seek to generate business concepts that fall within the sharing economy model. However, it is not yet evident which industry verticals are likely to have the same level of success that Airbnb has achieved in the hotel industry vertical, or that Uber and Lyft has achieved in the transportation vertical.

My analysis suggests that, in the future, sharing economy concepts will need to provide on-demand hyper-specific service verticals, utilizing the asset of time more so than physical assets. While the initial focus of many of the earlier sharing
economy concepts has depended on business-to-consumer interactions, there is a new opportunity to create business-to-business models.

**Service Verticals**

There are many off-line services that modern adults are already required to use on an incredibly frequent basis. People have to go to car washes, leave their pets at kennels, and take their suits to be dry-cleaned. An enormous amount of latent demand already exists for these services in every community, which is why most of these types of services currently exist as brick and mortar locations. Historically, these services have not been on the cutting edge of technology or the digital space, as their real world services did not require this type of focus; however, with the evolving societal and cultural influences that spurred the sharing economy to begin with, combined with on-demand technology, these services can now break into the sharing economy space.

Another important reason why companies who choose to focus on a service vertical will become the future of the sharing economy is because of the reorganization of modern labor markets since the great recession of 2008. According to a study from UC Berkeley, the top 1% of incomes captured 95% of the economic advances made from 2009 to 2012.\textsuperscript{107} This disparity indicates a growing economic gap and that the average person has still not been able to recover from the effects of the 2008 recession. In alignment with the economic incentives that urged people to begin participating in the sharing economy, people continue to need to find supplementary income. Specifically, within the service verticals of the sharing economy...\textsuperscript{107} (Saez, 2013)
economy, individuals do not necessarily need to own idle assets for others to access; many are able to sell their time and become on-demand grocery shoppers, pet caretakers, and deliverymen.

Hyper-specificity offers advantages to these aspiring start-ups. The first advantage is to be the leader in a niche market, instead of competing against the already established players within the service-based space of the sharing economy, like TaskRabbit. However, most importantly, when converting an off-line service into an on-demand sharing economy service concept, it is not only necessary to consider the technological and development costs to get the on-demand service functioning on an online platform, but also to consider the high operational costs typically associated with running the off-line service. Due to the combination of technological and operational costs required to create a on-demand sharing economy service, focusing on a specific vertical will allow companies to learn best practices for their service and reach economies of scale to make the margins work compared to the concepts that do not have a particular focus.

Successful concepts focusing on these hyper-specific service verticals will need to excel in accessibility, convenience, and customer service, as their brick and mortar counterparts are usually just around the corner. Concepts targeting these slim service verticals are already being developed and launched. Homejoy, a service concept that provides a platform and rapid access to professional home cleaners, recently raised $38 million and is in over 30 cities across the United States. Shyp, another hyper specific service-provider, uses on-demand couriers to help

---

108 (Nazar, 2014)  
109 (Nazar, 2014)
consumers mail packages. Finally, a concept humorously called Blow Me provides access to on-demand stylists that will come to your location and provide professional hair blowing services. Much like the TaskRabbit model, these platforms provide consumers with more convenient access to labor, although the type of labor is becoming increasingly more specific.

**Eliminating High Infrastructure**

Looking ahead, it is striking to consider that it is just this at-home service model that the sharing economy seems to be moving toward in its next iteration. Where businesses such as nail salons offer customer convenience, they also require expensive real estate, numerous employees, and expensive infrastructure. This is where I see new opportunities ahead: service concepts that maintain customer convenience with on-demand technologies while, at the same time, offering the advantage of reduced costs associated with the infrastructure needed to run convenience based services. One way to understand this future opportunity is to consider the 17,000 fast oil-change chain businesses, such as Jiffy Lube, currently operating throughout the United States. With over 1,900 locations, Jiffy Lube requires convenient retail spaces, buildings, equipment, and employees. To receive the service, customers are required to go to these locations multiple times a year to change their oil. An on-demand and mobile-first fast oil change service delivered at customers homes or workplaces is a potential sharing economy service vertical that could greatly increase customer convenience by eliminating the need to

---

110 ("Jiffy Lube Continues as Largest US Fast Oil Change Chain," 203AD)  
111 ("Jiffy Lube Continues as Largest US Fast Oil Change Chain," 203AD)
travel to different locations or wait in line. All its employees would need are trucks and a few pieces of equipment to successfully do their work.

<table>
<thead>
<tr>
<th>Asset:</th>
<th>Model:</th>
<th>Value:</th>
<th>Frequency of Use:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>&quot;Full-Mesh&quot;</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

**Consumer:**
Car owners

**Use Case:**
Oil change and light car maintenance

**Table: On demand Mobile Oil Change Service**

<table>
<thead>
<tr>
<th>Accessibility</th>
<th>Economic Incentives</th>
<th>Convenience</th>
<th>Environmental Impact</th>
<th>Community Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>On demand service that allows busy individuals to schedule appointments through phone</td>
<td>This service is more expensive than doing one's own oil change, but price could be comparable to national chains with the reduced infrastructure</td>
<td>The service would allow individuals the freedom to have this service performed at a time and place that is convenient to them</td>
<td>The proposed service does not have a positive or negative impact on the status quo</td>
<td>No opportunity for community involvement or engagement</td>
</tr>
<tr>
<td>Medium: Requires customers to go to their retail locations and wait for service</td>
<td>Medium: More expensive than doing one's own, but overall it is an inexpensive service</td>
<td>Medium: Customers have to plan a time of day to get this service performed, usually takes close to an hour and prevents the customer from doing anything else</td>
<td>Low: For these activities, there is neither a positive or negative impact on the environment</td>
<td>Low: No opportunity for community involvement</td>
</tr>
</tbody>
</table>

**Figure 11**

Similar to the successful sharing economy concepts in Section Three, this type of on-demand fast oil-change concept offers the critical sharing economy criteria of an even higher level of convenience and accessibility than current substitutes.

**Business-to-Business Concepts**

The most successful sharing economy concepts thus far have been focused on business-to-consumer transactions. However, there are many concepts that can be readily applied for a business-to-business context. Businesses face multiple problems where access to certain assets or cost sharing could provide immense savings. One of the most important factors for almost any business is reliability and
availability to satisfy their unique needs. The on-demand functionality of sharing economy concepts can be readily applied to a business setting.

One interesting vertical for business-to-business sharing is shipping. Logistical companies often have excess space, which, if access was readily available, could be sold to other companies for their transporting needs. This could be very beneficial to a local company that may have shipping needs but prefers not to invest in their own fleet.

Another potential vertical for a business-to-business concept is a platform for on-demand low to medium skilled restaurant laborers, such as bartenders, table bussers or valet staff. Restaurants and bars often have varying staffing needs on a particular shift that could be satisfied by obtaining on-demand additional staff from a pool of available workers. This could reduce their need to hire additional full or part-time staff and the advanced scheduling required for temp agencies.

Concepts that focus on providing on-demand services and equipment to businesses as they need them will allow businesses to stay lean and avoid expenditures on infrequently used overhead. Thus, making a transition from consumer-focused services to business-focused solutions is a potential avenue for the sharing economy to grow. As this thesis demonstrates, the concepts that focus on a very specific vertical, provide more convenience and accessibility than their traditional substitutes, and align with the societal and cultural forces that spurred the creation of the sharing economy in the first place are the most poised to succeed.
Bibliography:


