

# SHARING INTIATIVES AND THE SHARING LANDSCAPE IN SINGAPORE

CAROL SOON
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IPS Exchange. Number 14. September 2019
Sharing Initiatives and the Sharing Landscape in Singapore
Soon, Carol and Samsudin, Nadzirah
ISSN 2382-6002 (e-periodical)
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number 14 . september 2019



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#### **EXECUTIVE SUMMARY**

Besides industrialisation and urbanisation, the Internet has been touted as the next major threat to community life in contemporary times. While some scholars and experts have raised concerns over digital alienation and fragmentation of communities, others have found that technology helps build social capital, provides opportunities for civic engagement, and contributes to innovation. One of the outcomes of technology deployment is that sharing initiatives are gaining traction worldwide.

This report, commissioned by the Ministry of Culture, Community and Youth (MCCY), is a culmination of a two-phased study.

Phase 1 of the study reviewed the different international frameworks and initiatives for sharing, identified the factors and conditions that facilitate sharing, and examined policies in countries with notable sharing initiatives. It also mapped the sharing landscape in Singapore. The scope of our review and analysis for Phase 1 include policy briefs, white papers, research briefs and academic journal articles that were published on the topic of sharing initiatives. We analysed published literature and research relating to sharing initiatives in different parts of the world, the factors that accounted for their emergence and sustainability, and the relevant policies implemented in different contexts.

#### Here are some key findings:

- There is no uniform concept on sharing and what should be considered as a "sharing initiative". Sharing took on different meanings for different people. The common definitions are: Sharing is about the pooling of resources, resource distribution, and sharing means caring (see section on "What Does 'Sharing' Mean").
- There are diverse needs and wants that motivate sharing, the transaction type, the transaction process and the outcomes or benefits. It is thus more beneficial to focus on the dimensions, characteristics and features of sharing (see section on "Characteristics of Sharing Initiatives"). Several common determinants across sharing initiatives include a reliance on online platforms and/or mobile devices to connect people; transient and temporary transactions; and presence and emergence of meaningful interactions and trust.



- The outcomes of sharing can be both positive and negative, and can affect cities, societies and individuals (see p.30). For example, at the city level, sharing can reduce cost or transform how services are delivered to residents. It can also help to develop local economies. At the societal level, sharing initiatives promote shared experiences, build communities and strengthen solidarity. On the downside, commercial or for-profit sharing initiatives have created unlevelled competition in traditionally protected industry, such as the case of ride-hailing companies such as Grab and the taxi industry. Existing inequalities, such as the digital divide (because sharing is predicated on access to technology) and income divide (where the benefits of the sharing economy do not trickle down to the needy), could be exacerbated.
- Participants of sharing initiatives tend to be young, well educated, have high income and live in urban areas (see section on "Participation — Who and Why").
- ➤ The motivations for sharing can be broadly classified into three types instrumental motives (e.g., to save costs and for convenience), social-hedonic motives (e.g., enjoyment and wanting to part of a community), and normative motives (e.g., altruism and sustainability). Research also shows that motivations vary for service providers and consumers.
- ➤ The factors that influence sharing include: low awareness among citizens about sharing initiatives; cultural barriers that hinder residents' openness and willingness to share; the value and significance they place on objects; how developed a country is in terms of innovation and its IT infrastructure; and the roles governments play to facilitate sharing (i.e., as enabler and facilitator, as innovator and creator, and as regulator). The case studies of four different cities and countries Amsterdam, China, Medellin and Seoul illustrate how governments facilitate and promote sharing in different ways.
- ➤ A map of existing sharing initiatives in Singapore can be found on pages 93 and 98. The maps, based on the dimensions of the level on which sharing takes place (individual, collective or public) and of motivation (extrinsic or intrinsic), show that the majority of the initiatives in Singapore meet extrinsic needs (e.g., cost savings and convenience) and take place at the collective level.



Phase 2 comprised findings from Focus Group Discussions (FGDs) that were conducted with users and innovators of different sharing initiatives in Singapore. We also included lapsed users and non-users in the discussions. Through the FGDs, we examined the motivations, enabling factors and barriers that influenced people's participation (and non-participation) in sharing, as well as the conditions for success and failure of sharing initiatives in Singapore. The FGDs were conducted with six groups of individuals (55 in total), comprising users of non-revenue-generating (NRG) and revenue-generating (RG) initiatives, users of community-based initiatives, lapsed/non-users, and innovators. The findings from the FGDs showed that:

- ➤ Sharing took on different meanings for different people in Singapore. The common definitions were: Sharing was about the pooling of resources, resource distribution, and sharing means caring (see section on "What Sharing Means to Singaporeans").
- ➤ Users of NRG and community-based initiatives, and innovators of NRG initiatives felt that sharing had an environmental dimension as it reduced waste (see p.105). Users of RG initiatives on the other hand associated sharing with the attainment of personal and extrinsic benefits, such as cost savings and convenience (see p.107). Innovators of RG initiatives emphasised the "collaborative consumption" aspect of sharing (see p.108).
- ➤ The FGD participants shared different types of resources, ranging from physical spaces, clothes, services, to immaterial things such as ideas and information (see p.109).
- Sharing took place through formal initiatives that were mediated and facilitated by organisations, informal sharing networks, and in residential communities (see section on "Informal Sharing").
- Some FGD participants felt that volunteering was a form of sharing, as it involved the sharing of one's time. Participants also saw sharing as a way of helping those in need or who are less well-off (see p.110). Similarly, innovators of NRG initiatives emphasised the pro-social and non-transactional dimensions of sharing.
- Participants had different opinions regarding the involvement of money in sharing (see p.114) While most users and innovators of NRG initiatives felt that sharing should be driven by altruism, care and concern, and hence should not involve monetary transactions, some felt that the intent behind charging a fee was important (e.g.,



charging a nominal fee as a security deposit versus making a profit). Users of RG initiatives, particularly those who provided resources and services, looked forward to making a profit or earning some income. Innovators of RG initiatives said that they should be able to "break even".

- ➤ In general, the awareness for RG initiatives (e.g., Grab) was higher than that for NRG initiatives (e.g., Repair Kopitiam). Participants learned about sharing initiatives through word-of-mouth publicity and media platforms (see section on "Awareness of Sharing Initiatives").
- ➤ Users were mainly motivated by three Cs costs, convenience and sometimes community to participate in sharing initiatives. Their interest and needs also influenced their participation. The barriers to participation were lack of time and convenience, and inconsiderate behaviour of users (see section on "Motivations and Barriers to Participation").
- The section on "Perceived Impact of Sharing" showed that sharing initiatives fulfilled users' personal needs and provided both extrinsic (e.g., saving money and bringing convenience) and intrinsic benefits (e.g., they felt good as they are helping someone in need). NRG initiatives also contributed to users' emotional wellbeing.
- ➤ Innovators of NRG and RG initiatives faced different challenges (see section on "Innovators' Challenges"). For example, innovators of NRG initiatives were constrained by the lack of funds and manpower to sustain their initiatives, and had to manage partners (e.g., venue sponsors) who had different expectations. On the other hand, innovators of RG initiatives were confronted with high costs to entry in a small market, a nascent sharing landscape and constraints posed by regulation. However, both groups of innovators faced common cultural challenges people's lack of understanding of sharing and their attitudes towards sharing.
- ➤ The recommendations given by the FGD participants on growing the sharing landscape included: (i) addressing people's needs and building awareness, (ii) building a culture of sharing, (iii) support from government, and (iv) collaboration among innovators.

This report concludes with some recommendations for research and policy on developing the sharing landscape in Singapore. Some of the key recommendations are:



- Singapore is ripe for sharing. It has a well-established IT infrastructure, an educated and technology savvy population, a vibrant tourism industry and a government that is open to collaborations with the private and people sector.
- Given that sharing also takes place through informal networks, further studies are needed to determine the extent of informal sharing in Singapore. As RG initiatives have unintended social benefits, future research should not discount the social dimensions of these initiatives and examine their impact on cultivating social ties and building communities.
- ➤ To shift public consciousness and discourse away from the revenue-oriented paradigm of sharing, greater recognition and support should be given to NRG initiatives and informal sharing. However, this has to be done in partnership with the innovators of such initiatives.
- ➤ The government plays an important role in growing the sharing landscape it has a strong signalling effect and it can provide infrastructural support. Thus, policymakers should consider endorsing certain sharing behaviours and initiatives to cultivate positive sharing norms. Innovators also suggested the establishment of a Trustmark to help build public trust in sharing initiatives.
- Regulation is a double-edged sword. It may pose constraints to an initiative, but it can also help assuage users' fears relating to quality and safety. Thus, consultations between government agencies and innovators are necessary and should start at an early stage.
- A consistent and concerted effort across public agencies is required to build a sharing city. This can be done through identifying and articulating a common vision or goal, or by getting the different agencies to work together on a specific sharing project.
- Finally, the government may have to step back in order for people to step up. This is because government intervention and provision of services may have the unintended effect of crowding out groundup initiatives, diminishing the will for sharing and reinforcing people's dependency on the government to solve problems instead of doing it themselves.





## Phase 1

## Literature Review



#### **CHAPTER 1: WHAT DOES "SHARING" MEAN?**

Digital technologies have led to a surge in consumption behaviour that focuses on access, exchange, and the sharing of goods and services. The joint or collective consumption of goods and services increases sustainability by reducing the economic and environmental burden for people, communities and society. Such collaborative consumption brings benefits for the parties involved in different ways — economically (in terms of cost savings), socially (in terms of building relationships or friendships), and environmentally (reducing waste and beautifying the surroundings). While there has been much hype on how digital technologies facilitate the sharing of paid or unpaid commodities and services, sharing is not a new phenomenon.

According to Schmidt and Sommerville (2011), sharing is an evolutionary trait.<sup>2</sup> Our human ancestors banded together to hunt, farm and create shelter. This repeated and collective work naturally led to a preference for fair and equal outcomes.<sup>3</sup> The act of sharing is also socialised and informed by culture and learning. For example, Gabriel (2013) found that collective cultures displayed higher levels of sharing behaviours than individualistic cultures.<sup>4</sup>

The rise of consumer capitalism in the 19<sup>th</sup> century contributed to a decline in sharing, particularly in Western societies, where individual self-reliance is an important value.<sup>5</sup> The advertising industry also targets, reinforces and recreates individualism.<sup>6</sup> Even within families, Belk (2007) noted that family members are sharing less, as "possessions within the families — such as cars and bank accounts — are privatised" (p.135).<sup>7</sup> According to Völker and Flap (2007), individuals share and collectively assume the cost of an item because they cannot afford it individually.<sup>8</sup>

<sup>&</sup>lt;sup>1</sup> Botsman, R., & Rogers, R. (2010). What's mine is yours: The rise of collaborative consumption. New York, NY: HarperBusiness.

<sup>&</sup>lt;sup>2</sup> Schmidt, M.F.H., & Sommerville, J.A. (2011). Fairness expectations and altruistic sharing in 15-month-old human infants. *PLoS ONE*, *6*(10), 1-7.

<sup>&</sup>lt;sup>3</sup> Tomasello, M., & Warneken, F. (2018). Share and share alike: The happy tendency to share resources equitably – at least with members of one's own social group – is a central and unique feature of human social life. It emerges, it seems, in middle childhood. *Nature*, *454*(7208), 1057 – 1058.

<sup>&</sup>lt;sup>4</sup> Gabriel, R. (2013). Why I buy: Self, taste and consumer society in America. Bristol: Intellect.

<sup>&</sup>lt;sup>5</sup> Ivanova, M. N. (2011). Consumerism and the crisis: Wither 'the American Dream'? *Critical Sociology*, *37*(3), 329–350.

<sup>&</sup>lt;sup>6</sup> Gabriel, R. (2013). Why I buy: Self, taste and consumer society in America. Bristol: Intellect.

<sup>&</sup>lt;sup>7</sup> Belk, R. (2007). Why not share rather than own? *The ANNALS of the American Academy of Political and Social Science, 611*(1), 126-140.

<sup>&</sup>lt;sup>8</sup> Völker, B., & Flap, H. (2007). Sixteen million neighbors: A multilevel study of the role of neighbors in the personal networks of the Dutch. *Urban Affairs Review*, 43(2), 256–284.



To differentiate "sharing" from "non-sharing" acts, Belk (2007) compared sharing with gift giving and commodity exchange. According to him, the purest form of sharing is the act of mothering, where a mother's milk is given to a child for free and with no strings attached. Another form of sharing is the pooling and allocation of resources within the family. In the family, there is generalised reciprocity, and no one keeps track of the balance between giving and receiving. 10

The prototype for commodity exchange is seen in temporal and impersonal transactions, such as buying bread from a store. Once the transaction is over, the two partners no longer have to deal with each other. Gift giving, on the other hand, involves a sacrifice on the part of the giver, whose wish is to delight the receiver. Nevertheless, Belk (2010) recognises that the lines between gift giving, commodity exchange, and sharing are imprecise. His summary of the features that serve as descriptors is provided in Table 1. The descriptors demonstrate the overlapping nature of the three prototypes, which can sometimes be confused with one another.

<sup>&</sup>lt;sup>9</sup> Belk, R. (2007). Why not share rather than own? *The ANNALS of the American Academy of Political and Social Science, 611*(1), 126-140.

<sup>&</sup>lt;sup>10</sup> Sahlins, M. (2017). Stone age economics. London: Routledge Classics.

<sup>&</sup>lt;sup>11</sup> Belk, R. (2010). Sharing. *Journal of Consumer Research, 36*(5), 715-734.

<sup>&</sup>lt;sup>12</sup> Belk, R. (1996). The perfect gift. In C. Otnes, & R.F. Beltramini (Eds.), *Gift giving: A research anthology* (pp.59-84). Bowling Green, OH: Bowling Green State University Popular Press.

<sup>&</sup>lt;sup>13</sup> Belk, R. (2010). Sharing. *Journal of Consumer Research*, 36(5), 715-734.

Table 1: Prototypes and characteristics of sharing, gift giving and commodity exchange

	Sharing	Gift Giving	Commodity Exchange
Prototype	Mothering	The perfect gift	Buying bread at a store for money
	Pooling and allocation of		
	household resources		
Characteristics	Nonreciprocal	Nonreciprocal in appearance; reciprocal	Reciprocal
	Social links to others	exchange in practice	Balanced exchange
	De facto or de jure shared	Non-obligatory in appearance; obligatory	No lingering ownership
	ownership or usufruct rights	in practice	Monetary
	Money irrelevant	Transfer of ownership	Non-singular
	Singular objects	Thought that counts	Partible commodities
	Networked inclusion	Sacrifice; luxury	Calculation
	Inalienable	To please recipient	Inspection
	Personal	Non-fungible	Alienable
	Dependent	Singularises objects	Impersonal
	Sharing context	Wrappings; ceremony	Independent
	Social reproduction	Lingering imbalance	Trade/barter context
	Non-ceremonial	Networked inclusion	Quantitative relations between
	Love, caring	Inalienable objects	
		Personal; dependent	
		Gift giving/alliance-formation context	
		Qualitative relations between people	
Country	Designed all average testions	Thank yous	Lava assists
Counter Indications	Reciprocal expectation	Appearance of reciprocity concern	Love, caring
indications	Formal monetary debt	Too quick a return gift	Embedded relationships
	Forced compliance	Too generous a gift	Socially meaningful money (e.g.,
	Exchange Thank your	Gift scrutiny; inspection Gift requests	inheritance)
Eveentions	Thank yous		Thank yous
Exceptions	Borrowing and lending	Age and wealth exceptions to reciprocity	Second-hand goods
	Some paid caregiving	Money gifts; gift certificates	Relationship marketing
	Voluntary anonymous charity	Mandated charity (e.g., zakat)	Usury prohibitions Shariah banking



#### TERMINOLOGIES AND NOMENCLATURES

This section focuses on the different terminologies and nomenclatures for sharing. As with the prototypes of sharing, commodity exchange and gift giving, there are similarities and differences.

Belk (2007), defined sharing as the "act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking from others for our use" (p.127).<sup>14</sup> Under this definition, voluntary lending, pooling, allocation of resources, and authorised use of public property, are acts of sharing; contractual renting, leasing or unauthorised use of property are not. However, Belk's definition may be too limiting because many sharing schemes for goods and services involve formal, and informal contracts (e.g., members of car sharing or film rental services).<sup>15</sup> Other researchers have differentiated sharing based on what is being shared (e.g., tangible or intangible goods); <sup>16</sup> and the contexts of sharing.<sup>17</sup> While researchers have agreed on the basic nature of sharing as an "act of joint usage of a good that is owned or quasi-owned by at least one of the sharing parties" (p.317), the features or elements of sharing are still debatable.<sup>18</sup> They include:

➤ Motives for sharing (e.g., altruistic, hedonic, pro-social, economic, social, utilitarian)<sup>19</sup>

<sup>&</sup>lt;sup>14</sup> Belk, R. (2007). Why not share rather than own? *The ANNALS of the American Academy of Political and Social Science, 611*(1), 126-140.

<sup>&</sup>lt;sup>15</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing Cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>&</sup>lt;sup>16</sup> Botsman, R., & Rogers, R. (2010). What's mine is yours: The rise of collaborative consumption. New York, NY: HarperBusiness; Gansky, L. (2010). The mesh: Why the future of business is sharing. New York, NY: Portfolio Penguin; Giesler, M. (2006). Consumer gift systems. Journal of Consumer Research, 33(2), 283-290; John, N. A. (2013). The social logics of sharing. The Communication Review, 16(3), 113-131.

<sup>&</sup>lt;sup>17</sup> Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67,* 1595-1600; 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; Ozanne, L. K., & Ballantine, P. W. (2010). Sharing as a form of anti-consumption? An examination of toy library users. *Journal of Consumer Behaviour, 9*(6), 485-498.

 <sup>&</sup>lt;sup>18</sup> Bucher, E., Fieseler, C., & Lutz, C. (2016). What's mine is yours (for a nominal fee) – Exploring the spectrum of utilitarian to altruistic motives for Internet-mediated sharing. *Computers in Human Behavior, 62*, 316-326.
 <sup>19</sup> Aigrain, P. (2012). *Sharing: Culture and the economy in the Internet age*. Amsterdam: Amsterdam University Press; John, N. A. (2013). Sharing and web 2.0: the emergence of a keyword. *New Media & Society, 15*(2), 167-182; Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67*, 1595-1600; Benkler, Y. (2004). Sharing nicely: On shareable goods and the emergence of sharing as a modality of economic production. *The Yale Law Journal, 114*(2), 273-358; 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.



- ➤ The extent of direct reciprocity (e.g., can reciprocity in terms of a payment be reconciled with the idea of sharing?)<sup>20</sup>
- ➤ Nature of ownership (e.g., individual ownership, quasi ownership and joint ownership)<sup>21</sup>

So, what is "sharing"? The quotes below illustrate the differences in conceptualisation, which is a consequence of how sharing has expanded from the redistribution of goods, services and experiences, to being a business model:

- Sharing is an alternative form of distribution to commodity exchange and gift giving (p.126)<sup>22</sup>
- ➤ Sharing as a sustainable, profitable alternative to ownership (p.109)<sup>23</sup>
- Sharing is a way to live well on less money or to earn money with assets that people already own (p.52)<sup>24</sup>
- ➤ The concept of sharing has changed to represent a more intelligent, humane and efficient way of consuming (p.87)<sup>25</sup>

Currently, there are approximately 20 terms related to sharing. The focus of each term — social, cultural, economic, ecological and moral — is influenced by the discipline of study from which it emerges, e.g., anthropology, computer science, neoclassic microeconomics, postmodern sociology, philosophy, politics and cultural theory.<sup>26</sup> The following explains some of the more commonly known nomenclatures:

<sup>&</sup>lt;sup>20</sup> Belk, R. (2010). Sharing. *Journal of Consumer Research, 36*(5), 715-734; Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67,* 1595-1600.

<sup>&</sup>lt;sup>21</sup> Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67,* 1595-1600; Epp, A.M, & Price, L.L. (2008). Family identity: A framework of identity interplay in consumption practices. *Journal of Consumer Research, 35,* 50–70; Botsman, R., & Rogers, R. (2010). *What's mine is yours: The rise of collaborative consumption.* New York, NY: HarperBusiness.

<sup>&</sup>lt;sup>22</sup> Belk, R. (2007). Why not share rather than own? *The ANNALS of the American Academy of Political and Social Science, 611*(1), 126-140.

<sup>&</sup>lt;sup>23</sup> 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.

<sup>&</sup>lt;sup>24</sup> Dubois, e., Schor, J., & Carfagna, L. (2014). Connected consumption: A sharing economy takes hold. *Rotman Management Spring*, 51-56.

<sup>&</sup>lt;sup>25</sup> Palos-Sanchez, P.R. & Correia, M.B. (2018). The collaborative economy based analysis of demand: Study of Airbnb case in Spain and Portugal. *Journal of Theoretical and Applied Electronic Commerce Research*, *13*(3), 85-98

<sup>&</sup>lt;sup>26</sup> Dredge, D., & Gyimóthy, S. (2015). The collaborative economy and tourism: Critical perspectives, questionable claims and silenced voices. *Tourism Recreation Research*, 40(3), 286-302.



#### Access economy or access-based consumption

Customers have temporarily limited access to goods for a fee, while legal ownership remains with the service providers.<sup>27</sup> These market-mediated exchanges take place among consumers using intermediary firms.

#### Collaborative commerce

The focus of collaborative commerce is on consumer-to-consumer exchanges, instead of peer-to-peer exchanges. In this system, consumers become producers, suppliers and sellers of their own goods by negotiating and bartering exchanges for goods with or without the use of money. Consumers also rely on technology to create an interactive business community of supply-chain stakeholders such as suppliers, customers, and trading partners. Instead of transactions among businesses, collaborative commerce deals with exchanges (including information and knowledge) among supply-chain members who design, develop, and manage products and services collaboratively.<sup>28</sup> It also has the potential to generate social value (e.g., enhancing tourism sustainability).<sup>29</sup>

#### Collaborative consumption

Coined in the late 1970s, the term "collaborative consumption" is used to refer to "events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others" (p.614).<sup>30</sup> Collaborative consumption can take place at the business-to-consumer, business-to-business, and peer-to-peer levels.<sup>31</sup> Applied to today's context, collaborative consumption is commonly based on platforms of exchange and provision, enabled by technology, and mainly driven by the grassroots and businesses.<sup>32</sup>

Botsman (2010) used collaborative consumption to refer to "a system activating the untapped value of assets through models and marketplaces that enable greater efficiency and access".<sup>33</sup> It can be further broken down

<sup>&</sup>lt;sup>27</sup> Schaefers, T., Lawson, S., & Kukar-Kinney, M. (2016). How the burdens of ownership promote consumer usage of access-based services. *Marketing Letters*, *27*(3), 569-577.

<sup>&</sup>lt;sup>28</sup> Chong, A.Y-L.,Lin, B.,Ooi, K-B.,& Raman, M. (2009). Factors affecting the adoption level of c-commerce: An empirical study. *Journal of Computer Information Systems*, *50*(2), 13-22.

<sup>&</sup>lt;sup>29</sup> Sigala, M. (2015). Collaborative commerce in tourism: Implications for research and industry. *Current Issues in Tourism*, 20(4), 346-355.

<sup>&</sup>lt;sup>30</sup> Felson, M., & Spaeth, J. L. (1978). Community structure and collaborative consumption. A routine activity approach. *The American Behavioural Scientist*, 21(4), 614-624.

<sup>&</sup>lt;sup>31</sup> Allen, D. & Berg, C. (2014). *The sharing economy. How over-regulation could destroy an economic revolution*. Retrieved from https://collaborativeeconomy.com/wp/wp-content/uploads/2015/04/Allen-D.-and-Berg-C.2014.The-Sharing-Economy.-Institute-of-Public-Affairs.-.pdf.

<sup>&</sup>lt;sup>32</sup> Laamanen, M.,Barros, M.,& Islam, G. (2018). Collective representation on collaborative economy platforms. In I.Cruz, R.Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.35-56). Germany: Springer VS.

<sup>&</sup>lt;sup>33</sup> Botsman, R. (2014, September). Sharing's not just for start-ups. *Harvard Business Review*. Retrieved from https://hbr.org/2014/09/sharings-not-just-for-start-ups



into three categories — product service systems, redistribution markets, and collaborative lifestyles.<sup>34</sup>

In *product service systems*, companies and organisations offer the use of a product or a service without the need for ownership (e.g., Grab,<sup>35</sup> Telepod<sup>36</sup> and Ovvy<sup>37</sup>).

In *redistribution markets*, pre-owned and unused goods are re-directed to places or people where they are needed or can be of use (e.g., YouSwop<sup>38</sup> and Swapaholic<sup>39</sup>).

In *collaborative lifestyles*, individuals who share similar interests or needs come together (online or offline) to share and exchange assets such as time, space (living and working) and skills (e.g., Repair Kopitiam<sup>40</sup> or Wiki SocialCollab<sup>41</sup>).

#### Connected consumption

This term refers to the access and recirculation of used goods as alternatives to private ownership. It emphasises the social and digital aspects of sharing in peer-to-peer relationships.<sup>42</sup>

#### Hybrid economy

A hybrid economy is part capitalist market and part collaborative commons.<sup>43</sup> It is a mixture of traditional market models where goods or services are exchanged for money, and gift giving where goods are given to another without any money involved.<sup>44</sup> In this economy, social capital is as important as financial capital; access trumps ownership; sustainability supersedes consumerism; cooperation is valued more than competition;

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<sup>&</sup>lt;sup>34</sup> Botsman, R., & Rogers, R. (2010). *What's mine is yours: The rise of collaborative consumption*. New York, NY: HarperBusiness.

<sup>&</sup>lt;sup>35</sup> Grab provides ride-hailing transport services, food delivery and payment solutions.

<sup>&</sup>lt;sup>36</sup> Telepod is an e-scooter sharing platform.

<sup>&</sup>lt;sup>37</sup> Ovvy is a digital marketplace where consumers can find, compare and book local service providers.

<sup>&</sup>lt;sup>38</sup> YouSwop is an online community for members to swop and exchange items without a fee.

<sup>&</sup>lt;sup>39</sup> Swapaholic charges a fee for users to swop their items with another person.

<sup>&</sup>lt;sup>40</sup> Repair Kopitiam is an initiative to bring the community together to repair items so as to combat the throw away culture for a sustainable world.

<sup>&</sup>lt;sup>41</sup>Wiki SocialCollab is an open collaboration initiative working towards a ground-up understanding of social needs, gaps and solutions in Singapore.

<sup>&</sup>lt;sup>42</sup> Schor, J.B., & Fitzmaurice, C.J. (2015). Collaborating and connecting: The emergence of the sharing economy. In L.A.Reisch & J.Thogerson (Eds.), *Handbook of research on sustainable consumption* (pp.410–425). Cheltenham: Edward Elgar Pub.

<sup>&</sup>lt;sup>43</sup> Puschmann, T., & Alt, R. (2016). Sharing economy. *Business & Information Systems Engineering, 58*(1), 93-99.

<sup>44</sup> ibid.



and "exchange value" in the capitalist marketplace is increasingly replaced by "sharable value" on the collaborative commons.<sup>45</sup>

#### Moral economy

A moral economy is where "a community, neighbourhood, circle of friends, or partners participate in an ongoing, never-ending joint effort of shared life building and making shared life liveable" (p.70).<sup>46</sup> According to Scott (1976), the moral economy of a small and close-knit community is based on the principle of mutuality; transactions are based on patron-client relations that surpass impersonal monetary exchanges, thus marking its departure from the capitalist economy.<sup>47</sup>

#### Peer-to-peer economy

This term focuses on the use of digital platforms to connect individuals looking to trade goods and services with other peers.<sup>48</sup> In a peer-to-peer economy, interactions are decentralised and the role of "sharing intermediaries" such as companies like Airbnb<sup>49</sup> is limited to facilitation and support, and not direct involvement (e.g., management of inventory, payment for good and services produced by participants).<sup>50</sup> Figure 1 shows how peer-to-peer economy is different from business-to-consumer economy, business-to-business economy and consumer-to-business economy.<sup>51</sup>

<sup>&</sup>lt;sup>45</sup> Rifkin, J. (2015). *The zero marginal cost society: The Internet of things, the collaborative commons, and the eclipse of capitalism.* New York: Palgrave Macmillan.

<sup>&</sup>lt;sup>46</sup> Bauman, Z. (2003). Liquid love: On the frailty of human bonds. Cambridge, UK: Polity Press.

<sup>&</sup>lt;sup>47</sup> Scott, J.C. (1976). *The moral economy of the peasant: Rebellion and subsistence in Southeast Asia*. New Haven: Yale University Press.

<sup>&</sup>lt;sup>48</sup> Aslam, A., & Shah, A. (2017). Taxation and the peer-to-peer economy. *IMF Working Paper WP/17/18*.

<sup>&</sup>lt;sup>49</sup> Airbnb is an accommodation-sharing platform which allows hosts to rent out their properties to guests.

<sup>&</sup>lt;sup>50</sup> Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). *Making sense of the UK Collaborative economy*. Retrieved from

http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf. <sup>51</sup> *ibid*.



#### Figure 1: Business models of the collaborative economy

#### Business models of the collaborative economy

Along with prevailing traits and pillars, delivery models are another way of conceptualising the collaborative economy. At present, four delivery models can be found across the collaborative economy:

Business-to-Consumer (B2C): The interaction between consumers and companies who own or directly manage their inventory.

Business-to-Business (B2B): The interaction between a business and other companies who own or directly manage their inventory.

Peer-to-Peer (P2P): The interaction between two or more people to trade or exchange a good or service facilitated and supported by a company, organisation or platform that is not directly involved in the transaction.

Consumer-to-Business (C2B): The interaction between consumers and a company where the company benefits from and pays for the knowledge or assets of the consumer.

Delivery models determine who can take part in specific activities. They also shape the way we participate. Some of the most exciting and original participants in the collaborative economy have gone beyond prominent delivery models (such as business-to-consumer) in favour of less conventional or more peer-driven approaches.

#### Pseudo-sharing

The non-monetary intentionality and contribution to a sense of community are what distinguishes sharing from pseudo-sharing. Pseudo-sharing involves an egoistic motive for sharing, expectations of reciprocity, and the exchange of money. There is usually a lack of a sense of community. Some common examples of pseudo-sharing are long-term renting and leasing, short-term rental, and online sites that share people's data. Such initiatives are characterised by the absence of mutual ownership (e.g., between owner and occupants in the case of renting and leasing), and the commodification of personal data. The latter can be seen in the marketing and sale of personal information collected on social networking sites to marketers, advertisers and research firms.

#### Sharing economy

In a report for the European Union, Andreotti et al. (n.d.) defined sharing economy as "a reciprocal exchange process, whereby individuals share their personal goods with others for use through a digital platform" (p.2).<sup>54</sup> Essentially, "sharing economy" is an umbrella term that refers to the sharing, exchange or rental of goods and services to others, through

<sup>&</sup>lt;sup>52</sup> Belk, R. (2014). Sharing versus pseudo-sharing in Web 2.0. *The Anthropologist*, 18(1), 7-23.

<sup>53</sup> ibid.

<sup>&</sup>lt;sup>54</sup> Andreotti, A., Anselmi, G., Eichhorn, T., Hoffmann, C.P., & Micheli, M. (n.d.) *Report from the EU H2020 Research Project Ps2share: Participation, privacy and power in the sharing economy. Participation in the sharing economy.* Retrieved from https://www.bi.edu/globalassets/forskning/h2020/participation-working-paper.pdf.



information technology without transfer of ownership.<sup>55</sup> In other words, instead of "owning something", sharing economy is about "sharing something".<sup>56</sup>

From not-for-profit initiatives such as Couchsurfing<sup>57</sup>, sharing economy has become a business model where organisations earn revenue by taking a fraction of sharing costs.<sup>58</sup> Sharing economies allow individuals and groups to make money from underused assets, thus rendering physical assets (such as cars) as services (e.g., Grab).<sup>59</sup>

#### The mesh

This is a seldom used term coined by Gansky (2010) and is based on the highly interconnected network of computers. The term focuses on digital technologies that provide people with the ability to connect to one another, to access and distribute goods and services at the moment they need them.<sup>60</sup>

This list above clearly shows that there is no consensus or a uniform concept on "sharing" and what should be considered as a "sharing initiative". There is diversity in terms of the needs and wants that motivate sharing, the transaction type, the transaction process and the outcomes or benefits. Altrock and Suh's typology (2017) (see Figure 2) illustrates this complexity. For instance, a shared object may convey utility not only in the form of perceived economic value, but also in the form of social utility (i.e., gaining approval by one's referent groups) and moral utility (i.e., perceived contribution to a worthy cause). Also, there could be more than one motivation that drives sharing. The nature of the transaction also varies. While some involve the recirculation of goods, others are centred on the exchange of services and sharing of productive assets.

<sup>&</sup>lt;sup>55</sup> Taeihagh, A. (2018). IT-mediated technologies in developing countries: An examination of challenges in adoption of crowdsourcing and sharing economy platforms, presented at 25<sup>th</sup> World Congress of Political Science, Brisbane, 2018.

<sup>&</sup>lt;sup>56</sup> Bonciu, F., & Balgar, A. (2016) Sharing economy as a contributor to sustainable growth. An EU perspective. *Romanian Journal of European Affairs*, *16*(2), 36-45.

<sup>&</sup>lt;sup>57</sup> Couchsurfing is a global community of travellers where users can find a place to stay for free.

<sup>&</sup>lt;sup>58</sup> Cheng, M. (2016). Sharing economy: A review and agenda for future research. *International Journal of Hospitality Management*, *57*, 60–70.

<sup>&</sup>lt;sup>59</sup> Puschmann, T., & Alt, R. (2016). Sharing economy. *Business & Information Systems Engineering, 58*(1), 93-99.

<sup>&</sup>lt;sup>60</sup> Gansky, L. (2010). The mesh: Why the future of business is sharing. New York: Portfolio Penguin, 2010.

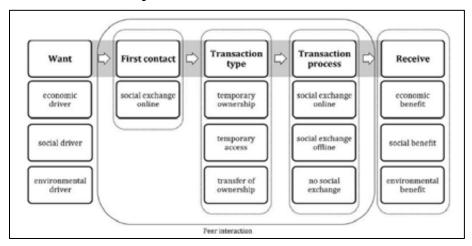
<sup>&</sup>lt;sup>61</sup> Altrock, S., <u>& Suh, A.</u> (2017). <u>Sharing economy versus access economy: A critical reflection on social interaction between peers</u>. In F. H. Nah, & C. H. Tan (Eds.), *HCI in Business, Government and Organizations, Supporting Business* (pp. 3-15).

<sup>&</sup>lt;sup>62</sup> Setiffi, F., & Lazzer, G.P. (2018). Riding free-riders? A study of the phenomenon of BlaBlaCar in Italy. In I. Cruz, R. Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.35-56). Germany: Springer VS.



There are also more than one benefit and one beneficiary for sharing initiatives. For instance, sharing economy initiatives receive revenue streams from, and provide benefits to, customers as well as other entities such as public agencies and non-governmental organisations.<sup>63</sup> In such cases, there is the presence of two different sets of value creating logics — a private interest logic and a public interest logic. Sharing economy initiatives combine these logics in different degrees to create a hybrid logic.<sup>64</sup>

Figure 2: Social interactions between peers in the sharing economy model



It is thus more useful and productive to focus on what sharing entails — its dimensions, characteristics and features — and common determinants such as the use of new technologies, the presence of social interaction, and the exchange of goods or services. This approach prevents a premature determination of what should be included and excluded from the study and analysis.

Additionally, by not excluding sharing initiatives that are driven by a certain type of motivation (e.g., for-profit or driven by hedonic or utilitarian motivations), important lessons could be gleaned from different types initiatives, where organisations and institutions play a larger role, or are

<sup>&</sup>lt;sup>63</sup> Pache, A-C., Santos, F. (2013). Inside the hybrid organisation: Selective coupling as a response to competing institutional logic. *Academy of Management Journal*, *56*(4), 972-1001; Smets, M., Jarzabkowski, P., Burke, G.T., & Spee, P. (2015). Reinsurance trading in Lloyd's of London: Balancing conflicting-yet-complementary logics in practice. *Academy of Management Journal*, *58*(3), 932-970.

<sup>&</sup>lt;sup>64</sup> Cohen, B., & Munoz, P. (2015). Sharing cities and sustainable consumption and production: Towards an integrated framework. *Journal of Cleaner Production*, 1-11.



seen as less community- or public-oriented due to the motivation and outcome.

However, there is one useful parameter to limit the scope of study and analysis of sharing initiatives — transaction processes. Irrespective of the motivations, what are transacted and the outcomes, whom the transaction involves and who are in the centre stage (e.g., peers, members of a community, or an organisation) are the critical determinant for whether or not an initiative could be considered as sharing. According to Altrock and Suh (2017), whether a transaction can be defined as a sharing transaction or an economically driven exchange is dependent on how it proceeds and whom it involves.<sup>65</sup> Such a parameter immediately rules out initiatives that fall under the business-to-business model.

<sup>&</sup>lt;sup>65</sup> Altrock, S., & Suh, A. (2017). Sharing economy versus access economy: A critical reflection on social interaction between peers. In F. H. Nah, & C. H. Tan (Eds.), HCI in Business, Government and Organizations, Supporting Business: (pp. 3-15).



## CHAPTER 2: CHARACTERISTICS OF SHARING INITIATIVES

#### DIMENSIONS OF SHARING

Sharing includes a wide range of tangible and intangible objects. As such, the conception of sharing by Agyeman et al. (2013) conception is deliberately broad and encompasses "cars, tools, books... sharing services... premises, places to sleep... and sharing activities (notably political activity, but also others such as leisure)... sharing between private individuals, and collective provision of resources and services for sharing such as green space, sanitation, city bikes, child care" (p.1).<sup>66</sup>

Sharing can also occur on *different levels*. Table 2 lists the different things, services and experiences that are shared at the different levels: individual, collective, and public.<sup>67</sup>

Table 2: The broad territory of sharing

	Things	Services	Experiences
Individual	Swapping, bartering	Ride sharing, Airbnb	Skill sharing
Collective	Car clubs, tool banks	Child care, credit unions, time banks	Sports clubs, social media
Public	Libraries, Freecycling	Health services, public transit	Politics, public space

Ageyman et al. (2013) further proposed that sharing can assume *various dimensions*. For instance, sharing can involve the *material* or the *virtual*.<sup>68</sup> According to Wittel (2011), the sharing of immaterial things has a strong social aspect, as the act of sharing thoughts, knowledge, ideas, feelings and experiences, constitutes a social interaction.<sup>69</sup> In addition to

68 ibid.

<sup>&</sup>lt;sup>66</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>&</sup>lt;sup>67</sup> ibid.

<sup>&</sup>lt;sup>69</sup> Wittel, A. (2011). Qualities of sharing and their transformations in the digital age. *International Review of Information Ethics*, 15, 3-8.



engendering new social relationships, it also adds value to whatever is being exchanged, and could lead to the creation of knowledge.<sup>70</sup>

Sharing can also be *rivalrous* or *non-rivalrous*.<sup>71</sup> Rivalrous sharing applies to resources or goods that can be consumed a finite number of times and may also be appropriated by an individual, thus excluding others. In Table 3, car sharing is an example of high rivalry sharing, as the use of a car prevents another from using that same vehicle during a specific period of time. The degree of *exclusion* refers to the extent to which an initiative is open to the public. Initiatives that see high exclusion such as clubs are accessible only by a specific group or groups.<sup>72</sup>

Table 3: Typology of sharing systems

	Lower Exclusivity	Higher Exclusivity
Lower Rivalry	Public goods sharing: Access to the sharing system is generally open to anyone and one user's consumption does not rule out another user's simultaneous consumption (e.g., public parks, open source software).	Access/club goods sharing: Access to the sharing system is restricted to people with certain status, characteristics, relationships to other sharers, or donation ability. The item being shared is very difficult to deplete, either because membership is restricted to a sustainable number or due to the nature of the item (e.g., country clubs, gated communities).
Higher Rivalry	Open commercial goods sharing: Access to the sharing system is generally open to anyone who can pay the entry free. One consumer's use of a unit of the shared good makes it unavailable for another consumer to use (e.g., tool banks, Freecycle, car sharing).	Closed commercial goods sharing: Access to the sharing system is restricted to people with certain status, characteristics, and relationships to other sharers or donation ability. One consumer's use of a unit of the shared good makes it unavailable for another consumer to use (e.g., frequent flyer mile sharing plans and surrogacy banks).

<sup>70</sup> ibid.

<sup>&</sup>lt;sup>71</sup> 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. <sup>72</sup> *ibid*.



Sharing can also be *of consumption* (e.g., digital music) or *of production* (e.g., community gardens), and *simultaneous* (e.g., green space, where participants can take part or engage in the activity at the same time) or *sequential* (e.g., recycling material, where the consumption or use follows a sequence that may involve turn taking).<sup>73</sup>

In addition to the dimensions of material or immaterial, rivalrous or nonrivalrous consumption or production, and simultaneous or sequential, sharing can also be differentiated based on the recipients or whom sharing involves. Belk (2014) proposed two broad categories of sharing — sharing in and sharing out.74 "Sharing in" takes place when people share with those they perceive part of their "aggregated self" (p.16), such as family members, friends, and neighbours. 75 On the other hand, "sharing out" involves no or little sense of mutuality or community. 76 Here, people who share have little interest, knowledge and sense of community with the people they "share out" with. Sharing out typically involves objects that are either replicable (e.g., advice, digital music files and photos) or divisible. Divisible objects refer to objects where the parts of a whole can stand alone as pieces physically or temporally (e.g., a rented apartment or car where different people use it at different times). While sharing in and sharing out are differentiated by the presence of affect (emotional affinity) and community, it does not mean that they are mutually exclusive. When the sense of a community emerges among members of a sharing-out initiative — for instance, a time-share condominium—what would result would be a sharing or pseudo-sharing hybrid.

While the above dimensions or features distinguish one sharing activity from another, there are several determinants that unify most sharing initiatives. They are:

➤ A reliance on Internet-based platforms and/or mobile devices that connect things that are not being used with people who have use for them and where information technology is harnessed for the identification of relevant people or businesses, aggregation and exchange of information, booking of products and services, and payment of fees.<sup>77</sup>

<sup>&</sup>lt;sup>73</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>&</sup>lt;sup>74</sup> Belk, R. (2014). Sharing versus pseudo-sharing in Web 2.0. *The Anthropologist, 18*(1), 7-23.

<sup>75</sup> ibid.

<sup>76</sup> ibid.

<sup>&</sup>lt;sup>77</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). Sharing cities. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf; Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). Making sense of the UK Collaborative economy. Retrieved from http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf;



- Distributed networks of people and/or assets are being connected to one another, and the exchange is decentralised.<sup>78</sup>
- ➤ The consumption or utilisation of idling tangible and intangible assets through rental, sharing or exchange.<sup>79</sup> The idling capacity of an item refers to the unused potential of an item when it is not in use.
- The presence and emergence of meaningful interactions and trust.<sup>80</sup>
- Social interaction makes transactions possible most of the social interaction takes place online, some start online and spill over offline, while others take place offline with initial contact mediated online.<sup>81</sup>
- ➢ Direct engagement among crowds and/or intermediaries.<sup>82</sup>

Gansky, L. (2010). The mesh: Why the future of business is sharing. New York: Portfolio Penguin, 2010; Belk, R. (2014). Sharing versus pseudo-sharing in Web 2.0. *The Anthropologist*, 18(1), 7-23.

<sup>78</sup> Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). *Making sense of the UK Collaborative economy*. Retrieved from

http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf; Allen, D. & Berg, C. (2014). *The sharing economy. How over-regulation could destroy an economic revolution*. Retrieved from https://collaborativeeconomy.com/wp/wp-content/uploads/2015/04/Allen-D.-and-Berg-C.2014.The-Sharing-Economy.-Institute-of-Public-Affairs.-.pdf.

<sup>79</sup> According to data from the Brookings Institute (2017), private vehicles go unused for 95 per cent of their lifetime. It also reported how homeowners make use of spare bedrooms by participating in Airbnb. Airbnb rates were reported to be between 30–60 per cent cheaper than hotel rates around the world. Yaraghi, N., & Ravi, S. (2017). *Current and future state of the sharing economy*. Retrieved from

https://www.brookings.edu/wp-content/uploads/2016/12/sharingeconomy\_032017final.pdf; Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). *Making sense of the UK Collaborative economy*. Retrieved from http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf; Taeihagh, A. (2018). IT-mediated technologies in developing countries: An examination of challenges in adoption of crowdsourcing and sharing economy platforms, presented at 25<sup>th</sup> World Congress of Political Science, Brisbane, 2018; Dredge, D., & Gyimóthy, S. (2015). The collaborative economy and tourism: Critical perspectives, questionable claims and silenced voices. *Tourism Recreation Research*, *40*(3), 286-302; Goudin, P. (2016). *The cost of non-Europe in the sharing economy. Economic, social and legal challenges and opportunities*. Retrieved from

<sup>80</sup> Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). *Making sense of the UK Collaborative economy*. Retrieved from

http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf.

81 Bocker, L., & Meelen, T. (2017). Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental Innovation and Societal Transitions, 23, 28-39*; Dervojeda, K., Verzijl, D., Nagtegaal, F., Lengton, M., Rouwmaat, E., Monfardini, E., & Frideres, L. (2013). The sharing economy: Accessibility based business models for peer-to-peer markets. *Business Innovation Observatory Case Study 12*; Belk, R. (2007). Why not share rather than own? *The ANNALS of the American Academy of Political and Social Science, 611*(1), 126-140; Altrock, S., & Suh, A. (2017). Sharing economy versus access economy: A critical reflection on social interaction between peers. In F. H. Nah, & C. H. Tan (Eds.), HCI in Business, Government and Organizations, Supporting Business (pp. 3-15).

<sup>82</sup> Hamari, J., Sjoklint, M., Ukkonen, A. (2016). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology, 67*(9), 2047-2059.



- Organisations and businesses, if involved, that act as facilitators of exchange, instead of being producers and sellers.<sup>83</sup>
- Transactions that are mainly transient and temporary, e.g., temporary transfer of ownership instead of permanent transfer of ownership of goods.<sup>84</sup>
- Open and inclusive, although the extent of inclusion may vary.<sup>85</sup>
- The involvement of a mechanism of self-governance, such as reputation system via ratings and reviews, and the establishment of a minimum level of trust required for the sustainability of the initiative.<sup>86</sup>

<sup>&</sup>lt;sup>83</sup> Allen, D. & Berg, C. (2014). *The sharing economy. How over-regulation could destroy an economic revolution*. Retrieved from https://collaborativeeconomy.com/wp/wp-content/uploads/2015/04/Allen-D.-and-Berg-C.2014.The-Sharing-Economy.-Institute-of-Public-Affairs.-.pdf.

<sup>&</sup>lt;sup>84</sup> Belk, R. (2014). Sharing versus pseudo-sharing in Web 2.0. The Anthropologist, 18(1), 7-23.

<sup>&</sup>lt;sup>85</sup> Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). *Making sense of the UK Collaborative economy*. Retrieved from

http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf.

86 Allen, D. & Berg, C. (2014). The sharing economy. How over-regulation could destroy an economic revolution.

Retrieved from https://collaborativeeconomy.com/wp/wp-content/uploads/2015/04/Allen-D.-and-Berg-C.2014.The-Sharing-Economy.-Institute-of-Public-Affairs.-.pdf; Morgan, B.M., & Kuch, D. (2015). Radical transactionalism: Legal consciousness, diverse economies and the sharing economy. Journal of Law and Society 42(4), 556-587; Stewart, P. J. (2014, October 23). Reputation and the sharing economy. Business Insider. Retrieved from https://www.businessinsider.com/reputation-and-the-sharing-economy-2014-10/?IR=T.



#### CHAPTER 3: OUTCOMES OF SHARING

The effects of sharing initiatives can be observed on several levels — at the city, societal and individual levels — in myriad forms. This section reviews some positive and negative outcomes in different cities.

#### **POSITIVE OUTCOMES**

#### At the city level

Sharing initiatives benefit cities by reducing cost, improving service delivery, generating positive externalities, making cities more liveable, and promoting sustainability (in consumption and production). An instrumental benefit sharing initiatives hold for cities is cost reduction. For instance, in an effort to cut costs, London's Croydon borough council decided to swap their car service from a traditional fleet (where they leased a number of vehicles from a car rental company for their staff) to Zipcar (a car-sharing service in London). By doing so, they cut their annual travel costs by about 43 per cent from USD 1.7 million (SGD 2.3 million) to USD 971,000.87 In the US, when sharing takes place across municipalities, local governments are able to lower their expenditures as they gain access to tools that would otherwise have been unavailable to them.88 One platform that facilitates this sharing is MuniRent,89 where municipalities like Michigan and Oregon are able to borrow equipment such as bulldozers and excavators from one another.90

Sharing initiatives also transform how cities deliver their services to residents. In November 2014, Germany initiated a project to match refugees with available flats through the online platform Refugees Welcome International. As of November 2018, the platform has matched 435 people in cities such as Berlin and Munich. Sharing initiatives, specifically sharing economy models such as accommodation and ride

<sup>&</sup>lt;sup>87</sup> Bashford, S. (2013, August 6). Croydon council moves away from the traditional fleet car model to cut costs. *The Guardian*. Retrieved from https://www.theguardian.com/local-government-network/2013/aug/06/croydon-council-fleet-cars.

 <sup>88</sup> Hirshon, L., Jones, M., Levin, D., McCarthy, K., Morano, B., Simon, S., & Rainwater, B. (2015). Cities, the sharing economy and what's next. Retrieved from https://www.nlc.org/sites/default/files/2017-01/Report%20-%20%20Cities%20the%20Sharing%20Economy%20and%20Whats%20Next%20final.pdf.
 89 MuniRent is a platform that makes it very easy for public agencies to share heavy duty equipment internally

<sup>&</sup>lt;sup>90</sup> Wood, C. (2014, August). MuniRent brings the sharing economy to government. Government Technology. Retrieved from http://www.govtech.com/internet/Munirent-Brings-Sharing-Economy-to-Government.html.
<sup>91</sup> World Economic Forum (2017). Collaboration in cities: From sharing to sharing economy. Retrieved from

http://www3.weforum.org/docs/White\_Paper\_Collaboration\_in\_Cities\_report\_2017.pdf 92 Refugees welcome (n.d.). *How it works*. Retrieved from https://www.fluechtlinge-willkommen.de/en/#faq



sharing, have also inspired a growing number of sector-specific local government operations. In San Francisco, authorities are leveraging Airbnb's new tool that allows fee-free accommodation listing during crises and times of natural disasters to provide emergency accommodation to residents. <sup>93</sup> In some cases, cities are developing platforms that are adapted from existing commercial models. An example is Seoul where, after banning Uber in 2014, city authorities announced that they would be working on a ride-hailing app. <sup>94</sup>

Additionally, sharing initiatives also generate positive externalities. First, they help develop local economies. For instance, in the tourism sector, local expertise and knowledge can be monetised when local hosts offer guided tours or dining experiences. This provides local actors who were previously excluded from the tourism economy with opportunities to generate economic benefits, and potentially develops entrepreneurialism. In developing cities, sharing initiatives reduce reliance on capital investments, lower overhead costs, and facilitate the matching of consumers and suppliers.

Second, sharing initiatives provide the authorities with valuable data, such as those from shared mobility services (e.g., Uber<sup>97</sup> and Lyft<sup>98</sup>) to increase transport efficiency in cities. In the US, data collected from sharing initiatives could be used by the authorities to help justify the reclaiming of public and private spaces that are allocated to parked cars, design safe and more efficient pick-up and drop-off zones for ride-hailing and delivery services, identify opportunities to expand bike and scooter lanes, and expand equitable access to transportation.<sup>99</sup>

Third, sharing initiatives stimulate innovation. For example, housing developers can create "sharing districts" where smaller housing units are combined with sharing economy infrastructure such as car sharing and co-

<sup>&</sup>lt;sup>93</sup> Office of the Mayor. (2013, June 11). Mayor Lee & Board President Chiu announce new sharing economy emergency preparedness partnership. BayShare member companies contribute innovative solutions to connect people during disasters [Press release]. Retrieved from https://sfmayor.org/article/mayor-lee-board-president-chiu-announce-new-sharing-economy-emergency-preparedness.

 <sup>&</sup>lt;sup>94</sup> Gorenflo, N. (2014, June 25). Why banning Uber makes Seoul even more of a sharing city [Blog post].
 Retrieved from https://www.shareable.net/blog/why-banning-uber-makes-seoul-even-more-of-a-sharing-city.
 <sup>95</sup> Botsman, R. (2014, September). Sharing's not just for start-ups. *Harvard Business Review*. Retrieved from https://hbr.org/2014/09/sharings-not-just-for-start-ups

<sup>&</sup>lt;sup>96</sup> Ozimek, A. (2014, August 4). The sharing economy and developing countries. *Forbes*. Retrieved from https://www.forbes.com/sites/modeledbehavior/2014/08/04/the-sharing-economy-and-developing-countries/#5c666a57e0ba.

 <sup>97</sup> A peer-to-peer ridesharing, taxi cab, food delivery, bicycle sharing, and transportation network company.
 98 An on-demand transportation company.

<sup>&</sup>lt;sup>99</sup> Clewlow, R. (2018, October 10). The opportunity to reshape cities with shared mobility data. *Forbes*. Retrieved from https://www.forbes.com/sites/reginaclewlow/2018/10/10/the-opportunity-to-reshape-cities-with-shared-mobility-data/#6c2439a2617f.



working spaces to encourage residents to share in their daily lives. <sup>100</sup> In turn, these opportunities could lead to the collaboration of ideas and knowledge, thus fostering innovation and the development of new businesses. <sup>101</sup>

Sharing initiatives also make cities more liveable, as they reduce the need to own assets or build more spaces, help solve problems such as housing shortages, and alleviate environmental burdens caused by pollution. <sup>102</sup> For instance, information gathered on ride-sharing apps help city authorities identify traffic patterns, improve city design and reduce congestion. <sup>103</sup>

Besides making cities more liveable in the present, sharing initiatives promote sustainable consumption and production in the long run. Existing research that looks at issues of sustainability focus on sustainable consumption and sustainable production. While sustainable consumption deals with "raising awareness and changing consumer behaviour, values, and motivations" (p. 500), sustainable production is concerned with "not only the volume and types of goods and services produced, but the process of making them, the natural resources extracted to make them, and the waste and pollution resulting from the extraction, production, and affiliated process resulting in a particular 'good'" (p.502).<sup>104</sup> Sharing economy thus has the potential to be the green economy, as less demand leads to less production, which in turns leads to less waste produced.<sup>105</sup> Sharing initiatives also help to generate second life for products, through recycling, bartering, reselling, and rental.

A study by Cleantech Group that surveyed more than 8,000 hosts and guests worldwide and analysed residential and hotel sustainability levels quantified the environmental benefits of home sharing for travellers. It found that Airbnb contributed to significant reduction in energy and water use, greenhouse gas emissions, and waste, and encouraged more

<sup>&</sup>lt;sup>100</sup> Wosskow, D. (2014). *Unlocking the sharing economy. An independent review*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/378291/bis-14-1227-unlocking-the-sharing-economy-an-independent-review.pdf; Infranca, J. (2016). Spaces for sharing: Micro-units amid the shift from ownership to access. *Fordham Urban Law Journal*, *43*(1), 1-30. <sup>101</sup> Infranca, J. (2016). Spaces for sharing: Micro-units amid the shift from ownership to access. *Fordham Urban* 

<sup>&</sup>lt;sup>101</sup> Infranca, J. (2016). Spaces for sharing: Micro-units amid the shift from ownership to access. *Fordham Urban Law Journal*, *43*(1), 1-30.

<sup>&</sup>lt;sup>102</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>&</sup>lt;sup>103</sup> Clewlow, R. (2018, October 10). The opportunity to reshape cities with shared mobility data. *Forbes*. Retrieved from https://www.forbes.com/sites/reginaclewlow/2018/10/10/the-opportunity-to-reshape-cities-with-shared-mobility-data/#6c2439a2617f.

<sup>&</sup>lt;sup>104</sup> Barber, J. (2006). Mapping the movement to achieve sustainable production and consumption in North America. *Journal of Cleaner Production*, *15*, 499-512.

<sup>&</sup>lt;sup>105</sup> Heinrichs, H. (2013). Sharing Economy: A potential new pathway to sustainability. *Gaia*, 22(4), 228-231.



sustainable practices among both hosts and guests. <sup>106</sup> Statistics from the US for 2014 illustrate the positive effects on both consumption and production. In terms of consumption, Airbnb guests conserved the equivalent of 270 Olympic-sized pools of water, and avoided greenhouse gas emissions equivalent to 33,000 cars on North American roads; 10–15 per cent of Airbnb guests were more likely to use public transportation, walk or ride a bicycle as their primary mode of transportation, than if they had stayed at a hotel. In terms of production, the survey showed that Airbnb hosts were more likely to engage in sustainable practices — over 80 per cent of hosts reported owning at least one energy-efficient appliance at their property, and 95 per cent of them recycled at least one item type at their property. Similar trends were also observed in Europe.

#### At the societal level

By bringing people together to barter, buy, sell, gift and rent products and services, sharing initiatives promote shared experiences, build communities, and strengthen solidarity. This takes place at both the global and local level. This section of the report focuses on the latter.

At the local level, sharing initiatives facilitate communal exchange, and can potentially increase the well-being of community members by filling gaps in the service provision to meet people's needs. Evident even in the short term, they can increase community cohesion and resilience.

While it is not possible to ascertain causation between the two, it is evident that there are correlations between sharing initiatives and stronger social bonds. Such outcomes are demonstrated by localised initiatives in different parts of the world. One example is Rowe's (2017) study on MamaBake, <sup>107</sup> which found that half of the respondents said they used MamaBake because they wanted to "build a community of like-minded parents". <sup>108</sup>

Initiatives like co-housing<sup>109</sup> (see Figure 3) also promote social interaction and shared experiences. Participants of co-housing, such as those in Copenhagen, said that doing things together with others in their community

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<sup>&</sup>lt;sup>106</sup> Airbnb (n.d.). New study reveals a greener way to travel: Airbnb community shows environmental benefits of home sharing. https://www.airbnb.jp/press/news/new-study-reveals-a-greener-way-to-travel-airbnb-community-shows-environmental-benefits-of-home-sharing

 <sup>107</sup> MamaBake facilitates communal cooking and sharing of meals among mothers in certain parts of Australia.
 108 Rowe, P. C. M. (2017) Beyond Uber and Airbnb: The social economy of collaborative consumption. Social Media + Society, 3(2), 1-10.

<sup>&</sup>lt;sup>109</sup> Co-housing is a housing movement which began in the 1970s and has since gained traction internationally. In a co-housing community, several families live separately but share extensive communal space in a neighbourhood designed specifically for social interaction. The model came out of Nordic feminist community project models with a goal of creating a "just society in which children's and women's needs and the social reproduction of all peoples and natures are valued as central motives for action" (Jarvis 2011, 560).



help build empathy, cultivate teamwork and responsibility.<sup>110</sup> Others initiatives, like community cafés, provide a platform for residents to share their concerns about the area, and serve as a look-out point for vulnerable residents. For example, patrons of a community café in Bristol will call upon a 94-year-old resident who visits the café on most days, if she does not appear.<sup>111</sup> Similar effects are observed even in work settings. Companies who use co-working spaces are attracted to the ease with which employees can network and connect with others in the same working space. According to the managing director for the Singapore office of Lendlease, which relocated its interim Asia headquarters to a co-working space in June 2017, employees appreciated the opportunities to network with like-minded others, enjoyed more interaction and collaboration, and felt a sense of community.<sup>112</sup>



Figure 3: An example of co-housing in Denmark<sup>113</sup>

<sup>&</sup>lt;sup>110</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>&</sup>lt;sup>111</sup> On the bike path I feel a connection to people: Your shared spaces. (2018, September 7). *The Guardian*. Retrieved from https://www.theguardian.com/cities/2018/sep/07/on-the-bike-path-i-feel-a-connection-to-people-your-shared-spaces.

 $<sup>^{112}</sup>$  Lim, J. (2018, September 10). Some corporate ditch offices for co-working spaces. *TODAY*. Retrieved from https://www.todayonline.com/singapore/some-corporates-ditch-offices-co-working-spaces.

<sup>&</sup>lt;sup>113</sup> Unit and common area at Ibsgarden [Online image]. (1999). Retrieved from https://l.cohousing.org/dk99/DKtour\_IB1.html



In addition to promoting shared experiences and building communities, sharing initiatives contribute to solidarity building, especially in cases where members of the community look out for one another and take ownership to guard against abuse. For instance, during their leisure time, a group of "bike hunters" in China would band together to look out for shared bicycles parked in private areas or secured with locks. Members of the group share tips and their stories on WeChat, a messaging app. 114 Similarly, in Singapore, students from Hougang Secondary School teamed up with a foreign resident to rid Singapore of discarded oBikes that cluttered the streets (see Figures 4 and 5). 115



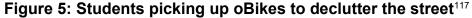


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Wu, Y., & Tang, X. (2017, January 22). The vigilantes of China's bike-sharing economy. *The Sixth Tone*.
 Retrieved from http://www.sixthtone.com/news/1856/the-vigilantes-of-chinas-bike-sharing-economy.
 Lay, B. (2018, July 9). Hougang Secondary School students and Bulgarian man round up oBikes [Blog post].
 Retrieved from https://mothership.sg/2018/07/hougang-secondary-school-students-bulgarian-man-clear-obikes/.

<sup>&</sup>lt;sup>116</sup> Shared bike hunters team up to protect the sharing business [Online image]. (2017). Retrieved from http://www.chinadaily.com.cn/china/2017-04/07/content\_28825667.htm.







Separately, a Volunteer Bike Patrol group<sup>118</sup> provides volunteer patrolling around Singapore. Participating on a voluntary basis and motivated by the desire to make Singapore less cluttered, members of the group move indiscriminately parked shared bikes to areas designated by the Land Transport Authority.<sup>119</sup>

One remarkable story that demonstrates how sharing initiatives can transform a city is that of Medellin, Colombia's second-largest city with a population of over 3 million people. The city has come a long way from being known as the murder capital of the country to being a thriving medical, business and tourist centre. By 2007, the murder rate had dropped to 34 homicides per 100,000 people. The transformation was in part attributed to its city leaders' approach to changing the quality of life of their residents, with municipal projects and interventions that promoted

<sup>&</sup>lt;sup>117</sup> [Untitled photograph of students picking up oBikes to help declutter the streets]. Retrieved from https://www.facebook.com/VolunteerBikePatrol/posts/287712305304507.

<sup>&</sup>lt;sup>118</sup> As of November 2018, there are 136 members in the group which is open to the public: https://www.meetup.com/volunteer-bike-patrol/?\_cookie-check=Ku38Ea\_QpS4eTF4E
<sup>119</sup> Volunteer bike patrol https://www.meetup.com/volunteer-bike-patrol/?\_cookie-check=Ku38Ea\_QpS4eTF4E

<sup>&</sup>lt;sup>120</sup> Prior to the death of the infamous drug cartel leader Pablo Escobar in 1993, the murder rate in the city was approximately 381 homicides per 100,000 people: https://www.bbc.com/news/magazine-30278303



greater social inclusion through creative urban design and architectural planning. 121 For example, shared public spaces were designed to fit into and enhance poorer neighbourhoods. Notable initiatives include the awardwinning parque biblioteca (library park), where residents could go to and read, use computers or simply relax. Created by and with the people, public spaces in Medellin are maintained both by the municipal authorities and the users themselves. 122 The case of Medellin demonstrates how shared public spaces which are co-created and co-managed by citizens can help improve quality of life and reduce crime. 123

#### At the individual level

While people may not participate in sharing initiatives for moral or normative reasons, they may adopt practices such as car sharing for reasons such as convenience and reducing costs. Some studies suggest that once basic needs are met, feelings of well-being or happiness may not increase. 124 Others have found that positive effects on life satisfaction could be attributed to pro-social spending behaviour, and greener consumption and action. 125

According to a 2011 study conducted by Co-operatives in the UK, seven out of 10 people in the UK said that sharing made them feel better about themselves, and eight out of 10 said that sharing made them happy. 126 Studies have also shown that shared public spaces such as parks have some form of beneficial health effect, as they facilitate physical activity and social interaction. 127 And when sharing involves face-to-face interaction, it increases the frequency of interaction among neighbours and residents,

<sup>&</sup>lt;sup>121</sup> Mendoza, N. B. (2016, September 7). Don't call Medellin a model city [Blog post]. Retrieved from https://www.devex.com/news/don-t-call-medellin-a-model-city-88707.

<sup>&</sup>lt;sup>122</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>&</sup>lt;sup>123</sup> Mendoza, N. B. (2016, September 7). Don't call Medellin a model city [Blog post]. Retrieved from https://www.devex.com/news/don-t-call-medellin-a-model-city-88707; McLaren, D., & Agyeman, J. (2016, February 24). Sharing without sharing: The strange case of Medellin [Blog post]. Retrieved from https://www.shareable.net/blog/sharing-without-sharing-the-strange-case-of-medell%C3%ADn.

<sup>&</sup>lt;sup>124</sup> Robbins, J. (2010, July 20). The economics of happiness. *Greater Good Magazine*. Retrieved from https://greatergood.berkeley.edu/article/item/the\_economics\_of\_happiness; Diener, E., & Seligman, M.E.P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, *5*(1), 1–31.

<sup>&</sup>lt;sup>125</sup> Dunn, E.W., Gilbert, D.T., & Wilson, T.D. (2011). If money doesn't make you happy than you probably aren't spending it right. *Journal of Consumer Psychology, 21,* 115-125; Xiao, J.J., & Li, H. (2011). Sustainable consumption and life satisfaction. *Soc Indic Res, 104,* 323-329.

<sup>&</sup>lt;sup>126</sup> Griffiths, R. *The great sharing economy. A report into sharing across the UK*. Retrieved from http://library.uniteddiversity.coop/Cooperatives/The\_great\_sharing\_economy.pdf.

<sup>&</sup>lt;sup>127</sup> Lee, A.C.K., Maheswaran, R. (2010). The health benefits of urban green spaces: A review of the evidence. *Journal of Public Health*, *33*(2), 212-222; Larson, L.R., Jennings, V., & Cloutier, S.A. (2016). Public parks and wellbeing in urban areas of the United States. *PLoS ONE*, *11*(4), 1-19; Cattell, V., Dines, N., Gesler, W., & Curtis, S. (2008). Mingling, observing and lingering: Everyday public spaces and their implications for well-being and social relations. *Health & Place*, *14*, 544-561.



and can alleviate the sense of isolation felt by vulnerable populations. <sup>128</sup> For example, in Portland, Oregon, City Repair is a group that leads projects such as building mini-libraries, public seats and self-serve cafés. Residents within a two-block radius said they enjoyed these projects as it increased social interaction, improved their mental health, and lent a stronger sense of community. <sup>129</sup>

#### **NEGATIVE OUTCOMES**

The sections above present how sharing initiatives can benefit cities, generate positive externalities, strengthen communities, help build solidarity within communities, and promote personal wellbeing. However, sharing initiatives, especially those that generate revenue or are for-profit, have been said to create unlevelled competition in traditionally protected industries. For example, taxi industry players in Singapore have noted that new vehicle-sharing companies are not required to meet service standards, have no quota on their fleet and are not mandated to buy insurance or maintain their vehicles. Experts have also highlighted other unanticipated negative consequences, such as exploitation of workers, and perpetuating a divide. 131

# Workers' rights and disruption to economy

While micro-entrepreneurial activities such as ride sharing and home sharing do not qualify as sharing in the communal sense, they nonetheless represent a new model of business and provides an alternative stream of income. 132 As such, consumer participation in the sharing economy may be interpreted as entrepreneurial activity, as consumers take over the role of service provision or producer, for example, when they rent out their idle assets to others. 133 According to Laamanen et al. (2018), new business models such as co-working, crowdfunding, and crowd lending challenge

<sup>&</sup>lt;sup>128</sup> Shinew, K.J., Glover, T.D., & Parry, D.C. (2004). Leisure spaces as potential sites for interracial interaction: Community gardens in urban areas. *Journal of Leisure Research*, *36*(3), 336-355.

<sup>&</sup>lt;sup>129</sup> Semenza, J.C., March, T.L. (2009). An urban community-based intervention to advance social interaction. *Environment and Behavior*, *41*(1), 22-42.

<sup>&</sup>lt;sup>130</sup> Tan, C. (2016, April 14). More taxi firms eyeing Uber business model. *The Straits Times*. Retrieve from https://www.straitstimes.com/singapore/transport/more-taxi-firms-eyeing-uber-business-model.

<sup>&</sup>lt;sup>131</sup> Martin, C.J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism? *Ecological Economics*, *121*, 149-159; Cheng, M., & Foley, C. (2018). The sharing economy and digital discrimination: The case of Airbnb. *International Journal of Hospitality Management*, *70*, 95-98.

<sup>&</sup>lt;sup>132</sup> Cruz, I., Ganga, R., & Wahlen, S. (2018). Contemporary collaborative consumption: An introduction. In I. Cruz, R. Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.1-15). Germany: Springer VS.

<sup>&</sup>lt;sup>133</sup> Martin, C.J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism? *Ecological Economics*, *121*, 149-159.



traditional economic models and their associated representations of how labour markets are organised. 134

According to a recently released JPMorgan Chase Institute study, while people who used apps and sites to lease their assets (e.g., an apartment, a car or a parking space) saw a 69 per cent increase in income, those in the transportation sectors saw a significant decrease in income. Monthly wages fell 53 per cent from 2013 to 2017, and the average driver's income decreased from USD 1,469 to USD 783 per month. This trend gives cause for concern, especially when the number of employees on transportation service platforms has also increased.<sup>135</sup>

The sharing economy has led to the emergence of a new service economy. While freedom and flexibility are a common reason given by individuals who take on "gig economy" jobs, issues of workers' rights, and uncertain economic prospects have been associated with the sharing economy, specifically those that generate income and profit for people who provide a service and intermediaries.

For instance, Amazon's Mechanical Turk which provides micro jobs for people to do in their spare time, pays very low rates, with workers not knowing that they should be entitled to receive more in compensation for their time and effort. In China, delivery workers who work in the food industry have been protesting against harsh conditions, which include being penalised for not taking orders that are difficult to complete within the specified time assigned, the reduction of pay-per-delivery, and the increase in penalties for delays. The online platform Huolala has seen strikes by inter-city van drivers who protested against unilateral policy changes that led to stagnant pay, increased costs and obscure pricing policy. In a similar vein, drivers with leading online car-hailing platform Didi-Chuxing went on strike in June 2018 over pay cuts and deteriorating working conditions. In Interior Inte

<sup>&</sup>lt;sup>134</sup> Laamanen, M.,Barros, M.,& Islam, G. (2018). Collective representation on collaborative economy platforms. In I. Cruz, R.Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.35-56). Germany: Springer VS.

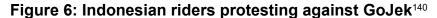
<sup>&</sup>lt;sup>135</sup> Shrikant, A. (2018, October 1). The gig economy isn't going anywhere. 4 experts explain why. *Vox.* Retrieved from https://www.vox.com/the-goods/2018/10/1/17924856/gig-economy-uber-sharing; Farrell, D., Greig, F., & Hamoudi, A. (2018). *The online platform economy in 2018. Drivers, workers, sellers, and lessors.* Retrieved from https://www.jpmorganchase.com/corporate/institute/report-ope-2018.htm.

<sup>&</sup>lt;sup>136</sup> Ministry of Culture, Community and Youth. (2017, July 20). Singapore sharing city workshop

<sup>&</sup>lt;sup>137</sup> Fixing China's sharing economy woes (2018, July 14). *TheNewsLens*. Retrieved from https://international.thenewslens.com/article/99618.



Closer to Singapore, GoJek<sup>138</sup> drivers in Indonesia protested against low wages and unattainable performance bonuses (Figure 6).<sup>139</sup>





Individuals such as those mentioned above are sometimes trapped in the grey area between the status of freelancers, contractors, "entrepreneurs", and that of employees. In the US, most of them do not have access to employee benefits and protections such as insurance, health and safety protection, minimum wage or overtime laws. 141 While arguably, drivers who sign up with ride-hailing platforms do so on their own volition and are seen as (micro-) entrepreneurs, these drivers (e.g., Uber and Lyft drivers) find themselves in a position where they work without employment safety nets

<sup>&</sup>lt;sup>138</sup> GoJek specialises in ride-hailing and logistics services.

<sup>&</sup>lt;sup>139</sup> Helble, M., & Enzmann, J. (2018, August 30). How to make the sharing economy work for South-east Asia. *The Straits Times*. Retrieved from https://www.straitstimes.com/opinion/how-to-make-the-sharing-economy-work-for-south-east-asia.

 <sup>140 [</sup>Untitled photograph of Indonesian riders protesting against GoJek]. (2016). Retrieved from http://sentananews.com/news/news/pengemudi-gojek-unjuk-rasa-tuntut-hapus-sistem-per-20105
 141 Senator Warner addresses the opportunities and challenges of the 'sharing economy' [Blog post]. Retrieved from https://www.warner.senate.gov/public/index.cfm/gig-economy.



and union protection.<sup>142</sup> In the US, a Grubhub<sup>143</sup> driver brought a case against the food delivery platform earlier in 2018, saying it controlled a significant amount of his time the way a manager controls employee shifts, and hence he should be offered minimum wage, benefits, overtime pay, and reimbursement for expenses.<sup>144</sup> The court disagreed and said the drivers are independent contractors.<sup>145</sup> In addition, an over-reliance on income derived from the sharing economy may subject them to a fluctuating income and the lack of job security, especially in times when the economy is not doing well.<sup>146</sup>

# **Exacerbating existing inequalities**

In addition to issues pertaining to workers' rights and uncertain employment, sharing initiatives could lead to other unanticipated negative consequences. One of which is the reinforcement or exacerbation of existing inequalities among people. Cagle (2014) suggested that the sharing economy "trades on cultural homogeneity and established social networks both online and in real life. Where it builds new connections, it often replicates old patterns of privileged access for some, and denial for others". The for instance, the forging of new connections among people who participate in accommodation sharing tend to occur among members of the middle class, rather than low-income people. The Stokes and her colleagues (2014) found that while two-thirds of the population in the UK said that they were engaged in collaborative activities, there was a demographic bias. The skew was towards those who were economically active, and were in managerial, professional and administrative jobs, and away from ethnic minorities and those living in rural areas.

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<sup>&</sup>lt;sup>142</sup> Cruz, I., Ganga, R., & Wahlen, S. (2018). Contemporary collaborative consumption: An introduction. In I. Cruz, R. Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.1-15). Germany: Springer VS.

<sup>&</sup>lt;sup>143</sup> An online and mobile food-ordering company that connects diners with local restaurants.

<sup>&</sup>lt;sup>144</sup> Noguchi, Y. (2018, March 7). Gig economy renews debate over whether contractors are really employees. npr. Retrieved from https://www.npr.org/2018/03/07/589840595/gig-economy-renews-debate-over-whether-contractors-are-really-workers.

<sup>&</sup>lt;sup>145</sup> Noguchi, Y. (2018, March 7). Gig economy renews debate over whether contractors are really employees. *National Public Radio*. Retrieved from https://www.npr.org/2018/03/07/589840595/gig-economy-renews-debate-over-whether-contractors-are-really-workers.

<sup>&</sup>lt;sup>146</sup> Boran, E. Z. (n.d.). *Coming in between: Disintermediation of the economy and its impact on national security*. Retrieved from https://www.nscs.gov.sg/rahs-programme-office.html.

<sup>&</sup>lt;sup>147</sup> Cagle, S. (2014, May 27). The case against sharing. On access, scarcity, and trust. *Medium*. Retrieved from https://medium.com/the-nib/the-case-against-sharing-9ea5ba3d216d.

<sup>&</sup>lt;sup>148</sup> Molz, J.G. (2013). Social networking technologies and the moral economy of alternative tourism: The case of couchsurfing.org. *Annals of Tourism Research*, *43*, 210–230.

<sup>&</sup>lt;sup>149</sup> Stokes, K., Clarence, E., Anderson, L., & Rinne, A. (2014). *Making sense of the UK Collaborative economy*. Retrieved from

http://www.collaboriamo.org/media/2014/10/making\_sense\_of\_the\_uk\_collaborative\_economy\_14.pdf. <sup>150</sup> *ibid.* 



Critics of the sharing economy have voiced concerns that the benefits do not always trickle down to the needy. Some partake in sharing out of necessity, and as mentioned earlier, drivers for ride-hailing apps sometimes do so to compensate underpaid jobs or unemployment, without employment safety nets and union protection.<sup>151</sup>

Related to the above, reaping the benefits of sharing initiatives is predicated on access to technology. In Southeast Asia, for example, the sharing economy model is perceived to potentially transform economic development. However, potential pitfalls include the exclusion of those with no or without reliable Internet access or bank accounts (e.g., in the Philippines and Indonesia whose populations are spread across thousands of islands). Asia is home to more than half of the world's individuals who lack access to bank accounts, credit cards or online banking. In 2016, KPMG estimated that less than 30 per cent of the population have access to a bank account. This means that about 438 million people are unbanked. As digital transactions often require electronic payments, users without access to online financial tools can be easily left behind. Thus, in these countries, there is a greater responsibility on regulators to ensure that the sharing economy unlocks opportunities for as many people as possible, while safeguarding consumer protection and privacy.

Finally, evident from the backlash on some sharing economy models, such as accommodation sharing, sharing initiatives can result in other societal or environmental problems. Barcelona and Manchester are two cities that are reeling from the impact of accommodation sharing in different ways.

In Barcelona, landlords have realised that leasing their apartments to Airbnb users is more lucrative than renting to conventional tenants who live and work in the city, and have begun amassing multiple properties for their own monetary gains. For instance, one Airbnb "host" manages a portfolio of 204 apartments in Barcelona worth about USD 43,000 a day in rental

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<sup>&</sup>lt;sup>151</sup> Noguchi, Y. (2018, March 7). Gig economy renews debate over whether contractors are really employees. *National Public Radio*. Retrieved from https://www.npr.org/2018/03/07/589840595/gig-economy-renews-debate-over-whether-contractors-are-really-workers; Boran, E. Z. (n.d.). *Coming in between: Disintermediation of the economy and its impact on national security*. Retrieved from https://www.nscs.gov.sg/rahs-programme-office.html.

<sup>&</sup>lt;sup>152</sup> Reinmueller, J. (2016). Fintech: Opening the door to the unbanked and underbanked in Southeast Asia. *KPMG*. Retrieved from https://home.kpmg.com/xx/en/home/insights/2016/04/fintech-opening-the-door-to-the-unbanked-and-underbanked-in-southeast-asia.html.

<sup>&</sup>lt;sup>153</sup> Helble, M., & Enzmann, J. (2018, August 30). How to make the sharing economy work for South-east Asia. *The Straits Times*. Retrieved from https://www.straitstimes.com/opinion/how-to-make-the-sharing-economy-work-for-south-east-asia.

<sup>&</sup>lt;sup>154</sup> ibid.



income during the high season. <sup>155</sup> One consequence arising from this is that rentals have gone beyond the reach of young Spaniards, property prices are rising across the city, and locals have had to move out of their neighbourhoods. <sup>156</sup>

In Manchester, the clustering of short-term rentals in certain locations (e.g., the popular Northern Quarter) is putting strain on local services, and small businesses. Residents, and potential residents are put off by anti-social behaviour and littering with the rise of foreign visitors. Some cities in the UK that have already experienced the negative impact of short-term rentals are fighting back, with governments looking into new laws to limit long-term damage to communities.<sup>157</sup>

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<sup>&</sup>lt;sup>155</sup> Burgen, S. (2018, October 22). Barcelona Airbnb host 'manages rentals worth 33,000 pounds a day. *The Guardian*. Retrieved from https://www.theguardian.com/cities/2018/oct/22/barcelona-airbnb-host-manages-rentals-worth-33000-a-day-report.

<sup>&</sup>lt;sup>156</sup> Hinsliff, G. (2018, August 31). Airbnb and the so-called sharing economy is hollowing out our cities. *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2018/aug/31/airbnb-sharing-economy-cities-barcelona-inequality-locals.

<sup>&</sup>lt;sup>157</sup> Silver, J. (2018, September 1). Lessons on regulating Airbnb from a UK city. *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/commentary/airbnb-regulations-short-term-rental-housing-hotel-property-10648236.



# CHAPTER 4: PARTICIPATION — WHO AND WHY

Encouraging statistics pertaining to people's interest and willingness to participate in sharing initiatives date back to a few years ago. For instance, a 2014 study by Nielsen found that most citizens in the Asia Pacific region were open to the idea of sharing — 78 per cent were willing to share their own assets, higher than the global average of 68 per cent. In Amsterdam, a 2013 study showed that about 84 per cent of residents were willing to take part in at least one type of collaborative consumption.

A recently published study by Deloitte estimates that worldwide, approximately 500 million people have shared their assets or services with others (i.e., the supply side) in the past three years to earn a profit. The same study also found that about 680 million people have consumed these assets or services (i.e., the demand side). In a separate report, PricewaterhouseCoopers (PwC) estimated that the sharing economy could grow to USD 335 billion by 2025, up from USD 15 billion in 2014. Given the increasing participation among individuals in different parts of the world, the profile of people who engage in sharing initiatives has been a topic of study. This section examines the traits of people who share, and why they share.

#### WHO PARTICIPATES

#### Age

Many studies, such as cross-national studies conducted in 2016 by PwC and Eurobarometer, found that generally, there is a negative correlation between age and participation in sharing initiatives. <sup>162</sup> In other words, the younger a person, the more likely he would engage in sharing with others.

<sup>&</sup>lt;sup>158</sup> Nielsen. (2014). *Is sharing the new buying?* Retrieved from

http://www.nielsen.com/us/en/insights/news/2014/is-sharing-the-new-buying.html.

<sup>&</sup>lt;sup>159</sup> Van de Glind, P. (2013). *The consumer potential of collaborative consumption* (Master's thesis). Retrieved from https://www.slideshare.net/Pieter1987/master-thesis-sdeg-pieter-van-de-glind-3845494-the-consumer-potential-of-collaborative-consumption-august-2013.

<sup>&</sup>lt;sup>160</sup> Squaring risk in the sharing age. How the collaborative economy is reshaping insurance products. (2018). *Deloitte*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-squaring-risk-in-the-sharing-age.pdf.

<sup>&</sup>lt;sup>161</sup> The sharing economy. (2014). *PwC Consumer Intelligence Series*. Retrieved from https://www.pwc.com/us/en/technology/publications/assets/pwc-consumer-intelligence-series-the-sharing-economy.pdf.

<sup>&</sup>lt;sup>162</sup> Vaughan, R., & Daverio, R. (2016). Assessing the size and presence of the collaborative economy in Europe. Retrieved from https://publications.europa.eu/en/publication-detail/-/publication/2acb7619-b544-11e7-837e-01aa75ed71a1; The use of collaborative platforms. (2016). Flash Eurobarometer 438. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG.



Conversely, the older a person, the less likely he would do so. Awareness of sharing initiatives was also higher among younger age groups — the study by Eurobarometer found that respondents aged 25-39 years old were most likely to have heard of the sharing economy. 163

A 2012 study by marketing agency Campbell Mithun in partnership with Carbonview Research, found that Generation X-ers and Millennials 164 were most predisposed to join sharing services — 31 per cent of Gen X-ers and 24 per cent of Millennial respondents found them appealing. 165 In contrast, only 15 per cent of Baby Boomer respondents expressed interest in participating in the sharing economy. 166 Their differential participation might be a reflection of their circumstances — sharing may have helped alleviate the financial burdens of Generation X-ers who were in the middle age and had various commitments (e.g., paying for children's education and mortgages). On the other hand, Baby Boomers lacked the technological literacy to participate in sharing initiatives, many of which were mediated by technology. Baby Boomers were also likely to have more entrenched attitudes that favour ownership and possession, over sharing, compared to the younger cohorts.

These international studies are corroborated by country-specific studies. In Italy, a 2014 research by Ipsos Public Affairs revealed that 75 per cent of the population aged between 18 and 64 years old have heard of the sharing economy, and awareness was highest among those aged 18-34 years. Another 2015 survey conducted by TNS found that among 1,000 Italians surveyed, young adults aged between 18 and 34 years made up 46 per cent of sharing services users (most of which are related to mobility or accommodation services). In Amsterdam, people aged 20–45 years were more likely to share.

<sup>166</sup> *ibid*.

<sup>&</sup>lt;sup>163</sup> The use of collaborative platforms. (2016). Flash Eurobarometer 438. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG.

 <sup>&</sup>lt;sup>164</sup> There are different age ranges given for these groups. A common one for Millennials are those born between 1981 and 1996, i.e., those who fall into the age group of 22—37 in the current year of 2018.
 <sup>165</sup> Davis, P.M (2012, July 10). Survey finds trust is #1 barrier to sharing [Blog post]. Retrieved from https://www.shareable.net/blog/survey-finds-trust-is-1-barrier-to-sharing.

<sup>&</sup>lt;sup>167</sup> Cited in Mortara, A., & Roberti, G. (2018). The sharing economy and young people: An exploratory research project. In I. Cruz, R.Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.97-129). Germany: Springer VS.

<sup>&</sup>lt;sup>169</sup> Starritt, A. (2017, April 18). Forget Uber, Amsterdam is showing how to use the sharing economy for good. *Huffpost*. Retrieved from https://www.huffingtonpost.com/entry/forget-uber-amsterdam-is-showing-how-to-use-the-sharing\_us\_58f60ed0e4b0156697225295.



Participation on myriad sharing platforms take the form of service provision as well, not just product or service consumption. The "Freelancing in America" study published recently found that freelancers lived all across the US, with over 40 per cent of them younger than 35 years old.<sup>170</sup>

There are several reasons that account for higher levels of participation among youth and young adults. First, they have a greater propensity to be open to new experiences. Second, they are digital natives who grow up in a world where information sharing is pervasive and they use technological devices extensively, and hence are more used to collaborating with others via technology. Furthermore, participating in activities such as looking up online reviews and ratings, checking out potential lessors and lessees on social media — such as in the case of Airbnb — require a rudimentary level of technology savviness. 173

# Gender

Compared to age, research on the effect of gender is not as conclusive. For instance, the Eurobarometer survey found that men were more likely than women (21 per cent and 15 per cent respectively) to have heard of sharing economy platforms. The However, a 2016 study by Smith found that men and women displayed the same intensity of use. Despite the seemingly contradictory findings, it should be noted that the differences in awareness and usage were small, and there was no significant gap between the two genders.

What studies have shown is that men and women participate in different ways. In their study on four sites from the sharing economy to analyse how class and other forms of inequality operate in the US, Schor et al. (2015) found that men were overrepresented in both the makerspace CraftWork (a platform for artisanal working), and in Wintrepreneur (an education initiative that provides education courses for entrepreneurs and start-up

<sup>&</sup>lt;sup>170</sup> Freelancing in America. (2018). *Upwork*. Retrieved from https://www.upwork.com/i/freelancing-in-america/2018/.

<sup>&</sup>lt;sup>171</sup> Olson, M.J., & Kemp, S.J. (2015). Sharing economy. An in-depth look at its evolution and trajectory across industries. *PiperJaffray Investment Research*. Retrieved from

https://piper2.bluematrix.com/docs/pdf/b73e4dc7-0fe5-447a-a7f0-f0dd1f941abb.pdf.

<sup>&</sup>lt;sup>172</sup> Ozcan, P., Möhlmann, M., & Krishnamoorthy, C. (2017). Who shares and who doesn't? Results of the UK sharing economy consumer survey 2017. *Warwick Business School*. Retrieved from https://www.wbs.ac.uk/wbs2012/assets/PDF/downloads/press/ResultsofUKSharingEconomyConsumerSurver y2017.pdf.

<sup>&</sup>lt;sup>173</sup> The rise of the sharing economy. (2013, March 9). *The Economist*. Retrieved from https://www.economist.com/leaders/2013/03/09/the-rise-of-the-sharing-economy <sup>174</sup> The use of collaborative platforms. (2016). *Flash Eurobarometer 438*. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112 438 ENG.

<sup>&</sup>lt;sup>175</sup> Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy. *PewResearchCenter*. Retrieved from http://www.pewresearch.org/wp-content/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-Economy\_FINAL.pdf.



founders).<sup>176</sup> On the other hand, women participated more on food swapping platforms to trade and share home grown and homemade food, and in time banks, where time was an object of trading and sharing.<sup>177</sup> Results from an Airbnb study in 2017 also showed that female hosts outnumbered their male counterparts around the world. Over one million women hosted on Airbnb, making up 55 per cent of the global Airbnb host community.<sup>178</sup> The gender difference in the types of participation could be attributed to the roles they played at home and in their community.

# **Ethnicity**

Research that was done in the context of the US sheds some light on the role ethnicity plays in sharing initiatives, but usually in a negative way. Participation in the sharing economy, ranging from time banks, food swaps, makerspaces and education initiatives, had seen a significantly larger representation among the white population. In case of accommodationsharing platforms, African-Americans on Airbnb had a 16 per cent smaller chance of receiving a positive answer on an apartment request, irrespective of the provider, the object of request, or its location. They also earned about 12 per cent less than non-black hosts for a similar apartment with similar ratings and photos. African-American and Asian Airbnb users also reported experiences of facing a rejection by a host specifically because of their race. Ethnic minorities may found it harder to connect to consumers, resulting in reduced income opportunities. Similar patterns were observed for ride-sharing apps — racial discrimination could be taking place on Uber, particularly in terms of users'

<sup>&</sup>lt;sup>176</sup> Schor, J.B., Fitzmaurice, C., Carfagna, L.B., Attwood-Charles, W., & Poteat, E.D. (2015). Paradoxes of openness and distinction in the sharing economy. *Poetics, 54*, 66-81.

<sup>&</sup>lt;sup>178</sup> Women hosts and Airbnb: Building a global community. (2017). *Airbnb*. Retrieved from https://2sqy5r1jf93u30kwzc1smfqt-wpengine.netdna-ssl.com/wp-content/uploads/2017/03/Women-Hosts-and-Airbnb\_Building-a-Global-Community.pdf.

<sup>&</sup>lt;sup>179</sup> Schor, J.B., Fitzmaurice, C., Carfagna, L.B., Attwood-Charles, W., & Poteat, E.D. (2015). Paradoxes of openness and distinction in the sharing economy. *Poetics*, *54*, 66-81.

<sup>&</sup>lt;sup>180</sup> Edelman, B., Luca, M., & Svirsky, D. (2017). Racial discrimination in the sharing economy: Evidence from a field experiment. *American Economic Journal: Applied Economics*, 9(2), 1-22.

<sup>&</sup>lt;sup>181</sup> Edelman, B., & Luca, M. (2014). Digital discrimination: The case of Airbnb.com. *Harvard Business School Working Paper*. Retrieved from https://www.hbs.edu/faculty/Publication%20Files/Airbnb\_92dd6086-6e46-4eaf-9cea-60fe5ba3c596.pdf.

<sup>&</sup>lt;sup>182</sup> Levin, S. (2017, April 28). Airbnb gives in to regulator's demand to test for racial discrimination by hosts. *The Guardian*. Retrieved from https://www.theguardian.com/technology/2017/apr/27/airbnb-government-housing-test-black-discrimination.

<sup>&</sup>lt;sup>183</sup> Edelman, B., & Luca, M. (2014). Digital discrimination: The case of Airbnb.com. *Harvard Business School Working Paper*. Retrieved from https://www.hbs.edu/faculty/Publication%20Files/Airbnb\_92dd6086-6e46-4eaf-9cea-60fe5ba3c596.pdf.https://www.bi.edu/globalassets/forskning/h2020/participation-working-paper.pdf.



rating of drivers, where consumer-sourced ratings could be skewed based on race or ethnicity.<sup>184</sup>

#### **Education**

One of the most crucial determinants of participation in sharing initiatives is one's education level. People with higher levels of education were more likely to engage in the sharing economy, either as providers or as consumers. It is in the study conducted by Eurobarometer, 27 per cent of people with 20 or more years of education said that they had used sharing economy platforms. It is in percentage was almost halved, at 13 per cent, among those who had 16 to 19 years of formal education. It is in Education was found to be a strong predictor of paid usage (defined as having paid money on a sharing economy platform) and strong usage (defined as regular use of one or more sharing economy platforms). Smith's (2016) study found similar results — college graduates were more likely to use car-sharing platforms (i.e., 29 per cent compared to 6 per cent of high school graduates) and home-sharing platforms (i.e., 25 per cent compared to 4 per cent).

In the UK, the consumption of services on sharing platforms too corresponded with participants' education levels. Usage was higher among survey respondents who had O-Levels or equivalent qualifications, compared to those without educational qualifications. The corresponding increase was observed up to the level of a master's degree. 189

These patterns were also found for initiatives such as time banking and makerspace — users of both types of platforms had higher education levels. 190

<sup>&</sup>lt;sup>184</sup> Rosenblat, A., Levy, K.E.C., Barocas, S., & Hwang, T. (2016). Discriminating tastes: Uber's customer ratings as vehicles for workplace discrimination. *Policy and Internet*, *9*(3), 256-279.

<sup>&</sup>lt;sup>185</sup> The use of collaborative platforms. (2016). *Flash Eurobarometer 438*. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG; Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy. *PewResearchCenter*. Retrieved from http://www.pewresearch.org/wp-content/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-Economy\_FINAL.pdf.

<sup>&</sup>lt;sup>186</sup> The use of collaborative platforms. (2016). *Flash Eurobarometer 438*. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG.

<sup>&</sup>lt;sup>188</sup> Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy. *PewResearchCenter*. Retrieved from http://www.pewresearch.org/wp-content/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-Economy\_FINAL.pdf.

<sup>&</sup>lt;sup>189</sup> Ozcan, P., Möhlmann, M., & Krishnamoorthy, C. (2017). Who shares and who doesn't? Results of the UK sharing economy consumer survey 2017. *Warwick Business School*. Retrieved from https://www.wbs.ac.uk/wbs2012/assets/PDF/downloads/press/ResultsofUKSharingEconomyConsumerSurver

https://www.wbs.ac.uk/wbs2012/assets/PDF/downloads/press/Results of UKS haring Economy Consumer Survey 2017.pdf.

<sup>&</sup>lt;sup>190</sup> Schor, J.B., Fitzmaurice, C., Carfagna, L.B., Attwood-Charles, W., & Poteat, E.D. (2015). Paradoxes of openness and distinction in the sharing economy. *Poetics*, *54*, 66-81.



#### Income

Studies have found that the sharing economy was used primarily by employed and wealthy people. In other words, higher income (or higher employment status) correlated with participation in the sharing economy. People who had more than USD 75,000 in household income were more likely to use both car-sharing and home-sharing platforms. Employees and self-employed individuals were more likely to use sharing economy platforms (at 26 per cent and 25 per cent respectively), compared to manual labourers (14 per cent) and unemployed persons (11 per cent). In the way that education appears to be a door opener for the sharing economy, income and wealth — especially the availability of lettable capacities — seem to be necessities to gain access to profit-oriented participation. Those who do not possess a car or excess living space cannot provide it on sharing platforms.

While these findings may be counterintuitive — it may be thought that lower-income individuals may lease out objects and provide skills in return for cash or other commodities they need — there could be a few reasons to explain this. First, the risk involved in renting out one's items may tilt the cost-benefit analysis to a potentially disadvantageous position for those who own limited resources. Second, the goods being shared on sharing initiatives may not fulfil the basic needs for those with less disposable income, such as food or clothing. Third, sharing initiatives are largely driven by and benefit people who have high cultural, digital and networking capital. 194

A closely related variable is that of occupation. Occupations that involve travelling and commuting may predispose certain groups to sharing initiatives. For instance, business travellers make up 15 per cent of Airbnb's overall bookings. Some sectors may also attract people who hold certain occupations, especially those who see stagnant pay due to the economy. In the US, close to one in five public school teachers in 2016 held a second

<sup>&</sup>lt;sup>191</sup> The use of collaborative platforms. (2016). *Flash Eurobarometer 438*. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG; Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy. *PewResearchCenter*. Retrieved from http://www.pewresearch.org/wp-content/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-

Economy\_FINAL.pdf.

192 Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy.

PewResearchCenter. Retrieved from http://www.pewresearch.org/wp-

content/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-Economy\_FINAL.pdf. <sup>193</sup> The use of collaborative platforms. (2016). *Flash Eurobarometer 438*. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112 438 ENG.

<sup>194</sup> Dredge, D., & Gyimóthy, S. (2015). The collaborative economy and tourism: Critical perspectives, questionable claims and silenced voices. *Tourism Recreation Research*, 40(3), 286-302.

<sup>&</sup>lt;sup>195</sup> Tang, S. K. (2017, September 12). Airbnb bets on Asia's business travellers for growth. *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/asia/airbnb-bets-on-asia-s-business-travellers-forgrowth-9208820.



job during the school year; teachers were also about five times more likely than the average full-time worker to have a part-time job. 196 An Airbnb survey conducted in 2018 showed that nearly one in 10 of Airbnb hosts was an educator. 197 The trend is more pronounced in states such as Utah and Wisconsin. One reason is that teachers did so to supplement their income. Their relatively flexible schedule (i.e., having more free time during the summer) made it easier for them to participate in sharing initiatives such as apartment sharing and being an Uber driver.

# Urbanity

Urbanity, or residing in an urban area, is positively correlated with participation in sharing initiatives. In the US, people living in an urban environment are more likely to use car-sharing and home-sharing services. 198 The same finding was supported by the Eurobarometer study, which found a strong correlation between living in an urban area, knowledge of sharing economy platforms, and willingness to provide on those platforms. 199 Two reasons could account for this trend. First, from the platforms' perspective, it makes economic sense, particularly for the forprofit initiatives, to concentrate on urban areas where there is more demand. Second, from a sociological perspective, dense urban areas are better able to sustain fiduciary network. 200 People living in dense urban areas may be more familiar with the act of trusting a stranger.

The above correlations between different demographic factors and participation in sharing initiatives are summarised in Figure 7 below. <sup>201</sup>

<sup>&</sup>lt;sup>196</sup> Wong, A. (2018, August 17). Low pay has teachers flocking to the sharing economy. *The Atlantic*. Retrieved from https://www.theatlantic.com/education/archive/2018/08/teachers-in-the-sharing-economy/567772/.

<sup>&</sup>lt;sup>197</sup> Airbnb. (2018, August 15). Teacher hosts earned \$160 million last year on Airbnb. Airbnb Press Room. Retrieved from https://press.airbnb.com/teacher-hosts-earned-160-million-last-year-on-airbnb/.

<sup>&</sup>lt;sup>198</sup> Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy.

PewResearchCenter. Retrieved from http://www.pewresearch.org/wpcontent/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-Economy\_FINAL.pdf.

<sup>&</sup>lt;sup>199</sup> The use of collaborative platforms. (2016). Flash Eurobarometer 438. Retrieved from

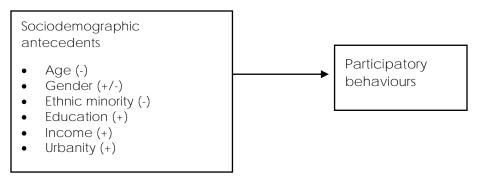
https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG.

<sup>&</sup>lt;sup>200</sup> Storper, M., & Venables, A.J. (2004). Buzz: Face-to-face contact and the urban economy. Journal of Economic Geography, 4, 351-370.

<sup>&</sup>lt;sup>201</sup> Andreotti, A., Anselmi, G., Eichhorn, T., Hoffmann, C.P., & Micheli, M. (n.d.) Report from the EU H2020 Research Project Ps2share: Participation, privacy and power in the sharing economy. Participation in the sharing economy. Retrieved from https://www.bi.edu/globalassets/forskning/h2020/participation-workingpaper.pdf.



Figure 7: Key socio-demographic antecedents of participation



#### WHY DO PEOPLE SHARE

Existing research sheds light on the motivations for people's participation in sharing initiatives.<sup>202</sup> Through interviews with users and providers who participate on a wide range of sharing platforms, Bellotti et al. (2015) identified eight distinct motives:<sup>203</sup>

- Instrumental motives (cost, convenience)
- Value/morality (including community-orientation and sustainability)
- > Social influence (reciprocity and social norms)
- Status/power (social capital, self-improvement)
- Emphatic/altruistic (desire to assist)
- Social connection

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<sup>&</sup>lt;sup>202</sup> Bellotti, V., Ambard, A., Turner, D., Gossmann, C., Demkova, K., & Carroll, J.M. (2015). A muddle of models of motivation for using peer-to-peer economy systems. Proceedings of the 33<sup>rd</sup> Annual ACM Conference on Human Factors in Computing Systems; Bucher, E., Fieseler, C., & Lutz, C. (2016). What's mine is yours (for a nominal fee) – Exploring the spectrum of utilitarian to altruistic motives for Internet-mediated sharing. *Computers in Human Behavior, 62*, 316-326; Hellwig, K., Morhart, F., Girardin, F., & Hauser, M. (2015). Exploring different types of sharing: A proposed segmentation of the market for "sharing" businesses.

Psychology & Marketing, 32(9), 891-906.

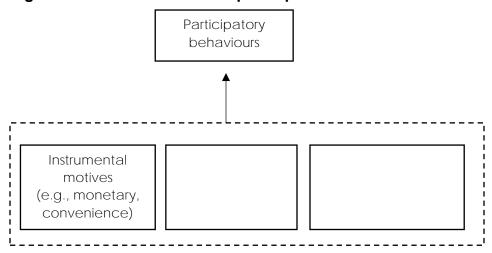
203 Bellotti, V., Ambard, A., Turner, D., Gossmann, C., Demkova, K., & Carroll, J.M. (2015). A muddle of models of motivation for using peer-to-peer economy systems. Proceedings of the 33<sup>rd</sup> Annual ACM Conference on Human Factors in Computing Systems.



- Intrinsic motives (enjoyment, flow)
- Safety

Andreotti et al. (n.d.), classified motivations for participation into three broad categories — instrumental motives (e.g., generating income, saving on costs, and convenience), social-hedonic (e.g., bonding, community participation), and normative motives (e.g., altruism, sustainability, and community support).<sup>204</sup> See Figure 8.

Figure 8: General motives for participation



One key category of motivations is *instrumental motivations*, which include cost-savings, earning revenue and convenience. Several studies have established that convenience was an important factor, which accounts for people's participation, with price or cost savings being a close second.<sup>205</sup>

A Eurobarometer study identified convenience and monetary benefits as the main advantages of sharing. When asked to list the advantages of collaborative platforms, about 40 per cent of the respondents said that services were

<sup>&</sup>lt;sup>204</sup> Andreotti, A., Anselmi, G., Eichhorn, T., Hoffmann, C.P., & Micheli, M. (n.d.) *Report from the EU H2020 Research Project Ps2share: Participation, privacy and power in the sharing economy. Participation in the sharing economy.* Retrieved from https://www.bi.edu/globalassets/forskning/h2020/participation-working-paper.pdf.

<sup>&</sup>lt;sup>205</sup> Eckhardt, G.M., & Bardhi, F. (2015, January 28). The sharing economy isn't about sharing at all. *Harvard Business Review*; Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research, 67,* 1595-1600; Biswas, R., Pahwa, A., Sheth, M. (2015). *The rise of the sharing economy. The Indian landscape.* Retrieved from https://www.ey.com/Publication/vwLUAssets/ey-the-rise-of-the-sharing-economy/\$FILE/ey-the-rise-of-the-sharing-economy.pdf.



- organised in a more convenient way, 33 per cent said that the product or service they accessed were cheaper or free, and about 25 per cent said they could exchange products or services instead of paying with money (p. 15).<sup>206</sup>
- ➤ A 2017 study conducted by the Warwick Business School found that convenience/availability and saving/making money were the top motivations that incentivised people to engage in the sharing economy, rated by over 70 per cent of ride-sharing and accommodation-sharing users in the UK. Environment-related factors were also important reasons for sharing, especially for providers of sharing services.<sup>207</sup>

# Country-specific studies support the above findings:

- ➤ In Switzerland, 65 per cent of the surveyed population said that one key advantage of participating in sharing services was lower costs, followed by the choice sharing services accord to them (50 per cent), and convenience as a benefit (40 per cent).<sup>208</sup>
- ➤ In the US, a survey of 4,787 adults established the reasons for participation in ride-hailing services to be: convenience which led to less time spent and less stress (86 per cent), more job opportunities (80 per cent), greater mobility for the elderly (73 per cent), affinity to chosen drivers (70 per cent), and lower costs (68 per cent). Similar instrumental motivations were found for home-sharing services 87 per cent said such services provided family-friendly options, 85 per cent said they provided a convenient source of income, and 73 per cent said such services were inexpensive. In a separate survey of 644 US users of accommodation-

<sup>&</sup>lt;sup>206</sup> The use of collaborative platforms. (2016). *Flash Eurobarometer 438*. Retrieved from https://data.europa.eu/euodp/data/dataset/S2112\_438\_ENG.

<sup>&</sup>lt;sup>207</sup> Ozcan, P., Möhlmann, M., & Krishnamoorthy, C. (2017). Who shares and who doesn't? Results of the UK sharing economy consumer survey 2017. *Warwick Business School*. Retrieved from https://www.wbs.ac.uk/wbs2012/assets/PDF/downloads/press/ResultsofUKSharingEconomyConsumerSurver y2017.pdf.

<sup>&</sup>lt;sup>208</sup> The sharing economy: Share and make money. How does Switzerland compare? (2015). *Deloitte*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/consumer-business/ch-cb-shared-economy-share-and-make-money.pdf.

<sup>&</sup>lt;sup>209</sup> Smith, A. (2016, May 9). Shared, collaborative and one demand: The new digital economy. *PewResearchCenter*. Retrieved from http://www.pewresearch.org/wp-content/uploads/sites/9/2016/05/PI\_2016.05.19\_Sharing-Economy\_FINAL.pdf.
<sup>210</sup> ibid.



sharing services, Tussyadiah (2015) found that the strongest predictors of repeat use were economic benefits and enjoyment.<sup>211</sup>

Habibi and his colleagues (n.d.) compared and contrasted consumer motivations to participate in three initiatives — Couchsurfing, Airbnb and short-term car rental. For all three, monetary incentives influenced users' initial interest and their sustained usage of the service. A counterintuitive finding was the lack of environmental and/or anti-corporation concerns among the participants.<sup>212</sup>

Research has found that *social hedonic motivations* — enjoyment, wanting to connect with others and the desire to be part of a community — also played an important role in influencing people's decision to participate in sharing initiatives. <sup>213</sup> For instance, users felt like they were part of a community on MinBilDinBil, <sup>214</sup> which added to their feeling of enjoyment and a desire to tell others about it. Socialising and being part of a group was the most important motivation for providing and consuming parties in meal-sharing initiatives, but among the least important motivations for car sharing. <sup>215</sup>

Research also pointed to *other factors* that influenced people's decision to share. Some findings suggest the positive effect of regulation and symbolism. A study of 355 residents in Austria and Germany was conducted to determine if consumers would support some form of governance in collaborative consumption communities.<sup>216</sup> The results showed that the majority of the respondents would support some form of *governance system*, perhaps in the form of controlling the access and use of the goods, as they thought that individuals were driven by self-interest and thus had to be regulated.<sup>217</sup>

<sup>&</sup>lt;sup>211</sup> Tussyadiah, I.P. (2015). Factors of satisfaction and intention to use peer-to-peer accommodation. *International Journal of Hospitality Management*, *55*, 70–80.

<sup>&</sup>lt;sup>212</sup> Habibi, M., Kim, A., Laroche, M. (n.d.). Are we sharing in the sharing economy? A cross context investigation.

<sup>&</sup>lt;sup>213</sup> So, K.K.F., Oh, H., & Min, S. (2018). Motivations and constraints of Airbnb consumers: Findings from a mixed-method approach. *Tourism Management, 67,* 224-236; Hamari, J., Sjoklint, M., Ukkonen, A. (2016). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology, 67*(9), 2047-2059.

<sup>&</sup>lt;sup>214</sup> A peer-to-peer car-sharing service in Denmark.

<sup>&</sup>lt;sup>215</sup> Bocker, L., & Meelen, T. (2017). Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental innovation and Societal Transitions*, *23*, 28-39.

<sup>&</sup>lt;sup>216</sup> Hartl, B., Hofmann, E., & Kirchler, E. (2015) Do we need rules for "what's mine is yours"? Governance in collaborative consumption communities. *Journal of Business Research, 69*, 2756-2763.



In their study of car-sharing users, Bardhi and Eckhardt (2012) found that usage of a car-sharing scheme had some *symbolic* capital, with users seeing themselves as being modern, savvy, and responsible consumers. Participation in the sharing economy may therefore be perceived as "a cool, trendy, hip, green consumption alternative to ownership" (p.890).<sup>218</sup>

Altruistic motives, such as environmentalism, caring, being generous and kinship, influenced sharing behaviour as well. However, they tended to complement functional ones. In his surveys of German users of Airbnb and car-sharing service Car2Go, Möhlmann (2015) found that a sense of belonging to the community and utility were key drivers of repeatedly employing a sharing service. 220

A study conducted among Dutch Internet users showed a positive correlation between the importance of instrumental or economic motives and the value of the good shared. In addition, social motives were more important for accommodation and meal sharing, while environmental motives were more important for ride sharing.<sup>221</sup>

Research also suggests that motivations varied for *service providers and consumers*. Bellotti et al. (2015) found that while providers frequently cited social, moral, and altruistic motives, consumers were primarily geared towards instrumental motives.<sup>222</sup> For instance, sociality and environmental sustainability was more important for providers in car-sharing initiatives.<sup>223</sup> When it came to accommodation sharing, while both providers and consumers were motivated by economic reasons, users valued the social aspect more than those who provided the accommodation.<sup>224</sup>

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<sup>&</sup>lt;sup>218</sup> Bardhi, F., & Eckhardt, G. (2012). Access-based consumption: The case of car sharing. *Journal of Consumer Research*, *3*, 881-898.

<sup>&</sup>lt;sup>219</sup> It is a German car rental company that provides car-sharing services.

<sup>&</sup>lt;sup>220</sup> Möhlmann, M. (2015) Collaborative consumption: Determinants of satisfaction and the likelihood of using a sharing economy option again. *Journal of Consumer Behaviour*, *14*, 193-207.

<sup>&</sup>lt;sup>221</sup> Bocker, L., & Meelen, T. (2017). Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental innovation and Societal Transitions*, *23*, 28-39.

<sup>&</sup>lt;sup>222</sup> Bellotti, V., Ambard, A., Turner, D., Gossmann, C., Demkova, K., & Carroll, J.M. (2015). A muddle of models of motivation for using peer-to-peer economy systems. Proceedings of the 33<sup>rd</sup> Annual ACM Conference on Human Factors in Computing Systems.

<sup>&</sup>lt;sup>223</sup> Bocker, L., & Meelen, T. (2017). Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental innovation and Societal Transitions, 23, 28-39*; Bellotti, V., Ambard, A., Turner, D., Gossmann, C., Demkova, K., & Carroll, J.M. (2015). A muddle of models of motivation for using peer-to-peer economy systems. Proceedings of the 33<sup>rd</sup> Annual ACM Conference on Human Factors in Computing Systems.

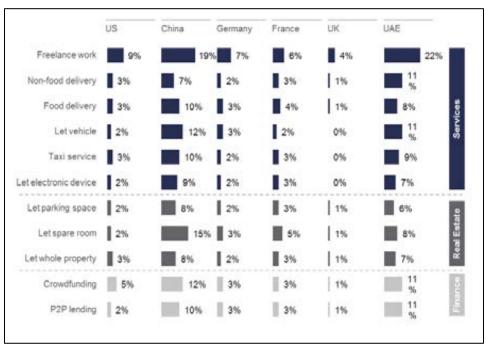
<sup>&</sup>lt;sup>224</sup> Bocker, L., & Meelen, T. (2017). Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environmental innovation and Societal Transitions*, *23*, 28-39.



# CHAPTER 5: FACTORS THAT FACILITATE SHARING

A report published by Deloitte in 2018 shed some light on participation levels on the supply and demand in three categories of the sharing economy — finance, real estate and other services. While finance comprised peer-to-peer lending and crowdfunding, real estate encapsulated the letting of accommodation (i.e., whole apartments, rooms, storage space and parking) and services a broad range of on-demand activity, including freelance work, taxi services and deliveries. Figures 9 and 10 provide the breakdown of participation levels in six economies.

Figure 9: Participation level on the supply side by sub-sector by country, 2015-18



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<sup>&</sup>lt;sup>225</sup> Squaring risk in the sharing age. How the collaborative economy is reshaping insurance products. (2018). *Deloitte*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-squaring-risk-in-the-sharing-age.pdf.



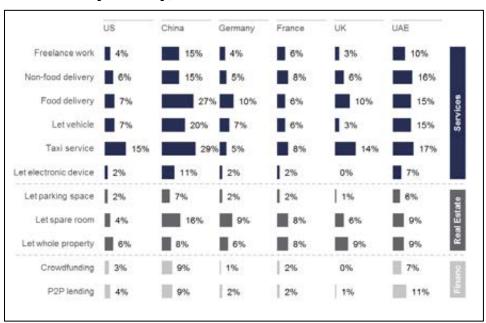


Figure 10: Participation level on the demand side by sub-sector by country, 2015-18

As seen in both figures, participation in sharing economy was generally low, with the highest being 22 per cent in United Arab Emirates for the supply of freelance work, and 29 per cent in China for the demand of taxi service. While the report focused on initiatives that were driven largely by extrinsic motivations (e.g., earn revenue, save costs, convenience), it is nonetheless instructive in informing the level of participation among people in the popular types of sharing initiatives.

In order for sharing initiatives to thrive, and for cities, societies and individuals to reap the benefits as discussed in the section on "Outcomes of Sharing", there has to be a critical mass of users that will generate the necessary momentum in a system to make it self-sustaining. This section focuses on the various factors that facilitate, and in some instances, inhibit, sharing — be it driven by extrinsic or intrinsic motivations. We group them into: (i) individual factors (low awareness and cultural challenges); (ii) culture of entrepreneurship and innovation (including high technology adoption); (iii) a system of governance; (iv) government as enabler and facilitator; and (v) government as regulator. We also present four different

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<sup>&</sup>lt;sup>226</sup> Botsman, R., & Rogers, R. (2010). What's mine is yours: The rise of collaborative consumption. New York, NY: HarperBusiness; Mortara, A., & Roberti, G. (2018). The sharing economy and young people: An exploratory research project. In I. Cruz, R.Ganga, & S. Wahlen (Eds.) Contemporary collaborative consumption: Trust and reciprocity revisited (pp.97-129). Germany: Springer VS.



cities and countries cases to illustrate how the government, the private sector and the people sector shape the sharing landscape in various cities.

# INDIVIDUAL FACTORS: LOW AWARENESS AND CULTURAL CHALLENGES

A key factor that influences people's decision to participate is awareness. Reports have found that awareness for sharing initiatives was low in some countries — even for those that were driven by extrinsic motivations and had received scrutiny in international media. For instance, according to a survey conducted by PwC, most Japanese were not aware of the sharing economy. Only 2.7 per cent of the population was familiar with the concept. Similarly, "supersharers" in Australia identified low awareness of the sharing economy in cities such as Sydney as a challenge. Members of the community do not know what the sharing economy is, and what the benefits of participating in it are. Supersharer Jordan Flemming said that the main challenges to getting sharing initiatives off the ground were gaining exposure and getting people interested. In Singapore, some sharing initiatives programmes such as Sustainable Living Lab's Repair Kopitiam have suffered from a lack of awareness as well, leading to decreasing workshop frequency.

Besides low awareness, sharing initiatives also face cultural barriers. Openness and willingness to share have been linked to increasing adoption rates of sharing initiatives. One example is the city of Amsterdam. A survey conducted in 2013 found that more than 80 per cent of the 1,300 respondents surveyed were willing to take part in at least one type of collaborative consumption.<sup>232</sup> And according to Pieter van de Glind, cofounder of ShareNL<sup>233</sup> in Amsterdam, the number of residents who had

<sup>&</sup>lt;sup>227</sup> Sharing economy yet to catch on in Japan. (2018, June 28). *The Straits Times*. Retrieved from https://www.straitstimes.com/asia/east-asia/sharing-economy-yet-to-catch-on-in-japan.

<sup>&</sup>lt;sup>228</sup> Individuals who are deeply involved in initiatives in which people can freely share knowledge, skills, resources and more with each other.

<sup>&</sup>lt;sup>229</sup> Meet 'supersharer' Patricia Morgan in Sydney, Australia [Blog post]. (2018, August 15). Retrieved from https://www.shareable.net/blog/meet-supersharer-patricia-morgan-in-sydney-australia.

<sup>&</sup>lt;sup>230</sup> Meet 'supersharer' Jordan Fleming in Sydney, Australia [Blog post]. (2018, August 22). Retrieved from https://www.shareable.net/blog/meet-supersharer-jordan-fleming-in-sydney-australia.

<sup>&</sup>lt;sup>231</sup> Ministry of Culture, Community and Youth. (2017, July 20). *Singapore sharing city workshop*.

<sup>&</sup>lt;sup>232</sup> Van de Glind, P. (2013). *The consumer potential of collaborative consumption* (Master's thesis). Retrieved from https://www.slideshare.net/Pieter1987/master-thesis-sdeg-pieter-van-de-glind-3845494-the-consumer-potential-of-collaborative-consumption-august-2013.

<sup>&</sup>lt;sup>233</sup> ShareNL brings together start-ups, corporations, governments, and research institutions to unlock the potential offered by technology and sharing.



shared something with a stranger increased from 10 per cent in 2013 to 32 per cent in 2016.<sup>234</sup>

However, across cultures, the same commodities and services may hold different value and significance to people. An item can be perceived to be personal for one individual, and linked to one's identity and status for another. In both contexts, the item in question is something to be owned instead of shared, but for different reasons. For example, the Japanese are in general protective of their privacy and place a premium on quality service provision, and there is little appetite for services like Airbnb and Uber.<sup>235</sup>

Ride sharing and car sharing are also not popular in Australia, but for a different reason. Car sharing started in Australia in the early 2000s in the form of commercial services that provided people with access to vehicles that they could rent by the hour — GoGet<sup>236</sup> and Car Next Door<sup>237</sup> are the two main car-sharing services currently. However, the adoption of such services is low given the high car dependency among citizens, and citizens who enjoy the independence, autonomy and privacy provided by their own vehicles.<sup>238</sup> In the US, the sharing of motorcycles has not taken off, unlike in countries such as Indonesia. A possible reason for this could be that for the American rider, a motorcycle might be more about the ride than the need to get from place to place, it is also therapeutic and liberating.<sup>239</sup> Singapore's case uncovers a different reason for the low adoption of car sharing. Citizens may be reluctant to share due to the high cultural value of items like cars, and the possible association between material possessions and one's status.<sup>240</sup>

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<sup>&</sup>lt;sup>234</sup> Starritt, A. (2017, April 18). Forget Uber, Amsterdam is showing how to use the sharing economy for good. *Huffpost*. Retrieved from https://www.huffingtonpost.com/entry/forget-uber-amsterdam-is-showing-how-to-use-the-sharing\_us\_58f60ed0e4b0156697225295.

<sup>&</sup>lt;sup>235</sup> Sharing economy yet to catch on in Japan. (2018, June 28). *The Straits Times*. Retrieved from https://www.straitstimes.com/asia/east-asia/sharing-economy-yet-to-catch-on-in-japan.

<sup>&</sup>lt;sup>236</sup> The first car sharing service to operate in Australia.

<sup>&</sup>lt;sup>237</sup> A peer-to-peer car rental system where individuals may rent privately owned vehicles.

<sup>&</sup>lt;sup>238</sup> Kent, J. (2018, October 29). Why car sharing had a slow start in Australia – and how that's changing. *The Conversation*. Retrieved from http://theconversation.com/why-car-sharing-had-a-slow-start-in-australia-and-how-thats-changing-104389.

<sup>&</sup>lt;sup>239</sup> Heilweil, R. (2018, July 9). For the American sharing economy, the future of motorcycles might be imitating Airbnb, not Uber. *Forbes*. Retrieved from https://www.forbes.com/sites/rebeccaheilweil1/2018/07/09/in-the-american-sharing-economy-the-future-of-motorcycles-might-be-imitating-airbnb-not-uber/#69b0b3053d5c <sup>240</sup> Ministry of Culture, Community and Youth. (2017, July 20). *Singapore sharing city workshop*; Making collaborative consumption work. (2013, March 18). *Challenge*. Retrieved from https://www.psd.gov.sg/challenge/ideas/deep-dive/making-collaborative-consumption-work.



#### THE OBJECT OF DESIRE — WHAT'S BEING SHARED

The preceding section highlighted how an object may hold different significance to people from different cultures, which in turn impacts people's adoption of sharing. People's willingness to share also depends on the utility of the item or service in question, the perceived risk of loss of money, time or goods, and the proximity of the sharing partner, whether in the physical or digital world.<sup>241</sup>

An item that has seen a visible uptake in the sharing landscape is office spaces. A report published by real estate consultancy Cushman & Wakefield in February 2018 showed a growth in co-working spaces in Asia, including Singapore, in the past two years. As of August 2018, co-working spaces made up about 27 per cent of total office leasing demand in Singapore. This trend is corroborated by another 2018 report by Colliers International. Colliers International also found that while over 80 per cent of flexible workspace were located in the central business district (CBD), some have started popping up in the fringes of the CBD and also Orchard Road. This may provide small- and medium-sized enterprises with the option to set up offices in choice locations or premium buildings that may previously be inaccessible to businesses with smaller square footage.

However, the sharing of two other items follows a different trajectory. The Dual Use Scheme, which opens sport facilities in schools to the public, lacks buy-in from school leaders who are concerned about safety and cleanliness. Another initiative, Hcook, which promotes "hyper-local" meal sharing among people living in the same apartment block or immediate neighbourhood, is also finding it hard to get people on board. The challenges are a lack of chefs, and a lack of demand for daily meals. Hcook had tried to get current chefs to recruit their neighbours; however, few knew their neighbours well enough to do so. 46

<sup>&</sup>lt;sup>241</sup> Davis, P.M (2012, July 10). Survey finds trust is #1 barrier to sharing [Blog post]. Retrieved from https://www.shareable.net/blog/survey-finds-trust-is-1-barrier-to-sharing.

<sup>&</sup>lt;sup>242</sup> Lim, J. (2018, September 10). Some corporate ditch offices for co-working spaces. *TODAY*. Retrieved from https://www.todayonline.com/singapore/some-corporates-ditch-offices-co-working-spaces.

<sup>&</sup>lt;sup>243</sup> The report, published on 10 September 2018, showed the steepest annual growth for office area taken up by flexible workspace operators. The take up surged 44 per cent to a record 680,000 sq. ft. of space. Also, the total flexible workspace footprint nearly tripled between the end of 2015 and June 2018, from 1 million sq. ft. to 2.7 million sq. ft. Retrieved from http://www.colliers.com/en-gb/singapore/about/media/2018-09-10-flexworkspace.

<sup>&</sup>lt;sup>244</sup> Colliers International. (2018, September 10). *Flexible workspace sector in Singapore to maintain its positive growth momentum, through 2018 and beyond* [Press release]. Retrieved from http://www.colliers.com/engb/singapore/about/media/2018-09-10-flexworkspace.

<sup>&</sup>lt;sup>245</sup> Ministry of Culture, Community and Youth. (2017, July 20). *Singapore sharing city workshop*.

<sup>&</sup>lt;sup>246</sup> Ministry of Culture, Community and Youth. (n.d.). *Incubation meeting notes*.



#### **CULTURE OF ENTREPRENEURSHIP AND INNOVATION**

Besides the utility and value of the items and services being shared, which are shaped by cultural beliefs and preferences, the success of sharing initiatives also depends on how developed a country is in terms of innovation. According to Taeihagh (2018), countries that have higher levels of poverty, and lower levels of labour productivity and innovation capacity, tend to face difficulty in implementing technologies that facilitate the development and expansion of economy initiatives.<sup>247</sup> The process of open innovation begins with an external environment that attracts people with professional or technical knowledge, who may be geographically dispersed, to engage in collaborations and trials.<sup>248</sup>

In China, the government's support of high-tech fields like artificial intelligence (AI) and big data analysis has contributed to the growth of AI-based sharing services, particularly in office and medical-care settings, and public transit. The sharing economy in China is expected to grow to around 7 trillion yuan (SGD 1.4 billion) in 2018, and many expect it to maintain a growth pace of 30 per cent or higher for the time being.<sup>249</sup>

The Smart Nation project in Singapore envisions the city-state to be "small enough to be an exciting test-bed for new innovations, yet big enough in vision and outlook to take a lead in using technology to tackle some of the world's most critical challenges". <sup>250</sup> Latest figures show that the high mobile penetration rate of 147 per cent and broadband adoption by 91 per cent of households means that both innovators and residents are well poised to reap the benefits of technology. <sup>251</sup> Residents are also no strangers to global platforms such as Airbnb, Alibaba, Spotify and the now-exited Uber. The Sharing Economy Association of Singapore estimated that there are more

<sup>&</sup>lt;sup>247</sup> Taeihagh, A. (2018). IT-mediated technologies in developing countries: An examination of challenges in adoption of crowdsourcing and sharing economy platforms, presented at 25<sup>th</sup> World Congress of Political Science, Brisbane, 2018.

<sup>&</sup>lt;sup>248</sup> Lampel, J., Jha, P., & Bhalla, A. (2012). Test-Driving the Future: How Design Competitions Are Changing Innovation. *Academy of Management Perspectives*, *26*(2), 71-85. Retrieved from http://www.jstor.org.libproxy1.nus.edu.sg/stable/23412611.

<sup>&</sup>lt;sup>249</sup> Tabeta, S. (2018, September 4). Didi ride-share halt threatens to cool China's sharing economy. *Nikkei Asian Review*. Retrieved from https://asia.nikkei.com/Spotlight/Sharing-Economy/Didi-ride-share-halt-threatens-to-cool-China-s-sharing-economy.

<sup>&</sup>lt;sup>250</sup> Boran, E. Z. (n.d.). *Coming in between: Disintermediation of the economy and its impact on national security*. Retrieved from https://www.nscs.gov.sg/rahs-programme-office.html.

<sup>&</sup>lt;sup>251</sup> Mobile penetration rate. (2018, November 18). *Data.gov.sg.* Retrieved from

https://data.gov.sg/dataset/mobile-penetration-rate; Infocomm usage-households and individuals. (2018, July 4). *Infocomm Media Development Authority*. Retrieved from https://www.imda.gov.sg/industry-development/facts-and-figures/infocomm-usage-households-and-individuals.



than 35,000 users of sharing economy services; its number of member organisations has also grown to 36 members.<sup>252</sup>

# The Case of China — An Environment Ripe for Innovation and Minimal Government Intervention

China is on a quest to transform from a manufacturing industry to an innovation-fuelled economy. In 2017, its spending on research and development rose by 11.6 per cent to 1.75 trillion yuan. <sup>253</sup> It has established dozens of high-tech industrial parks and incubators, and is racing ahead to be a world-leader in technologies such as AI, robotics and big data. <sup>254</sup> There are several factors that drive innovation in China. They range from having a wide pool of skilled workers (i.e., from engineers to create products and management graduates to sell the products); having a large domestic market to test-bed products (it has a population of 1.3 billion people who speak a common language); and a constant motivation among businesses to innovate, spurred on by competition and rivalry. <sup>255</sup>

The above factors could account for the booming sharing economy which has created jobs and generated billions for the economy. In 2017, more than 700 million people were involved in the sharing economy, and the number of employees hired by shared platforms reached 7.16 million, accounting for 9.7 per cent of new urban jobs created that year.<sup>256</sup> According to a national report in 2017, slightly more than half of the 60 Chinese start-ups

<sup>&</sup>lt;sup>252</sup> Singapore's sharing economy is on the rise. (2014, August 11). *TODAY*. Retrieved from https://www.todayonline.com/business/singapores-sharing-economy-rise; Our members. (n.d.). *Sharing Economy Association Singapore*. Retrieved from https://www.sharingeconomy.org.sg/content/our-members.

<sup>&</sup>lt;sup>253</sup> China's R&D spending up 11.6 per cent in 2017. (2018, February 13). *China Daily*. Retrieved from http://www.chinadaily.com.cn/a/201802/13/WS5a827ffea3106e7dcc13c829.html.

<sup>&</sup>lt;sup>254</sup> Herman. A. (2018, August 30). China's braw new world of Al. *Forbes*. Retrieved from https://www.forbes.com/sites/arthurherman/2018/08/30/chinas-brave-new-world-of-ai/#3728bae928e9; China spent an estimated \$279 billion on R&D last year. (2018, February 26). *CNBC*. Retrieved from https://www.cnbc.com/2018/02/26/china-spent-an-estimated-279-billion-on-rd-last-year.html.

<sup>&</sup>lt;sup>255</sup> Gan, J., & Govindarajan, V. (2018, July 2). The factors behind China's growing strength in innovation. *Harvard Business Review. Retrieved* from https://hbr.org/2018/07/the-factors-behind-chinas-growing-strength-in-innovation; Dutt, A. (2018, September 4). 8 reasons why China is now the world's innovation engine [Blog post]. Retrieved from https://www.techinasia.com/china-innovation.

 $<sup>^{256}</sup>$  Zhu, L. (2018, June 4). China's sharing economy to grow 30% per year. China Daily. Retrieved from http://www.chinadaily.com.cn/a/201806/04/WS5b14d719a31001b82571e031.html.



that have joined the global unicorn club were engaged in the sharing business.<sup>257</sup>

China's Premier Li Keqiang justified the development of a national sharing economy or *gong ziang jing ji*<sup>258</sup> as it would improve the "efficiency of resource usage and make more people affluent". He has also described sharing firms as a "reinvigorating force" in the economy. As another indication of China's commitment to the sharing economy, the government has created a special think tank, called the Sharing Economy Research Institute of the National Information Center in Beijing. <sup>261</sup>

The government's backing of the sharing economy and increased access to affluent venture capital funds has contributed to an explosion of sharing companies. Sharing initiatives that aim to meet a wide range of needs, e.g., sharing of basketballs, wheelchairs, umbrellas, bicycles and even folding stools, have sprouted up. Investors have provided huge sums of money, from millions to billions of dollars to fund sharing companies. Mobike and Ofo have received funding of roughly a billion dollars each from tech giants Tencent and Alibaba.<sup>262</sup>

However, not all businesses are sustainable. Bike-sharing company Wukong closed after six months as it was not able to equip their bicycles with GPS and lost 90 per cent of its inventory. <sup>263</sup> Umbrella-sharing firm E Umbrella lost almost all of its 300,000 umbrellas within three months of operating. <sup>264</sup> Other companies have had to close because they ran afoul of the

<sup>&</sup>lt;sup>257</sup> Sharing Economy Research Institute, National Information Center. (2017). *China's sharing economy development report 2017*. Retrieved from

http://www.sic.gov.cn/archiver/SIC/UpFile/Files/Default/20170306164936642988.pdf.

<sup>&</sup>lt;sup>258</sup> China Central Government Web Portal. (2016, March 5). *Li Keqiang's progress report on the government work, at the 4th meeting of the 12th National People's Congress*. Retrieved from http://www.gov.cn/guowuyuan/2016-03/05/content\_5049372.htm.

 <sup>&</sup>lt;sup>259</sup> Yan, J. (2017, November 9). China's booming sharing economy. *Foreign Affairs*. Retrieved from https://www.foreignaffairs.com/articles/china/2017-11-09/chinas-booming-sharing-economy.
 <sup>260</sup> Lim, Y.L. (2017, July 25). China's soaring sharing economy. *The Straits Times*. Retrieved from https://www.straitstimes.com/asia/east-asia/chinas-soaring-sharing-economy.

<sup>&</sup>lt;sup>261</sup> Yan, J. (2017, November 9). China's booming sharing economy. *Foreign Affairs*. Retrieved from https://www.foreignaffairs.com/articles/china/2017-11-09/chinas-booming-sharing-economy.

<sup>&</sup>lt;sup>262</sup> Larmer, B. (2017, November 29). China's revealing spin on the 'sharing economy'. *The New York Times*. Retrieved from https://www.nytimes.com/2017/11/20/magazine/chinas-revealing-spin-on-the-sharing-economy.html

<sup>&</sup>lt;sup>263</sup> Ming, C. (2017, July 19). From bicycles to basketballs, everything's on loan in China's sharing economy. *CNBC*. Retrieved from https://www.cnbc.com/2017/07/18/from-bikes-to-basketballs-chinas-fast-growing-sharing-economy.html.

<sup>&</sup>lt;sup>264</sup> Garun, N. (2017, July 10). Chinese umbrella-sharing startup loses most of its 300,000 umbrellas in three months. *The Verge*. Retrieved from https://www.theverge.com/tldr/2017/7/10/15947590/chinese-umbrella-sharing-startup-lost-300000.



authorities. For instance, Xiangshui Space shut down its public napping pods as its founder did not seek the necessary licenses from the local fire department.<sup>265</sup> A company that was renting out sex dolls decided to stop operating after it was fined for disturbing social order with vulgar activities, when they promoted the dolls in high-traffic public places.<sup>266</sup> The recent murders of two female passengers who used Didi Chuxing's ride-share service Hitch have also raised safety concerns of users.<sup>267</sup>

While there are concerns that China's sharing economy is expected to go bust when the money runs out, research from the sharing economy think tank suggests otherwise. In fact, it predicts that the market value of China's sharing economy is expected to grow at an average rate of 40 per cent per year over the next several years, accounting for over 10 per cent of China's GDP by 2020. Electrical States of the sharing economy is expected to grow at an average rate of 40 per cent per year over the next several years, accounting for over 10 per cent of China's GDP by 2020.

Despite the proliferation of sharing companies, the sharing industry is not well regulated. In 2017, China's economic planner said current frameworks "fail to keep apace of advances in technology", and insufficient social security is provided for the workers.<sup>270</sup> Perhaps in response to this, the government released a notice on guiding and regulating the sound development of the sharing economy in 2018. The notice placed emphasis on the prudent introduction of new market access policies, the implementation of a fair competition review system and the serious handling of business practices that violate laws or regulation.<sup>271</sup>

 <sup>&</sup>lt;sup>265</sup> Chen, N. (2017, July 18). Authorities give shared napping pods rude awakening. *The Sixth Tone*. Retrieved from https://www.sixthtone.com/news/1000533/authorities-give-shared-napping-pods-rude-awakening.
 <sup>266</sup> Paulk, D. (2017, September 18). Chinese company suspends plans for shared sex dolls. *The Sixth Tone*. Retrieved from http://www.sixthtone.com/news/1000867/chinese-company-suspends-plans-for-shared-sex-dolls.

<sup>&</sup>lt;sup>267</sup> Liptak, A. (2018, August 26). China's Didi suspends Hitch carpool service after the murder of a female passenger. *The Verge*. Retrieved from https://www.theverge.com/2018/8/26/17783534/china-didi-chuxing-hitch-rideshare-app-female-passenger-murdered-suspended.

<sup>&</sup>lt;sup>268</sup> Yan, J. (2017, November 9). China's booming sharing economy. *Foreign Affairs*. Retrieved from https://www.foreignaffairs.com/articles/china/2017-11-09/chinas-booming-sharing-economy.
<sup>269</sup> *ibid*.

<sup>&</sup>lt;sup>270</sup> China sets new framework for sharing economy policy. (2017, July 4). *Reuters*. Retrieved from https://www.reuters.com/article/china-economy-sharing-idUSL3N1JV1SE

<sup>&</sup>lt;sup>271</sup> Zhu, L. (2018, June 4). China's sharing economy to grow 30 per cent per year. *China Daily*. Retrieved from http://www.chinadaily.com.cn/a/201806/04/WS5b14d719a31001b82571e031.html.



# High technology adoption

One of the key factors that drives collaborative consumption is information technology (IT), with technological movements such as the open source movement and peer-to-peer file sharing laying the foundation for resource sharing in cyberspace. Social networking sites which have accumulated 2.46 billion users in 2017 (nearly a third of the world's population) are providing global platforms that support large-scale resource sharing. According to Sundararajan (2016), the surge of crowd-based initiatives is brought about by the consumerisation of digital technology and a maturing trust infrastructure that facilitates peer-to-peer exchange. According to Sundararajan (2016), the surge of crowd-based initiatives is brought about by the consumerisation of digital technology and a maturing trust infrastructure that facilitates peer-to-peer exchange.

For instance, the city of Seoul rides on South Korea's development of high-technology industries and high levels of smartphone ownership, while it builds on its smart city programme, information communication technology (ICT) infrastructure and public Wi-Fi access. Much of Seoul's sharing initiatives involves the use of online platforms such as Kiple.<sup>275</sup>

However, a stark difference is observed in countries with higher levels of poverty or where the IT infrastructure is poorly developed. In the latter group of countries, citizens face greater challenges in adopting the technological platforms which form the bedrock of the initiatives.<sup>276</sup> For instance, in Italy, the supply of sharing services is greater than the demand, and the majority of Italian websites have no more than 10,000 users. The limited usage of new ICTs is identified as one of the biggest barriers to the adoption of sharing services.<sup>277</sup> The ensuing low demand then leads to a small user base, which means that most platforms are not able to acquire a critical mass of users. Without a critical mass, it is difficult for sharing initiatives to be self-sustaining.<sup>278</sup>

<sup>&</sup>lt;sup>272</sup> John, N. A. (2013b). Sharing and web 2.0: the emergence of a keyword. *New Media & Society, 15*(2), 167-182.

<sup>&</sup>lt;sup>273</sup> Number of social networking users worldwide from 2010 to 2021 (in billions). *Statista*. Retrieved from https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/.

<sup>&</sup>lt;sup>274</sup> Sundararajan, A. (2016). Crowd-based capitalism? Empowering entrepreneurs in the sharing economy. *MIT Sloan Management Review*. https://sloanreview.mit.edu/article/crowd-based-capitalism-empowering-entrepreneurs-in-the-sharing-economy/

<sup>&</sup>lt;sup>275</sup> An online platform for parents to share their children's clothes.

<sup>&</sup>lt;sup>276</sup> Taeihagh, A. (2018). IT-mediated technologies in developing countries: An examination of challenges in adoption of crowdsourcing and sharing economy platforms, presented at 25<sup>th</sup> World Congress of Political Science, Brisbane, 2018.

<sup>&</sup>lt;sup>277</sup> Mortara, A., & Roberti, G. (2018). The sharing economy and young people: An exploratory research project. In I. Cruz, R.Ganga, & S. Wahlen (Eds.) *Contemporary collaborative consumption: Trust and reciprocity revisited* (pp.97-129). Germany: Springer VS.

<sup>&</sup>lt;sup>278</sup> Botsman, R., & Rogers,R. (2010). What's mine is yours: The rise of collaborative consumption. New York, NY: HarperBusiness; Mortara, A., & Roberti, G. (2018). The sharing economy and young people: An exploratory research project. In I. Cruz, R.Ganga, & S. Wahlen (Eds.) Contemporary collaborative consumption: Trust and reciprocity revisited (pp.97-129). Germany: Springer VS.



#### A SYSTEM OF GOVERNANCE

In 2012, Campbell Mithun and Carbonview Research conducted a survey with about 400 consumers on the barriers facing the sharing economy. The survey found that trust was the main barrier to sharing — 67 per cent of the respondents listed trust concerns as the main barrier to joining a collaborative consumption service.<sup>279</sup> The trust-related concerns were: the fear that their goods would be stolen or lost (30 per cent), a lack of trust in others in the network (23 per cent), and a fear that their privacy would be compromised (14 per cent).

While the sample size for the study was small, such fears point to concerns of abuse and exploitation by fellow participants, which resonate with the tragedy of the commons, a concept introduced by Elinor Ostrom (1990). The sharing economy, and broadly, sharing initiatives, are premised on the belief in the commons where resources in the form of items or services can be shared freely. Tragedy of the commons occurs when self-interest trumps the collective good, and shared resources are overused by individuals. Ostrom (1990) proposed eight rules to mitigate the tragedy of the commons. <sup>281</sup>

Trust is often a requirement of sharing initiatives, particularly for collaborative lifestyles, because the focus of the exchange is typically human-to-human interaction, and not a physical product.<sup>282</sup> The following sections focus on some mechanisms that have been implemented to mitigate the tragedy of the commons and build trust among users or participants.

<sup>&</sup>lt;sup>279</sup> Davis, P.M (2012, July 10). Survey finds trust is #1 barrier to sharing [Blog post]. Retrieved from https://www.shareable.net/blog/survey-finds-trust-is-1-barrier-to-sharing.

<sup>&</sup>lt;sup>280</sup> Ostrom, E. (1990). *Governing the Commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

<sup>&</sup>lt;sup>281</sup> The eight rules are: (i) clearly defined boundaries (effective exclusion of external un-entitled parties); (ii) rules regarding the appropriation and provision of common resources that are adapted to local conditions; (iii) collective-choice arrangements that allow most resource appropriators to participate in the decision-making process; (iv) effective monitoring by monitors who are part of or accountable to the appropriators; (v) a scale of graduated sanctions for resource appropriators who violate community rules; (vi) mechanisms of conflict resolution that are cheap and are easily accessible; (vii) self-determination of the community recognised by higher-level authorities; and (viii) in the case of larger common-pool resources, organisation in the form of multiple layers of nested enterprises, with small local common pool resources at the base level. Rau, T.J., (2018, February 6). The Ostrom principles and sociocracy. *Medium*. Retrieved from https://medium.com/@JenRau/the-shared-ostrom-principles-and-sociocracy-5ccc226d5799.

<sup>&</sup>lt;sup>282</sup> Botsman, R., & Rogers, R. (2010). What's mine is yours: The rise of collaborative consumption. New York, NY: HarperBusiness.



# Trust as currency and reputation systems

Some of the earlier research that examined trust and reputation originate mostly from the field of e-commerce. Trust is a subjective feeling that a person will act in a certain way according to an implicit or explicit promise he makes and is an essential ingredient for transactions in online peer-to-peer marketplaces.<sup>283</sup> Sabitzer and his colleagues (2018) examined conflict resolution in community gardens and they found that greater trust between members resulted in less conflict.<sup>284</sup>

While trust is a subjective feeling about a person, reputation is "a public opinion that represents a collective evaluation of a group regarding the characteristic of an entity or a person" (p.3).<sup>285</sup> In peer-to-peer e-commerce, information on one's reputation is communicated to others through numerical review scores of those who have interacted with the person.<sup>286</sup> While reputation has been proposed as a central factor that affects trust, it is not always a necessary condition for trust; people sometimes trust strangers even in the absence of information on their reputation.<sup>287</sup>

Online reviews and reputational feedback mechanisms help enhance the transparency of online exchanges, and help users make informed decisions. For many platforms in the transportation and hospitality sectors (e.g., Airbnb and Uber), mutual reviews of service providers and service consumers enable the platforms to maintain service standards without high monitoring costs, build trust and facilitate host-visitor/supplier-consumer relations.<sup>288</sup>

To make it less onerous for users to process large amounts of information to gauge someone's reputation and trustworthiness, some platforms such as Yelp would review ratings and feedback before making recommendations to users. Although ratings and reviews may help improve

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<sup>&</sup>lt;sup>283</sup> Ponte, E.B., Carvajal-Trujillo, E., & Escobar-Rodriguez, T. (2014). Influence of trust and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents. *Tourism Management*, *47*, 286-302; Kim, M-J., Chung, N., & Lee, C-K. (2009). The effect of perceived trust on electronic commerce: Shopping online for tourist products and services in South Korea. *Tourism Management*, *32*, 256-265.

<sup>&</sup>lt;sup>284</sup> Sabitzer, T., Hartl, B., Marth, S., Hofmann, E., & Penz, E. (2018). Preventing conflicts in sharing communities as a means of promoting sustainability. *Sustainability*, *10*, 2828, p. 1-24.

<sup>&</sup>lt;sup>285</sup> Wang, Y., & Vassileva, J. (2007). Review on trust and reputation for web service selection, presented at the 27<sup>th</sup> International Conference on Distributed Computing Systems Workshops.

<sup>&</sup>lt;sup>286</sup> Ert, E., Fleischer, A., & Magen, N. (2016). Trust and reputation in the sharing economy: The role of personal photos in Airbnb. *Tourism Management*, *55*, 62-73.

<sup>&</sup>lt;sup>287</sup> Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity and social history. *Games and Economic Behavior*, 10(1), 122-142.

<sup>&</sup>lt;sup>288</sup> Möhlmann, M. (2015) Collaborative consumption: Determinants of satisfaction and the likelihood of using a sharing economy option again. *Journal of Consumer Behaviour, 14,* 193-207; Yannapoulou, N., Moufahim, M., & Bian, X. (2013). User-generated brands and social media: Couchsurfing and Airbnb *Contemporary Management Research, 9*(1), 85-90.



a participant's reputation capital, it should be noted that such systems are not guaranteed and have been abused in the past. Some examples of abuse include cases of fake reviews where reviews were made by the same person through multiple accounts, were replicated by family members, or were part of deceptive opinion spams and products of "front peer cartels" (p.295).<sup>289</sup>

The trade body Sharing Economy UK is a useful case to study in terms of building a reputation system and strengthening trust on sharing economy platforms. It launched the TrustSeal, the world's first kitemark for sharing economy companies (see Figure 11).<sup>290</sup> The TrustSeal sets out six principles for sharing economy businesses to ensure that they maintain ethical and professional standards.

Figure 11: The UK sharing economy TrustSeal<sup>291</sup>



The six principles are:

- Identity and credential verification
- Transparent communications and pricing
- Participant help and support
- Security and data protection

<sup>289</sup> Dredge, D., & Gyimóthy, S. (2015). The collaborative economy and tourism: Critical perspectives, questionable claims and silenced voices. *Tourism Recreation Research*, 40(3), 286-302.

<sup>&</sup>lt;sup>290</sup> The Kitemark is a UK product and service quality certification mark. Owned by the British Standards Institution (BSI), the Kitemark is frequently used to identify products where safety is paramount, such as crash helmets and smoke alarms. https://www.bsigroup.com/en-GB/kitemark/

<sup>&</sup>lt;sup>291</sup> Sharing Economy UK. (n.d.). TrustSeal UK. Retrieved from http://www.sharingeconomyuk.com/trustseal.



- Insurance and guarantees
- Peer reviews

These principles were created based on research conducted with Oxford University's SAID business school on what consumers and companies think were important.<sup>292</sup> As of September 2017, eight sharing economy businesses in the UK have been awarded the TrustSeal.<sup>293</sup>

# Social regulation

Besides reputation systems, social regulation can also be used to promote positive behaviour that is important for the sustainability of a sharing initiative. According to Ostrom (1990), social norms are necessary for collective action to succeed since people seeking individual gains in the marketplace are unlikely to overcome the free-rider temptation.<sup>294</sup> Social regulation is defined as the capability of an entity to shape people's attitudes, behaviour or beliefs.<sup>295</sup> Hofmann et al. (2017) proposed three types of social regulation for sharing economy platforms:<sup>296</sup>

- Sanction systems for controlling and punishing unwanted behaviour (coercive power)
- Use of rewards for wanted behaviour (reward power)
- Use of legitimacy and justice (legitimate power)

A platform can exert legitimate power by providing consumer support and professional service as an expert, distributing relevant information, and acting as a representative for the sharing economy activity to ensure

 $<sup>^{292}</sup>$  TrustSeal is the world's first Kitemark for sharing economy companies. (n.d.). Retrieved from http://www.sharingeconomyuk.com/trustseal.

<sup>&</sup>lt;sup>293</sup> The eight companies are: Airbnb, UnderTheDoormat, TrustedHousesitters, GrubClub, HiyaCar, LiftShare, MyShowcase and Stubhub. Sharing Economy UK's submission to the Scottish expert advisory panel on the collaborative economy. (2017, September 27). Retrieved from

https://beta.gov.scot/binaries/content/documents/govscot/publications/minutes/2017/10/expert-advisory-panel-on-the-collaborative-economy-september-2017/documents/aa98a1be-1d77-490b-96dd-3c50e2063198/aa98a1be-1d77-490b-96dd-3c50e2063198/govscot:document/?inline=true/

<sup>&</sup>lt;sup>294</sup> Ostrom, E. (1990). *Governing the Commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.

<sup>&</sup>lt;sup>295</sup> Raven, B.H. (2008). The bases of power and the power/interaction model of interpersonal influence. Analyses of Social Issues and Public Policy, 8(1), 1-22; Pierro, A., Cicero, L., & Raven, B.H. (2008). Motivated compliance with bases of social power. Journal of Applied Social Psychology, 38(7), 1921-1944. <sup>296</sup> Hofmann, E., Hartl, B., & Penz, E. (2017). Power versus trust – what matters more in collaborative consumption? Journal of Services Marketing, 31(6), 589-603.



cooperative behaviour.<sup>297</sup> A combination of the three approaches can be used to ensure cooperation.<sup>298</sup>

Existing research shows that users or consumers generally support control mechanisms to promote fair use, especially when policy and legal monitoring are still at a nascent stage for most sharing initiatives.<sup>299</sup> In those instances, people have even voiced support for the introduction of a regulatory system to ensure cooperation between members.<sup>300</sup>

However, as the study conducted by Sabitzer and his colleagues (2018) show, there is an advantage of using legitimate power (or soft forms of power) — where leaders influence others' behaviour through the legitimacy of their position — over harsh forms (i.e., control and punishment). The study found that when harsh forms of regulation were used, task conflicts evolved to relationship conflicts over time, suggesting that such forms of regulation may not be the best way to manage conflicts in sharing communities.<sup>301</sup> Further analysis also found that soft forms of regulation were related with more democratic conflict resolution style, mitigating negative outcomes of relationship conflicts.<sup>302</sup>

#### GOVERNMENT AS ENABLER AND FACILITATOR

Governments in different countries contribute to the establishment of sharing initiatives to various extents, and in myriad ways, often harnessing a combination of approaches. The range of approaches include providing support in the form of funds and space, and enacting policy to help transform both the physical and social environment into one that is conducive for engaging in sharing practices and creating sharing initiatives within the public sector.

# **Providing support**

The provision of funds is a common way governments around the world support the growing of sharing initiatives. In Western Australia, state funding is disbursed through Lotterywest, a statutory authority of the

<sup>298</sup> Pierro, A., Raven, B.H., Amato, C., & Bélanger, J.J. (2013). Bases of social power, leadership styles, and organizational commitment. *International Journal of Psychology*, 48(6), 1122-1134.

<sup>&</sup>lt;sup>297</sup> ibid

<sup>&</sup>lt;sup>299</sup> Bardhi, F., & Eckhardt, G. (2012). Access-based consumption: The case of car sharing. *Journal of Consumer Research*, *3*, 881-898.

<sup>&</sup>lt;sup>300</sup> Hartl, B., Hofmann, E., & Kirchler, E. (2015) Do we need rules for "what's mine is yours"? Governance in collaborative consumption communities. *Journal of Business Research, 69*, 2756-2763.

<sup>&</sup>lt;sup>301</sup> Sabitzer, T., Hartl, B., Marth, S., Hofmann, E., & Penz, E. (2018). Preventing conflicts in sharing communities as a means of promoting sustainability. *Sustainability*, *10*, 2828, p. 1-24.



Government of Western Australia, to support the co-working community. In 2013, Lotterywest provided USD 145,000 to help with the fit-out and next phase of design of Space Cubed, Perth's first communal space for startups. In addition to Lotterywest, the city of Perth also lent its support by providing USD 29,000 in the same year for the next phase of design and business support and helped build furniture and features in the space. This was to attract more entrepreneurs and creative industries to work in the city, as part of the city's Economic Development Plan. 303 Similar efforts are made by the State Government of South Australia to support the creation of Hub Adelaide in a disused building in the Central Business District. 304

In the city of San Francisco, the Office of Economic and Workforce Development provided a non-profit organisation, People Organised to Demand Environmental and Economic Rights (PODER), a USD 76,000 grant to invest in its co-operative development project in the low-income Latino neighbourhoods in 2012.305 Providing grants, loans, and other financial support to co-operatives can reduce the high costs of starting up businesses and initiatives.306

#### **Enacting policies for conducive environments**

Besides providing funding, city authorities in various countries have either revised or developed policies to grow sharing initiatives. One commonly cited domain is that of transportation and mobility. For instance, one of the key obstacles faced by the pioneers of car sharing in Australia is the lack of parking spaces, and commercial operations have to negotiate with local governments for parking spaces. The policy of allocating parking spaces by metropolitan local councils helps lower the barriers for car sharing.<sup>307</sup>

The city of San Francisco has revised its Planning Code, which now requires newly constructed buildings to provide parking spaces for car sharing, and certain non-residential developments to dedicate five per cent of their parking spaces to "short-term, transient use by vehicles from certified car-sharing organisations" or other "co-operative auto programs". In addition to promoting car sharing, the city is also encouraging bike sharing. For example, the authorities piloted a Bay Area Bike Share

<sup>&</sup>lt;sup>303</sup> Sharp, D. (2013, July 14). Government support for co-working in Australia [Blog post]. Retrieved from https://www.shareable.net/blog/government-support-for-coworking-in-australia.

<sup>&</sup>lt;sup>305</sup> Dlugosz, P.M. (2014). The rise of the sharing city. Examining origins and futures of urban sharing (Master's

<sup>&</sup>lt;sup>307</sup> Kent, J. (2018, October 29). Why car sharing had a slow start in Australia – and how that's changing. The Conversation. Retrieved from http://theconversation.com/why-car-sharing-had-a-slow-start-in-australia-andhow-thats-changing-104389.



programme from 2013-2017 to promote bicycle sharing.<sup>308</sup> The pilot has since ended and has been rebranded into FordGoBike, a privately held regional public bike-sharing system. The number of bicycles is set to increase from 700 to 7,000 in five cities.<sup>309</sup>

San Francisco has also recognised that the land use law could be adjusted to aid sharing, and introduced a new land use category "Neighbourhood Agriculture", which permits community gardens, community-supported agriculture, market gardens, and commercial farms of less than an acre to sell or donate their produce. Moreover, the 2009 directive asks the city to "conduct an audit of unused land — including empty lots, rooftops, windowsills, and median strips — that could be turned into community gardens or farms" (p.5). 311

The case of bike sharing in Mexico illustrates how government can go beyond extending funding support and resources in other ways. In order to promote bike-sharing systems, the city came up with a comprehensive and creative set of measures to overcome anti bike-sharing lock-ins. Table 4 shows the three types of lock-ins — institutional or policy, physical, and socio-cultural.<sup>312</sup>

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<sup>&</sup>lt;sup>308</sup> Bikeshare. (n.d.). *SFMTA*. Retrieved from https://www.sfmta.com/getting-around/bike/bikeshare#Bay%20Area%20Bike%20Share%20Pilot.

<sup>&</sup>lt;sup>309</sup> Dlugosz, P.M. (2014). *The rise of the sharing city. Examining origins and futures of urban sharing* (Master's thesis).

<sup>&</sup>lt;sup>310</sup> Calfee, C., & Weissman, E. (2012). Permission to transition: Zoning and the transition movement. *American Planning Association*, *64*(5), 3-10.

<sup>&</sup>lt;sup>311</sup> Josh Harkinson as quoted in Calfee, C., & Weissman, E. (2012). Permission to transition: Zoning and the transition movement. *American Planning Association*, *64*(5), 3-10.

<sup>312</sup> Ritter-Figueres, N.V. (2017, December 20). What can the rest of the world learn from Mexico City's EcoBici bike-sharing scheme? *London School of Economics and Social Science*. Retrieved from

http://blogs.lse.ac.uk/latamcaribbean/2017/12/20/what-can-the-rest-of-the-world-learn-from-mexico-citys-ecobici-bike-sharing-scheme/



Table 4: Three types of lock-ins

Lock-in	Specific Lock-in
Institutional/Policy	<ul> <li>Majority of city transport budget dedicated to automotive infrastructure</li> <li>Existing policies promote motorised transportation directly and indirectly</li> <li>Lack of pedestrian and cyclist rights</li> </ul>
Physical	<ul> <li>Priority given to cars in allocating street and parking space</li> <li>Car-oriented road infrastructure unsafe for cyclists</li> </ul>
Socio-cultural	<ul> <li>Car perceived as status symbol; bike associated with poverty</li> <li>Aggressive driver behaviour treating cyclists as inferior participants in urban traffic</li> <li>Little familiarity and practice with cycling in urban areas</li> </ul>

To help eradicate the lock-ins, the city of Mexico embarked on various measures, specifically education and land-use policy. First, the city decided to change the image of the bicycle by branding the bike-sharing scheme as "the intelligent way to travel", promoting the idea of educated middle-class cyclists who cycle out of choice rather than economic necessity. The city also addressed aggressive driver behaviour through an education campaign targeted at drivers on the benefits of bicycles.<sup>313</sup> It also closed off miles of streets every weekend for cyclists.<sup>314</sup> An indicator of the city's success in overcoming lock-ins is how it attracted Chinese bike-sharing firms Ofo and Mobike.<sup>315</sup> As of June 2018, Mobike had about 500 bicycles in a small part of the city and is awaiting clearance from city authorities to further expand its fleet.

<sup>&</sup>lt;sup>313</sup> *ibid*.

<sup>&</sup>lt;sup>314</sup> Love, J. (2018, January 26). Chinese bike-sharing firms gear up to launch in Mexico. *Reuters*. Retrieved from https://www.reuters.com/article/us-mexico-tech/chinese-bike-sharing-firms-gear-up-to-launch-in-mexico-idUSKBN1FE2FQ.

<sup>&</sup>lt;sup>315</sup> *ibid*.



#### The Case of Seoul — Multi-Prong Approach to Grow Sharing

The Sharing City Seoul project was launched by Mayor Park Won-Soon in September 2012. Through the project, he promised to "solve social and economic problems of Seoul by restoring the old traditional sharing culture that was destroyed by urbanisation". The project aims to create new economic opportunities, restore reliable relationships and build a sense of community and enhance the city's sustainability and reduce the wasting of resources. 317

The Seoul government established several administrative frameworks in 2012 and 2013 to manage the project. They included establishing a Seoul Innovation Bureau which manages the project under the Social Innovation Division, 318 a new ordinance to establish regulations to promote sharing, 319 the creation of a bilingual (Korean and English) website (ShareHub) for all things related to sharing in the city, 320 and the formation of a Sharing Promotion Committee that is made up of 15 members from the private and government sector to formulate policies to advocate for sharing. 321 Some of the policies that have been implemented are: allowing citizens to use meeting rooms and auditoriums for their own public meetings and events, opening select government parking lots to the public during off-peak periods, and installing tool libraries and shared bookshelves in communities throughout the city. 322

<sup>&</sup>lt;sup>316</sup> Fedorenko, O. The sharing city Seoul: Global imaginaries of the sharing economy and its local realities. *Development and Society*, *46*, 2, 373-397.

<sup>&</sup>lt;sup>317</sup>The sharing city Seoul project. (n.d.). *Seoul Metropolitan Government*. Retrieved from

http://english.seoul.go.kr/policy-information/key-policies/city-initiatives/1-sharing-city/.

<sup>318</sup> Sharehub: About us http://sharehub.kr/shareabout/about us.do.

<sup>&</sup>lt;sup>319</sup> Seoul Metropolitan Government Ordinance on the Promotion of Sharing. *Seoul Legal Administrative services*. Retrieved from

https://legal.seoul.go.kr/legal/english/front/page/law.html?pAct=lawView&pPromNo=1191.

<sup>320</sup> ShareHub:

http://sharehub.kr/homeEn/shareHomeEn.do;jsessionid=8E667C0E5CE6696E1867E8EB9C977E84.

<sup>321</sup> The sharing city Seoul project. (n.d.). Seoul Metropolitan Government. Retrieved from

http://english.seoul.go.kr/policy-information/key-policies/city-initiatives/1-sharing-city/.

<sup>322</sup> The sharing city, Seoul project. (n.d.) Metropolis. Retrieved from

https://policytransfer.metropolis.org/case-studies/the-sharing-city-seoul-project; Johnson, C. (2013, July 16). Is Seoul the next great sharing city? [Blog post]. Retrieved from https://www.shareable.net/blog/is-seoul-the-next-great-sharing-city.



According to the sharing organisation directory on ShareHub, there are 90 for-profit and not-for-profit organisations in the city. 323 These organisations operate in various sectors, from accommodation and co-working spaces to skills and knowledge sharing. To attract sharing companies, city authorities provide a slew of benefits to ease their operations, such as designating companies as "sharing organisations" or "sharing businesses", and providing administrative and financial support. 324 Companies that have benefited from the city's support includes SoCar, a vehicle sharing company that was given benefits such as discounted access to public parking lots, subsides on the purchase of the electric cars, and discounts for users who transferred to public transport within 30 minutes of using the car.<sup>325</sup> For Norizzang, a social enterprise that recycles old furniture and has opened a "furniture hospital" for people to repair broken furniture themselves, a soft-loan from the sharing city project has enabled them to expand their business. 326 However, the authorities are also protective of incumbent industries. For instance. Uber and Airbnb faced difficulties in establishing their presence in Seoul. Uber was fined 10 million won (SGD 10,000) in 2015 for violating a law that prohibits car rental companies from running a taxi business with leased cars. 327 Airbnb was asked by authorities in 2016 to delete all of its "illegal" accommodations (about 70 per cent of its listing) as hosts are not allowed to run a lodging business without reporting to the government. 328

While Seoul's collectivist culture might make its citizens more open to sharing,<sup>329</sup> the city has, together with their partners, engineered various events and initiatives to draw attention and interest in sharing. Some of the past events included weekly

323 ShareHub: List of partners http://sharehub.kr/shareenterpriseen/partners\_list.do

<sup>&</sup>lt;sup>324</sup> The sharing city Seoul project. (n.d.). *Seoul Metropolitan Government*. Retrieved from http://english.seoul.go.kr/policy-information/key-policies/city-initiatives/1-sharing-city/.

<sup>&</sup>lt;sup>325</sup> Fedorenko, O. The sharing city Seoul: Global imaginaries of the sharing economy and its local realities. *Development and society, 46,* 373-397.

<sup>&</sup>lt;sup>326</sup> Aldama, Z. (2015, August 8). Sharing city, project out to put soul back into Seoul. *Post Magazine*. Retrieved from https://www.scmp.com/magazines/post-magazine/article/1846987/sharing-city-project-out-put-soul-back-seoul.

<sup>&</sup>lt;sup>327</sup> South Korea court says Uber violated transport law, latest setback for US firm. (2017, April 26). *CNBC*. Retrieved from https://www.cnbc.com/2017/04/26/uber-south-korea-law-court.html.

<sup>&</sup>lt;sup>328</sup> Ramirez, E. (2017, February 14). In Seoul, a new sharing economy takes hold. *Quartz*. Retrieved from https://qz.com/906280/in-seoul-a-new-sharing-economy-takes-hold-one-that-leaves-uber-and-airbnb-in-the-cold/; Sharing economy expands presence in Korea. (2017, April 28). *The Korea Herald*. Retrieved from http://www.koreaherald.com/view.php?ud=20170428000164.

<sup>&</sup>lt;sup>329</sup> McLaren, D., Agyeman, J. (2015). *Sharing cities. A case for truly smart and sustainable cities*. MIT Press, Cambridge, Massachusetts; London, England.



lectures on "Seoul meets sharing economy" to large-scale events such as the "Sharing City, Seoul" Expo and Conference. 330

#### **GOVERNMENT AS INNOVATOR AND CREATOR**

Besides providing resource support, and enacting policies to increase the conduciveness of the environment for sharing, governments can be innovators and creators of initiatives to promote sharing among residents.

Taiwan City provides an example in how it leverages the principles of sharing economy to improve care for the elderly as it joins the growing list of Asian cities that will become "super ageing" by 2026. The city launched two schemes, the first of which involves using the Internet to recruit senior citizens as volunteers to provide part-time help to one another. Senior citizens are encouraged to tap on the skills and their experience from their previous jobs to help others (e.g., an elderly citizen who was a doctor could provide free health consultations to other elderly citizens).

This is how it works: volunteers accumulate volunteering hours in a "time banking" system, which they could redeem at later time when they require other volunteers to care for them. As of November 2018, there were about 120,000 elderly volunteers in Taipei City. Senior citizens have to undergo 40 hours of training by city officials before they can become official volunteers. For the second scheme, Taipei City encourages senior citizens to rent vacant rooms to youths. This is to enable them to enjoy some company at home, and not feel lonely. The initiative has two benefits — senior citizens could earn some income while the youth tenants have access to accommodation at lower rental prices.<sup>331</sup>

Similarly, Brazil provides another useful case study. In 1993, the former mayor of Belo Horizonte, Patrus Ananias, who grew up in poverty, developed a plan to promote social justice through urban agriculture. The programme involved renting city-owned plots to those living in poverty and training them to grow and sell food locally. In addition, the mayor instituted fixed pricing for certain essential foods so that low-income residents could afford them. As part of the programme, a network of "people's restaurants"

<sup>&</sup>lt;sup>330</sup> Social equity through sharing: interview with Seoul mayor Park Won-Son (2014, April 7). *Eco-Business*. Retrieved from https://www.eco-business.com/news/social-equity-through-sharing-interview-with-seoul-mayor-park-won-soon/.

<sup>&</sup>lt;sup>331</sup> Chia, J.L. (2018, November 5). How New Taipei is turning back the tide on ageing. *GovInsider*. Retrieved from https://govinsider.asia/smart-gov/new-taipei-sharing-economy-for-elderly-eric-chu/.



with the theme of "food with dignity" was developed, using less than two per cent of the city's budget.<sup>332</sup>

#### The Case of Medellin — Citizens Making a Difference

Medellin, Colombia has gone from the most "violent city in the world" to a "more inclusive, vibrant, and resilient city". 333 Led by city leaders such as Luis Perez and Sergio Fajardo, the city has, through a combination of violence prevention programmes and initiatives that promoted education, transparent governance and citizen participation, improved the quality of life of its residents. 334

Unlike Seoul and Amsterdam — cities that already have the necessary infrastructure to facilitate sharing such as access to mobile devices and the Internet — Medellin's focus is on building infrastructure to facilitate primary sharing space, e.g., roads, parks, and libraries.<sup>335</sup> This included building 384 metre long outdoor escalators and cable cars to connect poor neighbourhoods to the city centre in the valley, transforming public spaces for community and social development such as building library parks (a library surrounded by green spaces as seen in Figure 12), and offering residents free Wi-Fi in over 150 public areas.<sup>336</sup> These public spaces are well used and well maintained by both the municipality and the residents.<sup>337</sup> Recently, the city's current mayor Anibal Gaviria announced a

<sup>&</sup>lt;sup>332</sup> Holzman, D. (2016, February 5). Sharing is the future for cities. *TuftsNow*. Retrieved from https://now.tufts.edu/articles/sharing-future-cities

<sup>&</sup>lt;sup>333</sup> Ijjasz-Vasquez, E. (2017, February 6). How is Medellin a model of urban transformation and social resilience? [Blog post]. Retrieved from http://blogs.worldbank.org/sustainablecities/how-medellin-model-urban-transformation-and-social-resilience.

<sup>334</sup> ibia

 $<sup>^{335}</sup>$  Primary sharing as described by Seoul May Park Won Soon: https://www.eco-business.com/news/social-equity-through-sharing-interview-with-seoul-mayor-park-won-soon/

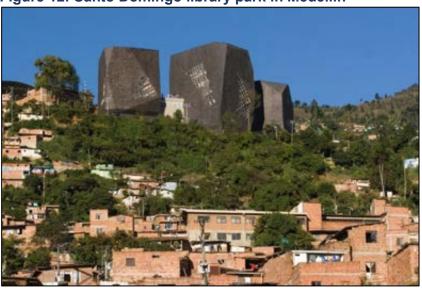
<sup>&</sup>lt;sup>336</sup> Tan, W.K. (2016, October 4). Medellin: from violence to urban innovation. *eGov Innovation*. Retrieved from https://www.enterpriseinnovation.net/article/smart-city-profile-medellin-408607735; Casper. (2017, June 28). Medellin – from most dangerous to most innovative city in the world [Blog post]. Retrieved from https://www.acitymadebypeople.com/journal/medellin-from-most-dangerous-to-most-innovative-city-in-the-world-1.

<sup>&</sup>lt;sup>337</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.



large-scale project, the Metropolitan Green Belt, a 75km park along the upper slopes of the valley.<sup>338</sup>





In Medellin, residents play an active role and are involved in transforming shared public spaces through co-creation of programmes, management of shared spaces and facilities, and decision-making. Former Mayor Fajardo often included a community representative on the projects he worked on. This representative would act as a "mouthpiece and interpreter for the community" in which interventions were proposed.340 His team would also hold "imagination workshops" where resident could redesign where they lived.341 and imagine alternatives Additionally, residents could also participate on platforms such as MiMedllin.org and citiesfor.life, to co-create solutions for the city. To further encourage public participation, Medellin has implemented a participatory budgeting process. Residents are allocated five per cent of the municipal budget to decide on which

<sup>&</sup>lt;sup>338</sup> McLaren, D., & Agyeman, J. (2016, February 24). Sharing without sharing: The strange case of Medellin [Blog post]. Retrieved from https://www.shareable.net/blog/sharing-without-sharing-the-strange-case-of-medell%C3%ADn.

<sup>&</sup>lt;sup>339</sup> Mazzanti, G. (2008). Parque biblioteca Espana [Online image]. Retrieved from https://www.plataformaarquitectura.cl/cl/02-6075/biblioteca-parque-espana-giancarlo-mazzanti.

<sup>&</sup>lt;sup>340</sup> Warnock-Smith, A. (2016, May 13). Story of cities: Medellin escapes grip of drug lord to embrace radical urbanism. *The Guardian*. Retrieved from https://www.theguardian.com/cities/2016/may/13/story-cities-pablo-escobar-inclusive-urbanism-medellin-colombia.

<sup>341</sup> *ibid*.



projects to fund.<sup>342</sup> A beneficiary of this funding is Son Bata, an Afro-Colombian music group that has morphed into a community centre and cultural initiative, where neighbourhood children receive free music classes.<sup>343</sup>

#### **Cross-sector partnerships**

The public and private sector in many countries have come a long way from being adversaries to learning to speak the same language, moving away from extreme positions, and trying to arrive at compromises that reap the benefits of innovation, while mitigating costs imposed on local communities. Some credit can be given to the private sector, which is demonstrating its contributions to sustainability. For instance, in August 2018, Lyft challenged 100 residents living in Chicago to give up their personal vehicles for a whole month in exchange for USD 550 in credit, which they could redeem for Lyft trips, and other mobility services like bike share, car share, and public transit. The response has been so positive that Lyft is looking to expand the challenge to 35 cities, including Boston, New York, and San Francisco. According to Lyft, this is part of the organisation's effort to persuade Americans to give up personal car ownership.<sup>344</sup>

There are increasingly instances of public-private partnerships in cities around the world. This can be seen in how three cities in the US approach the sharing of e-scooter and bikes. In San Francisco, instead of banning e-scooters, the city has adopted a smarter approach by requiring operators to get licenses, stipulating rules on how to use an e-scooter safely, and limiting the number of scooters in operation, so that unused e-scooters will not litter the sidewalks. Santa Monica has imposed a flexible scooter cap—if a company's scooters see high usage, it can put more e-scooters on the street. Seattle is the US city with the largest number of dockless bikes. It involved three companies in a pilot programme, with city authorities collecting data, and surveying users and residents, for a year. Currently, the three companies are continuing to operate as the city decides what kind of permanent regime it wants.<sup>345</sup>

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medell%C3%ADn.

<sup>&</sup>lt;sup>342</sup> Eveland, J. (2014). Medellin transformed: from murder capital to model city. *Lee Kuan Yew World City Prize*. Retrieved from https://www.leekuanyewworldcityprize.com.sg/media/feature-articles/medellin-transformed. <sup>343</sup> McLaren, D., & Agyeman, J. (2016, February 24). Sharing without sharing: The strange case of Medellin [Blog post]. Retrieved from https://www.shareable.net/blog/sharing-without-sharing-the-strange-case-of-

<sup>&</sup>lt;sup>344</sup> Hawkins, A.J. (2018, September 26). Lyft expands the 'ditch your car' challenge to 35 new cities. *The Verge*. Retrieved from https://www.theverge.com/2018/9/26/17900970/lyft-ditch-car-challenge-cities-new-york-san-francisco-boston-washington.

<sup>&</sup>lt;sup>345</sup> Barro, J. (2018, August 11). Governments are getting better at regulating the sharing economy. *Business Insider*. Retrieved from https://www.businessinsider.sg/governments-regulating-sharing-economy-uber-scooters-2018-8/?r=US&IR=T.



## The Case of Amsterdam — Alliances with Local and Overseas Partners to Raise Awareness

The pioneers of Amsterdam's sharing city initiative, Harmen Van Sprang and Pieter Van de Glind, credited Seoul for inspiring them to turn Amsterdam into Europe's first sharing city.<sup>346</sup> They started shareNL in 2013 to bring together start-ups, corporations, governments, and research institutions, in an attempt to unlock the potential offered by technology and sharing. But it was only after a meeting with policymakers did the idea of Amsterdam as a sharing city gain momentum.<sup>347</sup>

In 2016, the city agreed on a Sharing Economy Action Plan, thus giving space to the opportunities that sharing offers to the city.<sup>348</sup> There are five phases to the plan:<sup>349</sup>

- Enable collaboration between stakeholders and support projects that tackle existing urban challenges (e.g., carsharing platforms to address the challenge of parking in Amsterdam)
- ➤ Lead by example and launch the city's own sharing initiatives (e.g., opening up office space for free to the public)
- Ensure that sharing initiatives are inclusive and open to all residents
- Remove regulatory barriers for the sharing economy, but also protect the public interest

<sup>346</sup> Amsterdam Sharing City. (n.d.). I Amsterdam. Retrieved from

https://www.iamsterdam.com/en/business/news-and-insights/sharing-economy/amsterdam-sharing-city. <sup>347</sup> Sutton, M. (2016, June 9). Amsterdam's sharing economy action plan points to opportunities and challenges [Blog post]. Retrieved from https://www.shareable.net/blog/amsterdams-sharing-economy-action-plan-points-to-opportunities-and-challenges.

<sup>&</sup>lt;sup>348</sup> Amsterdam action plan sharing economy (2016). ShareNL. Retrieved from https://www.slideshare.net/shareNL/amsterdam-actionplan-sharing-economy

<sup>&</sup>lt;sup>349</sup> Sutton, M. (2016, June 9). Amsterdam's sharing economy action plan points to opportunities and challenges [Blog post]. Retrieved from https://www.shareable.net/blog/amsterdams-sharing-economy-action-plan-points-to-opportunities-and-challenges; Amsterdam sharing city projects. (n.d.). *ShareNL*. Retrieved from https://www.sharenl.nl/amsterdam-sharing-city-projects/



Participate in global events to put Amsterdam Sharing City on the map

The plan is a reflection of city leaders' open and welcoming approach of disruptive trends and the opportunities that they bring to the city; but it also seeks to mitigate potential risks. For example, while the city was the first city in the world to negotiate with Airbnb in 2016, city authorities recently halved the number of nights that hosts are able to rent out on accommodation-sharing platforms (from 60 nights to 30 nights a year). This was in response to complaints by residents that accommodation-sharing services like Airbnb have resulted in an influx of tourists. The overcrowding, coupled with the rowdy behaviour of the tourists have made life "extremely unpleasant" for residents. 351

Nevertheless, citizens' interest in sharing is strong. A 2013 survey that looked at seven different collaborative economy services (gardens, goods, rides, cars, houses, skills and meals), found that 43 per cent of residents in Amsterdam would like to use them, 32 per cent were open to being a provider, and 84 per cent would be willing to participate in at least one example of the sharing economy. See Citizens were also willing to contribute to the operating cost of sharing companies. In 2016, Peerby, See a local app that allows users to share things such as power drills and bicycle pumps, raised USD 2.2 million from about 1,000 crowdfunders on the Dutch sustainable crowdfunding platform OnePlanetCrowd.

The city is also doing its part to ensure that everyone — including groups that are likely to be excluded such as senior citizens and low-income households — has access to sharing initiatives. For example, they have connected sharing platforms such as

<sup>&</sup>lt;sup>350</sup> Stokes, M. (2016, November 7). How Amsterdam is developing a collaborative economy that works for everyone. *Nesta*. Retrieved from https://www.nesta.org.uk/blog/how-amsterdam-is-developing-a-collaborative-economy-that-works-for-everyone/

<sup>&</sup>lt;sup>351</sup> Rodriguez, C. (2018, May 17). Fed up with tourists, Amsterdam gets tough on Airbnb, tourist taxers and too much partying. *Forbes*. Retrieved from

https://www.forbes.com/sites/ceciliarodriguez/2018/05/17/amsterdam-overwhelmed-by-tourists-gets-tough-on-airbnb-tourists-taxes-too-much-partying/#6dd53a162be5

<sup>&</sup>lt;sup>352</sup> Van de Glind, P. (2013). *The consumer potential of collaborative consumption* (Master's thesis). Retrieved from https://www.slideshare.net/Pieter1987/master-thesis-sdeg-pieter-van-de-glind-3845494-the-consumer-potential-of-collaborative-consumption-august-2013.

<sup>&</sup>lt;sup>353</sup> Peerby is a platform that enables consumers to borrow products by asking around in their neighbourhood. <sup>354</sup> Starritt, A. (2017, April 18). Forget Uber, Amsterdam is showing how to use the sharing economy for good. *Huffpost*. Retrieved from https://www.huffingtonpost.com/entry/forget-uber-amsterdam-is-showing-how-to-use-the-sharing\_us\_58f60ed0e4b0156697225295.



Thuisafgehaald<sup>355</sup> (translated as "Take Away from Home") with Stadspas. Stadspas is an initiative designed to ensure that vulnerable groups have access to culture, sport and recreation. Stadspas holders are able to get a free or highly discounted meal from home cooks in their neighbourhood.<sup>356</sup>

Amsterdam has also set up a formal alliance with other cities worldwide. In 2017, the Sharing Cities Alliance was formed. The purpose of this alliance is for cities to learn from and collaborate with one another. The alliance is gaining traction and heightened the profile of the city as a sharing city. To date, there are 13 cities in this alliance, including Seoul, Amsterdam, Singapore and Tel Aviv.<sup>357</sup>

#### **GOVERNMENT AS REGULATOR**

The sharing economy has posed a conundrum to policymakers who are trying to strike a balance between encouraging innovation and leveraging new technologies and ensuring that there are appropriate checks and balances. A common problem occurs when governments "look backward — attempting to shoehorn Uber into an existing framework for regulating taxis or squeezing Airbnb into the framework already used to regulate hotels — without acknowledging that these new platforms are fundamentally different businesses". Regulation may have the inadvertent effect of stifling sharing economies. In Japan, the relaxation of regulation under the Hotel and Ryokan Management Law in 2016 and the introduction of a New Vacation Rental Act in 2017 (enforced in June 2018) have contributed to an increase in the number of companies entering the vacation rental market.

<sup>355</sup> Thuisafgehaald is an online marketplace where users can share their home-cooked meals with others.

<sup>&</sup>lt;sup>356</sup> Collaboration in cities: From sharing to sharing economy. (2017). *World Economic Forum*. Retrieved from http://www3.weforum.org/docs/White\_Paper\_Collaboration\_in\_Cities\_report\_2017.pdf

<sup>357</sup> Sharing Alliance: https://sharingcitiesalliance.com/what-we-do/#alliance-activities

<sup>&</sup>lt;sup>358</sup> Stolzoff, S. (2018, September 6). Should startups ask for permission or beg for forgiveness? *Quartz*. Retrieved from https://qz.com/work/1379900/a-california-food-sharing-bill-came-too-late-for-a-startup-that-championed-it/.

<sup>&</sup>lt;sup>359</sup> The New Vacation Rental Act limits stays to 180 days a year, and allows local governments to impose additional restrictions. For example, Kyoto only permits rentals in residential areas between mid-January and mid-March, the low season for tourists. Japan's new law on room rentals a double-edged sword. (2018, May 22). *The Business Times*. Retrieved from https://www.businesstimes.com.sg/real-estate/japans-new-law-on-room-rentals-a-double-edged-sword.

<sup>&</sup>lt;sup>360</sup> Airbnb, Uber woes show Japan does not share easily. (2018, June 27). *The Straits Times*. Retrieved from https://www.straitstimes.com/asia/east-asia/airbnb-uber-woes-show-japan-does-not-share-easily.



Finck and Ranchord (2016) categorised regulatory approaches into two types — the permissive approach and the restrictive approach.<sup>361</sup> They cited the examples of San Francisco and New York City as examples of cities that are "tolerant". Cities that fall under this category do not have specific regulations and policies, and have tolerated sharing economy platforms, either by leaving them unregulated or by changing their regulations to facilitate development. The effects of such a laissez-fair approach are observed in the development of other sharing sectors, particularly collaborative consumption. One such sector is food-sharing practices which could have been severely stymied by health and safety regulations if they were subjected to the standards and conditions under which food is to be stored and handled, say like for restaurants.<sup>362</sup> Also, local zoning regulations in many American cities which prohibit the selling of fruit grown in one's backyard to a neighbour may undermine the development and hence potential social value of food-sharing practices.

The permissive approach can also mean a minimalist approach. For example, in the case of home sharing platforms, minimal regulation aims to prevent the professional use of home sharing platforms (by limiting the duration of the lease or the number of listings per host) and tax evasion. One example where minimal regulation is enforced is Jersey City, New Jersey.<sup>363</sup> This approach demonstrates the local authorities' willingness to embrace the benefits of the sharing economy, while still addressing problems, such as accommodation shortages.

On the other hand, restrictive approaches aim to curb for-profit platforms such as home-sharing and ride-sharing platforms. An example is Berlin, where Airbnb has been facing restrictions since 2013, when the state passed a law that prohibits any use of residential space for purposes other than residence. 364 Similarly, for ride sharing, the federal transport legislation under which Uber's business model is illegal, led to the company's retreat from Germany. In Asia, Hong Kong is lagging behind other Asian cities in developing its sharing economy. This has been attributed to the government's "traditionalism" and "protectionism" which favours industry incumbents, according to Joseph Sung, founder of another

<sup>361</sup> Finck, M. &, Ranchordas, S. (2016). Sharing and the city. Vanderbilt Journal of Transnational Law, 49(1299), p. 1299-1369.

<sup>&</sup>lt;sup>362</sup> *ibid*.

<sup>&</sup>lt;sup>363</sup> In Jersey City, house sharing is legal, but residents can only rent their homes for fewer than 30 days per year, can only rent out one unit in a multi-unit building, and require property liability insurance of at least USD 500,00. Aregood, J. (2017, February 27). Airbnb regulation bill advances in NJ. Observer. Retrieved from https://observer.com/2017/02/airbnb-regulation-bill-advances-in-ni/.

<sup>364</sup> The lack of apartments in Berlin led to the ban to mitigate housing shortage. O'Sullivan, F. (2016, April 28). Berlin is banning most vacation apartment rentals. Citylab. Retrieved from https://www.citylab.com/equity/2016/04/airbnb-rentals-berlin-vacation-apartment-law/480381/.



bike-sharing player, HobaBike. In a survey commissioned by the Sharing Economy Alliance<sup>365</sup>, an organisation that consists of companies and organisations involved in the sharing or collaborative economy in Hong Kong, about 70 per cent of respondents in Hong Kong said the government was too protective of vested interests when it came to developing the sharing economy.<sup>366</sup> The lack of channels for direct communication with the government as well as the protracted registration process further increase barriers to entry to the Hong Kong market by companies such as Uber and Airbnb.<sup>367</sup>

China has shut down a start-up that offered public napping pods over safety concerns. One month after installing napping pods in office buildings in 18 cities across the country, Beijing-based Xiangshui Space has temporarily shut down its business because it has not yet acquired the necessary licenses from local fire departments, company CEO Dai Jiangong told Sixth Tone. State news agency China News Service had reported that local police in Beijing closed six sleeping units in the Zhongguancun area, a prominent tech hub, citing safety concerns.

The Timbro report has three broad policy messages for all countries to improve their ranking on the sharing economy — increase regulatory freedom, ensure higher access to high-speed Internet to the population, and nurture higher social trust among the citizens.<sup>368</sup>

<sup>&</sup>lt;sup>365</sup> The Sharing Economy Alliance is a Hong Kong organisation that aims to promote sharing economy in Hong Kong.

<sup>&</sup>lt;sup>366</sup> Sharing Economy Alliance. (2017, September 4). *Hong Kong lags behind competing cities in innovation and technology developments* [Press release]. Retrieved from

https://www.hkupop.hku.hk/english/report/itse/content/resources/pr.pdf

<sup>&</sup>lt;sup>367</sup> Yang, Y. (2018, May 9). Hong Kong should do more to foster development of sharing economy. *South China Morning Post*. Retrieved from https://www.scmp.com/tech/enterprises/article/2145237/hong-kong-should-do-more-foster-development-sharing-economy.

<sup>&</sup>lt;sup>368</sup> Salman, A. (2018, September 22). Sharing economy: What Malaysia needs to do? *Star Online*. Retrieved from https://www.thestar.com.my/business/business-news/2018/09/22/sharing-economy-what-malaysia-needs-to-do/#cmOYSobXWyGfEDDd.99.

#### CHAPTER 6: MAPPING SHARING IN SINGAPORE

The preceding chapters presented a review of the existing research and discussions on what sharing means, the different types of sharing initiatives, the factors which contribute to the growth of sharing initiatives, and the steps adopted in cities around the world to develop the sharing landscape. As presented in the section on "Terminologies and Nomenclatures", there are various terms used to describe various forms of sharing initiatives, with the more common ones being collaborative consumption (which encompasses product service systems, redistribution markets and collaborative lifestyles), sharing economy, peer-to-peer economy, access economy or access-based consumption, and connected consumption.

The objective of this study is to shed light on how sharing can build stronger and more cohesive communities and societies. Hence, while it might be intuitive to focus on initiatives that are motivated by intrinsic motivations (e.g., a desire to help others, to save the environment or foster reciprocity and mutual caring), it may be beneficial to adopt a more inclusive approach and extend the analysis to those that are driven by extrinsic motivations. There are two reasons. First, existing literature shows that there is rich diversity in terms of the needs and wants that motivate sharing, as well as its outcomes. Oftentimes, the sharing of a material good may not only bring about extrinsic benefits (e.g., cost savings and convenience), but also intrinsic ones. Similarly, the consumption of a material good may be motivated by both extrinsic and intrinsic reasons. Second, important lessons could be gleaned from initiatives that are revenue oriented or are driven by utilitarian motivations.

#### SCOPE OF MAPPING

Thus, in our identification and mapping of existing sharing initiatives in Singapore, we focus on sharing initiatives that bear the following dimensions and characteristics, as presented on page 24. However, given that sharing initiatives may be at various stages of developments, some of these features may not apply to all.

➤ A reliance on Internet-based platforms and/or mobile devices that connect things that are not being used with people who have use for them, and where information



technology is harnessed for the identification of relevant people or businesses, aggregation and exchange of information, booking of products and services, and payment of fees.

- Distributed networks of people and/or assets are being connected to one another, and the exchange is decentralised.
- The consumption or utilisation of idling tangible and intangible assets through rental, sharing or exchange. The idling capacity of an item refers to the unused potential of an item when it is not in use.
- ➤ The presence and emergence of meaningful interactions and trust.
- Social interaction that makes transactions possible most of the social interaction takes place online, some start online and spill over offline, while others take place offline with initial contact mediated online.
- Direct engagement among crowds and/or intermediaries.
- Organisations and businesses, if involved, that act as facilitators of exchange, instead of being producers and sellers.
- Transactions that are mainly transient and temporary, e.g., temporary transfer of ownership instead of permanent transfer of ownership of goods.
- Open and inclusive, although the extent of inclusion may vary.
- ➤ The involvement of a mechanism of self-governance, such as reputation system via ratings and reviews, and the establishment of a minimum level of trust required for the sustainability of the initiative.



We include in our mapping initiatives that are driven by different motivations, take place at different levels (i.e., between individuals, among members of a collective or among the general public), are consumption- or production-driven, occur in different realms (online, offline, or both online and offline), and are developed locally or globally.

#### SAMPLING

To identify sharing initiatives in Singapore, we trawled through newspaper articles, current members of the Sharing Economy Association Singapore, documents provided by MCCY (i.e., compiled notes from the Singapore Sharing City Workshop held in July 2017 and notes from an incubation meeting) as well as keyword searches (i.e., using keywords such as "sharing economy", "sharing initiatives" and "collaborative consumption"). We included both revenue-generating and non-revenue-generating initiatives (e.g., Lendor, Grab and community fridges) and platforms that connect businesses to consumers (e.g., Vanitee and ServisHero). We excluded initiatives that are no longer in operation (e.g., PandaBed), business-to-business platforms (e.g., HR Shared Services Scheme), and rental companies (e.g., Tribe Car and Smove). We also excluded platforms that focus on raising awareness and education on sharing among members of the public (e.g., Zero Waste SG).

In total, we developed a list of 72 sharing initiatives that currently exist in Singapore. This list is not exhaustive; we did not include all co-working initiatives and co-operatives. Prior to mapping the initiatives, we categorised them into five groups — (i) revenue-generating (goods); (ii) revenue-generating (services); (iii) non-revenue-generating (goods); (iv) non-revenue-generating (services); and (v) non-revenue-generating (idea incubation). Table 5 lists the five categories of sharing initiatives in Singapore. See Appendix 1 for a list of the initiatives and a brief description of each.



### Table 5: Categories of sharing initiatives in Singapore

Revenue -Generating		Non-Revenue-Generating		
Goods	Services	Goods	Services	Idea incubation
1. Anywheel 2. BlueSG 3. Lendor 4. Mobike 5. Neuron     Mobility 6. Ofo 7. PopScoot 8. Pram     Share 9. Qiqi     ZhiXiang 10.Rent     Tycoons 11.SG Bike 12.Sharent 13.Telepod	14. Airbnb 15. Airfrov 16. Beeline 17. BonAppetour 18. Camelia and Co 19. Co-operatives 20. Collision8 21. CoWork@SG 22. Deliveroo 23. Doctor Anywhere 24. FlySpaces 25. Foodpanda 26. Found. 27. GoGoVan 28. GoJek 29. Grab 30. GuavaPass 31. Haulio 32. Hcook 33. Homage 34. Honestbee 35. Jaga-Me 36. Jobbatical 37. JustCo 38. Kaodim 39. Lalamove 40. Level3 41. Metro Residences 42. Ovvy 43. Park N Parcel 44. Ryde 45. ServisHero 46. Speedoc 47. TADA 48. The Great Room 49. The Hive 50. The Work Project 51. The Working Capitol 52. UCommune 53. Vanitee 54. Wework	55. Books and Beer 56. Bounce Bags 57. Community Fridges 58. Community Gardens 59. Sharella 60. Singapore Freecycle 61. Singapore Really Really Free Market 62. Social Food Swap 63. Social Wellness Food Swap 64. Swapaholic 65. Umbrella Sharing Initiative 66. WeCare Shop 67. YouSwop	68. Dual Use Scheme 69. Hood Champions 70. Hourvillage 71. Repair Kopitiam	72. Wiki Social Collab



Researchers have mapped sharing initiatives based on different dimensions. Two examples are the ones developed by Cohen and Munoz (2015),<sup>369</sup> and McLaren and Agyeman (2015).<sup>370</sup> In Cohen and Munoz's map (see Figure 13), different categories of sharing activities are mapped along the dimensions of consumption/production (*x*-axis) and public/private interest (*y*-axis).

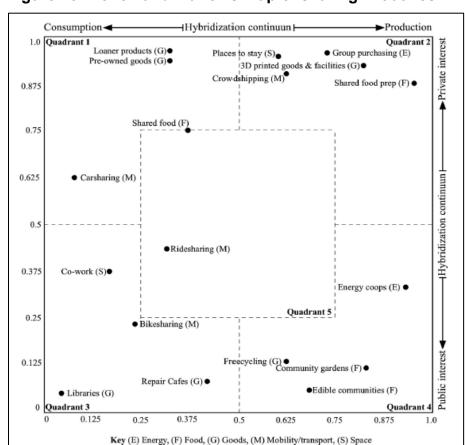


Figure 13: Cohen and Munoz's map of sharing initiatives

<sup>&</sup>lt;sup>369</sup> Cohen, B., & Munoz, P. (2015). Sharing cities and sustainable consumption and production: towards an integrated framework. *Journal of Cleaner Production*, 1-11.

<sup>&</sup>lt;sup>370</sup> McLaren, D., & Agyeman, J. (2015). Sharing cities. A case for truly smart and sustainable cities. Cambridge, Massachusetts: MIT Press.



Private interest refers to self-orientation of the motivation and outcomes of sharing (e.g., getting a place to stay brings convenience and lower cost to an individual), while public interest refers to the public- or community-orientation of the initiative (e.g., participation in a repair café brings about benefits to one as well as others). The consumption-production spectrum captures the nature of participation, which is central to the initiative. Consumption refers to usage of an initiative (e.g., using bicycles in a bikesharing initiative), and production refers to participation in the creation of a commodity or experience (e.g., community gardens where the primary activity is that of growing and cultivating vegetables and fruit).

Similar to the above, McLaren and Ageyman's (2015) mapping also captures the public and private orientation of the sharing initiatives. See Figure 14. They named this dimension as communal/intrinsic and commercial/extrinsic (*y*-axis). Sharing initiatives are plotted against this axis and the level of intermediation (*x*-axis). Here, "socio-cultural" sharing refers to the informal sharing activities that take place primarily among family members, friends or neighbours. On the other hand, "intermediated" sharing is sharing mediated through a third party, often using a website or a mobile phone.

Communal/intrinsic Communal Communal sociomediated cultural The gift economy The collective commons Peer-to-peer sharing The core economy Service co-production Unconsumption Collaborative lifestyles Inter-mediated Redistribution Socio-cultural markets Open-sourcing Disownership Product service Peer production systems Sharing economy Collective economy Access economy Commercial Commercial sociocultural mediated Commercial/extrinsic

Figure 14: McLaren and Agyeman's map of sharing initiatives



#### THE SINGAPORE MAP

For our mapping, we plot the sharing initiatives in Singapore along two dimensions: (i) the level at which sharing takes place (from individual to public with collective as a hybrid), (ii) the extent to which the activity of sharing is motivated by extrinsic or intrinsic motivations (with those situated in the middle exemplifying the qualities of both). We selected these two axes for a few reasons.

First, some dimensions are either not useful for the purpose of this study or lack clarity. For instance, the consumption/production distinction is contingent upon whom the target of analysis is, i.e., the person who utilises or "consumes" a product or service, or the person who provides or "produces" the product or service. For example, in Figure 14, shared food preparation is classified as a "production" activity while shared food is a "consumption" activity. Arguably, shared food preparation is a subset of shared food, for the latter is not possible without the former. Similarly, for repair cafés, the classification of the initiative is again contingent on whom we are focusing on — the person who gets his merchandise repaired (hence "consumption"), or the person who provides the repair work (hence "production"). Such a distinction is confusing and inevitably leads to the splitting of most initiatives into two versions, one under consumption and another under production along the same axis.

In addition, based on our sampling and analysis, most of the sharing initiatives leverage technology and involve a third-party intermediary. Hence, we decided not to plot the initiatives based on the dimension of intermediation.

Finally, given the aim of this study, which is to inform policymakers on the presence of sharing initiatives which have implications for community building, we thought it instructive to map existing ones on the dimension of extrinsic/intrinsic, the former being utilitarian and oriented towards the self, while the latter is oriented towards others or the community. This dimension is used both by Cohen and Munoz (2015), and McLaren and Ageyman (2015), and we find it useful in helping us map the wide spectrum of sharing initiatives in Singapore, which relate to goods, services and ideas.

See Figure 15 for the mapping of sharing initiatives in Singapore, based on the dimensions of level on which the sharing takes place (individual/public) on the *x*-axis and of motivation (extrinsic/intrinsic) on the *y*-axis. The level at which sharing takes place may have implications for an initiative's contribution to the larger community. We adopt Agyeman et al.'s (2013) classification of sharing under those that take place at an individual level,



collective level and public level.<sup>371</sup> See Table 5. At the individual level, sharing takes place between two individuals (or in the case of GuavaPass, between an individual and a fitness studio or health expert), at the collective level (where individuals share a pool of relatively identical commodities or services), and at the public level (where individuals share a publicly available commodity).

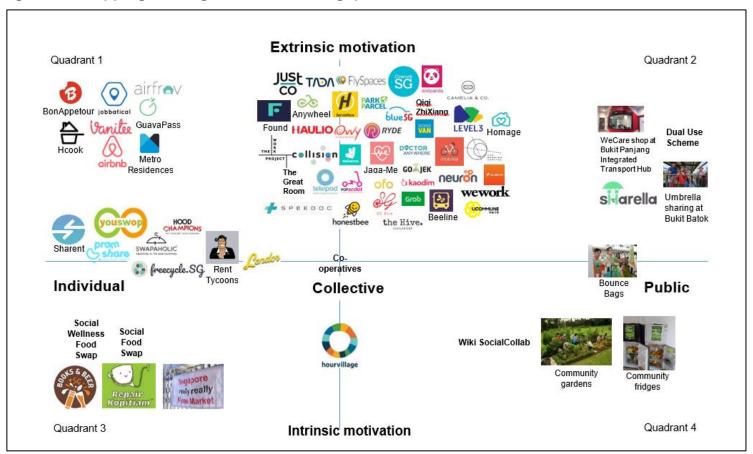
Table 5: The broad territory of sharing

	Things	Services	Experiences
Individual	Swapping, bartering	Ride sharing, Airbnb	Skill sharing
Collective	Car clubs, tool banks	Child care, credit unions, time banks	Sports clubs, social media
Public	Libraries, Freecycling	Health services, public transit	Politics, public space

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<sup>&</sup>lt;sup>371</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

Figure 15: Mapping sharing initiatives in Singapore





Quadrant 1 (extrinsic motivation, individual level) comprises sharing activities that are primarily oriented towards the self and meet utilitarian needs such as convenience, cost savings and enjoyment. Some examples are Hcook and BonAppetour —the former an initiative that connects neighbours and promotes the sharing of homecooked food, while the latter creates memorable cultural experiences through connecting local hosts who provide home-dining experiences to travellers. We included Vanitee (a technology-mediated marketplace that connects individual consumers with beauty service providers) and GuavaPass (where members could search and book the services of fitness studios and individual health/fitness experts). These activities take place at the individual level (i.e., between consumer and producer/service provider) as the commodity, service or experience may differ from provider to provider.

In Quadrant 2 (extrinsic motivation, public level), there are currently four sharing initiatives — Sharella (an initiative started by students from Republic Polytechnic and the Land Transport Authority of Singapore that facilitates umbrella sharing at different locations), an umbrella sharing initiative in Jurong Group Representative Constituency (started by Member of Parliament Ms Rahayu Mahzam), WeCare shop (where commuters at Bukit Panjang's Integrated Transport Hub borrow items ranging from power banks to shopping trolleys), and the Dual Use Scheme (where sports facilities in schools are made available to members of the public for a fee). These initiatives meet the extrinsic need of convenience and take place at the public level, as the goods for sharing are available to anyone in the vicinity.

Quadrant 3 (*intrinsic motivation*, *individual level*) includes sharing initiatives such as Singapore Really Really Free Market (a temporary market where goods and services are shared for free and nothing is for sale) and Social Food Swap (where home cooks with excess ingredients can swap them with others within their social circles). Individuals who participate in such initiatives are typically driven by intrinsic motivations such as minimising waste and protecting the environment. An initiative such as Repair Kopitiam enables participants to "combat the throw away culture for a sustainable world" while helping one another. Such transactions typically occur between two people, where there is a matching of a specific need with a skill, or a person who needs a specific item (e.g., a cooking ingredient) with someone who has an excess of that item.

There are some initiatives that take place at the individual level, which also meet extrinsic and intrinsic needs. Some examples are Rent Tycoons and Swapaholic, which allow users to reduce waste (hence helping to conserve the environment) and save costs at the same time. These hybrid initiatives sit on the border between Quadrants 1 and 3.



Quadrant 4 (*intrinsic motivation*, *public level*) comprises community fridges (located in Tampines, Yishun and Stirling Road, for residents to help provide food for needy residents), community gardens (the 1,000 community gardens that engage over 20,000 residents in different parts of Singapore aimed at cultivating a gardening culture and a sense of civic ownership), and Wiki SocialCollab (a platform for the sharing of information and data on social needs in Singapore). The similarity these initiatives share with those in Quadrant 2 is that they are located on the public domain and are accessible to everyone.

Bounce Bags (an initiative in Yishun to promote the sharing of reusable shopping bags), sits on the border between Quadrants 2 and 4. This is because, like Rent Tycoons and Swapaholic, it meets both extrinsic and intrinsic needs (in this case, for users' convenience and to conserve the environment).

There are many sharing initiatives that take place on the collective level and meet either extrinsic or intrinsic needs. Those that meet extrinsic needs in this group include mobility/delivery platforms such as Ryde, Ofo and Park N Parcel, expertise- or service-oriented ones such as Doctor Anywhere and Homage, and co-working spaces such as CoworkSG and The Work Project. They fulfil instrumental needs, primarily convenience and cost savings; and they operate at the collective level as individuals who are members or have signed up for the initiative access a common pool of resources. The sharing initiative that takes place at the collective level and meets intrinsic needs is Hourvillage, a time banking system. In these systems, the users consume services and reciprocate in kind, instead of paying for or renting those services. Co-operatives are placed in the centre of the map as they meet both extrinsic and intrinsic needs of their members — members not only reap economic benefits, but also experience a culture of mutual support and solidarity.

We have also highlighted on a separate map the *initiatives that encourage* social mixing among users or have the strong potential to do so (see Figure 16). Social mixing does not merely mean people coming together and interacting, which would apply to most of the initiatives on the map, including revenue-generating ones. By social mixing, we are referring to people getting to know one another at a more intimate or deeper level (e.g., who they are, their needs and their strengths), motivated by the desire to form new friendships, know the community, make the environment a more pleasant place to live in, and help those who are in need.



The initiatives that have a greater potential of cultivating social connections among participants are placed in circles of a darker shade of yellow. Some examples include Repair Kopitiam (Quadrant 3), community fridges and community gardens (Quadrant 4). When taking part in such initiatives, be it seeking out someone to help with the repair of a personal item, engaging in gardening activities in a common plot of land, taking part in activities in a shared physical space (e.g., Dual Use Scheme), participants have a greater chance of interacting with others face-to-face for an extended period of time, and hence have more opportunities to get to know one another. In the case of Repair Kopitiam, Repair Coaches go through an eight-week training programme where they are taught basic skills in repairing household appliances. Such a programme generates familiarity and potentially camaraderie among participants.

In some cases, the success of these initiatives hinges on how well participants know one another, for example, HoodChampions. While the frequency and intensity of interaction may vary from person to person, these initiatives may deepen the sense of emotional affinity, build trust and strengthen ties among people, and pave the way for more cohesive and self-reliant communities over time. People acquire intimate knowledge of whom to turn to when they have a specific need, be it an item, a service, or advice. In the case of time banking initiatives such as Hourvillage, people who provide help and support to one another may not necessarily live in the same neighbourhood. Thus, "communities" are not limited to geographically bound ones (i.e., residents of a specific housing estate or residential zone) but include people who share a common interest or goal (e.g., those who want to reduce waste or believe in the merits of time banking).

The initiatives that encourage social mixing but to a lesser extent, are placed in circles of a lighter shade of yellow. Co-working spaces (e.g., CoworkSG and The Work Project) fall into this category, as while people do share a common space when engaging in their professional activities, the interaction among them, if any, is not deliberately driven to fulfil a particular need or achieve a specific aspiration, such as those mentioned above. Arguably, Hcook and BonAppetour also create opportunities for people to get to know one another (as with ride-sharing platforms such as Grab). However, the interactions occur on a transactional basis and are typically driven by extrinsic motivations (e.g., reduce cost and enjoyment). That said, when compared to the rest of the initiatives on the map that are unlikely to promote any form of social mixing (those that are purely transactional in nature such as Grab or Ofo, or where participants have no or little chance to interact with one another), the initiatives in light yellow circles do generate some form of social mixing. However, their outcomes,

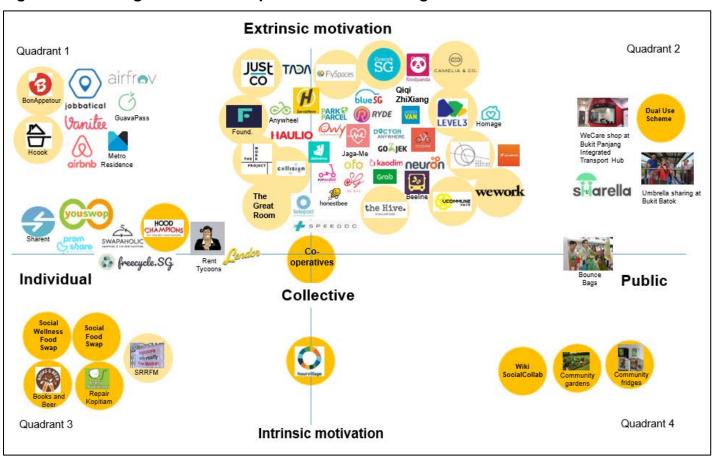


unlike those in dark yellow circles, depend on one's motivation to get to know others, beyond reaping the benefits of the transaction.

Our mapping shows that the majority of sharing initiatives in Singapore meet extrinsic needs and take place at the collective level. While there are initiatives that seek to meet intrinsic needs such as encouraging civic mindedness and ownership of community development, protecting the environment, and fostering community spirit (see Quadrants 3 and 4), the development of public or communal-oriented initiatives are clearly still at a nascent stage in Singapore.



Figure 16: Sharing initiatives that promote social mixing





# Phase 2 Focus Group Discussions



#### CHAPTER 7: METHODOLOGY

This section presents the findings from a series of Focus Group Discussions (FGDs) that were conducted with six groups of people. The objectives of this qualitative study are to identify Singaporeans' perceptions and attitudes towards sharing initiatives in Singapore, their reasons for participating and not participating, the factors that encourage (or hinder) their participation, and to understand the experiences and challenges faced by innovators of sharing initiatives. In addition, we sought users' and innovators' suggestions on what they thought could be done to promote sharing initiatives locally.

The FGD is a research technique to examine people's attitudes and behaviours towards a specific phenomenon. The qualitative data from FGDs is used to deepen the understanding of a range of opinions relating to a relatively new or under-investigated phenomenon. This particular method is useful for our study on the sharing landscape in Singapore as research on sharing initiatives in the local context has been scant. While the findings generated from FGDs may not be representative of the larger population, they provide preliminary information and insights into a relatively understudied topic.

We worked with EA Research Consultancy (EARC) to recruit participants for the FGDs and to moderate the sessions. A total of six FGDs were held over four days in January 2019. Guided by the research objectives mentioned above, we developed themes to guide the discussions and for each theme, questions and probes to be used by the moderator. The questions served as semi-structured guides for facilitation — this is an important aspect of a FGD design as it provides the moderator with the flexibility to depart from the guide so as to probe and clarify relevant information and interesting issues raised by participants.

For this study, we conducted a total of six FGDs:

- Two focus groups comprising users of non-revenue-generating sharing initiatives (henceforth "NRG initiatives"), one of which consisted of people who took part in community-based or offline initiatives (henceforth "community-based initiatives").
- One focus group comprising lapsed/non-users (i.e., people who have stopped participating in any sharing initiatives for



at least six months or have not participated in any sharing initiatives).

- One focus group comprising users of revenue-generating sharing initiatives (henceforth "RG initiatives").
- One focus group comprising innovators of RG initiatives.
- One focus group comprising innovators of NRG initiatives.

The above categorisation provides a diversity of users with different levels of involvement for various types of sharing initiatives (i.e., users of NRG initiatives, users of community-based initiatives, lapsed/non-users, users of RG initiatives, and the innovators of both RG and NRG sharing initiatives). We included non-users and lapsed users to understand the barriers that impeded their participation and what would motivate them to participate in sharing initiatives in the future.

The following criteria were used when recruiting FGD participants:

- Singapore residents
- > 21 years old and above
- Come from different gender, ethnic groups, education level and household income levels
- ➤ For those who have participated in sharing initiatives, they must have participated in at least one sharing initiative (NRG, RG, or a mixture of both) in the past 12 months.

Table 6 lists the number of participants for each session.



**Table 6: Number of FGD participants** 

Group	Type of Initiative	Participants
User Group 1	NRG initiatives	10
User Group 2	Community-based initiatives	9
User Group 3	Lapsed/non-users	10
User Group 4	RG initiatives	8
Innovator Group 1	RG initiatives	8
Innovator Group 2	NRG initiatives	10
	Total	55

We conducted two pilot discussions prior to the FGDs — one discussion with four users of RG initiatives, and an in-depth interview with an innovator of a RG initiative who managed an online platform for the sharing of babyrelated products.<sup>372</sup>

Based on the discussions that took place during the pilots, we revised the FGD guides to improve the clarity of questions asked and probes used. We developed different discussion guides for different groups. Table 7 lists the themes for the various groups. The FGDs were held at the premises of EARC from 23–26 January 2019. Each FGD was conducted in the English language and lasted about 90 minutes. Each participant was given \$100 for transport reimbursement and as an appreciation of their time. Observation notes were taken for all sessions and the discussions were transcribed verbatim to aid data analysis.

 $<sup>^{372}</sup>$  Given the small pool of innovators and the need to ensure that a sufficient number was recruited for the two FGDs with innovators, we conducted an interview face-to-face with one innovator.



**Table 7: Themes of FGD guides** 

Group	Type of Initiative	Themes	
User Group 1 User Group 2	NRG initiatives  Community- based initiatives	Their awareness, perceptions and attitudes towards sharing initiatives	
User Group 3	Lapsed/non-users	<ul> <li>What they thought sharing was and what constituted sharing initiatives</li> </ul>	
User Group 4	RG initiatives	<ul> <li>Their involvement in sharing initiatives (For lapsed/non-users, their reasons/barriers for their non-participation)</li> </ul>	
		<ul> <li>Factors that encouraged or impeded their adoption and participation</li> </ul>	
		<ul> <li>Perceived effects and impact of sharing initiatives</li> </ul>	
Innovator Group 1	RG initiatives	<ul> <li>What they thought sharing was and what constituted sharing initiatives</li> </ul>	
Innovator Group 2 NRG initiatives	<ul> <li>The experiences, needs and challenges faced by innovators</li> </ul>		
		<ul> <li>Perceived conditions for success and failure of sharing initiatives in Singapore, and what needs to be done to grow sharing initiatives</li> </ul>	
		Perceived effects and impact of sharing initiatives	



Generally, we observed good rapport among the FGD participants for most of the groups. For instance, the innovators of RG initiatives arrived early and exchanged name cards and talked about their experiences before their session commenced. However, the participants for NRG initiatives were quieter. This could be attributed to their disparate interests (they used a wide array of sharing initiatives) and the sporadic usage level of some participants.

Refer to Appendix 2 for the profile of FGD participants. To protect their privacy and maintain confidentiality, participants are identified by their respondent number and their respective focus group in this report (e.g., R1, user, community-based initiatives, and R5, innovator, NRG initiative). The quotes that are included in this report are edited for clarity.

## CHAPTER 8: WHAT SHARING MEANS TO SINGAPOREANS

We asked users and lapsed/non-users of sharing initiatives what "sharing" meant to them. Their answers ranged from broad definitions, such as "voicing out opinions" and "pooling resources" to more specific ones such as "the exchange or lending of items". The FGD participants who used NRG and community-based initiatives had more to say about what sharing meant to them. Some of the common features that were attributed to sharing included:

- Sharing is about the pooling of resources.
- Sharing is about resource distribution (exchange of resources).
- Sharing involves a transfer of use of a product or a service, but one typically retains ownership.
- Sharing brings about environmental, social and emotional benefits.
- Sharing involves giving without expecting to receive something in return.
- "Sharing is caring".

#### SHARING SAVES THE ENVIRONMENT

For users of NRG and community-based initiatives, sharing typically had an environmental dimension. When asked how sharing protects the environment, a user of NRG initiatives who had taken part in the Singapore Really Really Free Market (SRRFM) said that sharing helped him to reduce waste. Another participant, who had participated in book swaps, expressed similar sentiments.



"Because if he doesn't want the thing, I buy from him rather instead of buying from the shop and create more rubbish." (R3, user, NRG initiatives)

"It's actually good because I buy many books. And there are some books that are really hard to get. And it's really expensive on Book Depository. And on Carousell, sometimes people sell that book. It's either the same price or when you message them 10 times they won't reply. So yeah. But I also have a few friends who read. So sometimes we usually will update each other—okay I'm done with this book, who wants to borrow? They will say, 'okay I want to borrow', so we just exchange books. Because whatever book I buy, I don't like to throw away books. So, I end up having a lot of books, and I don't like to read a book twice. I might as well just swap it." (R1, user, NRG initiatives)

Innovators of NRG initiatives also felt that reducing waste and protecting the environment were characteristics of sharing. An innovator of an NRG initiative that brought together people with items that required repair and people who could fix them, and an innovator of a travelling market space where people gave away items they did not want to those who wanted them, explained the objectives of their initiative:



"We're a social innovation platform and we've been around for about eight years. In 2014, we wanted to look at the sustainability landscape in our society, where we can't quite grasp consumption issues because you can't quite control the economic system. But we can control the waste management system. And the way to go about it is to make sure that things don't even go into the waste management system through promoting repair. So, in a way we wanted to combat the buy and throw away culture in Singapore by extending the life of products through repair. That programme started as a volunteer programme where people would come and learn how to repair stuff over several weeks, and every last Sunday of the month we would set up at the void deck. Residents would bring down their items." (R9, innovator, NRG initiative)

"It is a critique of capitalism. The idea of free market is that everyone will become wealthy, and countries are allowed to trade freely. But it hasn't really happened, right? So it's really a wealth redistribution type of network — if you have things you don't need, you can come and give them away. Whoever needs them can take, whoever wants them can take. It exists as an event and we do this once every two months. We move around Singapore so residents of different areas can come to it. The idea is that everything is free — you can give things, you can provide services, you can share your skills. You can provide free hugs, whatever, as long as it's free and there is no bartering. Exchange is not necessary." (R10, innovator, NRG initiative)

#### SHARING BRINGS EXTRINSIC REWARDS

On the other hand, users of RG initiatives typically associated sharing initiatives with the attainment of personal and extrinsic benefits. These included saving money, cutting costs and enjoying more convenience in their daily life. For instance, an FGD participant who used GoGoVan<sup>373</sup>, Airbnb, Grab, TADA<sup>374</sup> and Deliveroo<sup>375</sup> said that they were "a breakthrough in terms of convenience and they solve problems". Another

<sup>&</sup>lt;sup>373</sup> A platform that connects users with a network of drivers for same day on-demand delivery and transportation needs.

<sup>&</sup>lt;sup>374</sup> TADA is a ride-hailing platform where drivers, passengers and services are connected by trust.

<sup>&</sup>lt;sup>375</sup> Deliveroo is a food-delivery service.



participant from the same group who had used last-mile transportation platforms such as Ofo and Neuron Mobility<sup>376</sup>, explained that those initiatives constituted sharing as people were able to enjoy convenience and low costs without ownership (e.g., owning a car or a van):

"Sharing involves something that's being used by people at different times, without the need of capital, meaning one doesn't need to own the thing." (R5, user, NRG initiatives)

#### SHARING IS ABOUT COLLABORATIVE CONSUMPTION

The innovators of RG initiatives emphasised the "collaborative" aspect of sharing. For instance, an innovator of an online platform that facilitated lending said sharing was "a collaborative consumption of resources", and that resources existed in the form of goods and services. Other innovators of RG initiatives spoke about how sharing extended the lifespan of underutilised assets, such as an electric drill. Such collaborative consumption had long-term effects, as the exchange of resources led to greater efficiency in resource utilisation. Indirectly, this practice also yielded both social and environmental benefits. Innovators of RG initiatives also felt that sharing happened when demand and supply met. In other words, there must be a need that motivates one to share, and the need must be fulfilled by another who can meet it.

"It's a reduction of deadweight, reduction of underutilised time for us, and an increase of efficiency for the whole industry."

(R7, innovator, RG initiative)

**"Sharin**g is about demand and supply...the supply part is the underutilised resources, e.g., a van or a drill. Then the demand side it is about the want and the consumption. The ones who need to buy, the ones who need an office space etc. **So that's demand and supply** matching." (R5, innovator, RG initiative)

<sup>&</sup>lt;sup>376</sup> Neuron Mobility is an e-scooter sharing platform.



The innovators of RG initiatives were also mindful that sharing had a cost component. An innovator of a delivery service platform said:

"I can post... [on a sharing platform] that I have a drill, which I only use once a year, and my neighbours can borrow it for \$5 and hour. So underutilised assets can be an additional revenue channel." (R6, innovator, RG initiative)

## SHARING DIFFERENT TYPES OF RESOURCES

The "resources" that participants had shared or were willing to share existed in myriad forms, from physical spaces, clothes to services (skills). It is interesting to note that some users extended "resources" to intangible or immaterial things, such as ideas and information. For example, a user of NRG initiatives said:

"I'm a member of Singapore Home Cooks, and there's a lot of vibrant sharing of recipes, all the different things. So, it's not just purely about sharing physical things, but also knowledge and information." (R9, user, NRG initiatives)

Similarly, users of community-based and RG initiatives also perceived information to be a resource that could be shared. For instance, a few FGD participants who had taken part in Bounce Bags<sup>377</sup>, community fridges and community gardens spoke about how they shared ideas to "help" and "improve" the communities they lived in. Others spoke about sharing thoughts openly "without hurting the person".

#### INFORMAL SHARING

It is interesting to note that informal sharing also took place outside organised sharing initiatives. By informal sharing, we refer to sharing that was not mediated and organised by a designated authority or group. Informal sharing typically happened among social networks and residential communities. An example given by a community-based initiative user was a potluck that was started by a few "aunties" in her block, and that within

<sup>&</sup>lt;sup>377</sup> An initiative in Yishun that promotes the sharing of reusable shopping bags.



half a year, "everyone knows each other". Another example was given by a user of NRG initiatives who shared groceries with her neighbours:

"My dad is a caterer and sometimes he has extra food, he likes to buy a lot of food. So sometimes I would go through my fridge and put some food in a basket. I'll put the basket in front of my gate and whoever comes can take the food... And my neighbour (I don't know why) likes to buy vegetables also. I keep on telling her don't...but when she gives me I will fry some of the vegetables to give her, but she doesn't want to take." (R1, user, NRG initiatives)

#### VOLUNTEERING AS A FORM OF SHARING

Another interesting finding from the FGDs relates to volunteering. Both NRG and a small number of users of RG initiatives felt that volunteering was a type of sharing. This is because volunteering involved the sharing of one's time.

"When I volunteer, I'm sharing my time. I participated in Willing Hearts." (R4, user, NRG initiatives)

"You part with your time and get happiness in return, which is a definition of sharing." (R2, user, RG initiatives)

To some FGD participants, for instance a Sharella user, sharing was a way to show care. If people did not care about others and/or the environment, they would not share. As such, some FGD participants held the view that contributing to community gardens, community fridges and Hourvillage was a form of volunteering. No one received any money, and people gave their time and food items freely to help others in need.

"All the non-revenue [generating] ones function on a volunteering basis. Like you know, they give some time, there's Hour Village. Then they come up and teach or repair this thing [Repair Kopitiam]. There's a volunteer system also." (R2, user, RG initiatives)



Participants also saw NRG initiatives as a way to help those in need. For instance, participants who have heard of community fridges saw the initiative as a way to help people who were less well-off.

"There is a community fridge right below my house [HDB flat]. There are two refrigerators, one halal and one non-halal. People go to the market and they buy extra piece of meat which they put it in the refrigerator. People who need help — needy families who cannot afford groceries — go to the fridge and take a bit of what they need." (R1, lapsed/non-user)

"There's one that is similar to YouSwop. It's called the Singapore Freecycle where you just recycle things that you bless. Some people are more blessed and have a lot of things. Maybe today you help someone, and in the future someone might help you. You never know." (R9, user, NRG initiatives)

#### SHARING HAS NO EXPECTATIONS AND IS PRO-SOCIAL

The pro-social and non-transactional dimensions of sharing were emphasised by innovators of NRG initiatives to be distinct characteristics of a sharing initiative. According to this group, sharing meant giving something freely without expecting anything in return; providing access to things of value (an object or a shared experience); and not involving money. An example of sharing that was non-transactional, with no expectations of reciprocity cited by some FGD participants was Couchsurfing.<sup>378</sup>

The users of NRG initiatives also placed a heavy emphasis on the community and emotional impact of sharing initiatives. They spoke about the potential of NRG initiatives in building the community spirit, providing a way for people to lend a hand to those in need, and contributing to the emotional wellbeing of both the giver and the receiver.

<sup>&</sup>lt;sup>378</sup> Couchsurfing is a global community of travellers where users can find a place to stay for free.



"There is a group called Singapore Food Rescue on Facebook. Sometimes there are places or big factories that have large amount or quantity of food that is expiring. They will share the information and let people know the locations, so anyone can go and take. Sometimes when you buy too much vegetables etc. and you're going for vacation, you can post "I stay here, come if you want." (R1, user, NRG initiatives)

"On community fridges — there are a lot of vegetables and meat that some people don't need. So they will put in the fridge for those who are needy. [I] must emphasise 'needy', because others also collect when the food is actually meant for the needy... Now there is another fridge for frozen food. Someone is willing to give for free and came up with the frozen fridge [food] also for the fridge." (R9, user, community-based initiatives)

Table 8 summarises the different dimensions of sharing as discussed by participants during their respective sessions.



Table 8: The different features of sharing

Features of Sharing	According to Whom
Saves the environment (e.g., sharing reduces waste)	<ul> <li>Users of NRG initiatives</li> <li>Users of community-based initiatives</li> <li>Innovators of NRG initiatives</li> </ul>
Attain extrinsic benefits (e.g., saving costs and convenience)	Users of RG initiatives
A form of collaborative consumption (e.g., one resource is shared and used by many)	Innovators of RG initiatives
Different types of resources can be shared (e.g., material or immaterial resources)	<ul> <li>Users of NRG initiatives</li> <li>Users of community-based initiatives</li> <li>Users of RG initiatives</li> </ul>
Takes place through formal and informal networks (e.g., sharing can be mediated through an organisation, or through social networks and residential communities)	Users of community- based initiatives
Volunteering is a form of sharing (e.g., taking part in initiatives to help the less fortunate or someone in need)	<ul> <li>Users of NRG initiatives</li> <li>Users of RG initiatives</li> </ul>
Pro-social and non-transactional (e.g., sharing is giving something freely)	<ul> <li>Users of NRG initiatives</li> <li>Innovators of NRG initiatives</li> </ul>



#### MONEY A GREY AREA AND INTENT IS KEY

The FGDs involving users of NRG and RG initiatives shed light on two key differences in terms of users' attitudes towards cost. Users of NRG initiatives felt that sharing should be driven by altruism (e.g., giving of one's resources without any expectation of return or payment), and one's care and concern for others and/or the environment. The non-transactional and altruistic dimensions of sharing were perceived by users of NRG and community-based initiatives to be an important feature of sharing. On the other hand, users of RG initiatives felt that sharing was motivated by convenience, low costs involved and the prospect of making a profit (for users who provide the resource). For instance, bike- and ride-sharing services served as convenient and low-cost options for users to fulfil their commuting needs.

The users and innovators of NRG initiatives generally felt that sharing initiatives should be free, or at least charge as little as possible. Thus, some of them felt that initiatives that generated income and revenue for users and innovators, such as Grab and Airbnb, should not qualify as sharing initiatives. This was because people were "making money out of it" instead of sharing their time, goods and services out of goodwill. In the case of Grab, passengers were "paying for a service" and drivers were "earning an income". According to a few lapsed and non-users, Grab was different from BlueSG,<sup>379</sup> where users paid an hourly rental feel for the use of the vehicle, as opposed to paying a driver.

"Because if you have a room and you really want to share, you don't have to charge anyone right? If your bike is there, you can share it without charging money." (R10, innovator, NRG initiative)

**"They are making money** out of it. The line is how much money they are making. If it is significant savings to the user, say \$5, then maybe it is sharing. **But that's not the case, the saving**s are usually a dollar or two. So I personally see it like a **taxi."** (R10, lapsed/non-user)

<sup>&</sup>lt;sup>379</sup> BlueSG is a network of 1,000 shared electric vehicles in Singapore.



A user of NRG initiatives such as Books and Beer<sup>380</sup> and book swaps compared Airbnb with Couchsurfing. To her, she did not consider Airbnb a sharing initiative due to the monetary transactions that take place between the landlord and the tenants. However, she considered Couchsurfing a sharing initiative because hosts hosted for free, without charging guests.

"There is a free one called Couchsurfing. So you simply — that one is really free, but it's literally a couch or spare room in someone's house. So you go online, you sign up, you say I'm visiting a country and looking for a host. Can you host for free? So that one I think is a little bit more like **sharing.**" (R2, user, NRG initiatives)

The users of community-based initiatives drew the line at charging a fee to make a profit.

"I think going back to intention. Let's say the intention at the beginning is to make profit, then it would not be considered sharing. But if let's say the intention was not to go for profit-making, but a sub-set of it, it just come naturally that there's some element of profits off right, then it can be still categorised as a sharing initiative." (R2, user, community-based initiatives)

# Need to charge for sustainability

The abovementioned objections against the earning of income or profiteering from an initiative contrasted with how users and innovators of RG initiatives felt. Users of RG initiatives felt that it would be difficult to sustain the initiatives and scale them up in the long run if there was no funding. They felt that cost was a double-edged sword — it "kills" the spirit of sharing, but no money "kills" the initiative. Hence, innovators should be able to "break even".

The thin line then lay with the profit margin. In general, the FGD participants felt that to sustain and scale up an initiative, it was inevitable for innovators to charge a fee. However, if the profit margin is high, then the initiative ceases to be a sharing initiative and instead becomes a profit-making one. Several users of NRG initiatives felt that it was justified for innovators to charge a nominal fee, which serves as a deposit. If the money is

<sup>&</sup>lt;sup>380</sup> A travelling book swap that is organised once every two months.



refundable, the initiative clearly stays within the perimeter of a NRG initiative.

"As long as the money is refundable, so that you won't exceed certain things [usage], or serves a security deposit etc. I guess it would not cross the line of being revenue making." (R2, user, RG initiatives)

The above was reiterated by a few users of community-based sharing initiatives who felt that as a general principle, money charged to cover the costs relating to a transaction was acceptable (e.g., cost incurred in transporting an item).

"Maybe those people don't mind paying a bit of fee for a transportation or for the hassle of bringing it to you." (R3, user, community-based initiatives)

**"Yeah to me it's like small transaction. I mean you will still need to** travel to change your items or exchange yo**ur items."** (R7, user, community-based initiatives)

"Actually I have a different opinion on Airbnb and Grab. I'm a GrabHitch driver. While we are not full-time commercial business folks who use the assets [vehicles] to earn an income and make profits, we use the existing resources that we have, and share it with people who have needs. However, we collect a token that helps us to pay off some expenses. There is still a sharing element. So I'm kind of...I disagree with the idea that if there's money involved, it is not sharing." (R9, user, NRG initiatives)

"I think in a broad sense we are talking about cost-sharing initiative. When I buy a car, I need to make monthly payments and my passengers are helping me to pay that sum, so they're 'sharing' my cost. It's like a cost-sharing initiative." (R3, user, community-based initiatives)



Similar to users of NRG and community-based initiatives, the innovators of NRG initiatives shared the same view that sharing should be free. However, there were some differences in opinions among this group on whether it was acceptable to charge a fee. While some innovators felt that fees should not be involved at all, others felt that the reason for charging a fee was important. Sometimes, charging a fee helped sustain an initiative and also ensured that users took good care of the items they were sharing (e.g., umbrellas). However, they drew the line between charging a fee to help offset costs and charging to earn profits.

"It is about scale. If you want to scale up, the cost will become higher. Therefore, you may need to charge for the service. If you keep it to, like for Books and Beer which is for about 60 to 80 people, you can approach somebody to host you. They can still manage [without charging a participation fee]. If you are catering to a larger group, you have to book a venue, and that comes with costs for rental, backend support etc. So I think for any initiative — you would have to consider charging a fee if you want to scale up." (R5, innovator, NRG initiative)

"I disagree that Grab, bike sharing and car sharing are sharing initiatives, because there's money involved. Sharing should not involve monetary transactions... Grab, Airbnb and all that, they're all considered sharing initiatives. But to me, they are just another way of doing business and people are making money out of them. People are not getting involved because of altruism. If you have a room and you really want to share, you don't have to charge anyone right. I mean if your bike is there you can share it without charging money too. But that's not really the case." (R10, innovator, NRG initiative)

**"But if the bike-sharing company doesn't not impose a charge,** the person who uses the bike may not have the responsibility in maintaining the **item. Then no point to continue this initiative."** (R7, innovator. NRG initiative)



The different attitudes pertaining to whether participants should pay a fee for sharing initiatives are summarised in Table 9.

Table 9: Participants' attitudes towards paying for sharing initiatives

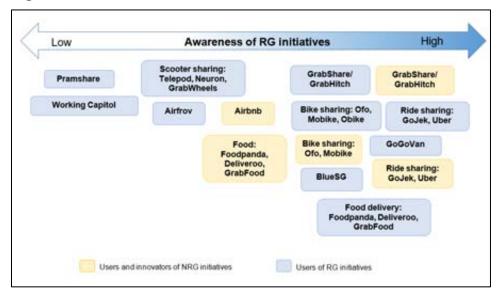
Participants	Attitudes towards Payment
Users and innovators of NRG initiatives	<ul> <li>Ideally, sharing initiative should be available to users for free</li> <li>If necessary, users could be charged a bare minimum to help sustain the initiative</li> </ul>
Users and innovators of RG initiatives	<ul> <li>Innovators should be able to break even</li> <li>Funds are needed to sustain and scale up the initiative</li> </ul>

# **AWARENESS OF SHARING INITIATIVES**

In general, the awareness for RG initiatives was higher than that for NRG initiatives. This is consistent across the four focus groups comprising users and non-users of sharing initiatives. When asked for examples of sharing initiatives, most of the respondents mentioned ride-sharing and bikesharing platforms. The awareness for such initiatives was similarly high among all categories of users, including lapsed/non-users. Figure 17 shows the various RG initiatives that different groups of users recalled.



Figure 17: Awareness of RG initiatives



Respondents knew of the above initiatives through word-of-mouth publicity and advertising by the innovators. Social media such as Facebook and YouTube were commonly cited as information sources. People also learned about these initiatives from news reports in the mainstream media (e.g., the regulation of the ride-sharing industry which cast a spotlight on players such as Grab, GoJek and the now-exited Uber). Table 10 summarises the different information sources through which FGD participants found out about these RG initiatives.



Table 10: How participants found out about RG initiatives

		Initiative	Word- of- Mouth	Facebook	In Public Areas	Others
4	High	GrabShare/ GrabHitch	✓	<b>✓</b>		
	Ξ	Ride-sharing platforms	<b>√</b>	✓		YouTube
	а	Bike-sharing platforms	✓	<b>√</b>	<b>√</b>	Mainstream media
	w a	Food delivery	✓		<b>✓</b>	
	r e n	Scooter- sharing platforms	✓		<b>√</b>	E-mail
	e s	GoGoVan	✓			
	S	Working Capitol	✓			
	Low	Airfrov	✓	✓		Ads, YouTube, SkillsFuture course
7	ر د	BlueSG	✓		<b>√</b>	



Unsurprisingly, the awareness for NRG initiatives was highest among users of those initiatives. Compared to the other respondents, users of NRG initiatives also knew of a wider array of sharing initiatives. In other words, in addition to umbrella sharing, community gardens and community fridges, they also knew of other NRG initiatives such as Social Food Swap, Books and Beer, mobile libraries and book donation corners at National Library Board libraries. Figure 18 summarises the NRG initiatives that were mentioned by the FGD participants.

High Awareness of NRG initiatives Low SRREM Sharella "Umbrella sharing", Sharella Social Food (Name not commonly known. Mobile library Community Swap Misnomer: Sharebrella) Carousell for residents gardens Community gardens SRRFM Recycle bags in (Familiar with concept, Repair Hougang & Yishun but not the name) Kopitiam ("Bounce Bag" name was not commonly Couchsurfing Community known) fridges Social Food NLB book Swap SG Freecycle donation Beer corners Users and innovators of NRG initiatives Users of RG initiatives

Figure 18: Awareness of NRG initiatives

However, the awareness for NRG initiatives was noticeably lower among users and innovators of RG initiatives, non-users and lapsed users. Among those who have heard of NRG initiatives, only a small number of initiatives received mentions — umbrella sharing, community gardens and SRRFM. Users learned about these initiatives in a few ways. Some found out about them through having come into physical contact with them (e.g., living near a community garden and passing by a SRRFM event), and others through word-of-mouth publicity and the media (e.g., social media such as Facebook and news on TV).

When asked why they did not participate in NRG initiatives, users of RG initiatives said they were not aware of such initiatives. Lack of awareness was the top reason that accounted for non-participation in NRG initiatives among this group. Hence, increasing RG users' exposure to NRG initiatives would be important to increase their participation.



For NRG initiatives, out of sight was out of mind. Word-of-mouth publicity and social media were important channels for introducing people to the initiatives. Their personal observations on-site and their social networks (e.g., friends and family members) helped shed light on the mechanisms of the initiatives, i.e., how they work and what the experience is like.

"When I pass by the MRT near the station, I saw that there's some umbrellas there. If someone wants to cross the road when it is raining and there's no shelter, they can borrow the umbrellas." (R6, lapsed/non-user)

"Like I've heard. I've seen reviews and that kind of thing [on Couchsurfing]. I've got a friend who has tried that before. Yeah, so the person just opens up the house, you just go stay there for a week or how long you want. That's how it works." (R10, lapsed/non-user)



# CHAPTER 9: MOTIVATIONS AND BARRIERS TO PARTICIPATION

The motivations behind users' participation were a mix of intrinsic and extrinsic ones. While there were distinct differences between users of NRG and users of RG initiatives, there were some similarities as well.

#### **DRIVEN BY INTEREST AND NEED**

For the users of NRG initiatives, their participation was oftentimes driven by an interest in the initiative itself and what it stood for. The commonly cited reasons were an interest in an alternative way of consumption (e.g., gardening together and the exchange of goods as in SRRFM) and conserving the environment (e.g., not wasting food). That said, a fundamental reason why people participated in sharing initiatives was that they fulfilled a need. In other words, users were unlikely to participate in an initiative just for the sake of doing so.

"Let's say on days you forgot to bring your umbrella and you need one desperately, it's good. I mean good because it is raining then there is an umbrella for you to use. It's like a saviour. But of course, you put it back after using. Because who knows, on rainy days, other people might take. So in a way like you also want to share back, yeah. (R8, user, NRG initiatives)

#### CONNECT WITH OTHERS

Users of community-based sharing initiatives were motivated by an intrinsic motivation to connect with others. Those who have participated in community fridges and community gardens felt that those initiatives helped to bring people closer together — they got to know other people living in the same residential area better. This anticipation to get to know others better and forge more intimate relationships was less important for users of NRG initiatives that were not community-based. The primary motivations of the latter group are interest and convenience (e.g., SRRFM, community gardens, Books and Beer and Social Food Swap) — relationship building was either a secondary objective or an incidental outcome.



Because I do charity, I bring some elderly there. Then I also see a lot of people bringing their grandmothers down. So it brings the family together, it's not just senior citizens. Even teenagers, the 13-year-olds and 18-year-olds also go down and play together." (R1, user, community-based initiatives)

"It helps to build relationships, a kind of camaraderie among people, like a kampung kind of sharing. Let's say in a mothers group, they share toys and clothes. They are able to build rapport, share their experiences and become good friends after that." (R5, lapsed/non-user)

Table 11 illustrates some of the key to participate in sharing initiatives motivations that underpinned the usage of NRG and community-based initiatives.

Table 11: Key motivations that drive the use of NRG initiatives

NRG Initiative	Motivation
Bounce Bag	Convenience
Umbrella sharing	Convenience
Singapore Freecycle	To give away or receive items for free
Community gardens	<ul><li>An interest in gardening</li><li>To make friends</li></ul>
SRRFM	<ul> <li>Interesting shopping concept</li> <li>It has a large range of products available</li> <li>It is eco-friendly</li> </ul>
Books and Beer	<ul> <li>Allows users to visit different food establishments</li> <li>Has a great variety of books</li> <li>It is eco-friendly</li> </ul>



It is interesting to note that innovators of NRG initiatives recognised that people's participation may not be driven specifically by the need to establish connections and build relationships with others. For instance, one of the innovators of an NRG initiative said, "People need an excuse (a reason) to interact with one another." Innovators of different NRG initiatives also had different mandates. For example, one innovator wanted to conserve the environment, while another sought to promote the love for reading. While some innovators saw the potential of their activities in cultivating social connections, they recognised that people tend to be driven by personal needs (e.g., "Most people are there for the goods").

#### SAVE TIME AND MONEY

Users of RG initiatives were motivated by cost savings, convenience and saving time, with some citing saving the environment as a secondary motivation.

"Normal taxi you have to go to the waiting point and wait and wait. Sometimes you cannot even get a taxi. So it is better I book a ride. I wait for three or five minutes, and I get one." (R8, user, RG initiatives)

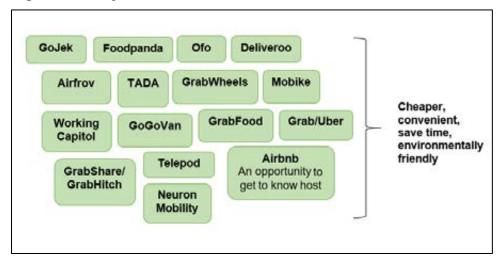
Another respondent spoke about how using Grab made it easier for her to submit her transport claims.

**"For me**, I use Grab for business because of the claims I have to submit. **It's a lot easier** — every month they [Grab] tabulate for you. When you take taxis, you have to consolidate your receipts, one by one. Grab **makes it much easier."** (R2, user, RG initiatives)

The participation level among users of RG initiatives fell when a service became more expensive and less convenient. These reasons were also cited by lapsed/non-users of RG initiatives. Figure 19 illustrates the key motivations behind the use of RG initiatives.



Figure 19: Key motivations that drive the use of RG initiatives



On the whole, convenience was a key factor that influenced participation, irrespective of the type of sharing initiative. For instance, umbrella sharing scheme accorded users a convenient way of solving a problem (e.g., having to get from one location to another when it rains). An FGD participant who had previously used Grab, Ryde<sup>381</sup> and GoJek said, "[Ride sharing] *is easier than flagging a taxi.*" Linked to convenience was saving time:

"Saving time also matters. When I book Grab, I'm still inside my house. [The app tells me] two more minutes and I'll go. If it says seven more minutes, I'll go down later, instead of going down early and having to wait." (R10, lapsed/non-user)

Some of the FGD participants said that they were more likely to participate in a sharing initiative if it was located within close proximity. Hence, access was an important factor — ideally the initiative should be within users' easy reach. An FGD participant who has taken part in SRRFM said that location mattered to her:

<sup>&</sup>lt;sup>381</sup> Ryde is a ride-sharing platform that matches drivers with riders going the same way. It has since expanded its product services to include e-payment and taxi booking.



**"Yeah**, their venues change sometimes. So [I join] **only if it's like really somewhere near."** (R2, user, NRG initiatives)

Cost was mentioned by many of the FGD participants (both RG and NRG initiatives users) as a reason for why they took part in RG initiatives. For example, they felt that ride sharing was both a convenient and cheaper mode of travelling, compared to using taxi services. Some RG initiatives also had loyalty programmes that led to more cost savings for users.

**Then there's loyalty programmes. Grab has** a point system and you can redeem things **with your points."** (R2, user, RG initiatives)

**"For me the main motivation is** saving cost. You save a lot on Grab**Hitch versus taking taxis, and Airbnb provides huge savings."** (R3, user, community-based initiatives)

#### BARRIERS TO PARTICIPATION

While the FGD participants were motivated to participate in sharing initiatives by the three Cs — costs, convenience and (in some instances) community — some barriers inhibited and discouraged their participation. For NRG initiatives, the commonly cited reasons for not participating were the lack of time and convenience. For instance, a user of RG initiatives who knew of the Dual Use Scheme<sup>382</sup> said she heard from people that the scheme was very popular and thus, it was very difficult to get a slot. Hence, ease of access and participation were important considerations for people. A lapsed user of Airfrov<sup>383</sup> and Singapore Freecycle alluded to the inconvenience of having to travel somewhere to engage in the activities.

<sup>&</sup>lt;sup>382</sup> The Dual Use Scheme allows members of the public to use sport facilities in schools.

<sup>&</sup>lt;sup>383</sup> Airfrov helps shoppers tap on a travellers' network to get their favourite brands and unique items from other countries.



"Because the collection point is very far from my house. There's only one collection point at the moment. But I think they changed their collection point recently. And the price stated there is quite high, because the person who helps you buy sets the price, not the initial price. Yeah it depends if you're willing to pay or not."

(R8, lapsed/non-user)

"I got and donated items [at Singapore Freecycle]. There's like a surge of recycling companies. They make it convenient — you can just recycle things at your doorstep, there are companies that pick them up. They'll tell you they're coming to pick up [the items], then you just have to place it at your doorstep." (R4, lapsed/non-user)

In addition, some FGD participants felt that while the intentions behind initiatives such as community fridges and umbrella sharing were good, they have also heard stories of inconsiderate behaviour and people misusing the initiative. This dampened their interest to participate in the initiative. Some participants who have participated in markets that facilitated the free exchange of personal items, recounted their negative experiences. Misconceptions about an initiative also affected people's interest to join. For instance, a user of NRG initiatives felt that community gardens came across as an exclusive space in some instances.

"I joined a group called Freegan...it was a bit too crowded. Some people are really focused in getting stuff, they just take." (R5, user, community-based initiatives)

"I'm friends with the organiser and sometimes I'll help to set up and tear down. From my experience, some people like to leave their items behind after the event. For volunteer organisers like us, we have the problem of cleaning up everyone's mess." (R7, user, community-based initiatives)

"I think the umbrella thing has already backfired. I heard that in Pasir Ris, out of 10 umbrellas, they only managed to get back two or three. It is supposed to be a kampung spirit thing but eventually people just take the umbrellas home for their own use." (R1, user, RG initiatives)



## **CHAPTER 10: PERCEIVED IMPACT OF SHARING**

Sharing initiatives have both intended and unintended outcomes. Some of the examples provided in the section on "Outcomes of Sharing" illustrated how Airbnb and ride sharing have yielded outcomes that were expected and unexpected; some outcomes are positive while others are negative. The FGDs provide us with the opportunity to understand the outcomes of various initiatives in the local context.

## **GOALS AND OBJECTIVES FOR SHARING INITIATIVES**

To better understand the intended outcomes of various sharing initiatives, we first establish the goals innovators had when they developed their initiatives. In their respective sessions, innovators were asked what their objectives for developing their initiative were.

Essentially the innovators of RG initiatives were driven by the following aims (see Table 12):

- Innovation create new solutions to solve people's problems and improve lives
- Match supply and demand efficiently
- > Provide users with convenience and access to different services

Table 12: Objectives of the innovators of RG initiatives

Goal	Objective
Innovation	Create innovative solutions to solve everyday problems
Match supply & demand efficiently	Provide a service for users who require it
Convenience and access to services	<ul> <li>Provide low-cost and accessible service to users</li> <li>Provide last-mile options to users</li> </ul>



One of the innovators of an RG initiative said that in addition to solving problems in people's day-to-day living, RG initiatives also helped those who come from a lower socio-economic class. In his case, his initiative helped people who could not afford certain items gain access to them (e.g., loan of breast pumps to mothers). Another innovator said that some RG initiatives such as ride sharing provided a means for people to earn income, and facilitated the sharing of experiences among people.

"Apart from interaction, I think there is a social impact. You're helping someone in need. Some consumers may not be able to afford to buy some things. When they're given the option of sharing, they're able to access things they would not be able to afford. An example is breast pumps. We have some low-income mothers who cannot afford breast pumps. They are able to loan them on our platform." (R1, innovator, RG initiative)

However, most of the innovators of RG initiatives said that social outcomes were not a priority for them, due to the nature of the experience users had on their platforms. For many of the initiatives, the interactions that took place are functional in nature, i.e., they solved a specific problem people encountered in their lives, and often did not lead to repeated interactions. The amount of interaction that took place was what was required for a need to be met, and nothing more. One example was an initiative that matched people who required medical attention with healthcare providers located in the vicinity.

"I was going to say that it's probably not so relevant for our initiative. Because the relationship is just between the doctor and the patient. And it's not really a social exchange, in that sense. There is interaction but it is limited, because the consultation will probably take a few minutes. People are sick, and they just want to get their medication and move on." (R3, innovator, RG initiative)



However, innovators of RG initiatives did not rule out the possibility of their initiatives promoting relationship building and social interactions. Most of them saw it as something that would develop naturally and incidentally, and not as a goal for them to achieve. As summed up by an innovator of an RG initiative: "We're an app, a start-up. We're a basic industry. There's nothing sexy about it."

"The motivating factor for my initiative [time banking] is taken from trying to get more volunteers for charities. But we recognise that not everybody is altruistic by nature. So they need some reward, hence the time credits. That's the incentive for one to volunteer. Then we expand that outside of charities. We use technology, which is online, but the experience happens offline. So in that way it does build some form of relationship buildina." (R2. innovator. NRG initiative)

On the other hand, the motivations that drove NRG initiatives were different as they tend to be social in nature. Some catered to communities living in specific locations, while others catered to people who shared similar interests. See Table 13 for list of goals and objectives.

- Facilitate interaction and relationship building by bringing users who have a shared interest together
- Offer solutions to problems faced by members of the public
- > Environmental promotes sustainable consumption of goods
- Emotional creates a sense of fulfilment (when people help others)



Table 13: Objectives of the innovators of NRG initiatives

Goal	Objective
Facilitate interaction and relationship building among users	<ul> <li>Create opportunities for users with a common interest to come together and share skills and knowledge</li> </ul>
Offer solutions	Understand and meet the needs of residents in a specific area or the needs of a particular group of people
Environmental	Champion the idea of sustainability and combat the "throw-away culture"
Emotional	Provide a sense of fulfilment

Many of the innovators of NRG initiatives felt that neighbourliness was missing in today's society. They aspired to build closer relationships among people, even if it were through simple and seemingly mundane activities such as the sharing of recipes. In the long run, their goal was to build bridges and restore trust in communities.



"We try to break the ice and get residents to come together. Because the perennial issue that comes up in our survey on graciousness is that Singaporeans are very contented to just say 'hi' and 'bye'. I know that aunty who lives along that corridor, but I don't need to know her first and last name. That suffices for Singaporeans. And with the way that the layout — HDB does its planning now, you can have more privacy, so you don't see your neighbours anymore. That's why this platform exists — to encourage people living in the same vicinity to meet at a place and play together. It is not so much of sharing per se, but to bring people who share a common interest together. I guess that's sharing." (R4, innovator, NRG initiative)

"We wanted to build a collective as we were pushing an agenda of waste management. You need to have a critical mass.... We were surprised to see people of all ages join, the youngest was 12. They bring their children along. And our oldest was — they didn't want to tell us their age. So we had this spectrum of people who have — you know they would share skills. The culture developed over the years." (R9, innovator, NRG initiative)

Similar to the innovators of RG initiatives, innovators of NRG initiatives said the extent to which an initiative built relationships depended on the nature of the activity. In other words, sharing did not necessarily lead to interaction. One example is umbrella sharing, where users did not have the chance to meet or interact with one another. However, others felt that some initiatives, such as those that promoted a specific kind of experience and interaction, had the potential to cultivate pro-social behaviours in the long run.



"Our primary thing [emphasis] is always the people and the idea of the commons. Whatever that's given or taken during the event are beside the point. The interpersonal relationships are more important, for people to meet, for people to see other people doing good — that's very important for us. And for people to go away with a positive experience, that's important as well. Yeah but having said that, I think a lot of people who come cannot see beyond the goods. So a lot of people come and they just pick what they want and then they leave. And that to me is not that bad, because at least we reduce, reuse and recycle stuff. That's good for the environment but actually that's not the primary thing that we're interested in." (R10, innovator, NRG initiative)

#### IMPACT ON USERS

The FGD participants were asked how sharing initiatives impacted them and the society, and if they thought that sharing initiatives would have any impact on the community. The main findings that emerged from the FGDs are that sharing initiatives fulfilled their personal needs (specifically in terms of reducing costs and bringing greater convenience), and contributed to their emotional wellbeing (especially for NRG initiatives). Relationship building, if it happens, was a by-product.

## **EXTRINSIC BENEFITS OF SHARING INITIATIVES**

Most of the users of RG initiatives felt that the primary benefit they reaped from participating in sharing initiatives was saving money. Their motivations and reasons for participation (see section on "Motivations and Barriers to Participation") were met by RG initiatives. Ride sharing, bike sharing, Airbnb, Lendor,<sup>384</sup> and Airfrov enabled users to meet their needs (e.g., in transportation, food delivery, travel) while helping them to cut costs. They also reduced the hassle experienced by users in their daily lives. The time users saved provided them with more time to deal with other matters, thus leading to greater efficiency in the tasks they had to perform. Participating in scooter-sharing and bike-sharing schemes also freed up storage space at home. In some cases, especially among older users, using RG initiatives such as ride sharing also enabled them to be more independent.

<sup>384</sup> Lendor is a platform where users can rent or lend anything they need for short-term usage.



"When I visited my children in the past, they used to drive me back all the way from Tanah Merah to Jurong because they're concerned about me taking a cab. I don't want to be dependent on them. That's why I prefer Grab. I just screenshot the driver's name etc." (R8, user, RG initiatives)

Similarly, users of NRG initiatives such as SRRFM and umbrella sharing also mentioned the benefit of cost savings. However, unlike users of RG initiatives, the cost savings dimension was less important to them. This is because users of NRG initiatives saved money when they were able to get things that they may not necessarily need, without having to pay for them. On the other hand, users of RG initiatives saved money when they paid a fee lower than what they would have to pay for, for an item or service that they need.

The benefits of low or no cost and convenience were also cited by users of community-based initiatives. For instance, a user who participated in an initiative organised by the Residential Committee in Punggol spoke about how borrowing an electric drill did not only bring him convenience, but also saved him money as he did not need to purchase one.

"I happened to be downstairs [at the HDB block]. When you need to do some handyman work, you don't have to buy a drill etc. Just go down, loan, use it for one minute and return. That's all, very convenient." (R7, user, NRG initiatives)

One of the reasons why many initiatives, even for the NRG ones, did not create further impact beyond reducing costs for users was the nature of the initiative or the experience it created. This echoes what the innovators had mentioned earlier. For instance, users spoke about how the sharing of umbrellas and recycling bags did not involve interaction with others as they worked primarily on a pick-up and drop-off basis. The same applied for RG initiatives such as Lendor, ride sharing and bike sharing, where interaction among users was minimal or non-existent.



"[Sharella] is convenient when it rains, but it may not lead to an interaction. You can just leave your umbrella there, you go off and someone who needs it takes it. It's a form of sharing but there's no need to interact." (R2, user, NRG initiatives)

"I think it really depends on the platform. For some, you don't have a chance to interact with the person. For others like GrabHitch or Singapore Home Cooks, it's about information — recipe sharing. You'll be surprised. There are so many of them who become friends and form communities and all that. So, it really depends on the platform." (R9, user, NRG initiatives)

That said, the FGDs shed light on how personality plays a role in influencing whether or not one interacted with others. Some people were by nature, more extroverted and were more comfortable striking up conversations with others whom they met for the first time. The following illustrate the different experiences of two GrabHitch users.

"You get to meet many people who have very interesting topics to share. Seventy per cent of the time, you'll be surprised when you talk to the person. There's a lot of interaction. Of course, there are people who don't talk. But majority of people would just talk and talk. It's very interesting." (R9, user, NRG initiatives)

"I don't mind sharing my ride with other customers. If I'm too particular with sharing with anyone, then I will choose JustGrab or individual rides. Sharing applies for GrabHitch and GrabShare. You will meet different people, and you are just sharing the same vehicle to go to your destination." (R6, user, RG initiatives)



#### INTRINSIC BENEFITS OF SHARING INITIATIVES

A difference between the users of NRG initiatives and users of RG initiatives was that the former enjoyed intrinsic benefits in addition to extrinsic ones. Earlier, users mentioned information as a type of resource to be shared. In addition to gaining new knowledge and information, participation in sharing initiatives also led to the acquisition of new skills. This was especially so for initiatives that required people to perform a service for others. One example is Repair Kopitiam, which helped people acquire new skills. A participant spoke about how initiatives such as community gardens and Repair Kopitiam may help to rejuvenate the "Do-It-Yourself" culture.

"Nowadays people wouldn't want to dirty their hands gardening, on the soil and under the sun. Gardening is a dying trade. So this initiative [community garden] promotes awareness and help people understand gardening is actually very fun. The same goes for the repair one [Repair Kopitiam] as well. You don't see many cobblers nowadays... So, dying trades may pick up with these initiatives as well." (R6, user, RG initiatives)

**"People come fo**r various reasons. Some of them come to solve problems — I mean they want to keep something old and nostalgic, they want to learn a new skill and they want to serve the community better. Many of the volunteers are male and at the retiree or semiretirement age. Sunday is their 'grow time', when they learn how to **repair stuff."** (R9, innovator, NRG initiative)

Those who had participated in NRG initiatives said they "felt good" when they participated in events that enabled them to help people in need. A commonly cited example was community fridges.



"It's being part of the community. Like what she [another FGD participant] mention, it has an emotional benefit." (R9, user, community-based initiatives)

"I think non-revenue-generating initiatives might make people considerate. When you share with people, naturally you sort of become nicer. You feel more considerate. I think that's how it works." (R7, user, RG initiatives)

A good number of FGD participants who had participated in NRG or community-based initiatives expressed the belief that what they gave away or shared went some way towards helping other people. They described how positive they felt about being able to play a part, albeit in a small way, to improve the conditions of others. Some said that participating in sharing initiatives made them be more empathetic as they became more aware of the plight of those who may be in less fortunate circumstances than themselves.

"It helps you build empathy. Sharing what you don't need temporarily so that others can use it... it's being not selfish and keeping all the stuff to yourself, even when you don't need them." (R8, user, NRG initiatives)

"I think it cultivates a person's character and personality — not to be self-centred... I think it's very important to have a magnanimous society and we give back as part of our social responsibility." (R8, user, community-based initiatives)

"I've heard of community fridges and some pre-schoolers go to a community fridge to donate food. It teaches them how to be generous, and how to take care of others." (R7, lapsed/non-user)



Some FGD participants also alluded to personal development and karma. They thought that by showing care for someone and extending help ("sharing is caring"), they may one day get help when they need it.

"People you gift benefit and in turn, you too. You grow as a person because you are more mindful of your environment and the people around you." (R10, lapsed/non-user)

"It is like paying it forward. You may receive something good and gain something. You want to pay it forward the next time, so there is a ripple effect." (R4, lapsed/non-user)

#### BENEFITS TO SOCIETY

The FGD participants were also asked for their opinions regarding the benefits of the sharing initiatives they had participated in (or had heard of) to the community and society. It was apparent from the discussions that the concept of community took on different meanings and associations for different people. Some initiatives which FGD participants associated with community building included community fridges, community gardens, GrabHitch and Repair Kopitiam.

"Community" existed on three levels for the participants. While some FGD participants associated community with a group of people who lived within the same locality, others thought of groups of people who shared similar interests (e.g., reading books). Some felt that community could be extended to the environment as well.



"It refers to a certain group of people living in the same place — a defined area or it can be even the whole of Singapore." (R2, user, community-based initiatives)

"It's geographical too, like I stay in Hougang... so community is the people around." (R5, user, community-based initiatives)

"I go to [Books and Beer] because I like to read novels. Every time I go there, I see people with books and we talk about them." (R1, user, community-based initiatives)

**"Community** is about people, but community could also mean the **environment as well."** (R3, user, NRG initiatives)

What came through in the FGDs was the nostalgia among participants for the "kampung spirit", and the reminiscence of a way of living where there was more interaction, mutual help and trust among people. A few participants also alluded to the potential of sharing initiatives in restoring trust among people.

"Last time in Singapore we had a kampung style [of living]. Everybody would talk, and if you needed a ladder, it was 'I have one, I'll lend you'. Now I have to put up a note to say I have a ladder and ask if people want to borrow. Nowadays, Singapore households like to close their doors, and no one knows who is inside. So, we don't know what they have and what they can share." (R5, user, NRG initiatives)



There were some observable differences in FGD participants' attitudes and beliefs on whether or not NRG and RG initiatives had an impact on community. Generally, FGD participants felt that NRG initiatives, besides increasing efficiency in the use of resources (e.g., space and time), also created opportunities for the forging of new connections and relationships. In addition, NRG initiatives had the potential to improve the quality of society and culture by strengthening relationships through increasing frequency in interactions among people.

"When neighbours know each other better, we can promote a more harmonious society...instead of calling 999 because the laundry is dripping from eighth floor to seventh floor, or calling the HDB or Town Council to complain. So it's really to have neighbours know each other better through play or through food, in this sense. So that people can be more tolerant. And a gracious society." (R4, innovator, NRG initiative)

Interactions could take place over information sharing, participation in activities held in shared spaces, or as an extension of help to people.

"It's the spirit of the neighbourliness, because they come together and know each other better in the estate. Like the Repair Kopitiam, I see the people grouping around, learning, and at the same time sharing." (R6, lapsed/non-user)

"Nowadays for BTO blocks, you can't have a garden in front of your house [flat]. So, when we find a suitable place, all the neighbours try to garden together. It's also building a bond." (R9, lapsed/non-user)

"At my block, we live like we are in a kampung like that. We bring our food downstairs to eat and share with everyone... in the end, the whole floor everyone knew each other." (R1, user, community-based initiatives)

As mentioned earlier, some FGD participants felt that sharing initiatives, particularly the NRG ones, increased their awareness of the plight of others. Others felt that in the long run, the society would be made up of more considerate people who are mindful of others' needs. There was a potential for sharing initiatives to build a culture of paying it forward.



**"S**haring initiatives encourage you to share with other people. You become more mindful of your environment and people around you. And when you pass it on to someone else, they also pick up these habits. I think it helps the society." (R10, lapsed/non-user)

The users of RG initiatives also felt that sharing initiatives contributed to the society as well, but in a different way. The positive outcome they envisioned took on a more tangible form — reducing waste and saving the environment. They also felt that sharing initiatives encouraged more efficient use of resources, which in turn, generated positive and unintended externalities. For instance, the use of delivery services not only saved time, but also reduced traffic congestion and environmental pollution.

**"When you buy food, people will go to certain areas to buy** food. But Food Panda or Deliveroo allow you to stay in the office or house. So **human traffic may be lesser."** (R5, user, RG initiatives)

A small number of participants mentioned that RG initiatives might also promote social interaction, for instance, in the context of ride sharing. A Grab user spoke about her conversations with fellow passengers and how it had observable effects on her habits and experiences.

"There was an older Chinese person who told me that there is a Chinese temple in Jurong West and it is very good, must go. The conversation started with the topic of temples. And we start to talk and talk. In the end, I went to the temple. (Laughter) Yeah, this is real sharing you know." (R8, user, RG initiatives)

In some instances, RG initiatives also widened people's social circles as they enabled users to meet people from different walks of life. However, the FGDs suggest that such occurrences were not common.



"I enjoy meeting new people, it's in my character [I was a headhunter]. You really get to meet all sorts of people. There are pros and cons, you encounter bad ones and those who are extremely very nice... the passengers flood my WhatsApp groups most of the time... passengers will ask 'Are you free this Sunday?' They want to you know if you are free this Sunday and coordinate pick up location and time." (R1, user, RG initiatives)

"[Our initiative] allows travellers to help people buy things, **let's** say Starbucks collection. They would meet like-minded people, people who are also Starbucks collectors and start sharing photos online. So there is a sense of belonging in the sense that they are part of a group. I suppose it's the same for Grab drivers and all the other suppliers, they'll have WhatsApp group. You share your pain and joy. So that's the emotional part of sharing. It makes you feel like you belong in a community, in a sense." (R5, innovator, RG initiative)

"I think we have things like driver communities. Within the driver community, there are already different groups, on Facebook, Hardwarezone, and WhatsApp. They share, talk good about our initiative, talk bad about our initiative." (R6, innovator, RG initiative)

Based on the FGDs, the sharing initiatives that facilitated relationship building had this characteristic — the user's experience typically took place over a longer duration, which allowed for meaningful interaction to occur. The recurrence of interaction provided the opportunity and time needed for people, especially those who were more introverted, to know one another better. Among the initiatives discussed, Books and Beer, community gardens and Repair Kopitiam seemed to have the natural environment for cultivating relationships among users.



## CHAPTER 11: INNOVATORS' CHALLENGES

The sections on "Motivations and Barriers to Participation" and "Awareness of Sharing Initiatives" presented the barriers that inhibited people from participating in sharing initiatives. They include a lack of awareness (especially for NRG initiatives which did not leverage advertising and promotion, and where out of sight meant out of mind), lack of time and the inconvenience posed to users. In addition, personal observations of inconsiderate behaviour and people's misuse put some off from participating in sharing initiatives.

Before presenting the findings on what users and innovators of sharing initiatives thought need to be done to grow the sector, we identify the challenges faced by innovators of NRG and RG initiatives in this section.

When developing NRG initiatives, innovators were motivated by the purpose to facilitate interaction and build relationships among users, provide solutions to people's needs, champion the idea of sustainability and provide a sense of fulfilment to users (see section on "Goals and Objectives for Sharing Initiatives"). On the other hand, the innovators of RG initiatives had wanted to develop innovative solutions to meet the needs of the public, match supply and demand more efficiently, and provide convenience and accessibility to users. The needs of a community ran a wide gamut, ranging from gaining access to items that were infrequently used, transportation needs, to medical ones.

It is interesting to note that the attitudes and approaches among RG innovators were business-oriented. Words such as "customers", "consumers", "costs", "business" and "start-up" were used throughout the FGD to describe their initiatives, target segments and concerns. In addition, this group spoke about growth (of the initiative) and how to solve market gaps with strategies that could also yield positive social impact. And as mentioned in the earlier section, while they saw the potential of their initiatives in meeting people's social and emotional needs, most of the RG innovators said that was not the primary reason for why they started the initiatives.

Despite the different goals that motivated the work that they do, the innovators of both NRG and RG initiatives faced challenges. Some challenges were unique to each group of innovators, such as the need for volunteers to sustain NRG initiatives and how to overcome the small sharing landscape in Singapore for RG initiatives, while the cultural challenge was common to both groups.



#### CHALLENGES FOR NRG INITIATIVES

The lack of sufficient operating funds posed a challenge to the longevity of an initiative. Funding considerations also came into play when innovators wanted to scale up their initiatives so that they could cater to more users. For instance, in the case of the initiative that brought together people who provided repair services and those who needed them, funds were needed to develop a system that collected users' data. The sustainability of the initiatives was also contingent on the innovators' ability to recruit sufficient volunteers to help organise and lead the initiatives. As these initiatives did not generate revenue, the people who were organising the initiatives did so on a voluntary basis. In addition, innovators oftentimes had to rely on the goodwill and support of partners such as venue sponsors.

"We came to a point where we told our volunteers — look, I appreciate your presence and your commitment all this while. But we need people to step up. Because if we do want to move forward and scale this initiative up, we need you to see this as something that is not just a Sunday hang out thing, but more than that. I know you feel touched when you do this, but in order for us to scale up, you really got to step up also." (R9, innovator, NRG initiative)

There was also an inherent dilemma and contradiction posed by the innovators' mission and philosophy. They knew that their initiatives suffered from low public awareness, which had implications on their ability to expand, acquire a critical mass and gain sufficient visibility to attract volunteers to help run the initiative. A common challenge faced by innovators of NRG initiatives was the issue of sustainability, mainly due to the lack of funds because of the no or low-cost nature of the initiatives. However, this did not dampen their spirits as they felt that it was more important to stay true to their vision (be it helping those in need or cultivating a sharing culture), than going big.

**"Even if we had to do it small and slowly,** it is fine. It is more important to do it right." (R1, innovator, NRG initiative)



Almost all of the NRG initiatives fronted by the FGD participants offered free participation to users. In most cases, the initiatives were launched and sustained by the innovators' own funds. In some cases, the innovators were supported financially by their friends, family and sponsors. Funds were required for the maintenance of items. For example, an FGD participant who created a platform where users could borrow common everyday items such as drills said:

**"For example, if** I buy a cheap drill and somebody uses it twice and it breaks down, it doesn't fit the purpose. That's why we spent quite a sum of money to buy very good drills. So that at least they can last for years." (R7, innovator, NRG initiative)

The innovators of NRG initiatives also encountered challenges in getting enough funds when they wanted to scale up their initiatives in order to cater to more users. An innovator of a book swapping initiative that had existed for eight years said that what she needed was funding that did not come with strings attached. She said that when she applied for funds to grow her initiative (e.g., to rent bigger venues for larger book sharing sessions and to organise more sessions), she was asked to change some aspects of her initiative. If she had done so, her initiative would no longer be what it was set out to be. She eventually did not proceed with the application (see section on "Funding Support with No Strings Attached").

Innovators of NRG initiatives also felt they needed to prevent what they perceived to be misappropriation. For example, the same innovator of the book swapping initiative said that an organisation appropriated her initiative after rejecting her request for funding. Another innovator of an NRG initiative who had partnered a statutory board said that the agency tried to take ownership of the initiative and wanted to "go so crazy with everything". Innovators, however, were not against people who were inspired by their initiatives. In fact, they would feel honoured if their initiatives sparked similar ones, but the key was not to "copy and paste".

In addition, innovators often had to rely on the goodwill and support of partners, even if it meant having to deal with different expectations. Some of these differences cropped up during conceptualisation, for instance whether the initiative should be "zero technology" or otherwise, while others cropped up during event management. For instance, the innovator of an initiative that brought together people who have things to give away for free and those who wanted them, spoke about the different expectations and requirements between her and her partners (e.g., non-governmental organisations and community centres who were venue sponsors) in terms



of how events should be run. The difference in expectations made her wary of future collaborations with other partners

"Different partners have their own KPIs. [To us,] 'Free' is not just no cost but also the freedom to do things. We want people to negotiate among themselves and manage their own relationships, which is a different approach from venue hosts who have a top-down approach [in managing interactions]." (R10, innovator, NRG initiative)

Echoing what some users said about users misusing the initiatives, some innovators of NRG initiatives also identified dealing with errant users as one of their challenges. When errant and inconsiderate users did not return the items or did not return them in a good condition, it compounded the difficulties that they faced, such as small budgets and manpower shortage. To minimise misuse, some innovators implemented certain measures to ensure responsible sharing. In the case of an initiative that provided residents with a range of goods to share, residents had to fill in a sign-out sheet.

#### **CHALLENGES FOR RG INITIATIVES**

The same challenge with funding was faced by some innovators of RG initiatives. A difference was that costs posed a higher barrier at the onset for RG initiatives, compared to NRG initiatives. An issue that was discussed at length during the FGD was licensing costs. An innovator of a bike-sharing initiative brought up the hefty licensing fee that was imposed by the Land Transport Authority. High costs were cited as a reason for why bicycle-sharing platforms such as Mobike shut down.



According to the innovators, the high costs to entry, coupled with the "small market" in the local context, made it difficult for innovators to earn sufficient profits in order to sustain and expand their initiatives. An FGD participant gave the example of Grab and Uber, where Uber exited the market due to its inability to sustain costs.

The possible solutions voiced by two of the FGD participants included the 20–20–20 rule for marketplaces<sup>385</sup> and adopting the circular economy model.<sup>386</sup>

"Sometimes the idea or the service is too early to start in a country. Something that works in the US may not work here. When you're in a crowded space, it's all about the money, like David versus Goliath. In the biggest space like ride sharing, there's only room for one, right? Uber or Grab fight each other out, and all that needs money. Are we getting the drivers to pick up the passengers? You throw incentives. Are we getting the consumers to ride? You give promo codes." (R6, innovator, RG initiative)

The innovators of RG initiatives also felt hindered by a sharing economy that was at its infancy stage, and they acknowledged that what worked in another country may not work in Singapore. They said that the fact that the sharing landscape in Singapore was young also meant that there was little clarity when it came to regulation. Some innovators also said that the authorities themselves were grappling with the developing sharing landscape. For instance, two participants who were innovators of different applications that brought together people who required medical care and healthcare providers, said, "the government does not know how to regulate." Innovators of RG initiatives also faced difficulties as new players operating in established industries with established sets of rules, such as those concerning the advertising of medical services in the medical sector (see also section on "Consultation and Light-Touch Approach").

<sup>&</sup>lt;sup>385</sup> It is the idea that a successful marketplace business model will cut costs for its users by 20 per cent, help service providers earn 20 per cent more revenue, and have a 20 per cent profit margin. Tianziang Zhuo, "The 20/20/20 rule for marketplaces," September 3, 2015, https://medium.com/@TXZhuo/the-20-20-rule-formarketplaces-6cbc4defad84.

<sup>&</sup>lt;sup>386</sup> The circular economy is one where resources are used for as long as possible, their maximum value extracted while in use, and the products and materials recovered and regenerated at the end of each service life. "Wrap and the circular economy," Wrap, accessed 25 July 2019, http://www.wrap.org.uk/about-us/about/wrap-and-circular-economy.



"They're afraid we induce demand. So how do we advertise without inducing demand?" (R7, innovator, RG initiative)

In addition, given the nascent stage of development of the sharing landscape in Singapore, some innovators of RG initiatives felt that there was little unity among innovators. They felt that a collective body was required in order to have better bargaining power with the government and the industry. An FGD participant said that there was such a collective in Singapore — the Sharing Economy Association of Singapore. However, awareness about the association among innovators was low; some FGD participants have heard of it while others have not.

## COMMON CHALLENGES — CULTURE AND MINDSET

Innovators from both groups felt that there was much potential for the sharing landscape to grow in Singapore. Innovators of RG initiatives cited the growing adoption of initiatives such as ride- and bike-sharing platforms as a positive sign. One of the reasons for the growth, as suggested by the FGD participants, relates to the intrinsic qualities of the Singapore environment. As a country that is known to be safe and where public security is high, Singapore complements innovators' efforts by offering users a positive environment, which allays concerns relating to interacting with strangers or unfamiliar others.

"Couchsurfing, if you're going to stay in someone's place in Singapore, because it's a safe country, you'll be more like 'oh, any place will do'. But if it's a developing country or somewhere less safe, you wouldn't want to do Couchsurfing. You want to be safe and book a hotel room. Even with ride sharing as well, if I'm in a bigger country with safety issues, I don't want to just hop into a car with another person." (R10, lapsed/non-user)

The responses from the FGDs with users and lapsed/non-users supported the innovators' belief in the strong potential for the sharing landscape to grow, even for the NRG sector. For instance, users of RG initiatives and lapsed/non-users expressed interest in NRG initiatives after they heard of them (for the first time during the FGDs). This points to awareness as a barrier that needs to be overcome.



However, both groups of innovators identified people's mindset towards sharing as a key barrier: there was a strong ownership culture in Singapore, and people were not used to the idea of sharing and the appropriate behaviours that accompanied sharing. Innovators spoke about misuse, which came in different forms for different initiatives, and the need for people to learn "how to share". An innovator also attributed people's self-centred disposition to the culture where people did things only if they stood to gain something from them.

"I think for the sharing economy in general, there will always be the element of moral hazard. There will always be bad actors on the ground level, in terms of those who are using it. One good example will be bike sharing. There will always be people who abuse it. So I think it manifests itself in different forms for different sharing initiatives. For Lendor and Sharent, it could be people not taking care of stuff because it's not theirs. That's why education comes in, it's important. Because I understand the bigger value of what's this entire thing. And then I'll just use it and that's it. I wouldn't abuse it — it's not mine anyway, so you know." (R4, innovator, RG initiative)

"The European region is very into the sharing economy, the Europeans are very cultured in a way that they know how to take care of the things, they know that it's another person's thing. Everybody shares. So the culture itself play a very big role in the challenges we face in Singapore." (R8, innovator, RG initiative)

"I think maybe one of the things about Singapore is the natural mindset that you're only going to do something if you get something out of it. So that's why you see in terms of like the culture, you will say that they're still trying to get people to return their trays... I'm from Australia. And in Australia everyone puts their own stuff away. There's no one at McDonald's to clear up because everyone clears up their own stuff. Here it is 'I have to give the grandmother something to do', so I just leave all the rubbish here. Yeah I think it's the mentality of the culture. But you won't see this kind of attitude in Japan." (R3, innovator, RG initiative)



One participant said that Singaporeans were too *paiseh* (i.e., embarrassed) to take part in a sharing initiative. This could be attributed to the transactional culture in the local context, where the concept of using something that belonged or used to belong to someone else at no cost was an alien one. A participant gave the example of community fridges:

**"So I think maybe they feel paiseh to** take the free things. They rather **leave it there and then don't take it and let the food rot."** (R5, user, NRG initiatives)

Many Singaporeans also did not understand the concept of sharing. One innovator of an NRG initiative that organised book swaps said Singaporeans would ask her "very strange questions". She elaborated:

"Singaporeans sometimes ask me very strange questions. Like 'what's in it for you? You know, like why? Got make money or not? You get free beer? Why not you ask the host to sponsor you for something?" Then like, no what. I'm just really doing this for fun, you know. And I don't want to be bogged down by all that kind of thinking." (R5, innovator, NRG initiative)

Another innovator had the same sentiment. She explained that when her team was promoting their umbrella-sharing initiative in a public space outside an MRT station, they were approached by people who asked if the shared item that they were promoting was free for them to take home. When she said no, "their faces turned black."

"But then you get people coming to you asking 'Is it free? Are you running a programme? Can I take it home?', that kind of thing. At that point of time all I could say is 'oh no, this is for sharing'. And guess what? The moment you say it's not free, it's for sharing, their faces turned black. That's one thing I notice. And they would walk away. And guess what? The same aunty, after we left the place, went back to the same spot and took the umbrella home." (R8, innovator, NRG initiative)

Table 14 summarises the challenges faced by innovators of both NRG and RG initiatives.



# Table 14: Challenges faced by innovators of NRG and RG initiatives

Initiative	Area	Type of Challenges
NRG	Funding	<ul> <li>Lack of public grants</li> <li>Lack of funding with no strings attached</li> </ul>
	Longevity and sustainability	<ul> <li>Protecting the initiative from misappropriation</li> <li>Finding volunteers who can step up and take leadership roles in the initiative</li> </ul>
	Partnerships	Differences in expectations between partners
	Responsible sharing	Irresponsible sharing among users
	Lack of awareness	Dilemma between increasing awareness and staying true to their vision
RG	Funding	High start-up costs
	Market at nascent stage	<ul> <li>Lack of clarity on regulation</li> <li>Little unity among creators</li> </ul>
Common to both	Culture and mindset	<ul> <li>Prevalence of culture of ownership</li> <li>People are too paiseh to participate in sharing initiatives</li> <li>Lack of understanding on the concept of sharing</li> </ul>



## **CHAPTER 12: RECOMMENDATIONS**

The discussions with users and lapsed/non-users of sharing initiatives, and with innovators of both NRG and RG initiatives shed light on what could be done to grow the sharing landscape in Singapore. The previous sections ("Motivations and Barriers to Participation" and "Innovators' Challenges") presented findings on the barriers that inhibited people's participation and the challenges faced by innovators. This section presents what FGD participants thought could be done to increase participation among the public and the sustainability of sharing initiatives. The proposed measures are categorised into: (i) addressing needs and building awareness, (ii) building a culture of sharing, (iii) support from government, and (iv) collaboration among innovators.

#### ADDRESSING NEEDS AND BUILDING AWARENESS

A common theme that emerged from the FGDs is that sharing initiatives, whether or not they generated revenue for innovators and users, should serve a purpose and fulfil the needs of potential users. In order for users to share their participation with others in their social networks, besides having a positive experience, they need to feel that the sharing initiatives they take part in fill a gap in their daily lives. If their needs were met, the likelihood of their repeated usage would increase. This would also generate more publicity through word-of-mouth when users share their experiences and the difference sharing makes to their lives with their friends and family members.

"If it's something that people need, then they will keep using and it will be easier to spread the word... If you keep using it, you won't really forget it, and you will tell more people." (R2, lapsed/non-user)

The FGD participants felt that building awareness was especially critical for NRG initiatives that tended to operate on a small scale and lack funds for publicity. Earlier, we had presented the factors that encouraged and inhibited people's participation in sharing initiatives. The FGDs point to the presence of a growth potential for NRG initiatives. When told of specific NRG sharing initiatives (e.g., SRRFM, community gardens and Repair Kopitiam) during FGDs, users of RG initiatives and lapsed/non-users expressed interest in learning more about, as well as participating in the initiatives.



Hence there was a need to cultivate greater awareness for the initiatives — more effort had to be put into spreading the word for such initiatives. A participant referred to marketing concepts such as "unique selling point" to convey the importance for an initiative to resonate with people, even for NRG initiatives that were not oriented towards making profits.

"I think the revenue-generating ones need less help — people who need them will go for them. But the non-revenue-generating ones require a bit more help to get people to use it." (R1, lapsed/non-user)

"I think they need to market their 'unique selling point'. For example, is the umbrella sharing initiative about helping people get somewhere when it's raining? Is the repair workshop programme about learning new skills? I think they need to market it correctly so that people will feel enticed to join them. I may not be interested to learn how to repair something but I may be interested to pick up a 'life skill'." (R3, user, RG initiatives)

The above sentiments were echoed by innovators. For instance, an innovator of a platform that facilitated the delivery of goods spoke about the need for innovators to understand demand and supply conditions. Another spoke about the importance in understanding the "consumer" and meeting genuine needs (as opposed to creating needs) so that an initiative would not be a mere fad. The innovators behind the initiative that matched people who needed medical help with healthcare providers spoke about how their initiative sought to plug the gap by helping people get prompt medical attention without having to wait for long periods of time at hospitals and clinics.

"So I mean you need to identify what is the main value that you can add to the customer first, right. So yeah, you need to understand. For us, it's an underserved market. We need to understand what their main need is — so for us [our initiative] it's time sensitivity. They go to the A&E and they are expected to wait for five hours. [If] they use our service, they [will] wait for maybe less than an hour." (R7, innovator, RG initiative)



Some of the suggestions made by the FGD participants included using social media (e.g., starting a Facebook page, buying Facebook advertisements and posting on Instagram), launching an application for the initiative, and publicising their initiatives on national newspapers and onsite such as through posters posted at the lift lobbies of HDB flats.

"Many people spend a lot of time waiting for the lift at the lift lobby. Although most of the posters that we see don't look very nice, they still catch our attention." (R3, lapsed/non-user)

"Now everything is done through the QR code. You can even use QR code to download the app. Use QR code, ask people to scan and then they will try the app." (R4, lapsed/non-user)

However, it should be noted that not all innovators, particularly those of NRG initiatives, wanted their initiatives to scale up. Some of them were ambivalent about doing so, while others preferred to stay small, as long as they meet the needs of some people. They acknowledged that there was no urgency for them to "go big", unlike RG initiatives which involved higher operational costs and needed to break even and to expand. To them, "small is fine", as they were motivated by different priorities and goals.

"We wanted to start [the umbrella sharing initiative] outside our school. We didn't want to do it all over Singapore so quickly because we felt that it [the initiative] is not very well developed yet. In Woodlands, there are many junctions that are not sheltered. Students face problems crossing the road on rainy days. That's how we got our idea and where we wanted to focus on. But you know, they [our partner] think that our idea is good enough so they went 'wild'." (R8, innovator, NRG initiative)

"We don't want to go big, not on the national level. It is also not necessary for our platform to be known as a stand-alone programme; it can be tied back to Singapore Kindness Movement. The common misconception is that we're government-linked but we're not. We're an NGO and we have IPC status. We do receive funds from MCCY, and that's because it [being considerate and helping one another] is a national movement. We hope there will be better neighbourliness and a more harmonious society." (R4, innovator, NRG initiative)



#### BUILDING A CULTURE OF SHARING

## Change mindsets and re-learn sharing

Building awareness for sharing initiatives would lead to greater participation only if people were predisposed or were open to the idea of sharing. One of the barriers to overcome was people's mindset in a consumerist culture. Both users and innovators highlighted Singaporeans' preference to own things, instead of sharing them. Innovators of RG initiatives observed that people had a preference to possess items even if they used them infrequently.

"I believe that some people in my parents' generation are quite receptive. They will be like 'yeah, why not [share]?' It's a good thing to share. But there's always that part of people where you know, they feel 'It's my own thing, why do I need to share? You can buy it yourself'." (R8, innovator, NRG initiative)

"People don't see the direct benefit yet. They feel — if you want something, you just buy, it is very convenient. Why do you want to share resources? Consumers are not here to save the world and all this. So there are other intangible benefits other than money, you know, that benefit them, beyond the money aspect." (R1, innovator, RG initiative)

The entrenched culture of consumerism has led to unfamiliarity with sharing, especially when it came to sharing one's possessions with strangers. In addition, the lack of understanding generated confusion and suspicion among members of the public about what sharing initiatives entailed and what the innovators' intentions were. Some of the FGD participants, particularly the innovators of NRG initiatives, spoke about scepticism among people who wondered if there was "a catch" behind a seemingly altruistic activity.

"It is hard for people to understand how it's like to share something. People always come [to our initiative] and they say, 'Hey it's free, what's in it for you?'" (R9, innovator, NRG initiative)



As mentioned in the section on "Common Challenge — Culture and Mindset", an innovator observed that unlike Singaporeans, Europeans seem to be more accustomed to the idea and practice of sharing. She said that locals were more doubtful and sceptical about her reasons for starting the initiative.

And even when people were told that "free" meant free (i.e., they will not be charged for the use of an item or service) and that there were no strings attached, they still felt embarrassed about receiving something for free and not having to give anything in return.

A common recommendation that was raised in several FGDs was the role of education. Participants said there was a need to educate people on the value of sharing from a young age. They emphasised that education should be done through action, and not teaching from books (in other words, practice and not theory). For instance, activities could be organised to promote sharing in schools and even in pre-schools. That said, an FGD participant pointed out that it might still be difficult to get people to break away from their instinct to share only with those in their social networks.

"I think that is a basic part of any sort of education. That [sharing] should be what you learn as a basic human. But I think that part is quite difficult. Because there's also the idea of sharing with your ingroup, versus sharing with an out-group. It is natural that you share more with your family and your loved ones. But when the person is someone you don't know, there is the question of 'why should I actually share with you?' So it's the idea of seeing the community as an extension of your family. That is difficult I think, to teach." (R10, innovator, NRG initiative)

A number of FGD participants recommended promoting volunteerism, which, as reported earlier, was associated with sharing. One of them provided the example of children from pre-schools visiting seniors at old folks' homes.

Interestingly, a few innovators of RG initiatives advocated a more pragmatic approach. They viewed users as "consumers" and recommended that efforts should be put into making a behaviour "trendy", which would appeal to people's desire to stand out and look good.



"Consumers care about current trends in the market. For example, what kind of things make them fashionable. For instance, I can participate in certain things and make myself look good. The selfish consumer is interested in what makes them look good. Make it look trendy and people will do it." (R8, innovator, RG initiative)

## **Correct misconceptions**

For some users and innovators, sharing seemed to be a thing of the past, or something that only the older generations were more accustomed to. Singaporeans thus needed to re-learn sharing. The lack of understanding on what sharing entailed could have led to misuse in some instances. This posed a challenge to innovators when it came to sustaining the initiative, both in terms of their ability to continue supplying items to be shared and providing a positive experience for users. The innovators noted that some people had the attitude that if they can have something for free, it is for them to keep.

"I shifted from Serangoon to Woodlands. Serangoon is where my Dad's place is, our door is always wide open. But when I shifted to Woodlands, it's like an alien place to me. Everyone shuts their doors, you know. People aren't communicating much nowadays. Even maybe they're staying on same level, you smile at each other. But back in older estates all this, we greet, smile, all this." (R1, user, RG initiatives)

"Compared to the generations before, we're not as receptive to sharing. Deep down, many Singaporeans feel that they must own. You know they want to have this sense of ownership over their own things. And so, sharing is something that they need to re-learn... You have a generation in the past that used to share food, salt, kitchen toilet. And then we came to the stage of capitalism — you have people who want to own their own stuff. I want my own house, own car." (R9, innovator, NRG initiative)



In addition to building a better understanding of what sharing meant among the public, the FGD participants also spoke about the need to educate people about what each initiative was about, how it worked, and the costs involved<sup>387</sup> in running an initiative. They felt that this would help correct the various misconceptions that people may have about the initiatives, which in turn may have discouraged them from participating in sharing. The stereotypes associated with some initiatives (e.g., several FGD participants thought that community gardens are only for "old people" and "aunties") also discouraged participation. For instance, there were some myths surrounding the cleanliness and hygiene of shared items. Another example was time banking which was a relatively new and under-discussed concept in Singapore. Education is key to helping people understand what time banking means and entails.

"I think education is key as well. In our space, we have many vendors from different industries. It could be watch rental, pram rental, and we all face the same issues. We need to educate our customers. We need to tell them 'Hey, this pram that you're sharing is already disinfected'. We don't just deal with hygiene issues. Some people have the same problem. They clean their clothes very well, but the customer still has this taboo. In order for sharing to thrive, I think we need to collectively educate the consumers as well. There must be a level of understanding of this space and how it works. It is a bit lacking now, but I think we're maturing. People are more used to GrabShare or GrabHitch right now, so it helps. They're more familiar with Ofo bikes and all this. So I think it's slowly picking up." (R1, innovator, RG initiative)

"The consumer may think 'Hey, sure bo? Zhun bo? [sic] This one is for profit.' What they don't see is the cost involved — the costs incurred in disposing the item, maintaining the item, and storing the item. So we have to educate them on the costs involved and the benefits. Education is not only about promoting a brand, but also the regulations and the operations involved." (R8, innovator, RG initiative)

Table 15 summarises the misconceptions users have about sharing initiatives.

<sup>&</sup>lt;sup>387</sup> In the corresponding quote, a participant used the term *zhun bo*. This is Hokkien for "Is it accurate or not?"



Table 15: Misconception users have about sharing initiatives

Initiative	Stereotypes and Misconceptions	
NRG	Misconception: Sharing means "free"	
	"I think it's like, for umbrella sharing, to a lot of Singaporean, sharing means 'free'. The moment you say it's not free, it's for sharing, their face turned black."	
	Stereotype: Older generations are more accustomed to the concept of sharing	
	Participants think that community gardens are only for "old people" and "aunties".	
RG	Misconception: No need to pay for shared item	
	"The consumer may think 'Hey, sure bo? Zhun bo? [sic] This one is for profit.' What they don't see is the cost involved — the costs incurred in disposing the item, maintaining the item, and storing the item."	
	Stereotype: Shared items are not clean and not hygienic	
	"We need to educate our customers. We need to tell them 'Hey, this pram that you're sharing is already disinfected'. We don't just deal with hygiene issues. Some people have the same problem. They clean their clothes very well, but the customer still has this taboo."	



## Shape positive norms

In addition to addressing and correcting misconceptions, FGD participants also spoke about the need to cultivate positive norms for a sharing landscape. We had earlier presented findings pertaining to misuse by users of some sharing initiatives. Taking an item for one's use instead of keeping it in circulation, and not cleaning up after one uses the space were some examples provided by innovators and users. A participant who spoke about car sharing highlighted the absence of good habits such as topping up petrol before returning a shared car. Another highlighted the inconsiderate behaviours that are prevalent for bike sharing.

"I heard about it from my overseas friend. He said no one threw away bicycles overseas. When he came to Singapore, he sees pictures [of errant parking of bicycles] on social media and he said it is such a sorry situation." (R8, innovator, RG initiative)

A few FGD participants said that inconsiderate behaviour among users could be due to the established infrastructure and systems present in Singapore that met people's daily needs. The well-managed infrastructure and established municipal governance could have led to complacency and dependency on others (especially on the government) to solve their problems. People were also inconsiderate of the impact their actions had on others and the environment — as long as their needs were met, there was no reason for them to think of others. This translated to a lack of consideration and empathy for other people's needs and feelings. For instance, the innovator of a platform that facilitated the delivery of goods compared locals' waste disposal practices with those of the Taiwanese. The lack of consideration and care among the locals could be due to the fact that they were so used to having cleaners keeping the environment clean.



"When I went for my exchange in Taiwan during university, I saw that they [the Taiwanese], just like the Japanese, have to separate their waste according to different categories. If not, the rubbish bin truck won't collect their waste. So that becomes part of their life. When they hear the music from the rubbish truck music, they will go, 'Oh the rubbish truck is here, I have to secure my waste and pass it to them.' If not, the rubbish truck will not even help them dispose of it. Our government has done a good job in terms of building a good infrastructure. You can just throw the rubbish down the bin, for example. So there's no need for us to separate our waste. So, I would say that this mindset, culture, behaviour, are consequences of the infrastructure and benefits that are offered to us." (R5, innovator, RG initiative)

When people misused an initiative and behaved in an inconsiderate manner, the participation rate in an initiative may be affected. It may also put off potential innovators who had ideas for new initiatives. An innovator of a bike-sharing scheme said that he and his partner were shocked with how people disposed of the bikes as they had thought, "Singaporeans are very civilised." Another example that was raised in the FGDs was the case of community gardens. A few FGD participants shared their observations that some community gardens were "locked up", probably due to fears of theft or vandalism. The "gating" of what was meant to be a public garden may put people off the initiative and create misconceptions that the initiative is exclusive to a certain group. The use of CCTVs to monitor what went on in some gardens also contributed to people's unwillingness to participate.

"Maybe can try not locking up the place. Because I know that for community gardens, it's only available to the RC members and all that. If it is a real community garden, it should be free for all... if not, it gives people the feeling that it's owned by a certain group, and not the community." (R2, user, community-based initiatives)

"But those in the building one they have proper security, so they're not so afraid of — or people are afraid to go and pluck the fruits and stuff because they know that there's CCTV. Like Bishan Park, there's no CCTV around. So people just — that's why I think they fence it up." (R3, user, community-based initiatives)



There were also observations of "kiasu-ism" among users. These observations pointed to the need to promote awareness among people on what constituted responsible sharing behaviour.

"When I loan my friends' car for free, there's an implicit understanding of what you can or cannot do in my car. You can drive it around and usually in Singapore it's nice if you fill up the petrol when you return it. The thing about that is there are expectations and norms already built in the culture of normal things people share. But when you start new innovative sharing initiatives like umbrella sharing, the norms and expectations are not defined. Even if they're defined explicitly, they are not well-known. Therefore, people don't behave accordingly and that's where the problem emerges. But sharing means you have ownership. You have the umbrella, you own something, and you are ceding control to somebody else within certain constraints, regulations you choose to define. And when that's not clear, that's where the abuse steps in." (R1, innovator, NRG initiative)

Some users of NRG initiatives suggested laying down ground rules and explaining the rationale behind them might make the experience of sharing with others a more positive one.

"I think there can be a place whereby you lay down some ground rules. And maybe it's important to have the rationale of the ground rules. For example, for an initiative, the rationale may be the initiative is for needy people. Let's follow the ground rules so that the process will be smoother." (R2, user, community-based initiatives)

However, it should be noted that there was some disagreement among innovators of NRG initiatives — while some felt that there should be clear rules to guide behaviour, a minority felt that laying down ground rules would defeat the purpose and spirit of sharing. This was because users should have the freedom to negotiate the norms and behaviours they wanted for the community of users. They felt that it was more important to educate people on how to be responsible with the freedom they were given, and not educate people on how to share.



"One of the concerns that potential users may have is how can they trust another person [for time banking]. For example, maybe XX over here is very good in tennis and I want him to teach me tennis. But what **if he's** an awful **teacher? He comes late, he doesn't perform as** promised, etc. So we have a two-way feedback system whereby the giver and the receiver can give the feedback. This serves as a form of policing around. But I wonder is this truly sharing when you police **such a thing?"** (R3, innovator, RG initiative)

## Ways to set norms

Users, lapsed/non-users, and innovators of sharing initiatives agreed that cultivating norms for a sharing culture would take time. In the long run, in order for a sharing culture to thrive, people would have to extend their notion of family to the community. A few participants also spoke about how the different cultural practices of foreigners and immigrants might pose a challenge to building norms. In addition, volunteerism was brought up as a way to nurture habits of sharing one's time and skills, and to promote greater consideration for others when using shared resources.

Besides building awareness through education, outreach, and rule setting, some FGD participants suggested incorporating mechanisms such as charging a nominal fee (e.g., a deposit) and requiring people to produce personal identification to minimise misuse. For instance, users of NRG initiatives and lapsed/non-users highlighted the misuse of umbrellas in an umbrella sharing initiative. They provided some suggestions on how to discourage such behaviour — one FGD participant suggested requiring users to produce personal identification (e.g., one's EZ-link card), and another recommended installing a tracking system for shared items.

"I used [umbrella sharing] at Punggol before when I happened to be there. One day I saw many umbrellas, the next day there were no more umbrellas. Kena stolen already [sic]. There's no protection against the umbrella. At least if they have to scan their EZ-link card [before use], they will feel more scared." (R1, user, community-based initiatives)

"The first day I saw so many umbrellas, then a few days later they are all gone. I think the responsibility of the users is very important... Have an ID tag for each umbrella? You cannot bring it home." (R7, lapsed/non-user)



An innovator of an NRG initiative suggested establishing a Trustmark, and made a specific reference to the Trustmark in Japan. He felt that a Trustmark could alleviate people's suspicions and doubts about sharing initiatives, thereby encouraging participation. A Trustmark would also lend some assurance to the quality of items and the experience, as it requires innovators and users to uphold certain benchmarks and meet specific requirements.

An innovator of an RG initiative that delivered things to people mooted the idea of a transferable Trustmark. With such a Trustmark, the positive ratings earned by users of a particular initiative could be used by them to boost their credibility and reputation when they participated in another initiative. Participants made the distinction between a Trustmark that was based on peer review, and China's social credit system, which was top-down in its approach (i.e., the government rating individuals).

"The Sharing Economy Association is working with Enterprise SG (ESG), formerly SPRING, to be a global ISO standard for sharing economy. In Japan you have like a case mark, the Trustmark. If the doctors have a Trustmark, it says 'I'm a certified sharing economy doctor', for example. Or in the case of Lendor, it says the pram and clothes are okay because they went through a checking process. We're just starting on it, working with ESG on that. I think the original idea was if I have a certification to say I'm a good Airbnb host, I'm a 5-star host, my place is safe, and I'm certified, one day when I become a Grab driver, can I carry that certification with me?" (R6, innovator, RG initiative)

#### SUPPORT FROM GOVERNMENT

What emerged from the FGDs was that innovators needed support. Most of the innovators felt that running a sharing initiative was physically and emotionally draining, especially for those who had day jobs. Support for innovators came from various sources. One of the innovators of an NRG initiative spoke about how much the support from her family and friends meant to her.<sup>388</sup> Support took intangible (e.g., approval and validation from parents and friends) and tangible forms (e.g., provision of storage space).

<sup>&</sup>lt;sup>388</sup> In the next quote, a participant used the term "shu, shu, shu". "Shu" sounds like "lose" and "books" in Mandarin.



"It's challenging when you don't have support from people around you. That said, I think sometimes if it really comes from an altruistic place, then you would go ahead in any case. My mother hates my books. She says I bring a lot of 'shu shu shu', and she cannot win 4D. In the past eight years she has never attended my events. My dad comes to my events. I think support is very important. Without support of your immediate family and friends, it can be quite hard to sustain this sort of initiative. Particularly if it's on your own time. You know it's not your job. It can be very challenging, mentally and emotionally." (R5, innovator, NRG initiative)

However, much of the discussion on the type of support required by innovators is related to the government. As presented in the earlier section on "Innovators' Challenges", there was some disagreement among the innovators pertaining to the government's involvement in growing the sharing landscape. Much of the disagreement on whether or not the government should be involved at all existed among the innovators of NRG initiatives. Those who felt that the government should stay out of the sharing landscape said that sharing should come from the heart and be driven by the community, and not the authorities.

Generally, there was fear that when the government got involved, the initiative may be co-opted and centralised. However, others felt that the government could play a part, such as by providing space for sharing initiatives to take off and helping to generate awareness. There was consensus among the innovators of RG initiatives who felt that the government played an important part. Both groups of innovators also alluded to the dependency many Singaporeans had on the government to fix their problems.



"Unfortunately, our entire lives, you read the forum pages in the newspapers, etc., every time when there's a problem, somebody will say 'the government should step in, the government should change this.' As Singaporeans, we're too reliant on the government." (R6, innovator, RG initiative)

"The government should stay out of it [the sharing space]. In the last two to three years, we've seen a lot of interest... I get a bit worried because there are many studies going on. You wonder where the ball is going to drop, when something will be announced. Then suddenly all the good work will be wiped out because suddenly sharing becomes a national thing... I think that that might deter people from actually having organic initiatives, because the government steps in." (R5, innovator, NRG initiative)

In order for sharing initiatives to exert a positive impact on community, such as fostering mutual help among people, some innovators felt that people should be allowed to fill the gaps they think existed in society. A user of community-based initiatives said, "The government shouldn't do too much. If they do too much, people won't take the ownership of it." There were fears that if the government were to intervene too early, it would crowd out ground-up initiatives, and citizens' dependency on the government as the solution provider would be further entrenched. Thus, for an innovator of a NRG initiative, it was important for the government to leave some gaps so that people can "fill those cracks".

#### SIGNALLING FROM POLICYMAKERS

The innovators of RG initiatives felt that the government exerted a powerful signalling effect. They felt that sharing initiatives were in line with the government's push for "kampung spirit". When the government supported and endorsed sharing initiatives, adopted the language (e.g., the use of the term "circular economy" by a policymaker), and advocated changes in certain behaviours (e.g., reducing the use of plastic bags and encouraging people to recycle and reduce waste), it sent a powerful message on what was desirable and undesirable behaviour.



"There could be initiatives or campaigns driven by the government for sharing, something like a sharing day where people let out their unused items. Let people try. Singaporeans are usually afraid to step forward to take the leap. So maybe we need to give them a push to try out things. Then maybe it can spread from there." (R4, innovator, RG initiative)

At times, the signalling effect stemmed from a policy direction, such as the car-light policy that encouraged people to adopt car sharing and bike sharing, instead of purchasing their own cars. An innovator provided an example that illustrated the importance of the "government's voice". He observed that people had not been watching their consumption of sugar for a long time, but their habits started to change because "an MP says so".

"I think awareness is key because if you look at the bike sharing, it fits very well with the government's car-lite initiative. So there is a kind of behind-the-scene support for that." (R6, innovator, RG initiative)

"Government policies are very important in shaping our behaviour and culture. If they choose to ban NTUC FairPrice plastic bags one day, it will change the landscape." (R1, innovator, RG initiative)

#### PROVIDE INFRASTRUCTURAL AND GRASSROOTS SUPPORT

In addition to supporting sharing initiatives through signalling via policy directives and encouraging behaviours, several FGD participants said that the government could lend a hand to innovators by providing infrastructural support while leaving the organisation of the initiatives to them. They were concerned that rigidity (e.g., in terms of how the initiative should be run, the processes involved and rules) may result if the government got too involved. Some FGD participants suggested that the government could provide infrastructural support, which could come in the form of freeing up spaces for the public's use as well as designating public spaces to facilitate exchanges and transactions. The ActiveSG scheme was highlighted by several FGD participants as an example of how government facilitated the sharing of spaces among different segments of the community.



"The government should just provide the facility. As long as the facility is there, people will go and use it. An example would be creating parks for people to exercise and all that, or they can build shelters for [community] gardens." (R2, user, community-based initiatives)

"Our business is a combination of offline and online [interactions]. It is the same for other initiatives. For Lendor, people make their exchanges offline; it is the same with Carousell. For Grab, the vehicles and drivers are offline. For bike-sharing schemes, you have to have specific places for parking. That's where the government can come in. The government can say 'no' to people exchanging goods at MRT stations, etc., as we can't sell goods at MRT stations and all that. The offline part is where the government holds the cards. We are good at what we do online, the government offline. So there is opportunity for us to work together... This is where I want to give praise to our government. Because of ActiveSG, one can now book facilities in schools. If you think about 10 years ago, the basketball courts and soccer fields were empty on weekends. Now they are packed. That's why I say there's this opportunity, of offline and online. That's where founders like us can come in and hopefully the Singapore **government can see that."** (R5, innovator, RG initiative)

Some users and innovators felt that grassroots organisations such as the Residential Committees (RCs) and Community Centres (CCs) could contribute to the growth of the sharing landscape in Singapore. First, RCs and CCs served as conduits of communication among people living in a specific location. Second, they had the system and machinery to organise events that bring people together. This is evident from the fairs and festive events they organised. Third, RCs and CCs provided additional platforms for the publicity of sharing initiatives. A lapsed/non-user of a bike-sharing platform said that innovators could leverage free advertising provided by the CCs by posting about their initiative on bulletin boards.



"The RC manager can reach out to them [residents] and engage them in activities." (R8, user, community-based initiative)

"They're the only ones who can reach all the residents." (R4, user, community-based initiatives)

"The RCs put one or two people in charge of certain [residential] block. Those people can try to get others to join." (R9, user, community-based initiatives)

#### CONSULTATION AND LIGHT-TOUCH APPROACH

The issue of regulation came up during the FGDs and was discussed at length among innovators of RG initiatives. This was unsurprising as the government had been looking into how to regulate initiatives such as ride sharing, bike sharing and accommodation sharing. A foremost concern that was voiced by innovators of RG initiatives was the impact of regulation on initiatives like theirs. However, their uncertainty concerning the potential impact of regulation was underpinned by a recognition of its value. For instance, several innovators spoke about how regulation provided assurances to users as it conferred quality and standards. Such tacit assurance from the government may help boost participation rates in sharing initiatives. An innovator gave the example of the ride-sharing industry:

"When the government gets involved, there's usually some form of regulation. To me, that's how Grab and Uber took off, because regulation make people feel safer when using the service. That actually spurred the growth of such initiatives. At some point when the government gets into it, it does help an initiative to grow, because of security etc." (R2, innovator, NRG initiative)

The challenges several innovators faced relating to regulation were the consultation process and the trickiness of setting rules for a new space. Essentially, innovators felt that consultations should be done at an early stage, and not as they perceived, "after the fact".



"If there's a need for regulation, you should be transparent about what goes into those regulations. Don't do a public consultation as an afterthought. I think that's not very fair to initiatives. I mean I'm sure you guys [innovators] are doing app stuff — it makes sense that you get consulted before something goes out. Once it's announced in parliament it's too late already." (R5, innovator, NRG initiative)

The innovators of two healthcare apps spoke about their experiences in engaging in consultations with the government. They appreciated the fact that the Ministry of Health (MOH) took their concerns and suggestions into consideration when developing regulations relating to new practices in the healthcare sector. They said that the government also had to contend with the difficulties of regulating a rapidly changing sector.

"It is especially tough for us in the medical environment because we are not a clinic but they [MOH] are trying to regulate us like we're a clinic. They also don't know how to regulate us. So we're kind of caught in between — are we a platform or are we a clinic? And we end up have to comply with both sides. Although we don't have doctors practising through our company, we need to get medical practice insurance, etc." (R3, innovator, RG initiative)

"MOH does this very well. They sit all the founders and CEOs down. We take part in the consultation on regulation because we are in a very heavily regulated industry — patient safety takes priority. They do take our considerations into account when they write the legislation... I think they take our suggestions. Generally, I think some regulations can be relaxed, but that's the problem with us being a very loosely defined service in a very heavily regulated industry. All the existing regulations are for clinics and hospitals, so the rules don't really apply to what we do. We are in the process of you know, sitting down with the government, making new rules for 2020." (R7, innovator, RG initiative)



#### FUNDING SUPPORT WITH NO STRINGS ATTACHED

In the section on challenges faced by innovators of sharing initiatives, the difficulties in securing funding, especially to sustain an initiative, was mentioned. Even among the innovators of NRG initiatives, funds were required to pay overhead costs, such as the purchase of equipment and merchandise. Funding support was also critical especially for RG initiatives due to their higher overhead costs and for expansion purposes.

"Everyone is fighting for that small space, so they have to burn a lot of money. People get funding to expand, but once the funding stops, they can't move. It stops their cash flow. That's why Obike, Ofo closed down." (R2, innovator, RG initiative)

An innovator of a book swap initiative spoke about the compromises she had to make in order to meet the criteria set out by funders. For example, a funder had requested that she change the name of her initiative to make it more acceptable to the public. She did not receive the funds even after doing so. In another instance, a funder said that in order to receive funding support, she had to buy Singapore literature. She did so even though it was not the purpose of her initiative, which was to recycle books, and not promote the buying of new books. Another innovator of an NRG initiative who had worked with a statutory board said that some of their ideas were rejected as they were not aligned with what the government agency wanted:

"We faced many problems when we were doing this sharing thing [sic]. There were time constraints and some limits set [by the government agency]. We have solutions for it, but many times we were rejected because **we don't fulfil their criteria in a way."** (R8, innovator, NRG initiative)

An innovator of a RG initiative that allowed users to rent out items said that it was important for innovators to work with the right investors. This is because some investors may have their own objectives that could "kill" the spirit of sharing in the initiative.



"I think it goes back to the money — who is giving the money and who is on the Board. Sharing economy companies should bring in more tech investors who understand what the money should be spent on [and to create] what sort of impact." (R8, innovator, RG initiative)

"But then there's also the big money coming in, which is effectively killing the spirit of sharing." (R6, innovator, RG initiative)

## MORE COLLABORATION AMONG INNOVATORS

As mentioned earlier, some users felt that greater awareness for sharing initiatives needed to be cultivated. A participant from the lapsed/non-users focus group had suggested that innovators of NRG initiatives come together and create a one-stop platform which publicises all the NRG initiatives in Singapore. Interested parties could then visit the website and find what they need immediately. Such a platform already existed in Singapore — the Sharing Economy Association of Singapore. However, awareness about the association was low. During the FGD that involved innovators of RG initiatives, some of them said they were not aware that it existed.

Other participants suggested that innovators partner with organisations that can sponsor the space they require. For example, a participant who had participated in various community-based initiatives such as food swaps suggested that SRRFM could set up their market at temples located at Sin Ming. This was because the Kong Meng San temple already had a dedicated space where devotees could leave items (e.g., furniture pieces) for other devotees to take. SRRFM could thus make use of this space to set up their market. Another participant suggested that innovators of a book-swapping initiative partner with different restaurants who could host them. However, this may involve a cost as some of these venues may not be able to host them for free.

Working with collaborators also required innovators to manage the different expectations of partners, as mentioned in the section on "Innovators' Challenges". As mentioned by an innovator of a travelling market who works with RCs and NGOs to host the market, she and her partners had different expectations on how the event should be managed. Another innovator said that it was not easy for him to foster collaboration or establish alliances due to a lack of interest on the part of potential partners. This innovator, who started an online initiative to map needs, gaps and solutions



in the social service sector in Singapore, said that the collaborators he reached out to were focused on cultivating relationships with the government, policymakers and funders, instead of "horizontal relationships" with other community members. Nevertheless, he acknowledged that as time passed, his collaborators got used to working with one another.

"It's taken some time but some of them are getting used to the idea that you can collaborate and learn to trust one another instead of compete." (R1, innovator, NRG initiative)

Innovators of RG initiatives were more open to working together, as it could provide them with better bargaining power with the government and industry (see also "Challenges for RG Initiatives").



## **CHAPTER 13: CONCLUSION**

To recap, in this report, we have reviewed key frameworks and developments pertaining to sharing initiatives around the world. It is evident that the ongoing conversations and scholarship relating to sharing are skewed towards revenue-generating ones or those that meet extrinsic needs. We began this report by presenting the myriad conceptualisations of sharing initiatives. We chose to adopt a broad and all-encompassing approach to tracking developments in the sharing space by including revenue-generating and non-revenue-generating, and extrinsically and intrinsically motivated sharing initiatives and activities. For accuracy, we retained the terms as used by authors when referring to their reports and findings.

We also discussed the different dimensions of sharing — they illustrate the complexity of the phenomenon and provide further justification for studying the entire spectrum of sharing. We outlined the possible outcomes of sharing at the city, society and individual levels, who the participants were, their reasons for participating (or not participating), and the factors that encouraged or inhibited sharing. The latter include low awareness, cultural challenges, culture of entrepreneurship and innovation (e.g., in China), technology adoption, system of governance, the government's role in providing support, implementing policies to cultivate a conducive environment (e.g., Seoul), innovating and creating sharing initiatives, promoting cross-sector partnerships (e.g., Amsterdam), and striking a fine balance when regulating the space.

Based on the characteristics we extracted from the literature review (see p. 24), we identified 72 sharing initiatives in Singapore. We mapped them according to the dimensions of motivation (extrinsic and intrinsic) and level of exchange/transaction (individual, collective and public). As shown on the map (see Figure 15), the majority of the sharing initiatives in Singapore meet extrinsic needs and take place at the collective level. Initiatives that are driven by intrinsic needs such as encouraging civic mindedness and ownership of community development, protecting the environment, and fostering community spirit are still at a nascent stage in Singapore. We also identified those that promote or have strong potential to promote social mixing (see Figure 16).

This report also presented findings from a series of six FGDs on Singaporeans' perceptions and attitudes towards sharing initiatives in Singapore. Through discussions with users of different types of sharing initiatives as well as with lapsed/non-users, we examined the factors that



encouraged their participation and the barriers that resulted in lapsed or non-participation. The FGDs also shed light on the experiences and challenges faced by innovators of sharing initiatives. We also asked the FGD participants what they thought should be done to promote sharing initiatives and people's participation in Singapore.

In this section, we present what makes the sharing landscape in Singapore different from those in other countries, and what could be done to promote greater participation among users and innovators in terms of policy.

#### SINGAPORE RIPE FOR SHARING

It is clear that the environment in Singapore is ripe for sharing. Singapore has a well-established IT infrastructure that is supported by policies such as the Digital Inclusion Fund (which was launched in 2014), the Smart Nation programme and the 2018 Digital Readiness Blueprint. It also has what it takes to leverage new digital economies — the demographic profile of its population (educated and technology savvy), its tourism industry, consumer preferences, government initiative in working actively with the private sector to support the development of IT, and partnerships between the public and private sectors. The FGDs have established that there is latent interest among Singaporeans to participate in sharing. The innovators who took part in the FGDs felt that the sharing landscape in Singapore has a strong growth potential.

## Sharing is multi-faceted and multi-layered

In Singapore, "sharing" took on a multi-faceted and multi-layered form for users, lapsed/non-users and innovators of sharing initiatives. In addition to the myriad types of objects that were shared (tangible and intangible), sharing meant different things to participants. To some, sharing was a way to pool resources and save the environment, and was about collaborative consumption. To others, sharing was a pragmatic way of consumption that led to extrinsic and tangible rewards such as saving time and money. Some FGD participants identified information as a type of commodity to be shared, and they gained knowledge when they shared information with one another.

Sharing also occurred on different levels — the individual, collective and public levels. The idea of "informal sharing" among people who lived close to one another was highlighted by a couple of users, suggesting that informal exchanges among Singaporeans existed. However, given the

<sup>&</sup>lt;sup>389</sup> Dunn, J. (2018, August 1). Inside Singapore's sharing economy. *In the Black*. Retrieved from https://www.intheblack.com/articles/2018/08/01/ict-fuels-singapore-shareconomy.



scope of this study, we were not able to establish the extent to which informal sharing happened in Singapore and among whom. In addition, to participants, particularly those who used NRG and community-based initiatives, "sharing is caring" as it is an act of giving without expectations of receiving something in return. Several of the participants also felt that volunteerism was a form of sharing as it involved the sharing of one's time — this finding seems unique to Singapore.

Similar to what we have found from existing studies, the FGDs suggest that people in Singapore were motivated by a combination of intrinsic and extrinsic motives that drove their participation in sharing initiatives. Saving money and enjoying greater convenience influenced people's participation in sharing. However, users of NRG initiatives were also motivated by intrinsic reasons such as helping other people. Additionally, ease of access and the fulfilment of personal needs or interests were important for both groups of users when considering whether or not to take part in an initiative.

## **Existing barriers**

A key factor that influences people's decision to participate is awareness. Research conducted in other countries found that awareness for sharing initiatives is generally low, even for RG initiatives. For instance, according to a survey conducted by PwC, most Japanese are not aware of the sharing economy and only 2.7 per cent of the population is familiar with the concept. Similarly, low awareness of the sharing economy in Australian cities such as Sydney poses a challenge to innovators.

The problem of low awareness also applies in the case of Singapore. Earlier, we listed a range of NRG (including community-based ones) and RG initiatives that exist in the country. However, it is evident from the FGDs that some initiatives had greater mindshare than others. Those were mainly RG initiatives (with the most popular ones being ride-sharing, bike-sharing and accommodation-sharing initiatives). This could be attributed to their advertising and marketing efforts. The awareness for NRG initiatives was generally lower (see also section on "Awareness of Sharing Initiatives"). The NRG initiatives that received some mentions were community gardens, community fridges, Singapore Really Really Free Market (SRRFM) and umbrella sharing. A small number of FGD participants also mentioned book corners in libraries as a form of sharing. The findings indicate that NRG initiatives were out of mind when they were out of sight. This problem was compounded by the innovators' lack of funds for, and in some cases, lack of interest in publicity. Yet, for some innovators of NRG initiatives, this lack of awareness did not bother them, as they were focused

<sup>&</sup>lt;sup>390</sup> Sharing economy yet to catch on in Japan. (2018, June 28). *The Straits Times*. Retrieved from https://www.straitstimes.com/asia/east-asia/sharing-economy-yet-to-catch-on-in-japan.



on staying true to their vision (see section on "Challenges for NRG Initiatives").

In addition, there could also be cultural issues at play. In 2014, Nielsen conducted a survey of 30,000 consumers in 60 countries throughout Asia Pacific, Europe, Latin America, the Middle East, Africa and North America. The countries that topped the list of residents likely to share with others were China (94 per cent), Indonesia (87 per cent) and the Philippines (85 per cent); Singapore did not make it to the list. 391 As discussed earlier, this could be due to the high cultural value placed on material items such as cars, and the concept of ownership which is ingrained in the culture in Singapore. 392 In addition, there is a general reliance among citizens on the government to solve problems they encounter in their day-to-day life, which runs the gamut from littering to the current problem of fake news and misinformation. This may be a reason for the general lack of ownership among citizens to innovate and solve problems on their own. Besides members of the public, at times, other stakeholders may have their own set of concerns. For example, school leaders who are an important partner for the Dual Use Scheme, have concerns about safety and cleanliness.

Another challenge lies with the public sector. While certain agencies such as the Urban Redevelopment Authority (URA) initiate programmes and activities to promote sharing and collaboration among citizens and across sectors, others may have different priorities and place lesser importance on sharing, which could be due to lower awareness of the potential benefits of sharing. For instance, town councils were hesitant to take over ownership of the giant chess sets that were placed by URA in HDB void decks to facilitate inter-community mingling. This was in spite of the little maintenance required and the positive response from the community. 393 In addition, different government agencies have different protocols and guidelines. For example, there is a lack of a uniform set of guidelines for home-cooked food across agencies such as the URA, National Environmental Agency and Singapore Tourism Board. The lack of a consistent set of guidelines and regulations mean that organisations and individuals who are interested to start a sharing initiative (e.g., food sharing) have to navigate the bureaucracy across agencies, as opposed to liaising with a single contact point. 394

<sup>&</sup>lt;sup>391</sup> Is sharing the new buying? Reputation and trust are emerging as new currencies (2014). *Nielsen*. Retrieved from https://www.nielsen.com/us/en/insights/article/2014/is-sharing-the-new-buying/.

<sup>&</sup>lt;sup>392</sup> Ministry of Culture, Community and Youth. (2017, July 20). *Singapore sharing city workshop*; Making collaborative consumption work. (2013, March 18). *Challenge*. Retrieved from

https://www.psd.gov.sg/challenge/ideas/deep-dive/making-collaborative-consumption-work.

<sup>&</sup>lt;sup>393</sup> Ministry of Culture, Community and Youth. (2017, July 20). *Singapore sharing city workshop*. <sup>394</sup> *ibid*.



#### IMPLICATIONS FOR POLICY

The measures adopted by governments in different countries to support sharing initiatives include providing support in the form of funding and space, developing policy to make the physical and social environments conducive for sharing, and creating sharing initiatives within the public sector. The earlier sections have presented what is being done by the governments in four different cities and countries — Amsterdam (Netherlands), China, Colombia (Medellin) and Seoul (South Korea) — to promote sharing. Their efforts include encouraging innovation, building cross-sector partnerships, implementing policies to cultivate a conducive sharing environment and promoting co-creation. See Appendix 3 for a comparison of various factors that promote sharing initiatives in these countries, including Singapore.

There are a few implications for research and policy. First, informal sharing poses a rich area for further study, particularly from the perspective of building social capital. In many developed countries, informal sharing systems (e.g., carpooling and day-care systems) that are undertaken collectively by citizens to reduce economic burdens and provide support are omitted from the ongoing dialogue on sharing, given the prevailing emphasis on those that meet higher environmental or personal goals. Informal sharing, the people involved in sharing, and the impact they make to their community and networks, should be given greater acknowledgment and recognition to expand current notions of sharing. In addition to determining the extent of informal sharing that takes place in Singapore and among whom, future research should also examine the factors that account for informal sharing and the contexts in which it takes place (for greater detail, see section on "Informal Sharing").

Second, a more inclusive approach to sharing is needed. Greater recognition should be given to informal sharing and NRG initiatives. Shifting public consciousness and discourse away from RG initiatives will help overcome the lack of awareness for NRG initiatives and informal sharing, and lend a greater boost to changing people's mindsets towards sharing. In the long run, highlighting and promoting initiatives on a sustained momentum may help send a strong signal of citizen empowerment and promote ownership of problem-solving. Similarly, to help shift the discourse, measures to support sharing should be extended to domains in which sharing remains un- or under-recognised, such as co-production, which is typically overshadowed by co-consumption, and in areas such as

<sup>&</sup>lt;sup>395</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf. <sup>396</sup> *ihid*.



community finance, energy supply and materials recovery. 397 However, this has to be done in close partnership with the innovators of such initiatives who have strong convictions about what they want to achieve through their initiatives. Doing so could help shift public consciousness and discourse away from the revenue-oriented paradigm of sharing. This is important as such sharing allows for the exercise of active membership (in a group or community), promotes citizen empowerment and encourages ownership of problem-solving by and for citizens. The FGDs also found that RG initiatives, though primarily meeting extrinsic needs, can yield unintended social effects. Future research on RG initiatives should not discount the social dimensions of RG initiatives; it could examine how they can be leveraged to cultivate relationships and build communities.

The FGD participants also spoke about the positive impact of an intangible form of government support — its signalling effect. When policymakers endorse certain behaviours and initiatives, they send a powerful message on the types of behaviours that we want in the society (see section on "Signalling from Policymakers"). Over time, this helps to cultivate positive norms among a population who is unfamiliar with sharing and its attendant behaviours. As mentioned in the section on "Innovators' Challenges", one common challenge faced by both innovators of NRG and RG initiatives is that of culture. Thus, promoting and recognising informal sharing by policymakers may encourage the building of positive behaviours and norms for sharing in the long run. While a few FGD participants had suggested that the government promote sharing actively (e.g., by creating a "Sharing Day"), recognising positive sharing practices may be a more organic way to cultivate desired norms over time. In addition, given that Singaporeans are motivated by a combination of different reasons to participate in sharing (i.e., the two types of motivations that are inextricably linked), the conceptualisation and messaging of any sharing initiatives by the government should incorporate both intrinsic and extrinsic dimensions.

In the section on "Support from Government", FGD participants, particularly innovators, were divided on whether or not the government should be more involved in growing the sharing landscape. While some innovators were open to government support, others were concerned that the government would "kill the spirit" of sharing by crowding out initiatives, change the flavour and nature of an initiative to something that it was not set out to be, and stifle them. In other words, they felt that the government would have to step back in order for people to step up. The FGD conducted with innovators of NRG initiatives established that they were motivated by ambitions and goals that were different from those of RG initiatives innovators. Most of them were contented with staying small. Thus, it is



important for policymakers to recognise that sharing initiatives may come and go, and that they would have served a purpose when they existed. In addition, not all sharing initiatives have to operate on a nationwide scale because some, though small, may fulfil an important purpose of serving small or niche groups of people.

When it comes to regulation, much of the current discourse focuses on regulating the sharing economy. Cities such as Amsterdam, San Francisco and Seoul have developed regulations for car-sharing, bike-sharing and accommodation-sharing platforms. However, for the FGD participants, regulation is a double-edged sword (see section on "Consultation and Light-Touch Approach"). Several innovators alluded to the constraints they faced due to regulation, while others felt that regulation had a positive effect in assuaging users' fears relating to quality and safety. Innovators recommended that consultations at an early stage would benefit them and government agencies, given the rapid development of the nascent sharing landscape in Singapore. For instance, innovators in the healthcare sector said that they appreciated the effort a government agency made in meeting with them and hearing their concerns and suggestions pertaining to regulating the sector. Innovators also suggested the establishment of a Trustmark to help build public trust in sharing initiatives.

Despite the conflicting views, it is evident that there is room for government support, but done in moderation and through consultation. For instance, participants spoke about the well-established local infrastructure in terms of RCs' and CCs' manpower resources and physical amenities. The government should consider how these assets could be shared with innovators — whether it is to provide platforms for publicity, support word-of-mouth publicity or space for the organisation of activities. The ActiveSG scheme was lauded by several FGD participants as an example of providing support without impacting how initiatives are run.

Given innovators' concerns about how differences in expectations (be it on the part of government agencies or non-government partners) may impact the viability of their initiatives, co-creation may go some way towards increasing the effectiveness of government involvement. In the earlier sections of the report, we noted how getting citizens on board in planning and implementation had a transformational impact (see the case study on Medellin). According to laione (2016), there are five key pillars of the collaborative city — living together, growing together, making together, governing together, and imagining together.<sup>398</sup> One way for public institutions to create value with, not just for, the community, is to move away from centralised institutions to co-owned, co-managed, and co-produced

<sup>&</sup>lt;sup>398</sup> laione, C. (2016). The Co-city: Sharing, collaborating, cooperating and communing in the city. *American Journal of Economics and Sociology*, *75*(2), 415–455.



institutions for the governance of urban resources as commons. Iaione (2016) calls for a polycentric governance of the commons that involves the state, the market, and the "commons institutions" that are in between the two. Instead of trying to solve every problem or issue on its own, the government "seek allies to facilitate the initiatives of proactive citizens who, individually or in groups, are willing to take direct care of the commons". 399

Co-creation between government agencies and the people can be done in three domains: (i) everyday commoning (government to facilitate widespread collaborative action for the care and preservation of the commons, such as waste recycling, circular economy mechanisms, locally grown food programs, food waste reduction, and water-saving programmes); (ii) wiki-commoning (the public communication and creation of local networks via digital technologies, such as creating maps of urban commons and commoners and platforms for sharing initiatives); and (iii) collaborative urban planning (where the public, private and people sectors collaborate to develop urban space). For instance, the government could help map the assets that are owned by the city to identify those that could be shared, and the opportunities for community engagement.

Finally, growing a sharing city is only possible if there is a concerted effort across public agencies. The government has even been said to be the "ultimate level of sharing" in which "collaborative consumption through societal organisation of public services" is practised. 400 The government is anything but a monolithic entity. A consistent effort across public agencies is required to grow a sharing city, and this will take time. One way to get agencies on the same page for sharing could be through crafting and articulating a common vision or goal. For example, the Chinese government has identified sharing as a national priority. Cities like Seoul and Amsterdam have their own national frameworks and action plans to promote sharing. The city of Seoul has a dedicated department within its government structure to support and promote sharing initiatives in the city. The different public agencies could also set an example by working together on a specific sharing project. It might be useful for public agencies to identify and determine collectively what assets the city owns and would be able to share; few cities have inventories of what they own. 401 As part of its Sharing City project, the city of Seoul made close to 800 public buildings available for residents to use for events and meetings. As of 2014, these

<sup>399</sup> ibid., 432.

 <sup>400</sup> Schifferes, J. (2013, August 6). Profiting from sharing (Part 2) [Blog post]. Retrieved from https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2013/08/profiting-from-sharing-part-2
 401 Rinne, A. (2014, November 3). Four ways cities can embrace the sharing economy. World Economic Forum.
 Retrieved from https://www.weforum.org/agenda/2014/11/four-ways-cities-can-embrace-sharing-economy/.



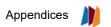
spaces have been utilised over 22,000 times by citizens.<sup>402</sup> It is only when the sharing mindset is shared across the public sector, can the city promote itself as a sharing city, to the community and to the outside world.

 $<sup>^{402}</sup>$  Johnson, C. (2014, June 3). Sharing city Seoul: A model for the world [Blog post]. Retrieved from https://www.shareable.net/blog/sharing-city-seoul-a-model-for-the-world.





# **Appendices**



## **Appendix 1: Sharing Initiatives in Singapore**

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
1.	Rent Tycoons (2011) Founders: Fenni Wang and Swito Yuber  Product: Any items/services from 11 categories including ground transport, tools and equipment and wedding essentials.		Rent Tycoons is an online marketplace that facilitates peer-to-peer renting in Singapore	
2.	Lendor (2017) Founders: Wei Zhang Chang and Pauline Lim  Product: Close to 3,000 items in 24 categories such as sporting gears and video games and console.	In the eight weeks leading up their launch in 2017, the app was downloaded 1,000 times and had 400 sign-ups. There are over 20 transactions a month, which equals to a couple of hundred dollars' worth of Gross Merchandise Value per month.403	Lendor is a peer-to-peer sharing mobile app for library of things, a platform where you can rent or lend anything you need for short term usage.	It is working on getting government agencies to come on board to lis "idle inventories" on the app, which would then be loaned out for free. 404

<sup>&</sup>lt;sup>403</sup> Sek, V. (2017, August 17). A S'pore couple built an 'Airbnb for things' so we'll stop buying stuff we only use once [Blog post]. Retrieved from https://vulcanpost.com/618682/lendor-airbnb-for-things/.

<sup>&</sup>lt;sup>404</sup> *ibid*.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
•	Sharent (2018) Founder: Eric Tan Product: 1,000 items	Since its launch in October 2018, it has more than 100 registered users. <sup>405</sup>	The platform allows users to rent out products for a fee to others who are in need of them.	
	including coffee machines, musical instruments and wedding gowns, across 20 categories.			
ı	PramShare (2016) Founders: Kenneth Tan and Shixian Tan	According to its founders, their users are mainly tourists and the expatriate community in Singapore. They have	It is a platform where parents can rent baby equipment such as strollers or car seats. Its founders are planning to	
	Product: Baby equipment such as strollers and car seats.	found it difficult to attract local parents as there is a lack of awareness and the bias that such products were "dirty" as	launch a new service where parents can monetise their idling strollers and car seats.	
		they had been used by other children. 406		

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<sup>&</sup>lt;sup>405</sup> Liu, L. (2018, November 30). "Ex-janitor who did not like studying since EM3 to polytechnic becomes founder of sharing and renting platform. *Shin Min Daily News*. Retrieved from https://www.sgsme.sg/cn/sme-interview/story20181130-14690.

<sup>&</sup>lt;sup>406</sup> Tang, S. K. (2018, December 13). From wedding flowers to baby strollers, they are all available for rent,". *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/business/rent-wedding-flowers-baby-strollers-businesses-sharing-economy-11025902.

	REVENUE -GENERATING (GOODS)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
5.	BlueSG (2017) Founders: From Singapore: Land Transport Authority (LTA) and Economic Development Board (EDB) (Singapore) and from France: BlueSG  Product: Electric cars.	More than 9,000 people have registered for the service and the number of rentals exceeded 20,000.407	BlueSG offers a new smart and affordable mobility option to all Singaporeans and complements public transportation. Members have access to a network of 1,000 shared electric Bluecar vehicles 24/7, at self-service stations located in public housing, city centre and commercial estates around Singapore. The service is point to point, which means that there is no need to return the car to the starting point, nor to bear the cost of maintenance or insurance of owning a vehicle.	It is a partnership between Singapore government agencies and a private organisation in France.	

<sup>&</sup>lt;sup>407</sup> Goh, C. (2018, March 16). BlueSG sees more than 20,000 rentals in less than 3 months, but observers say impact yet to be felt. *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/singapore/bluesg-electric-car-sharing-singapore-good-start-10050072.



	REVENUE -GENERATING (GOODS)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
6.	Mobike (Founded in China in 2015) Founders: Joe Xia and Wewei Hu Product: Bicycles.	As of February 2018, Mobike bicycles have made 10 million trips in Singapore. Most of its ridership is in the Southern and Eastern parts of Singapore at 35 per cent and 32 per cent respectively. 408	Mobike provides an affordable means of shared transportation for convenient short urban trips, while reducing congestion and a city's carbon footprint that improves the quality of city life.	It was launched in Singapore in 2017.  In September 2018, Mobike was granted a full licence from the Land Transport Authority (LTA) to operate a fleet of 25,000 bicycles in Singapore. 409	

<sup>408</sup> Baharudin, H. (2018, February 15). Bike-sharing a hit with S'poreans. The New Paper. Retrieved from https://www.tnp.sg/news/singapore/bike-sharing-hit-sporeans.

<sup>&</sup>lt;sup>409</sup> Land Transport Authority. (2018, September 28). Six applications for dockless bicycle-sharing operator licences receive in-principal approval from LTA [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=4868166a-45c5-4cd5-af5e-64e980db4657.

	REVENUE -GENERATING (GOODS)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
7.	Ofo (Founded in China in 2014) Founders: Five friends from Peking University (China) Product: Bicycles.	As of September 2018, Ofo has facilitated about 100 trips every minute, with each trip recording an average distance of 1.26km in Singapore.410	Ofo is committed to providing the best short distance transportation solution, solving the "last mile" transportation problem by turning the last mile into a green, low-emission trip.	It was launched in Singapore in 2017.  In September 2018, Ofo was granted a full licence from LTA to operate a fleet of 25,000 bicycles in Singapore. <sup>411</sup> They had applied to operate 80,000 bicycles. <sup>412</sup>	

<sup>&</sup>lt;sup>410</sup> Mohan, M. (2018, September 28). LTA limits on fleet sizes disappoint Ofo but experts see long-term benefit. *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/singapore/bike-sharing-lta-limits-on-fleet-sizes-disappoint-ofo-10769286.

<sup>&</sup>lt;sup>411</sup> Land Transport Authority. (2018, September 28). Six applications for dockless bicycle-sharing operator licences receive in-principal approval from LTA [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=4868166a-45c5-4cd5-af5e-64e980db4657.

<sup>&</sup>lt;sup>412</sup> Mohan, M. (2018, September 28). LTA limits on fleet sizes disappoint Ofo but experts see long-term benefit. *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/singapore/bike-sharing-lta-limits-on-fleet-sizes-disappoint-ofo-10769286.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
8.	SG Bike (2017) Product: Bicycles.	When it first launched, it was limited to Holland-Bukit Panjang Town Council and operated a fleet of 300 bicycles. SG Bike's fleet is now available island-wide. 413	SG Bike is Singapore's first locally-established bicycle-sharing company, providing bicycles coupled with Geostation technology. SG Bike strives to enhance the ride experience for commute, leisure and health, by providing bicycles that are convenient to unlock (with the option of unlocking via a paired EZ-link card) and easy to ride.	In February 2018, SG Bike partnered with M1 to curb errant parking through the use of Geostation technology. <sup>414</sup> In September 2018, SG Bike was granted a full licence from LTA to operate a fleet of 3,000 bicycles in Singapore. <sup>415</sup>

<sup>&</sup>lt;sup>413</sup> Hong, J. (2017, August 24). Newly launched bike-sharing firm SG Bike plans to take aim at indiscriminate parking. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/transport/newly-launched-bike-sharing-company-aims-to-target-indiscriminate-parking.

<sup>&</sup>lt;sup>414</sup> M1 partners SG bike to curb errant parking (2018, February 26). *TODAY*. Retrieved from https://www.todayonline.com/singapore/m1-partners-sg-bike-curb-errant-parking.

<sup>&</sup>lt;sup>415</sup> Land Transport Authority (2018, September 28). Six applications for dockless bicycle-sharing operator licences receive in-principal approval from LTA [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=4868166a-45c5-4cd5-af5e-64e980db4657.

	REVENUE -GENERATING (GOODS)					
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks		
9.	Anywheel (2018) Founder: Htay Aung	As of October 2018, Anywheel has more than 5,000 users. Over 1,000	Anywheel is a homegrown dockless bike-sharing platform that offers an	In September 2018, Anywheel was granted a sandbox licence from		
	Product: Bicycles.	active bicycles have made more than 20,000 trips.416	alternative eco-friendly mode of transport for users' convenience in their daily commute.	LTA to operate a fleet of 1,000 bicycles in Singapore. <sup>417</sup>		
10.	Qiqi ZhiXiang (n.d.) Product: Bicycles.			In September 2018, Qiqi ZhiXiang was granted a sandbox licence from LTA to operate a fleet of 500 bicycles in Singapore. <sup>418</sup>		
11.	PopScoot (2017) Co-founders: Kelvin Emmanuel Ng and Justin Seow		PopScoot is Singapore's pioneer electric scooter cosharing platform.			
	Product: Electric scooters.					

<sup>&</sup>lt;sup>416</sup> Anywheel. (n.d.). *About us.* Retrieved from http://www.anywheel.sg/#/about.

<sup>&</sup>lt;sup>417</sup> Land Transport Authority. (2018, September 28). Six applications for dockless bicycle-sharing operator licences receive in-principal approval from LTA [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=4868166a-45c5-4cd5-af5e-64e980db4657.

<sup>&</sup>lt;sup>418</sup> Land Transport Authority. (2018, September 28). Six applications for dockless bicycle-sharing operator licences receive in-principal approval from LTA [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=4868166a-45c5-4cd5-af5e-64e980db4657.



	REVENUE -GENERATING (GOODS)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
12.	Telepod (2017) Co-founders: Louis Goh, Jit Yen Chan and two others who are not named.	As of October 2018, Telepod's scooters have served 75,000 rides and are available at various locations across the country, including	Telepod is an e-scooter sharing platform. It believes that freedom comes with mobility. It aims to provide sustainable urban mobility and last mile solutions.	The company is working with LTA to ensure that its fleet and users meet safety standards and traffic	
	Product: Electric scooters.	Nanyang Technological University, One-North district and the CBD. <sup>419</sup>	and last mile solutions.	rules. <sup>420</sup>	

<sup>&</sup>lt;sup>419</sup> Sek, V. (2018, April 11). S'pore e-scooter sharing firm Telepod secures new funding to expand island wide, launch new tech [Blog post]. Retrieved from https://vulcanpost.com/637573/telepod-singapore-escooter-sharing-funding/.

<sup>420</sup> ibid.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
13.	Neuron Mobility (2017) Co-Founder: Zachary Wang Product: Electric scooters.	As of July 2017, Neuron Mobility has about 2,000 registered users, with about 500 to 600 regular users, and is available at various locations including the CBD. <sup>421</sup>		To comply with LTA regulations, all of its escoters have a speed limit of 15 km/h. <sup>422</sup> In 2017, Neuron Mobility partnered with Park Regis Hotel on Merchant Road to offer eight e-scooters for rer to hotel guests. It also conducted a shared escoter and bicycle tria at Singapore Science Park 1. <sup>423</sup>

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<sup>&</sup>lt;sup>421</sup> Abdullah, Z. (2017, July 24). Shared e-scooters going places in CBD. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/transport/shared-e-scooters-going-places-in-cbd.

<sup>&</sup>lt;sup>422</sup> Tung, Y.H. (2017, June 15). Bike-sharing is so 2016, Singapore startup Neuron Mobility is rolling out a smart e-scooter sharing service [Blog post]. Retrieved from https://e27.co/singapore-startup-neuron-mobility-rolling-smart-e-scooter-sharing-services-20170615/.

<sup>&</sup>lt;sup>423</sup> Abdullah, Z. (2017, July 24). Shared e-scooters going places in CBD. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/transport/shared-e-scooters-going-places-in-cbd.



	REVENUE -GENERATING (SERVICES)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
14.	Airbnb (Founded in US in 2008) Founders: Brian Chesky and Joe Gebbia, Nathan Blecharczyk Service: Accommodation and travel experiences.	In November 2016, there were 7,000 listings in Singapore. <sup>424</sup>	Airbnb is an online marketplace and hospitality service that allows members to arrange or offer lodging, primarily homestays, or tourism experiences.	Airbnb seems to operate in a legal grey area in Singapore. 425 While there are no laws preventing guests from staying in Airbnb properties in Singapore, housing laws makes it illegal For HDB flat owners to rent to tourists and for less than six months.  For private residential property owners to rent their property for less than three consecutive months.  For both HDB and private property owners to rent to too many people at one time However, the government is currently exploring options to allow short-term rentals for certain private homes.	

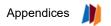
<sup>425</sup> Singapore Legal Advice. (2018, October 23). *Is Airbnb illegal in Singapore?* Retrieved from https://singaporelegaladvice.com/law-articles/is-airbnb-illegal-singapore.

	REVENUE -GENERATING (SERVICES)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
15.	MetroResidences (2014) Founder: Lester Kang Service: Serviced apartments.	As of 2018, it has more than 1,000 apartments, has serviced more than 1,700 corporate clients who have booked more than 130,000 nights through the platform. Some of its clients include Airbus and Maersk. 426	MetroResidences works with property owners who are keen to lease their unoccupied apartments as corporate accommodation for executive employees.		

<sup>425</sup> Singapore Legal Advice. (2018, October 23). *Is Airbnb illegal in Singapore?* Retrieved from https://singaporelegaladvice.com/law-articles/is-airbnb-illegal-singapore.

<sup>426</sup> MetroResidences. (n.d). *About us.* Retrieved from https://metroresidences.com/sg/learn/about-us.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
16.	FlySpaces (Founded in Philippines in 2015) Founder: Mario Berta Service: Co-working space.	Its customers include Google, Procter & Gamble and MediaCorp.	FlySpaces provides short- term work and meeting space solutions to entrepreneurs, start-ups, SMEs and mobile professionals. It has a network of hundreds of spaces across key Southeast Asian cities.  FlySpaces acts as a digital marketing platform that connects venue owners to a vast user base, allowing them to optimise and monetise their venues.	It was launched in Singapore in 2017.
17.	Camelia and Co (2018)  Service: Co-working space.		It aims to bring different businesses together to co- exist under one roof and create a community of like- minded individuals.	



	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
18.	WeWork (Founded in the US in 2010) Founders: Adam Neumann and Miguel McKelvey. Service: Co-working space.	Various people, including freelancers, individual entrepreneurs, startups and small businesses, and MNCs looking for flexible working spaces and networking opportunities.	WeWork provides shared workspaces for companies and individuals.	It was launched in Singapore in 2017.
19.	CoWork@SG (2011) Service: Co-working space.	Various people, including start-ups, art collectives, entrepreneurs and more.	Cowork@SG aims to design, build, operate, manage, and fit-out conducive office spaces in Singapore and the Asian region for the independent and creative community.	

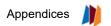


Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
Found. <sup>427</sup> (2012) Co-founder: Grace Sai Service: Co-working space and provides 'Members Growth' services, which include coaching, mentoring and partnership programmes for its entrepreneurs.	Its members include corporate innovation teams and high-growth start-ups.  Its "Members Growth" services has supported more than 75 organisations including DBS, NTUC and JP Morgan in their corporate innovation agendas. 428  They have built a community of 2,500 members and alumni. 429	Found. is a network of innovation campuses where entrepreneurs and corporates find coaching, expertise and partners to create future-ready solutions. It believes in providing the community a sound support structure that goes beyond co-working.	

<sup>&</sup>lt;sup>427</sup> Previously known as Impact Hub Singapore.

<sup>&</sup>lt;sup>428</sup> Cheok, J. (2018, May 2). Singapore co-working pioneer Impact Hub rebrands as Found., to open 3<sup>rd</sup> space on Amoy street. *The Business* Times. Retrieved from https://www.businesstimes.com.sg/real-estate/singapore-co-working-pioneer-impact-hub-rebrands-as-found-to-open-3rd-space-on-amoy.

<sup>429</sup> Found. (n.d.). About us. Retrieved from http://www.found.us/about-us



	REVENUE -GENERATING (S	ERVICES)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
21.	The Work Project (Founded in Hong Kong in 2016) Founder: Junny Lee Service: Co-working space.		Its mission is to develop offices that change the way people feel about coming to work, foster a culture of sharing and exchange, and bring the best out of every individual.	It was launched in Singapore in 2017.
22.	JustCo (2015) Founder: Kong Wan Sing Service: Co-working space.	According to the founder, unlike other co-working operators who offer workspace to entrepreneurs, freelancers and companies, corporations make up 60 to 70 per cent of its clients.	JustCo aims to connect like- minded and dynamic communities in open and creative work spaces.	
23.	Collision8 (2016) Founders: Michelle Yong and John Tan Service: Co-working space.	Its members include tech start-ups, executive coaches, marketing agencies and angel investors.	It is a premium co-working space that offers hot desks, permanent desks and private offices to a diverse community of innovators and business leaders.	It is different from other co- working spaces in that it is a private members club. They select members based on two criteria: member's desire to innovate and their desire to collaborate.



	REVENUE -GENERATING (S	ERVICES)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
24.	The Great Room (2016) Founders: Su Anne Mi, Jaelle Ang, Yian Huang Service: Co-working space.	As of February 2018, there are more than 1,000 individual members. 430  Their members include regional and global companies which already have funding and are on a strong growth trajectory.	The Great Room is inspired by the hospitality sector. It also brings the community together with events such as salon sessions over cocktails and wellness workshops to cultivate connections and foster friendships.	
25.	The Working Capitol (2015) Founders: Siblings Ben and Saranta Gattie Service: Co-working space.	Its members include Mumbrella Asia, a news outlet about all things media and marketing related in Asia, and Brandwatch, a social media monitoring company.	The Working Capitol is a co- working space, lifestyle provider, and food and beverage destination. It offers a range of workshop solutions, community programmes, and professional and lifestyle events aimed at inspiring growth and well-being for the networks it touches.	

<sup>&</sup>lt;sup>430</sup> Teo, A. (2018, March 5). The Great Room on track for regional expansion. *Yahoo!* Retrieved from https://sg.finance.yahoo.com/news/great-room-track-regional-expansion-140900838.html.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
6.	The Hive (2012) Founder: Constant Tedder Service: Co-working space.	Its members include entrepreneurs, freelancers and idea- makers	The Hive is Asia's widest network of co-working spaces, where a community of entrepreneurs, start-ups, and creative businesses strive.	
•	UCommune (Founded in China in 2015) Founder: Mao Daiqing Service: Co-working space and a series of acceleration programmes to help new firms scale and to help foreign start-ups to enter the Chinese market.	Its members include start-ups looking for global growth.		Possibly also known as UrWork in Singapore.



	REVENUE -GENERATING (S	SERVICES)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
28.	Level3 (2017) Founder: Unilever Service: Co-working space.	Start-ups, corporates and ecosystem partners working in areas such as data and artificial intelligence and sustainable growth technology.	A co-working and events space connected to Unilever's regional headquarters at Mapletree Business City in Singapore, Level3 brings together startups, corporates and ecosystem partners to drive innovation and create new partnerships that deliver meaningful business impact.	
29.	GuavaPass (2015) Founders: Jeffrey Liu and Rob Pachter Service: Monthly membership pass.	As of July 2018, GuavaPass has about 60,000 members and over 1,500 partners in 12 cities including Singapore, Shanghai, Dubai and Mumbai. <sup>431</sup>	GuavaPass is the largest social community of premium fitness studios and healthy-living experts in Asia. A GuavaPass monthly membership gives members access to search, book and enjoy unlimited fitness classes and healthy living perks across Asia.	

<sup>431</sup> Chong, S.W. (2018, July 13). A drink with...Jeffrey Liu. Singapore Tatler. Retrieved from https://sg.asiatatler.com/society/a-drink-with-jeffrey-liu.

	REVENUE -GENERATING (SERVICES)			
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
30.	Vanitee (2014) Founder: Douglas Gan Service: A platform to discover, book and pay for beauty and wellness services.	As of 2016, the website features about 1,700 freelance beauty professionals. <sup>432</sup>	It is a community marketplace to bridge the gap between beauty service providers and customers.	
31.	Honestbee (2015) Founders: Isaac Tay, Jonathan Low and Joel Sng Service: A concierge and delivery service.	As of November 2018, Honestbee has hosted over 10,900 restaurant partners, has a network of over 20,000 "partner bees", and operates in 16 cities across eight countries. <sup>433</sup>	Honestbee is Asia's leading online concierge and delivery service, dedicated to creating sustainable and profitable jobs.	In October 2018, it launched a new high-tech grocery and dining concept called Habitat by Honestbee. <sup>434</sup>

<sup>&</sup>lt;sup>432</sup> Tegos, M. (2016, June 6). Singapore's Vanitee acquires start-up to get beauty salons on its marketplace [Blog post]. Retrieved from https://www.techinasia.com/vanitee-mefitted-acquisition.

<sup>&</sup>lt;sup>433</sup> Honestbee. (n.d.). Asia's leading marketplace for food experiences [Press release]. Retrieved from https://www.honestbee.sg/en/press-and-partnerships.

<sup>&</sup>lt;sup>434</sup> Lee, B. (2018, October 22). Honestbee opens new high-tech grocery and dining concept with cashless, automated checkout. *Yahoo News*. Retrieved from https://sg.news.yahoo.com/honestbee-opens-high-tech-grocery-044940474.html.

	REVENUE -GENERATING (S	REVENUE -GENERATING (SERVICES)			
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
32.	Airfrov (2015) Founders: Cai Li and Robi Service: Courier service.	As of 2017, the platform has 45,000 active users and sees about 800 new requests daily. It also sees about 6,000 to 7,000 unique listings every month. 435	To enable shoppers to tap on the burgeoning travellers' network to get their favourite brands and unique items, from all over the world.	The top destinations on Airfrov are Japan, South Korea, Taiwan, United Kingdom, Hong Kong, Australia and Thailand.	
33.	GoGoVan (Founded in Hong Kong in 2013) Founders: Reeve Kwan, Steven Lam and Nick Tang Service: Courier service.		GoGoVan is Asia's pioneer app platform that connects users with a network of drivers for same day ondemand delivery and transportation needs. It aims to redefine the everyday logistics experience by providing convenient and efficient service.	It was launched in Singapore in 2014.  GoGoVan is Hong Kong's first "unicorn" start-up with an estimated valuation of over USD 1 billion after its merger with 58 Suyun, the freight business of mainland Chinese online classified giant 58.com. <sup>436</sup>	

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<sup>&</sup>lt;sup>435</sup> Tan, A. (2017, September 22). He got inspiration for start-up from being girlfriend's courier. *The Business Times*. Retrieved from https://www.businesstimes.com.sg/companies-markets/emerging-enterprise-2017/he-got-inspiration-for-startup-from-being-girlfriends.

<sup>&</sup>lt;sup>436</sup> Zen, S., & Liu, Y. (2017, August 31). How a high-school dropout with big ideas founded GoGoVan, Hong Kong's first US\$1bn start-up. *South China Morning Post*. Retrieved from http://www.scmp.com/tech/leaders-founders/article/2109032/how-high-school-dropout-big-ideas-founded-gogovan-hong-kongs.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
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34.	Lalamove <sup>437</sup> (Founded in Hong Kong in 2013) Founder: Shing-Yuk Chow Service: Courier service.	Lalamove matches 15 million registered customers with a pool of 2 million drivers of vans, trucks and motorcycles in more than 100 cities across China and Southeast Asia.	It is an on-demand logistics company that matches users and drivers to provide delivery and courier services.	It was launched in Singapore in 2014.
35.	Park N Parcel (2016) Founders: Erik Cheong, Bryan See Toh and Gan Hong Tan. Service: Storage solution.	Park N Parcel has delivered more than 15,000 parcels per month in Singapore.	To create a hassle-free parcel collection experience for online shoppers (the users) through a sharing community of neighbours (the parkers). Parkers are neighbours who help to collect parcels on behalf of users. Users would then collect their parcels from the parkers.	

<sup>&</sup>lt;sup>437</sup> Formerly known as EasyVan.



	REVENUE -GENERATING (SERVICES)			
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
36.	Haulio (2017) Founders: Alvin Ea and Sebastian Shen Service: Moving of containers.	As of April 2018, 150 companies have registered on the platform, of which 60 are hauliers (drivers employed to transport goods by road). <sup>438</sup>	The initiative matches customers who require containers to be moved with truck drivers.	

<sup>&</sup>lt;sup>438</sup> Neo, S.W. (2018, April 23). Singapore startup plays Uber to the container-truck industry. *The Business Times*. Retrieved from https://www.businesstimes.com.sg/technology/singapore-startup-plays-uber-to-the-container-truck-trade.



	REVENUE -GENERATING (SERVICES)			
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
37.	Ovvy (2018) Founders: Thomas Beattie, Mia Gigandet and Daniel Chambers  Service: A digital marketplace where consumers can find, compare and book local service providers in six categories of service — cleaning, moving, plumbing, air-conditioning, electrical and handyman.	The app has ranked in the top 50 of the 200 most downloaded apps in Singapore. It gets an average of 3,000 downloads per month, with half of that figure going on to create profiles. A quarter of these 1,500 profiles belong to service providers. 439	It is a platform that allows clients to post a job, get offers, filter through interested merchants and pick the merchant they feel is most suited for their needs and book and pay for them through the platform.  Merchants use the platform to showcase their profile and get notifications when jobs are posted. The platform also extends a merchant's booking system to a digital platform if they do not possess one internally.	

<sup>439</sup> Mahmud, A.H. (2018, October 27). Need things done around the house? New app aims to match homeowners with trusted service providers. Channel NewsAsia. Retrieved from https://www.channelnewsasia.com/news/singapore/ovvy-new-app-matches-homeowners-service-providers-10853028.



	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
38.	Kaodim (2015) Founders: Malaysians Jeff Cheong and Choong Fui-yu Service: A service marketplace where consumers can book various services in three categories: home, automative and transport, and office. Examples of services include plumbing and photography.	According to its website, thousands of people have hired a service provider through Kaodim, with millions worth in sales transacted.	The Kaodim group is the number one service marketplace in Southeast Asia, where users get introduced to vetted and trusted professionals within minutes or hours.	
39.	ServisHero (Founded in Malaysia in 2015) Co-founders: Karl Loo, Jason Kang and Paul Copplestop Service: A mobile marketplace for services ranging from cleaning to personal trainers.	As of 2016, it has 50,000 downloads and there are over 3,000 services providers on the platform. <sup>440</sup>	Users describe the job they want to be done and the platform will match them to "Heroes" (i.e., the service providers).	Launched in Singapore in 2015.

<sup>&</sup>lt;sup>440</sup>Russell, J. (2016, March 20). ServisHero, a mobile app for finding local services in SEA, lands \$2.7m [Blog post]. Retrieved from https://techcrunch.com/2016/03/20/servishero-a-mobile-app-for-finding-local-services-in-southeast-asia-lands-2-7m/.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
).	BonAppetour (2013) Co-founders: Rinita Vanjre, Inez Wihardjo and Giovanni Casinelli Service: Home-dining experience.	As of 2016, travellers can find hosts in over 75 cities around the world, such as Rome, Paris and Barcelona. It has more than 500 verified hosts on the platform who have hosted thousands of guests. <sup>441</sup>	BonAppetour believes in creating memorable cultural experiences through something that is common across the world - the love for food. Users discover different food experiences on the platform and connect with local hosts.	
-	Hcook (2016) Founder: Renton Yap Service: Marketplace for home cooks to share their food.	As of 2018, Hcook has 405 shared kitchens, and 10,377 app downloads. <sup>442</sup>	Hcook uses technology to connect people with their neighbours who can provide homecooked food at a fee.	

<sup>&</sup>lt;sup>441</sup> Tegos, M. (2016, May 25). Airbnb for home dining raises seed funding to build up its global community [Blog posts]. Retrieved from https://www.techinasia.com/bonappetour-seed-funding.

<sup>442</sup> HCook. (n.d.). Retrieved from http://www.hcook.sg/.



	REVENUE -GENERATING (SERVICES)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
42.	Foodpanda (Founded in Germany in 2012) Co-founders: Ralf Wenzel, Benjamin Bauer, Felix Plog and Rohit Chadda Service: Food delivery.	They received 22.6 million orders worldwide in 2015.443 They have a fleet of 3,000 riders in Singapore.	Foodpanda is a convenient online food ordering site that connects people with the best restaurants around them. It believes that food ordering should be a fast and fun experience.	It was launched in Singapore in 2012.	
43.	Deliveroo (Founded in London in 2013) Founders: Will Shu and Greg Orlowski Service: Food delivery.	As of January 2018, it has 4,000 delivery riders and 3,000 restaurant partners in Singapore.444	Deliveroo is on a mission to transform the way people order food. It partners with the best restaurants in the business and brings users the food they love, right to their door. With thousands of choices and a fleet of their own delivery riders, they aim to deliver orders in an average of about 30 minutes.	It was launched in Singapore in 2015.	

<sup>&</sup>lt;sup>443</sup> Statistia. (n.d.). *Number of orders processed by Foodpanda worldwide from 2013 to 2015*. Retrieved from https://www.statista.com/statistics/696508/foodpanda-number-of-orders/.

<sup>&</sup>lt;sup>444</sup> Teng, A., & Siau, M.E. (2018, January 6). The big read: when the world (of food) is at your fingertips. *TODAY*. Retrieved from https://www.todayonline.com/singapore/bigread-when-world-food-your-fingertips.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
44.	Grab (2012) Founders: Anthony Tan and Tan Hooi Ling Services: GrabTaxi, GrabCar, GrabHitch, GrabShare, GrabCoach, GrabShuttle, GrabShuttlePlus, GrabFamily, JustGrab, GrabRentals, GrabCycle, GrabFood, GrabExpress Beta.	On 6 November 2017, Grab hit the 1 billion ride milestone with 66 concurrent rides in any given second across all of its seven markets in southeast Asia — Singapore, Indonesia, Philippines, Malaysia, Thailand, Vietnam and Myanmar. <sup>445</sup>	It is a Singapore-based technology company that offers ride-hailing transport services, food delivery and payment solutions.	In Singapore, Grab merged with Uber in March 2018. An investigation by the Competition and Consumer Commission of Singapore (CCCS) suggested that the merger has infringed the Competition Act. 446  Grab and Uber was fined SDG 6.42 million and SDG 6.58 million respectively by the CCCS. Grab will pay the fine while Uber said that it would appeal independently of Grab. 447  In September 2018, GrabCycle was granted a sandbox licence from LTA to operate a fleet of 1,000 bicycles in Singapore. 448

<sup>&</sup>lt;sup>445</sup> Grab. (2017, November 6). *Grab celebrates its 1 billionth ride* [Press release]. Retrieved from https://www.grab.com/sg/press/business/grab-celebrates-its-1-billionth-ride/.

<sup>&</sup>lt;sup>446</sup> Grab-Uber merger has reduced competition and increased prices, says watchdog. (2018, July 5). *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/singapore/grab-uber-merger-competition-financial-penalties-10501708.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
45.	Ryde (2014) Founder: Terence Zhou Service: RydeX, RydePET, RydeSCHOOL, RydeSEND.	As of March 2018, Ryde has over 55,000 drivers, including 15,000 ComfortDelGro taxi drivers to cater to the daily commute of over 300,000 passengers in Singapore.	Ryde started as ride-sharing platform that matches drivers with riders going the same way. It has since expanded its product services to include an epayment platform and taxi booking.	
46.	GoJek (Founded in Indonesia in 2010) Founder: Nadiem Makarim Service: Ride-hailing service.		GoJek is a ride-hailing and logistics platform.	It was launched in Singapore in 2018.  Opened a data science office in January 2017 in SG.

<sup>447</sup> Uber to appeal competition watchdog's decision on Grab deal. (2018, October 22). *TODAY*. Retrieved from https://www.todayonline.com/singapore/uber-appeal-competition-watchdogs-decision-grab-deal.

<sup>&</sup>lt;sup>448</sup> Land Transport Authority. (2018, September 28). Six applications for dockless bicycle-sharing operator licences receive in-principal approval from LTA [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=4868166a-45c5-4cd5-af5e-64e980db4657.

	REVENUE -GENERATING (SERVICES)				
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks	
47.	TADA (2018) Founder: Kay Woo Service: Ride-hailing service.	Less than two-weeks after its launch in July 2018, more than 9,500 drivers have signed up with the app. It has also received nearly 50,000 bookings. 449	TADA creates a virtuous cycle in ride-hailing where drivers, passengers and services are connected by trust. Drivers are not charged commissions and are rewarded for providing safe and friendly service. Passengers receive reasonable fares for safe rides anytime and anywhere, and are rewarded for providing accurate usage reviews.		
48.	Beeline (2015) Founders: GovTech and LTA Service: Bus pooling.	There are currently nine private bus operators on Beeline, with more than 150 drivers and 200 Beeline routes running. <sup>450</sup>	It is a demand-driven shared transit service.		

<sup>&</sup>lt;sup>449</sup> Cheng, K. (2018, August 7). Over 9,500 drivers sign up with new ride-hailing app Tada. *TODAY*. Retrieved from https://www.todayonline.com/singapore/over-9500-drivers-sign-new-ride-hailing-app-tada.

<sup>450</sup> Beeline https://www.beeline.sg/.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
49.	Jobbatical (Founded in Estonia in 2014) Founder: Karoli Hindriks Service: Matches job users with jobs available overseas.	In its first year, more than 1,200 companies across more than 40 countries have used the platform. There has been over 7,000 job applicants and more than 300 successful matches. <sup>451</sup>	Jobbatical connects globally minded companies with a community of ready-to-relocate tech, business and creative talent.	
50.	Doctor Anywhere (2015) Founder: Jeffrey Fang Service: Healthcare.	As of September 2017, the platform has received 20 sign-ups from doctors.	The platform connects users with a full range of healthcare providers for medical advice, services and products within minutes.	

<sup>&</sup>lt;sup>451</sup> O'Hear, S. (2016, March 2). Jobbatical, the marketplace for tech gigs abroad, scores \$2m led by USV and LocalGlobe [Blogpost]. Retrieved from https://techcrunch.com/2016/03/02/catch-me-if-you-can/.

	REVENUE -GENERATING (S	ERVICES)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
51.	Speedoc (2017) Founder: Shravan Verma Service: Healthcare.	As of April 2018, the app has been downloaded 1,000 times and have about 22 doctors who have made about 120 house calls. <sup>452</sup>	The platform matches doctors and patients based on location. It aims to provide primary, urgent and preventive care services.	
52.	Jaga-Me (2016) Founders: Julian Koo, Ling Ling Kuah and Jia Yi Har Service: Home care services.	In 2016, Jaga-Me has more than 50 nurses on board, each with at least three years' experience in a public hospital and a valid nursing certificate. It has provided 3,000 hours of service to 200 families. <sup>453</sup>	The platform matches professional nurses with families who require home care.	

<sup>&</sup>lt;sup>452</sup> Tan, S-A. (2018, April 5). Speedoc app lets you call the nearest doctor to your home. *The NewPaper*. Retrieved from https://www.tnp.sg/news/singapore/speedoc-app-lets-you-call-nearest-doctor-your-home.

<sup>&</sup>lt;sup>453</sup> Kok, X.H. (2016, December 8). Causes Week 2016: Jaga-Me helps give caregivers a break. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/health/causes-week-2016-jaga-me-helps-give-caregivers-a-break.



	REVENUE -GENERATING (S	ERVICES)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
53.	Homage (2016) Founders: Gillian Tee, Tong Duong and Lily Phang Service: Home care services.	In 2016, Homage has 150 care professionals on board, including nurses, trained patient care associates, or those who have formerly cared for their own family members. <sup>454</sup>	The platform matches care professionals with families who require home care.	
54.	Co-operatives (1920s)  Service: Provide services to meet members' needs.	As of 2018, there are 83 co-operatives in Singapore with 1.4 million members. <sup>455</sup>	Co-operatives are social enterprises jointly-owned and democratically-controlled by members who share common social and/or economic interests. 456 There are three categories of co-operatives in Singapore: Consumer and services co-ops, credit co-ops and school co-ops.	

<sup>&</sup>lt;sup>454</sup> Ibid.

<sup>&</sup>lt;sup>455</sup> Ministry of Culture, Community and Youth (2018). *Annual report on the co-operative societies in Singapore*.

<sup>&</sup>lt;sup>456</sup> Ministry of Culture, Community and Youth (2017). *Review of co-operative landscape and opportunities to grow Singapore's co-operative sector.* 

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
55.	YouSwop(n.d.)  Product: Anything and everything, from electronics to clothing.		YouSwop is an online community for members to swop and exchange items with one another without payment.	
56.	Singapore Freecycle Network (2011)  Product: Anything and everything, from furniture to books to dinnerware.		The goal of the Singapore Freecycle Network is to reduce waste by connecting people who are giving goods to others who are seeking the same items. It is inspired by the Tucson Freecycle network, who are pioneers of Freecycle.	There is another Freecycle network in Singapore, the Singapore Neighbourhood Freecycle. It is a closed Facebook group that aims to promote freecycling in every neighbourhood in Singapore. It is unclear if they are affiliated.

	NON-REVENUE-GENERAT	NG (GOODS)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
57.	Singapore Really Really Free Market (2009) Founder: Post-Museum, an independent cultural and social enterprise which aims to encourage and support a thinking, caring and pro-active community in Singapore.  Product: Anything, from goods to skills.	There have been 58 runs of the Singapore Really Really Free Market.	It is a temporary market where goods and services are provided for free and nothing is for sale. Anyone is welcome to set up a stall, and when people find something they want, they are welcome to have it.	
58.	Swapholic (2017) Founder: Priyanka Shahra Product: Clothing and accessories.	They have organised 13 events at various place such as Marina Barrage, Liang Court, Chijmes.	Swapaholic's aim is to promote sustainability in every possible way. Their philosophies, policies and operational strategies are tailored around the foundational principle of zero waste.	Users must pay a nominal registration fee. The amount of items they can swop also depends on the amount they pay.



	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
59.	Community Gardens (n.d.) Managed by: The various town councils or RCs. Product: Community gardens.	There are close to 1,000 community gardens that engage more than 20,000 residents. 457 There is a total of 970 gardening plots in 11 locations in Singapore, including Hort Park, Bedok Town Park and Jurong Lake Gardens West. 458	Community gardens are common spaces where people of different demographics come together to create, develop and sustain a gardening space in their locality. Through community gardening, the gardening culture and a greater sense of civic ownership is manifested among the public and private estates, schools and organisations. They help beautify the city, and provide a platform for neighbours, peers and colleagues to come together for bonding and sharing of knowledge and experiences. The initiative aims to nurture the values of cooperation, volunteering, respecting diversity and creating ecological awareness in a multiethnic society.	Some fee is involved to lease allotment gardening plots.

<sup>&</sup>lt;sup>457</sup> Boh, S. (2017, December 27). More spaces for community gardens. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/more-spaces-for-community-gardeners.

<sup>&</sup>lt;sup>458</sup> National Parks. (2018, November 13). Allotment gardens. Retrieved from https://www.nparks.gov.sg/gardening/allotment-gardens.

	NON-REVENUE-GENERAT	ING (GOODS)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
60.	Sharella (2017) Founders: Jointly developed by a group of Republic Polytechnic students and the Land Transport Authority Product: Umbrellas.	Sharella is available in various places, including Sembawang and JTC's one-north complex. <sup>459</sup>	It is an umbrella-sharing scheme.	
61.	Umbrella-Sharing Initiative modelled after Sharella (2018) Initiated by Jurong GRC MP Rahayu Mahzam Product: Umbrellas.	Three umbrella deposit racks were set up by the Bukit Batok East grassroots organisations in Toh Guan estate. 460 It is located along an unsheltered field near Blocks 285C and 285D at Toh Guan Road.	It is an interim solution for the constituency, as its MP work towards building a covered walkway near the field. <sup>461</sup>	Grassroots organisations supplied umbrellas at the start, but residents are also encouraged to contribute their umbrellas for communal sharing. <sup>462</sup>

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<sup>&</sup>lt;sup>459</sup> Lee, J. (2018, 19 March). Brolly-sharing scheme expands to one-north. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/environment/brolly-sharing-scheme-expands-to-one-north.

<sup>&</sup>lt;sup>460</sup> Toh, E. M. (2018, February 11). Raining on their parade, ungracious users put dampener on umbrella-sharing project. *TODAY*. Retrieved from https://www.todayonline.com/singapore/its-raining-their-parade-ungracious-users-put-dampener-umbrella-sharing-project.

<sup>&</sup>lt;sup>461</sup> Ng, J. S. (2018, February 11). Shared umbrellas help bridge gap in covered walkways in Bukit Batok. *The Straits Times*. Retrieved from https://www.straitstimes.com/singapore/shared-umbrellas-help-bridge-gap-in-covered-walkways-in-bukit-batok.

<sup>462</sup> *ibid*.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
62.	WeCare Shop (2017) Founder: SMRT  Product: Various items including power banks and shopping trolleys.	Commuters at Bukit Panjang's Integrated Transport Hub.	It aims to promote social graciousness, where people come, borrow things, use it and return them in good condition. <sup>463</sup>	
3.	Bounce Bags (2018) Founders: Collaboration between Plastic-Lite Singapore, a community and volunteer-based platform that aims to inspire and encourage Singaporeans towards a plastic-light lifestyle and Nee Soon Town Council. Product: Reusable bags.	Residents who go to the wet market beside Block 293 at Yishun Street 22.	It provides free reusable bags to residents in order to inculcate the habit of using reusable bags when shopping.	

<sup>&</sup>lt;sup>463</sup> Wong, W. (2017, August 23). New Bukit Panjang integrated transport hub to enhance commuter convenience. *Channel NewsAsia*. Retrieved from https://www.channelnewsasia.com/news/singapore/new-bukit-panjang-integrated-transport-hub-to-enhance-commuter-9149012.



	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
64.	Community Fridges (n.d.) Founder: The two fridges in Tampines North (one halal, one non-halal) were initiated by Tampines North Citizens' Consultative Committee.  The two fridges in Yishun South (one halal, one non-halal) were initiated by Nee Soon GRC. This initiative was launched in February 2018 and is expected to last three months.  Another community fridge has been set up at Stirling Road and is filled by volunteers from SG Food Rescue.  Product: Food.	Tampines: Targeted at but not confined to families living in Blocks 441 and 442 (rental blocks that house between 200 and 300 residents across 100-odd units).  Yishun: The fridges in Yishun are for residents who live in rental flats in Yishun South.  Stirling Road: The fridges in Stirling Road are for the needy in Stirling View and Mei Lin Street.	The initiatives aim to encourage residents in the respective areas to help provide food for needy residents.	The fridges are stocked by various people, including residents, SG Food Rescue (for the fridges at Tampines North, Yishun and Stirling Road), Citi Singapore (for the fridges in Tampines), and even a kindergarten in Tampines, PCF Sparkletots Preschool@Tampines (for the fridges in Tampines).

	NON-REVENUE-GENERAT	ING (GOODS)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
65.	Social Food Swap (2018) Founder: Electrolux Product: Food.	As of October 2018, eight companies across Singapore have committed to hosting their own Social Food Swaps. <sup>464</sup>	It seeks to encourage a behavioural shift from "binning" food to swapping food.	
66.	Social Wellness Food Swap (n.d.) Founder: Council for Third Age and Ministry of Health Product: Food.		The purpose of the food swap is to create a close-knit neighbourhood in which everyone knows each other.	

<sup>&</sup>lt;sup>464</sup> Weensgaard, L. (2018, October 11). Swedish food swapping app launched in Singapore [Blog post]. Retrieved from https://scandasia.com/swedish-food-swapping-app-launched-in-singapore/.



	NON-REVENUE-GENERAT	TING (GOODS)		
	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
67.	Books and Beer (2011) Founders: Melissa and Eileen Product: Books.	They receive a rolling crowd of some 60–80 attendees each time. <sup>465</sup>	Books and Beer is a travelling book swap that is organised once every two months. It typically takes place over three hours during a weekend, at a centrally located F&B venue.	

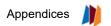
<sup>&</sup>lt;sup>465</sup> Book and Beer. (n.d.). In *Facebook* [Books and Beer]. Retrieved November 13, 2018m from https://www.facebook.com/pg/booksandbeersingapore/about/?ref=page\_internal.

	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
68.	HoodChampions (2016) Founder: Moh Hon Meng Service: Fostering neighbourliness.	As of November 2018, there are 89 neighbourhoods in HoodChampions and more than 9,500 neighbours have connected. 466	HoodChampions creates the perfect opportunity for users to be a part of their neighbourhood. Whether it is finding a plumber for an urgent pipe leak, forming teams to compete in the inter-hood mahjong competition or sharing their latest bargain buys, there are many ways neighbours can help each other and create more gracious and happening neighbourhoods across Singapore.	It is part of Singapore Kindness Movement.
69.	Hourvillage (n.d.) Founders: Andy Mankiewicz, Asheesh Khaneja and KA Chang Service: Timebanking.		It aims to encourage individuals, organisations, schools and communities to give and receive services, skills and errands.	Launching soon.

<sup>&</sup>lt;sup>466</sup> HoodChampions. (n.d.). FAQ. Retrieved from https://www.hoodchampions.sg/faq.



	Name of Initiative	Users/Pick-up Rate	About the Initiative	Remarks
).	Repair Kopitiam (2014) Founder: Sustainable Living Lab Service: A space where users can fix electrical, fabric or mechanical goods.	As of November 2018, users have fixed 71 electrical appliances (e.g., toasters, standing fans), 13 fabric items (holes in socks, hem of skirts) and 16 mechanical goods (broken stools, broken ceramic fridge magnet).	Repair Kopitiam is an initiative to bring the community together to repair so as to combat the throw-away culture for a sustainable world.	
1.	Dual Use Scheme (2015) Founder: Sport Singapore and Ministry of Education  Service: Public use of sports facilities in schools.		The initiative aims to make all schools' sports facilities available to members of the public for a fee.	



Name of initiative	Users/Pick-up rate	About the Initiative	Remarks
 Wiki SocialCollab (2018) Founder: Institute of Policy Studies Product: Information on social needs in Singapore.	Social service providers and experts	The platform is an open collaboration initiative working towards a ground-up understanding of social needs, gaps and solutions in Singapore.	



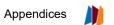
# **Appendix 2: Participants' Profiles**

# **INNOVATOR GROUP 1 (RG INITIATIVES)**

Date: Wednesday, 23 January 2019

Time: 5.30pm

	Designation	Age	Gender	Description of Sharing Initiative
R1	Founder	32	М	A peer-to-peer sharing mobile platform
R2	Founder	NIL	M	A bike-sharing platform
R3	Business Development Manager	35	М	A platform that connects users with a full range of healthcare providers
R4	Country Manager	27	М	A co-working space
R5	Co-Founder	32	М	A platform that connects users to travellers who can get items from their favourite brands and unique items from all over the world
R6	Country Manager	47	М	A platform that connects users to a network of drivers to meet their same day on-demand delivery and transportation needs
R7	Co-Founder and Head, Marketing & Communication	26	F	A platform that matches doctors and patients based on location
R8	CEO	24	М	A platform that allows users to rent products for a fee to others who are in need of them



# **INNOVATOR GROUP 2 (NRG INITIATIVES)**

Date: Wednesday, 23 January 2019

Time: 7.30pm

	Designation	Age	Gender	Description of Sharing Initiative
R1	Founder	43	М	An open collaboration initiative working towards a ground-up understanding of social needs, gaps and solutions in Singapore
R2	Head of Marketing	45	M	A social marketplace for skills, services and errands based on the time banking model
R3	Outreach Manager	29	F	A social marketplace for skills, services and errands based on the time banking model
R4	Associate General Secretary, Partnerships	43	F	A platform that creates opportunities for users to be part of their neighbourhood
R5	Co-founder	31	F	A travelling book swap that is organised once every two months at a centrally-located F&B venue
R6	Corporate Marketing Manager	34	F	An online platform that promotes freecycling
R7	Chairman	NIL	М	A platform where residents can loan items such as electric drills and ladders from their RC
R8	Team Member	22	F	An umbrella-sharing initiative
R9	Executive Director	29	F	An initiative that aims to bring the community together to repair items to combat the buy and throw-away culture.
R10	Founder	43	F	A temporary market where goods and services are provided for free and nothing is for sale



# **USER GROUP 1 (NRG INITIATIVES)**

Date: Thursday, 24 January 2019

Time: 7pm

	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
R1	33	F	Indian	Diploma	Up to \$3,000	Bounce Bags, Social Food Swap (also GuavaPass, Honestbee, GoGoVan, Foodpanda)
R2	30	M	Chinese	Degree	\$7,000– \$8,999	Books and Beer, and other book swap events
R3	36	F	Chinese	Degree	\$5,000– \$6,999	Singapore Really Really Free Market (also Grab, Foodpanda, GoJek
R4	35	М	Chinese	Degree	\$5,000– \$6,999	Share a book @ KTPH (also Grab, Foodpanda)
R5	51	F	Chinese	O-Level	\$3,000– \$4,999	Sharella (also Grab, GoJek)
R6	43	M	Chinese	O-Level	Up to \$3,000	Punggol Oasis E-resource (is also a Grab and GoJek driver)
R7	37	M	Chinese	Degree	\$7,000– \$8,999	Punggol Oasis E-resource, community



	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
						garden (also GrabFood)
R8	25	М	Malay	Degree	\$3,000– \$4,999	YouSwop, umbrella- sharing initiative, book- sharing initiative
R9	44	F	Chinese	Degree	\$7,000– \$8,999	SG FreeRecycle (is also as a GrabHitch driver)
R10	21	F	Malay	ITE	Up to \$3,000	Singapore Really Really Free Market (also Swapaholic)



# **USER GROUP 2 (COMMUNITY-BASED INITIATIVES)**

Date: Friday, 25 January 2019

Time: 7pm

	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
R1	25	M	Chinese	Diploma	Up to \$3,000	Singapore Really Really Free Market, umbrella- sharing initiative, Bounce Bags, food sharing
R2	35	M	Chinese	Degree	\$5,000– \$6,999	Umbrella- sharing initiative (also Grab, Foodpanda)
R3	32	F	Chinese	Degree	\$5,000— \$6,999	Community gardens (also Grab, Foodpanda)
R4	44	F	Indian	Diploma	Up to \$3,000	Singapore Really Really Free Market, YouSwop
R5	26	M	Chinese	Diploma	Up to \$3,000	Singapore Really Really Free Market (also Grab, Ofo, Deliveroo, Airbnb)
R6	38	F	Chinese	Degree	\$5,000– \$6,999	Umbrella- sharing initiative (also Grab, Airbnb, Foodpanda, Honestbee)



	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
R7	30	F	Malay	Degree	Up to \$3,000	Books and Beer, Singapore Really Really Free Market (also Grab)
R8	42	F	Chinese	Degree	\$13,000 and above	WeCare Shop, Social Food Swap, Social Wellness Food Swap, Dual Use Scheme, Wiki SocialCollab
R9	62	F	Indian	Secondary school	Up to \$3,000	Community fridge, community garden, Singapore Really Really Free Market



# **USER GROUP 3 (LAPSED/NON-USERS)**

Date: Saturday, 26 January 2019

Time: 11am

	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
R1	25	М	Chinese	Degree	Up to \$3,000	Stopped using Lalamove more than six months ago
R2	23	М	Chinese	Diploma	Up to \$3,000	Stopped using TADA after switching to Ryde
R3	23	F	Chinese	Diploma	Up to \$3,000	Stopped using Airfrov more than six months ago
R4	40	F	Chinese	Degree	Up to \$3,000	Stopped participating in SG Freecycle more than six months ago
R5	30	F	Chinese	Degree	Up to \$3,000	Stopped using Grab more than six months ago
R6	47	F	Chinese	Diploma	Up to \$3,000	Stopped using Ofo, Honestbee and Grab more than 12 months ago
R7	50	М	Chinese	Diploma	Up to \$3,000	Stopped using Foodpanda more than 12 months ago



	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
R8	24	F	Chinese	Degree	Up to \$3,000	Stopped using Deliveroo, Foodpanda, Ofo more than six months ago
R9	31	F	Indian	Degree	\$3,000– \$4,999	Stopped using Airbnb, SG Bike, Foodpanda, Deliveroo
R10	25	F	Indian	Degree	\$3,000– \$4,999	Stopped using Airbnb more than six months ago

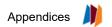


# **USER GROUP 4 (RG INITIATIVES)**

Date: Saturday, 26 January 2019

Time: 2pm

	Age	Gender	Race	Education Level	Monthly HH Income	Participated in
R1	34	M	Chinese	O-Level	Up to \$3,000	Grab (as a driver)
R2	27	F	Chinese	Degree	\$3,000– \$4,999	GoGoVan, Airbnb , Foodpanda, Deliveroo, Grab, TADA, Mobike, Ofo
R3	31	М	Chinese	Degree	NIL	The Working Capitol, Airfrov, GoGoVan, Lalamove
R4	31	M	Chinese	Diploma	\$3,000– \$4,999	Rent Tycoon, Speedoc, Ofo, Lalamove, Grab, Ryde, GoJek, Deliveroo
R5	42	М	Chinese	Degree	\$5,000— \$6,999	Neuron Mobility
R6	39	F	Indian	Diploma	\$5,000— \$6,999	Grab, Foodpanda, Ofo
R7	22	F	Chinese	A-Level	Up to \$3,000	Airfrov, Airbnb, Honestbee, Park N Parcel, GuavaPass, Mobike, Ofo, Foodpanda, Deliveroo, Grab, Ryde, GoJek
R8	62	F	Indian	O-Level	\$3,000– \$4,999	Grab and Foodpanda



# **Appendix 3: Factors that Promote Sharing Initiatives in Five Countries**

Fa	octors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
1.	Background	Transactions in the sharing economy reached SGD777.4 billion in 2017. 467 7.2 million people were employed by sharing platforms in 2017. 468	Not available	Sharing economy is forecasted to grow to more than SGD15 trillion by 2025 in Seoul. <sup>469</sup>	Not available	Not available
2.	Categories of initiatives <sup>470</sup>	Information, life services, lodging, medical services, spaces, skills, social lending, transportation.	Caregiving, energy, food, goods, information, logistics, money, services, spaces, transportation.	Goods, information, mobility, spaces, talents.	Infrastructure, public spaces.	Accommodation, food, goods, idea incubation, medical services, other services (e.g., delivery) skills,

<sup>&</sup>lt;sup>467</sup> Liu, X. (2018, March 8). China becomes a global leader of sharing economy *People's Daily*. Retrieved from http://en.people.cn/n3/2018/0308/c90000-9434399.html.

<sup>&</sup>lt;sup>468</sup> Liu, X. (2018, June 4). China's sharing economy to grow 30% per year. *China Daily*. Retrieved from

http://www.chinadaily.com.cn/a/201806/04/WS5b14d719a31001b82571e031.html.

<sup>&</sup>lt;sup>469</sup> Park, J. (2018, February 26). Sharing economy: Are South Koreans ready to use Airbnb for clothes? *Korea Exposé*. Retrieved from https://www.koreaexpose.com/south-korea-airbnb-clothes-sharing-economy/.

<sup>&</sup>lt;sup>470</sup> List is not exhaustive.



Fa	ctors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
						spaces, transportation.
3.	Impetus for sharing	To stimulate economic growth and spur innovation.	Limited government funding for public goods and services, and social and cultural awareness relating to sustainability issues.  Sharing also promotes inclusiveness as it is open to all residents.	Improve provision of goods and services for an ageing society.	Limited government funding for public goods and services, and to transform a crime-ridden city.	To stimulate economic growth, and build social cohesion and community resilience.
4.	Individual and societal factors that enable sharing	High interest in sharing: A 2014 survey found that 94% were willing to participate in	High interest in sharing: A 2013 survey found that 84% were willing to participate in the collaborative economy and	A practice called "anabada", which means to be frugal, to share,	The social urbanism approach, which is the use of specific projects to inject investment into	There is low propensity to share due to the high cultural value attached to and cost of item. People have a

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
	the sharing economy. <sup>471</sup> People's willingness to rent rather than own rarely used items. <sup>472</sup>	32% were willing to be a provider. 473  High density of people in a relatively small place makes the exchange of goods and services extremely accessible. 474	trade and re- use. 475  Participation in sharing services in Seoul has grown five times — from about 300,000 in 2014 to more than 1.5 million users in 2016. 476 However, citizens do not have an inherent desire for sharing and awareness of	targeted areas in a way that cultivates civic pride, participation, and greater social impact. <sup>478</sup>	preference for possessing material goods. 479  But a 2018 study found that over 50% of youths are familiar with and think positively about the sharing economy. 480

<sup>&</sup>lt;sup>471</sup>Global consumers embrace the share economy. (2014, May 28). *Nielsen*. Retrieved from https://www.nielsen.com/lb/en/press-room/2014/global-consumers-embrace-the-share-economy.html.

<sup>&</sup>lt;sup>472</sup> ibid.

<sup>&</sup>lt;sup>473</sup> European Commission Digital Transformation Monitor. (2017). *Amsterdam's collaborative economy*. Retrieved from https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM\_Amsterdam%20v1.pdf.

<sup>474</sup> ibid.

<sup>&</sup>lt;sup>475</sup> Park, J. (2018, February 26). Sharing economy: Are South Koreans ready to use Airbnb for clothes? *Korea Exposé*. Retrieved from https://www.koreaexpose.com/south-korea-airbnb-clothes-sharing-economy/.

<sup>&</sup>lt;sup>476</sup> Sharehub. (2016). *Sharing city Seoul: 4 years' achievements*. Retrieved from

 $http://sharehub.kr/sharestoryEn/resources\_view.do; jsessionid=EE96D96522FD45AA02BE38394D566F83? storySeq=9.$ 

<sup>&</sup>lt;sup>478</sup> McLaren, D., & Agyeman, J. (2016, February 24). Sharing without sharing: The strange case of Medellin [Blog post]. Retrieved from https://www.shareable.net/blog/sharing-without-sharing-the-strange-case-of-medell%C3%ADn.

<sup>&</sup>lt;sup>479</sup> Ministry of Culture, Community and Youth. (2017, July 20). *Singapore sharing city workshop*.

<sup>&</sup>lt;sup>480</sup> Credit Suisse. (2018). *Generation digital: Solidarity despite uncertainty and challenges of change.* 

Fa	actors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
				peer-to-peer sharing services is low. <sup>477</sup>		
5.	Culture of entrepreneurship and innovation	Ranking on Bloomberg Innovation Index 2019: <sup>481</sup>	Ranking on Bloomberg Innovation Index 2019:	Ranking on Bloomberg Innovation Index 2019:	Ranking on Bloomberg Innovation Index 2019: Not available	Ranking on Bloomberg Innovation Index 2019:
		Push from assembling to creating high-tech products such as drones	Focus on grooming the next generation of business and innovative leaders. 486	South Korea is setting up an SGD11 trillion fund to support start-ups, and cultivate	In Colombia, the government shifted from a protective industrial policy towards	It is an exciting test-bed for new innovations. 494  Focus on supporting more innovative

<sup>&</sup>lt;sup>477</sup> Chasin, F. (2018). The role of governments in peer-to-peer sharing and collaborative consumption. In P.A.Albinsson & B.Y.Perera (Eds.). The rise of the sharing economy (pp.237-262). Santa Barbara, California: Praeger.

<sup>&</sup>lt;sup>481</sup> The annual Bloomberg Innovation Index ranks the top 60 companies based on dozens of criteria using seven metrics. This metric includes research and development spending, manufacturing capability and concentration of high-tech public companies. Jamrisko, M., Miller, L.J., & Lu, W. (2019, January 22). These are the world's most innovative countries. Bloomberg. Retrieved from https://www.bloomberg.com/news/articles/2019-01-22/germany-nearly-catches-korea-as-innovation-champ-u-srebounds.

<sup>&</sup>lt;sup>486</sup> European Commission Digital Transformation Monitor. (2017). Amsterdam's collaborative economy. Retrieved from https://ec.europa.eu/growth/toolsdatabases/dem/monitor/sites/default/files/DTM Amsterdam%20v1.pdf.

<sup>494</sup> Boran, E. Z. (n.d.). Coming in between: Disintermediation of the economy and its impact on national security. Retrieved from https://www.nscs.gov.sg/rahs-programmeoffice.html.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
	and smart devices. 482  It has 98 unicorns, accounting for 38.9% of the world's 252 unicorns in 2017. 483  It has incubated thousands of start-ups, and launched dozens of government-	Universities are pushing the sharing of data. 487  Entrepreneurs outside the EU are offered a one-year residency permit to setup start-ups and are provided with mentorship and incubator	new business growth. 491  But citizens are also "choosing stability over starting a company", given the difficulty of getting back on one's feet after a failure. 492	supporting small- and medium-size businesses, adopting the approach of "try fast, learn fast, fail cheap". <sup>493</sup>	technology start- ups. 495  In 2016, the government committed SGD19 billion to support R&D over the next five years. 496  In 2017, the government committed more than SGD100 million to invest

<sup>&</sup>lt;sup>482</sup> Dodwell, D. (2017, March 24). Be afraid: China is on the path to global technology dominance. *South China Morning Post*. Retrieved from https://www.scmp.com/business/global-economy/article/2081771/be-afraid-china-path-global-technology-dominance.

<sup>&</sup>lt;sup>483</sup> A unicorn is a company that is valued at US\$1 billion and above but have held back from listing. Chen, C. (2017, September 7). Who has the most unicorns — China or the US? South China Morning Post. Retrieved from https://www.scmp.com/tech/china-tech/article/2110209/who-has-most-unicorns-china-or-us.

<sup>&</sup>lt;sup>491</sup> Suzuki, S. (2017, November 3). South Korea creating \$9bn fund to spur entrepreneurship. *Nikkei Asian Review*. Retrieved from https://asia.nikkei.com/Economy/South-Korea-creating-9bn-fund-to-spur-entrepreneurship.

<sup>&</sup>lt;sup>492</sup> ibid.

<sup>&</sup>lt;sup>493</sup> Espinosa, J.E.A. (2015). Why Chile and Colombia lead the world for entrepreneurship. World Economic Forum. Retrieved from

https://www.weforum.org/agenda/2015/01/why-chile-and-colombia-lead-the-world-for-entrepreneurship/.

<sup>&</sup>lt;sup>495</sup> Fostering an entrepreneurial culture to take Singapore into the future (2017, April 18). *The Business Times.* Retrieved from

https://www.businesstimes.com.sg/sme/emerging-enterprise-2017/fostering-an-enterpreneurial-culture-to-take-singapore-into-the-future.

<sup>&</sup>lt;sup>496</sup> Choudhury, S.R. (2017, August 30). One tiny city state is pushing hard to be a center for innovation. *CNBC*. Retrieved from https://www.cnbc.com/2017/08/30/singapore-is-pushing-hard-to-be-a-center-for-innovation.html.



Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
	backed venture capital firms over the past decade. 484 But this may be on a decline as the government is trying to contain financial risk. 485	programmes to support them. 488  The city is also large enough to encounter metropolitan issues, yet compact and flexible enough to be a testbed. 489  It is home to over 578 international ICT companies; 170 of which chose Amsterdam for			into local AI over the next five years. <sup>497</sup>

<sup>&</sup>lt;sup>484</sup> Tobak, S. (2017, March 15). What Trump doesn't understand about China's entrepreneurial culture. Entrepreneur Asia Pacific. Retrieved from https://www.entrepreneur.com/article/290459.

<sup>&</sup>lt;sup>485</sup> Liu, C. (2018, November 5). China's venture capitalists struggle to raise funds. Nikkei Asian Review. Retrieved from https://asia.nikkei.com/Business/Companies/China-sventure-capitalists-struggle-to-raise-funds.

<sup>&</sup>lt;sup>488</sup> Himelfarb, E. (2017, July 31). How Amsterdam became a destination for startups and entrepreneurs. Forbes. Retrieved from https://www.forbes.com/sites/hpincemea/2017/07/31/how-amsterdam-became-a-destination-for-startups-and-entrepreneurs/#6f0f131f11b4.

<sup>&</sup>lt;sup>489</sup> European Commission Digital Transformation Monitor. (2017). Amsterdam's collaborative economy. Retrieved from https://ec.europa.eu/growth/toolsdatabases/dem/monitor/sites/default/files/DTM Amsterdam%20v1.pdf. 497ibid.

Fac	ctors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
6.	Technology adoption and infrastructure	% of population using the Internet 2017: <sup>498</sup> 54.3%  Mobile phone subscriptions per 100 habitants 2017: <sup>499</sup>	their headquarters. 490 % of population using the Internet 2017: 93.2% Mobile phone subscriptions per 100 habitants 2017:	% of population using the Internet 2017: 95.1%  Mobile phone subscriptions per 100 habitants 2017:	% of population using the Internet 2017: 62.3%  Mobile phone subscriptions per 100 habitants 2017:	% of population using the Internet 2017: 84.5%  Mobile phone subscriptions per 100 habitants 2017:
		104.3 ICT Development Index 2017: <sup>500</sup> 80	120.5 ICT Development Index 2017:	124.9 ICT Development Index 2017:	ICT Development Index 2017:	ICT Development Index 2017:

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<sup>&</sup>lt;sup>490</sup> lamsterdam. (2017). How Amsterdam is becoming the new Silicon Valley. Retrieved from https://www.iamsterdam.com/en/business/news-and-insights/news/2017/how-amsterdam-is-becoming-the-new-silicon-valley.

<sup>&</sup>lt;sup>498</sup> ITU. (n.d.). Percentage of individuals using the Internet 2018. Retrieved from https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

<sup>&</sup>lt;sup>499</sup> ITU. (n.d.). Active mobile-cellular subscriptions 2017. Retrieved from https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

<sup>&</sup>lt;sup>500</sup> The ICT Development Index is used to monitor and compare developments in ICT between 176 countries and over time. Retrieved from https://www.itu.int/net4/ITU-D/idi/2017/index.html.

Fa	ctors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
		Remarks: A 2018 study found that 53% were very interested in new technologies and would be the first ones to buy a new device when it is released, ahead of the global average of 29%. 501	Remarks: Amsterdam boasts Europe's fastest broadband speeds and is ranked fourth globally in app invention and development.502	Remarks: It will launch the world's first national 5G network in 2019. 503	Remarks: As of 2017, about 67% of households in Colombia have access to the Internet. They use it mainly for communication (97%) and entertainment (78%) purposes. <sup>504</sup>	Remarks: There is a plan to setup 5G network, the Internet of Things [IoT], and grow the mobile e-payments sector.
7.	Role of government	As an enabler/ facilitator: Sharing economy	As an enabler/ facilitator: City leaders approach new and disruptive trends	As an enabler/ facilitator: Seoul has created the necessary infrastructure and	As an innovator/ creator: It will continue to build shared public	As an enabler/ facilitator: As an example, the owners of Lendor (a peer-

<sup>&</sup>lt;sup>501</sup> ibid.

<sup>&</sup>lt;sup>502</sup> Iamsterdam. (2017). How Amsterdam is becoming the new Silicon Valley. Retrieved from https://www.iamsterdam.com/en/business/news-and-insights/news/2017/how-amsterdam-is-becoming-the-new-silicon-valley.

<sup>&</sup>lt;sup>503</sup> South Korea to launch world's first national 5G networks (2019, April 3). *Channel NewsAsia* Retrieved from https://www.channelnewsasia.com/news/asia/south-korea-5g-network-national-world-first-11407720.

<sup>&</sup>lt;sup>504</sup> Ammachi, N. (2017, August 31). Colombia seeing progress in Internet penetration, but still faces hurdles. *Nearshore Americas*. Retrieved from https://www.nearshoreamericas.com/colombia-internet-penetration-hurdles/.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
	is a national priority. 505  The government created a special think tank called the Sharing Economy Research Institute of the National Information Center in Beijing.  As a regulator: More prudent regulations to come with a focus on	with an open mind and embrace the opportunities technology disruption offers while seeking to mitigate potential risks. 507  The city agreed on a Sharing Economy Action Plan in 2016. 508  As a regulator: Introduced regulations to accelerate the	departments to support sharing initiatives, such as the Social Innovation Division to oversee the Sharing City Seoul programme.  The city designated 20 companies as sharing organisations and allocated approximately SGD320,000 to support sharing	spaces and infrastructure.  Past examples include the award winning parque biblioteca, (library park), where residents come together to read, use computers or simply relax. 515	to-peer sharing mobile app) received a SGD 20,000 grant from the National Environment Agency. 516 <b>As a regulator:</b> As an example, current laws make it illegal for owners of HDB flats to rent out their properties on Airbnb. 517  There is also a licensing

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<sup>&</sup>lt;sup>505</sup> Asia Society Policy Institute. (2018). *Boom or bust in China's shared economy?* Retrieved from https://asiasociety.org/policy-institute/boom-or-bust-chinas-shared-economy.

<sup>&</sup>lt;sup>507</sup> European Commission Digital Transformation Monitor. (2017). *Amsterdam's collaborative economy*. Retrieved from https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM\_Amsterdam%20v1.pdf.

 $<sup>^{508}\,</sup>Share NL.\,(2016).\,Amsterdam\,action\,plan\,sharing\,economy.\,Retrieved\,from\,https://www.slideshare.net/share NL/amsterdam-actionplan-sharing-economy.$ 

<sup>&</sup>lt;sup>515</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman sharing cities.pdf.

<sup>&</sup>lt;sup>516</sup> Cheng, K. (2019. January 5). The big read: Sharing economy – the next big thing that never was? *TODAY*. https://www.todayonline.com/big-read/big-read-sharing-economy-next-big-thing-never-was.

<sup>517</sup> Singapore Legal Advice. (2018, October 23). Is Airbnb illegal in Singapore? Retrieved from https://singaporelegaladvice.com/law-articles/is-airbnb-illegal-singapore.



Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
	increased public security and safety, without impeding its growth. 506	uptake of the sharing economy. For example, Amsterdam's local government allows residents to rent out their house on accommodation-sharing platforms such as Airbnb. 509	initiatives in the first year. 510  As an innovator/creator: The government participates in sharing initiatives by opening up parking lots reserved for government workers and opening up unused spaces in public institutions and provincial		scheme for bike- sharing programmes. <sup>518</sup> Government has also taken action against a scooter-sharing company for illegally making their scooters available for hire in public. <sup>519</sup>

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<sup>&</sup>lt;sup>506</sup> Jing, M., (2019, March 15). More prudent regulations to come for China's sharing economy, says Premier Li Keqiang. *South China Morning Post*. Retrieved from https://www.scmp.com/tech/start-ups/article/3001930/more-prudent-regulations-come-chinas-sharing-economy-says-premier-li.

<sup>&</sup>lt;sup>509</sup> European Commission Digital Transformation Monitor. (2017). *Amsterdam's collaborative economy*. Retrieved from https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM\_Amsterdam%20v1.pdf.

<sup>&</sup>lt;sup>510</sup> Fedorenko, O. The sharing city Seoul: Global imaginaries of the sharing economy and its local realities. *Development and Society, 46,* 373-397.

<sup>&</sup>lt;sup>518</sup> Land Transport Authority (2018, May 4). *LTA to commence licence applications for bicycle-sharing operators* [Press release]. Retrieved from https://www.lta.gov.sg/apps/news/page.aspx?c=2&id=ee14159b-b508-4940-8c7c-16741c19711f.

<sup>&</sup>lt;sup>519</sup> Two local start-ups face charges over illegally offering shared PMDs. (2019, February 21). *The Straits Times*. https://www.straitstimes.com/singapore/transport/2-local-start-ups-face-charges-over-illegally-offering-shared-pmds.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
			authorities to the public. <sup>511</sup>		
			As a regulator: It passed the Seoul Metropolitan Government Ordinance on the Promotion of Sharing to maximise the "utilisation of resources, recover communities and revitalise the regional economy through the promotion of sharing". 512		
			It revises statutes that impede sharing. For example, it revised		

<sup>&</sup>lt;sup>511</sup> S.Korea to build stronger institutional framework to sustain sharing economy (2019, January 10). *The Korea Bizwire*. Retrieved from http://koreabizwire.com/s-korea-to-build-stronger-institutional-framework-to-sustain-sharing-economy/130147.

<sup>&</sup>lt;sup>512</sup> Sharp, D. (2018, June 19). Seoul metropolitan government ordinance on the promotion of sharing. *Shareable*. Retrieved from https://www.shareable.net/blog/seoul-metropolitan-government-ordinance-on-the-promotion-of-sharing.

the Tourism Promotion Act to allow residents in urban areas to rent out their rooms for up to 180 days a year. <sup>513</sup> It will expand the occupational health and safety insurance coverage to include workers in the sharing economy by 2021. <sup>514</sup>	Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
				Promotion Act to allow residents in urban areas to rent out their rooms for up to 180 days a year. 513  It will expand the occupational health and safety insurance coverage to include workers in the sharing economy by		

<sup>&</sup>lt;sup>513</sup> Urban homeowners can now rent rooms to local travelers. (2019, January 10). *Korea Joongang Daily*. Retrieved from http://koreajoongangdaily.joins.com/news/article/article.aspx?aid=3057937&cloc=etc|jad|googlenews.

<sup>&</sup>lt;sup>514</sup> S.Korea to build stronger institutional framework to sustain sharing economy (2019, January 10). *The Korea Bizwire*. Retrieved from http://koreabizwire.com/s-korea-to-build-stronger-institutional-framework-to-sustain-sharing-economy/130147.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
8. Partnerships	Not available	Between government and private companies: For example, they have linked sharing platforms such as Thuisafgehaald (translated as Take Away from Home, where users can share meals with people in their neighbourhood), to the city pass. City pass holders get free or highly discounted meals from home cooks	Between government and private companies: Many of the key decisions for the Sharing City Project are made by the Sharing Promotion Committee, which comprises 12 members from the private sector and three members from the government.  The committee has implemented policies such as allowing citizens to	Between government and citizens: The public spaces in Medellin are created for and with the people. It is well used and maintained both by the municipality and the residents. 528 The city is also one of the largest cities in the world to successfully practise participatory budgeting, with	Between government and citizens: As an example, the LTA and students of Republic Polytechnic jointly developed Sharella, an umbrella sharing initiative. 530  Community fridges, which are provided by town councils, can also be found in various neighbourhoods in Singapore. These fridges

<sup>&</sup>lt;sup>528</sup> Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). *Sharing cities*. Retrieved from https://friendsoftheearth.uk/sites/default/files/downloads/agyeman\_sharing\_cities.pdf.

<sup>530</sup> Lee, J. (2018, 19 March). Brolly-sharing scheme expands to one-north. The Straits Times. Retrieved from https://www.straitstimes.com/singapore/environment/brollysharing-scheme-expands-to-one-north.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
		in their neighbourhood. 520  ShareNL 521 works closely with the city government to further research, build a network of collaborative economy stakeholders, and try to co-create a more sustainable and better Amsterdam. 522	use meeting rooms and auditoriums of government buildings for their own public meetings and events, and setting up shared bookshelves in communities throughout the city. 525  Within government: The challenge is to build partnership within government	5% of the city's budget set aside for this form of economic democracy.  This nurtures civic pride as citizens feel that they had participated in the construction, design and approval of public works and government programs. 529	are stocked by various groups, such as SG Food Rescue, kindergarten centres, residents, and sometimes by companies as part of their CSR efforts. <sup>531</sup>

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<sup>&</sup>lt;sup>520</sup> World Economic Forum (2017). *Collaboration in cities: From sharing to sharing economy*. Retrieved from http://www3.weforum.org/docs/White\_Paper\_Collaboration\_in\_Cities\_report\_2017.pdf.

<sup>521</sup> ShareNL advices platforms, businesses, governments and NGOs worldwide on sharing and platform economy.

<sup>&</sup>lt;sup>522</sup> Social innovation community (n.d.) Retrieved from https://www.siceurope.eu/countries/netherlands/how-amsterdam-developing-collaborative-economy-works-everyone.

<sup>&</sup>lt;sup>525</sup> The sharing city, Seoul project. (n.d.) *Metropolis*. Retrieved from https://policytransfer.metropolis.org/case-studies/the-sharing-city-seoul-project; Johnson, C. (2013, July 16). Is Seoul the next great sharing city? [Blog post].

<sup>&</sup>lt;sup>529</sup> McLaren and Agyeman (2016, February 24). Sharing without sharing: The strange case of Medellin https://www.shareable.net/blog/sharing-without-sharing-the-strange-case-of-medell%C3%ADn.

<sup>&</sup>lt;sup>531</sup> Lin, Y. (21 January, 2017). Fridges stocked with food in Tampines block to help boost kampung spirit. *The Straits Times*, Retrieved from https://www.straitstimes.com/singapore/fridges-stocked-with-food-in-tampines-block-to-help-boost-kampung-spirit.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
		Within government: The municipal government takes a broad, cross- sectoral view of the sharing economy. The team working on the development of the sharing economy spans a variety of different roles and functions within the municipality including, but not limited to, economic and social affairs. <sup>523</sup>	and to coordinate the efforts among the other 144 divisions of the City Seoul. 526  The city also has 25 district authorities who might have the final say in allowing certain forms of sharing. 527		

<sup>&</sup>lt;sup>523</sup> European Commission Digital Transformation Monitor. (2017). *Amsterdam's collaborative economy*. Retrieved from https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM\_Amsterdam%20v1.pdf.

<sup>&</sup>lt;sup>526</sup> Chasin, F. (2018). The role of governments in peer-to-peer sharing and collaborative consumption. In P.A.Albinsson & B.Y.Perera (Eds.) *The rise of the sharing economy* (pp.237-262). Santa Barbara, California: Praeger.

<sup>527</sup> *ibid*.

Factors	China	Netherlands (Amsterdam)	South Korea (Seoul)	Colombia (Medellin)	Singapore
		Worldwide partnerships: Amsterdam set up the Sharing City Alliance, which is a formal alliance with cities worldwide who are working on the challenges and opportunities of the sharing economy and digital platforms.  The purpose of the alliance is for cities to learn and collaborate with one another. There are 13 cities in this alliance, including Amsterdam, Seoul, Singapore and Tel Aviv. <sup>524</sup>			

 $<sup>^{524}\</sup> Sharing\ Alliance:\ https://sharingcities alliance.com/what-we-do/\#alliance-activities.$ 

## **ACKNOWLEDGEMENTS**

This report is a result of a study commissioned by the Ministry of Culture, Community and Youth (MCCY) to examine the sharing landscape in Singapore. We would like to thank Ms Lucinda Seah of MCCY for her valuable inputs and suggestions. Special thanks to all the FGD participants for sharing with us their perspectives on sharing initiatives in Singapore.



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