



The Sharing Economy in Developing Countries

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The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human wellbeing and social equity. For further information visit: www.isf.uts.edu.au

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Summary

There is currently limited research examining the sharing economy in low-income contexts. This report provides a synthesis of the available literature and suggests some preliminary findings.

The application of sharing economy style businesses in developing countries has the potential to: enable lower impact consumption; assist with economic development; enable entrepreneurship; and assist with regulation and business formalisation. Presently in low-income countries the key sectors in which businesses are appearing include transport and logistics, human resources and agricultural aids. In middle-income countries there are a broader range of options with businesses providing access to consumer goods such as toys and tools. Much more potential exists to customise the sharing economy to low-income settings and to target societal needs, such as safety, health and housing; or to include under-served groups. Platform cooperatives may provide a promising business model to distribute benefits in poor communities.

Barriers to the sharing economy in low-income countries include: a lack of trust, social and cultural norms regarding ownership, inadequate technology, a lack of electronic payment systems, a lack of assets and skills and a lack of appropriate regulations. There are currently few examples of governments promoting and encouraging the sharing economy; however, experiences in Seoul, RoK may provide useful insights. Much more research is needed to understand impacts, and to identify appropriate sectors, business models and conditions to enable a pro-poor sharing economy.

Interventions to support a pro-poor sharing economy would need to: provide the enabling environment, promote pro-poor business types and then implement policies to ensure positive social and environmental outcomes can be achieved. To create the enabling environment, interventions could support the development of mobile payment systems and accessible technology platforms, as well as facilitating access to community or shop space and crowdfunding opportunities. Pro-poor approaches to the sharing economy could involve the development of platform cooperatives, peer to peer sharing platforms and sharing businesses that target community needs or specific social and environmental issues. To promote positive outcomes for sharing economy businesses, interventions could help by setting minimum wages for freelance workers, facilitating worker access to social security and training, promoting business standards for inclusiveness and setting sustainability guidelines for businesses.

1 Introduction

1.1 About this report

This report comprises a preliminary review of the literature regarding the use of the sharing economy in developing countries, with a focus on low-income contexts. Academic research into the sharing economy in any context is limited and is largely focused on developed countries, however, some research into the sharing economy in middle-income countries is starting to emerge. Due to the limited available academic research this review has also drawn upon non-government reports, as well as Internet and news media articles.

This review provides a preliminary appraisal of the sharing economy in developing countries in terms of: potential benefits and issues; relevant sectors; barriers and enablers; and potential policy approaches. However, more research into all of these aspects will be needed in the future.

1.2 The Promise of the Sharing Economy

The sharing economy has attracted significant attention globally, due to its potential to create new markets, make use of idle assets and reduce the environmental impacts of consumption (Botsman & Rogers, 2010; PWC, 2014). One study evaluated that globally, there are under-utilised or idle assets valued at 5.35 trillion USD which could be traded, exchanged or shared (Matofska, 2015, p. 5).

There are numerous definitions for the sharing economy as opinions differ on what does and does not constitute “sharing”. In this report, we use the following description: the sharing economy involves “sharing assets – physical, financial and/or human capital, between many without transferring ownership, via a digital platform to create value for at least two parties” (Dalberg, 2016, p. 2). The sharing economy casts a very wide net and it is important to recognise that potential environmental, social or economic benefits depend on the physical nature and context of a business.

Most literature regarding the sharing economy is focused on the opportunities in highly developed countries, where the consumer base is saturated with ‘idle assets’ that can be shared and used more effectively as well as earn money. The sharing economy offers the potential to shift from ‘asset-heavy’ ownership to ‘asset-light’ access, so that consumers can opt to rent goods when they need them or pay for a service. However, in low or middle-income countries the sharing economy is a different proposition. Sharing or renting assets may enable access to people who have not previously been able to afford them. New consumers may choose to pay for access in the first instance and avoid ownership, thereby making an important contribution to sustainable development (Retamal, 2017).

The key benefits of the sharing economy in developing countries proposed by commentators include: improving the sustainability of consumption, enabling entrepreneurship and development and assisting with regulation.

Lower impact consumption

Academic studies in industrialised countries have found that businesses enabling shared access to goods have significant potential to reduce the environmental impacts of consumption by intensifying the use of existing products and reducing the need for further manufacturing. Car sharing has been found to reduce the number of cars on the road (Martin, Shaheen, & Lidicker, 2010), which then reduces traffic congestion and greenhouse gas emissions by up to 50% (Shaheen & Cohen, 2013). Shared laundries or laundry services have been estimated to reduce resource consumption by 30-90% compared to owning and using a machine at home (Haapala,

Brown, & Sutherland, 2008; Komoto, Tomiyama, Nagel, Silvester, & Brezet, 2005). Tool rental has been estimated to reduce material consumption by 90% (Behrendt & Behr, 2000; BMBF, 1998). Further studies are needed to examine the environmental benefits of the range of available sharing economy businesses.

Other sharing economy examples are expected to create environmental benefits, such as bike-share and ride-share, which can help to alleviate traffic and reduce greenhouse gas emissions. Rental of goods that are used periodically or for a short duration, such as tools and toys can help to minimise resource use and waste (Retamal 2017). Delivery services for meals and other on-demand goods could help to optimise trips and reduce overall traffic. Platforms enabling sale of second hand goods also provide environmental benefits by increasing material productivity. While there are many potential benefits, unintended impacts may also arise. The environmental benefit of a sharing business depends on the business model and the context (Demaillly & Novel, 2014; Heiskanen & Jalas, 2003; Tukker, Tischner, & Verkuijl, 2006).

Studies in Southeast Asia have found that sharing economy businesses do not always contribute to environmental sustainability. The variability in environmental benefits are due to a number of reasons: few businesses have explicit environmental aims (Roxas, 2016); business models and methods of sharing vary; many businesses focus on intangibles or services e.g. employment, financing, education; and some businesses may have unforeseen rebound effects resulting in an increase in waste or transport requirements (Retamal, 2017).

For example, on-demand taxi services such as Uber have a similar effect to taxis; they may or may not reduce the number of car trips or car ownership and may even increase car trips due to the availability of an inexpensive, accessible service. A fashion rental business may need a wide variety of stock to satisfy user interests, and may need to continually resupply to keep up with fashion, creating further clothing waste. Goods rental could increase car trips and emissions due to transport, depending on how deliveries are managed.

While business to consumer offerings have the potential for oversupply and increasing transport, this is less of an issue with peer to peer sharing platforms, which enable consumers to share existing goods on a less intensive basis. It is also possible to mitigate many of these potential rebound effects through regulation and management. For example, ride-share businesses could be required to provide ride-pooling services, where they take more than one passenger on the journey, as this has clearer environmental benefits (Retamal, 2017).

Enabling development

Sharing economy businesses can formalise existing services, enabling growth and attracting investment and greater employment (van Welsum, 2016). The ability to make use of existing assets means that the sharing economy can operate and even thrive in periods of slow economic growth (Bonciu, 2016). This is particularly the case for peer to peer sharing platforms.

Sharing economy businesses can also generate new jobs. In India, competing car-sharing firms have offered 30,000 jobs for the unemployed in Tamil Nadu and training programs for 50,000 women (Yaraghi & Ravi, 2016). Sharing or renting assets may provide access to goods at a lower cost and help to improve livelihoods. Some examples include shared laundries, tool and equipment share, childrens toys and equipment rental, as well as shared transportation (Retamal, 2017).

Sharing platforms can also facilitate agricultural activities. “Hellotractor” is a platform being used in Africa to enable farmers with tractors to rent them to others that lack equipment. “Sarura commodities” enables farmers and cooperatives in Rwanda to access shared crop storage facilities, to avoid crops spoiling and to arrange efficient crop logistics. Providing access to equipment and technology can help individuals and businesses to increase their productivity and income.

Enabling entrepreneurship

Sharing economy platforms can enable more micro-entrepreneurship and support people who are in part-time work (Jain, 2015). In addition, digital platforms can enable matching of a diverse customer base with a range of small-scale providers, giving greater reach to smaller businesses (Ozimek, 2014). Jain (2015) suggests that drivers involved in his auto-rickshaw delivery service in India “Jugnoo” have the potential to achieve higher wages if they receive good reviews. Other commentators speculate that sharing economy platforms that enable reviews can provide an opportunity for people without a job history to build their reputation (Dillahunt & Malone, 2015).

In the Philippines, several sharing platforms provide training for users, including: “Freelancer” (work), “Mober” (driver deliveries), “Good Meal Hunting” (home cooked food) (Roxas, 2016). Online crowdfunding may provide opportunities for start up businesses in developing countries, where previously credit / funding was difficult to obtain (Dalberg, 2016). Providing worker training, creating jobs for the underemployed, and supporting micro- and small enterprises are all important socio-economic benefits that can contribute to poverty alleviation.

A tool for regulation

Some commentators propose that sharing economy platforms have the potential to play a regulatory role in developing countries that lack appropriate regulation (Ozimek, 2014). For example, motorbike taxi app “Safemotos” in Rwanda allows users to find a motorbike taxi driver whose driving safety has been monitored by reviews and GPS tracking. In this case, data collected by the app provides information for regulation and enforcement of safety and quality standards. In the case of “Safemotos” this has a major benefit for public health, by allowing people to choose safer options and avoiding traffic accidents. The existence of a better service may also help to improve safety standards amongst competitors.

The World Bank suggests that sharing economy businesses can overcome some of the barriers for investment in developing countries, such as weak regulation, unreliable governance and a lack of funding. For example, customer and peer review systems may enable self-regulation, and financing can be obtained through crowdfunding as sharing platforms typically require less capital to start up (van Welsum, 2016).

The use of digital platforms may also provide an avenue for business formalisation, which is considered necessary for long-term economic stability, reducing poverty and enabling social welfare (OECD, 2006). A major proportion of developing economies consist of informal businesses; in Africa and Latin America they comprise over 40% of the economy (OECD, 2006), and in Asia, informal employment constitutes 65% of non-agricultural work (ILO, 2007). People employed in informal businesses lack access to social security and standard working conditions related to safety, income and working hours (ILO, 2007).

While governments can be motivated to formalise businesses to broaden the tax base, there are a lack of incentives for small businesses to formalise as it can increase their costs (Palmer, 2007). For micro and small enterprises, the costs of formalisation and the paperwork can be prohibitive (Palmer, 2007). However, there is potential for digital sharing economy platforms to provide hubs for micro and small enterprises and to introduce some aspects of formalisation, such as safety standards. Many digital platforms generate useful data, for example regarding business transactions or transport journeys, which may be useful to government planning. Digital sharing platforms could share access to this data with governments in exchange for semi-formal business approvals.

2 Active Sectors and Potential Benefits

For this review we collected examples of sharing economy businesses operating in developing countries (see Appendix A for list). Within these examples, three dominant sectors emerged: 1) transport and logistics, 2) human resources, and 3) agricultural aids. These three sectors likely reflect the needs of people in low-income countries. While the bulk of examples we found could be categorised into these three groups, there were also other examples such as a home sharing site in South Africa and a platform offering meals in people's homes. Consulting firm Dalberg (2016) suggest three focus areas for the sharing economy in developing countries: youth unemployment / underemployment, access to finance, and agricultural productivity.

The business examples we found in low-income countries differ slightly from sharing economy businesses in middle-income countries. For example in Southeast Asia, transport sharing is also popular, however, other business types provide access to consumer goods through rental of toys, children's equipment, tools and fashion items (Retamal, 2017). Roxas (2016) found examples of the sharing economy in the Philippines across a broad range of sectors, including: transport, services, money, space, logistics, food, goods and education.

Sustainable development goals

Sharing economy businesses that contribute to reducing waste and improving resource efficiency can contribute to sustainable development goal (SDG) 12 – *Ensure sustainable consumption and production patterns*. Others that provide employment opportunities and facilitate small enterprise may contribute to SDG 8 – *Promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all*, and SDG 9 – *Industry, innovation and infrastructure*. In particular, platforms facilitating small enterprise can contribute to Target 9.3 - *Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets* (United Nations, 2016)

Transport and logistics

In terms of internet sharing platforms, motorbike taxis appear to be common in low-income countries, for example “Safemotos” in Rwanda, and “Safeboda” in Kenya. In middle-income countries these are also popular e.g. “Go-Jek” in Indonesia and “Jugnoo” in India (Jain, 2015; Liem, 2015). There is also some local customisation in Indonesia, with “Ojek Syar'i” – which is an online booking service for muslim female motorbike drivers (Liem, 2015). Ridesharing for long distance car journeys has also appeared in Rwanda (e.g. “Gawana”) and is also being used in middle-income countries such as in “Dichung” in Viet Nam.

Motorbike taxis would be used regardless of the taxi app, however formalising the service and collecting data improves health and safety. Sharing car trips through ride-sharing can have positive impacts by enabling better transportation and reducing the total number of vehicles needed on the road. There is an important distinction here between on-demand transport (like a taxi) and ride-sharing in which the driver plans to make the journey regardless of passengers. On demand transport can reduce greenhouse gas emissions if they collect multiple passengers en-route and reduce the number of taxis required. Ride-sharing for existing journeys has clear benefits for reducing traffic and greenhouse gas emissions.

Another popular business type is logistics companies which manage filling vacant space in shipping containers e.g. “Swiftly” in Ghana, and “Bifasor” in Burkina Faso. Many of these businesses have been designed to meet a demand for goods transport for international shopping. These services can help to reduce emissions from transport if they consolidate loads and ultimately reduce the number of trips. However, the ease of transport may encourage more online shopping and greater international transport of goods, generating a rebound effect and ultimately increasing emissions.

As incomes increase, more transport-sharing platforms may become available in low-income countries, enabling people to access vehicle transport without needing to own a vehicle. Transport sharing can improve livelihoods by lowering the cost of mobility and improving access to work.

Human resources

Platforms to connect freelance workers with employers are becoming increasingly common in Africa and elsewhere, with examples such as “Upwork” (International), “Okazi” (South Africa), “Jolancer” (Nigeria) and “1task1job” (Cameroon) (Dalberg, 2016). “SweepSouth” in South Africa connects cleaners with clients. The international nature of freelancing platforms means that they can offer jobs in countries that would not otherwise be available. They may even create new work opportunities domestically, as clients can be more easily connected with workers. This can be a significant positive benefit for employment and livelihoods in developing cities.

While freelancing platforms offer work, in many cases there is major competition between freelancers and this drives fees down, making each job low-earning. If there are no minimum wages in place, there is the potential for workers to be short-changed. However, Dalberg (2016) argue that even so, these platforms provide a useful employment option and that experienced freelancers in India and the Philippines can earn hourly rates similar to those in industrialised countries.


Employment platforms can be developed to improve conditions for workers. For example, “Okazi” operates as an employment agency with an aim to enable continuous employment, so that if a worker is laid off, they aim to find them alternative work. In another example, casual work platform “Taskrabbit” operating in the U.S. has instituted minimum wage rates, when previously workers could auction their services with no lower limit. These are examples of ways to mitigate some of the downsides of casual freelance work, and improve livelihoods. Employment platforms can generate positive social outcomes if they provide training, or work opportunities to vulnerable people.

As hubs for employment, there is an opportunity for these platforms to contribute to formalising working conditions. Governments could work with employment platforms to establish standards regarding wages and potentially build in access to social security.

Agriculture

In Africa, there are numerous examples of mobile networks being used to communicate important information to farmers, such as: crop prices, pest issues and logistics (Deichmann, Goyal, & Mishra, 2016; Dobush, 2015). Mobile platforms can be used to connect farmers or producer co-operatives with food storage and processing facilities, and this can help reduce food waste and maximise profits to farmers (Dalberg, 2016; Dobush, 2015).

Platforms to enable communication of harvest sizes and storage and transport needs can make logistics more efficient and reduce costs and transportation impacts. All of these improvements can ensure farmers receive a greater return with positive impacts on livelihoods. However, a key concern is that farmers are less likely to have smart phones or internet access, and consequently platforms need to be tailored for mobile phone use.



Opportunities to share farming equipment can also reduce workloads and costs for farmers. The app “Hellotractor”, operating in Africa connects farmers who own tractors with farmers who need them, using a GPS system so that users can find tractors nearest to them and owners can keep track of the whereabouts of their assets.

Further potential in low-income countries

Sharing economy expert April Rinne believes that so far, there has been little customisation of sharing economy businesses to local situations in low-income countries (Rinne, pers comm). However, Rinne suggested there is much more potential for this to occur, and cites the example of “Okazi”, the human resources hub in South Africa that aims to provide continuity of employment for people working for SMEs.

Sharing economy platforms can achieve greater benefits in low-income environments by targeting specific societal needs, such as safety, health and housing; or by aiming to include vulnerable or underserved groups. For example, in the Philippines, Roxas (2016) found that the majority of participants selling second-hand goods and involved in food preparation were women and suggested that these platforms enabled housewives to access an alternative income stream. The digital nature of sharing platforms may also enable broader participation, for example on-demand taxi apps such as Uber can readily employ deaf or mute drivers.

While business to consumer sharing platforms can adopt specific social or environmental causes, profits are still concentrated with investors, which may not be local. To generate wealth locally and to create greater opportunities in poor communities, platform cooperatives may be the most promising business model. Platform co-ops combine digital platforms such as websites or mobile apps with a cooperative business structure (Johnson, 2016), and as such distribute ownership and management of the business to those working for or using the service (Sutton, Johnson, & Gorenflo, 2016).

Various examples of platform cooperatives exist in Europe and North America, such as “Fairmondo” - a co-operative version of eBay from Germany; “Juno” - a ridesharing platform in the U.S. which reserves 50% of its equity for drivers; “Modo”, a carsharing co-op in Canada, and “Peerby”, a benefit corporation in the Netherlands which enables peer to peer sharing (Johnson, 2016). “Loconomics” is an example of a freelance employment platform that is worker owned.

3 Enablers and Barriers

In general, the sharing economy requires a few key ingredients, such as: trust and credibility, shareable assets, idle capacity, a critical mass of participants, digital payments and tailored / clear regulations with regard to safety, insurance and taxation (Bonciu, 2016; Botsman & Rogers, 2010; Dalberg, 2016). Other aspects such as affordability, literacy and appropriate technology are likely to be particularly important for developing countries. Dalberg (2016) identified the key characteristics of shareability, as goods that are: under-utilized, in limited supply and price-elastic.

The key barriers to the sharing economy in developing countries are likely to include: a lack of trust, social norms, technology, electronic payment systems, a lack of assets and skills and a lack of regulations.

Lack of trust

Sharing economy platforms require trust with regards to the personal data that is collected and in terms of the reliability and quality of the service provided (van Welsum, 2016). Levels of interpersonal trust determined by the World Values Survey in Africa and Latin America are low (30% or fewer believe most people can be trusted). Interpersonal trust in Asia is mid-range and sometimes higher than in Europe (Ortiz-Ospina & Roser, 2016). Any country with lower levels of societal trust is automatically at a disadvantage with regards to the sharing economy (Rinne, pers comm).

Jain (2015) believes that the sharing economy is struggling to take roots in India due to the inability to source trust from customers. Research in the Philippines found that sharing economy users did not necessarily require trust, as trust is considered more personal, but needed sharing platforms to provide a sense of 'security' (Roxas, 2016).

Social and cultural norms

European studies of sharing and servicing businesses have found that cultural expectations of ownership were a major barrier (Mont, 2004; Vezzoli, Ceschin, Diehl, & Kohtala, 2015). A lack of awareness and acceptance was also a barrier in Finland (Laukkanen & Patala, 2014). In Thailand and Viet Nam, social norms relating to ownership appeared to be the most significant barriers to sharing and renting, as people still aspire to own their own goods (Retamal & Hussey, forthcoming). In Brazil, studies of collaborative consumption found that social norms were the most important motivation for use, followed by utility. Awareness of online collaborative consumption platforms was much higher for highly educated people in Brazil (Hansstein & Echegaray, forthcoming).

Technology

Most sharing economy businesses require internet and smartphone applications, which is a significant barrier in countries where smartphone ownership is low (Feeney, 2014; Liem, 2015). Mobile phone coverage is growing rapidly in some countries e.g. Ghana and South Africa have doubled mobile phone use in the past 5 years (Dalberg, 2016). For mobile phone enabled enterprise some barriers remain, such as affordable energy to charge a phone, reliable energy supplies and mobile network coverage (Dobush, 2015). However, the majority of sharing economy businesses that are currently available focus on smartphone apps. Low rates of smartphone ownership and a lack of network coverage seriously limit participation in the developing world (van Welsum, 2016). To enable greater participation, sharing economy businesses need to provide mobile phone based platforms that operate by voice or text or design sharing businesses that operate at a more local level using different means of communication.

Electronic payment systems

In many low-income countries, credit and debit card ownership is low and this is a significant barrier (Rinne, pers comm), however, some international sharing economy businesses have already adapted to this, for example Uber accepts cash payments in several countries. Others require mobile payment systems, which are widespread in some countries (e.g. Kenya etc) and are expanding. This is likely to improve financial inclusion in the sharing economy (van Welsum, 2016).

Rising mobile coverage and new payment options

Alam (2016) points to the rise in mobile phone coverage in Africa as a key enabler for the sharing economy and digital entrepreneurship. In Sub-Saharan Africa, 80% of the population have mobile phones and 15% have smartphones, while only 2% have landlines (Pew Research Center, 2015). Access to mobile technology has made a significant difference to connectivity and the potential for digital communication. M-Pesa is a mobile money company that launched in Kenya in 2007 which enables people to transfer money via text message (Dobush, 2015).

Using mobile phones to make and receive payments is now common in Kenya, Uganda and Tanzania (approx. 40-60% of phone users). In other sub-Saharan African countries about 15% of people use their mobiles to make payments, e.g. South Africa, Nigeria and Ghana. However, smartphone owners in Africa are more likely to be young, educated and English speaking, which suggests smartphone apps are currently only accessible to middle and upper classes. Africans that are less likely to own a mobile phone include: women, people who are less-educated or illiterate and people who cannot speak English. In Kenya, 58% of people who said they did not own a mobile phone indicated that they shared a phone with someone else (Pew Research Center, 2015). This highlights the limitations of smartphone apps to alleviate poverty, as the poor are unlikely to have access.

Lack of assets and skills

While communication tools are essential for the modern sharing economy, to be sharing providers, participants may also require personal assets and skills. A lack of access to capital may further hinder participants in this regard, but depends on the type of sharing platform. Dalberg (2016) highlight that as sharing businesses enable asset sharing, they tend to favour asset owners and may therefore reinforce socioeconomic inequality. However, there is hope that the characteristics of the sharing economy could be a good match for societies where there are scarce assets and abundant labour (Dalberg, 2016).

A lack of personal assets can limit peer to peer sharing, however business to consumer rental may have appeal. Low rates of car ownership in many emerging and developing countries represent an opportunity for people to adopt car sharing in the first instance rather than car ownership (Alam, 2016). Alam (2016) even suggests that a non-ownership model might be more culturally acceptable in countries where car ownership has never been the norm.

Aside from personal assets, there may be shortcomings in physical public infrastructure such as communication networks and roads (van Welsum, 2016). In Southeast Asian cities, physical barriers to sharing include the logistical problems associated with traffic congestion and a lack of adequate public transport to properly integrate transport sharing (Retamal & Hussey, forthcoming).

In developed countries, businesses offering assets to rent typically face difficulties accessing finance and uncertainty regarding returns on their investments (Vezzoli et al., 2015). In Southeast Asia, sharing/renting business also face difficulties obtaining finance and this is likely to be even more acute in low-income countries. SMEs renting and sharing goods are subject to financial risks if their assets are damaged, and this is particularly the case where there is no legal framework to support deposit-taking (Retamal & Hussey, forthcoming).



Lack of regulations

A lack of regulatory frameworks are sometimes considered the biggest barrier for sharing economy businesses (Dalberg, 2016). Regulations typically have not kept pace with technology, and are not flexible when conditions change (van Welsum, 2016). Deichmann (2016) argues that investments in digital technology need to be accompanied by reforms in business regulations, governance and skills development.

Regulatory frameworks may be required to stimulate greater investments (Mont, 2004). In middle-income countries in Asia, barriers include a lack of legal definitions and appropriate business permits for businesses combining sharing/renting and selling, particularly for transport sharing (Retamal & Hussey, forthcoming).

4 Existing Policy and Practice Interventions

Supporting the sharing economy

As sharing economy expert April Rinne notes, the policy environment to support the sharing economy remains relatively uncharted. There are very few examples of governments promoting and encouraging the sharing economy. One prominent example of this is Seoul in South Korea. In 2012, Seoul's city government declared that it would become a Sharing City and put in place "the Sharing Promotion Ordinance". The city government provides support to businesses that involve sharing and are committed to solving urban problems, including: traffic congestion, environmental pollution, lack of parking and reducing household expenses by sharing goods. Businesses apply to the government to receive the 'sharing business' designation and are then eligible for government support. Thus far seventy-seven businesses in the city have received this designation (Sharehub, n.d.)

The Seoul city government has examined their regulations to identify and improve any that could cause barriers to sharing businesses, in relation to transport, tourism, taxation, insurance, infrastructure and so on. The government has set up competitions, business incubators, and other services to support sharing economy businesses (Gawel, Machur, & Pennington, 2016). In addition, the city has opened up its buildings so that the general public can rent spaces such as meeting and lecture rooms (Sharehub, n.d.)

One researcher examining Seoul's approach found that the city harboured two types of the sharing economy: one that is small scale, local, run by social entrepreneurs and supported by the city government; and another that comprised the larger, international players that do not necessarily have social or environmental aims (Hong, 2015).

Other suggestions to stimulate the sharing economy include: providing incentives for entrepreneurs to start businesses, including prizes and competitions; limited light touch regulation that is adapted to sharing economy needs; and research to better understand digital sharing, business models and user motivations (Dalberg, 2016).

Government regulations

In many developed countries sharing economy businesses have faced considerable opposition and policymakers have needed to respond rapidly (Schor, 2014; Zon, 2015). In some cases this has resulted in outright bans (e.g. for Uber in many cities) or highly prescriptive controls (e.g. Airbnb being required to meet the same standards as hotels). More adaptive regulations have been developed more recently, where for example in London and Amsterdam, Airbnb has agreed to limit the number of days people can host per year (Woolf, 2016).

There is concern that regulating the sharing economy may create a barrier to entry for potential businesses (Yaraghi & Ravi, 2016). For that reason commentators often propose a 'light touch' approach to regulation that can provide some structure while allowing businesses to start up and grow (Schor, 2014). Light touch regulation generally requires a customised approach, so that for example, a home-cooked meals service is not subjected to the same regulations as a restaurant, but has some health and safety requirements in place.

Business self-regulation

There is potential for businesses and other stakeholders to participate in regulation through business policies and review platforms (Yaraghi & Ravi, 2016). For example, a sharing platform that enables customer reviews can regulate quality, which is particularly important where safety is concerned, such as in transport sharing. A customer sourced ratings systems is also lower cost than other options for regulating quality and safety (Ozimek, 2014). Ozimek (2014) suggests that this type of crowd-based assessment can overcome a lack of regulation (and enforcement) in developing nations. Others suggest that businesses find ways to mitigate problems once they have been operating for a time (Johal & Zon, 2015). However, some studies highlight that user-rating systems are not foolproof, as they can be manipulated by participants or providers (Erickson & Sorensen, 2016).

A self-regulating approach may assist with some quality and safety aspects of businesses, however, there are other issues that may require government intervention relating to worker welfare and the environment. As participants in the sharing economy are not considered employees, they receive fewer benefits and lower job security. Participants may also be subject to greater legal liabilities as they are required to obtain their own licences and insurance (Erickson & Sorensen, 2016). Studies examining the sharing economy in middle-income countries in Southeast Asia find that businesses do not naturally achieve sustainability outcomes and are likely to require policy and program interventions to ensure environmental sustainability (Retamal, 2017; Roxas, 2016).

Policy principles

Several reports from World Economic Forum (Gawel et al., 2016), Johal and Zon (2015), and Zon (2015) have put forward policy principles for regulating the sharing economy, and these are synthesised below. These principles represent general guidance for the sharing economy and are not particular to low-income or developing countries. These are to:

- Initially provide an encouraging environment for new businesses and minimise uncertainty regarding regulation
- Review policy objectives more broadly and consider the wider regulatory system, in particular for incumbents
- Develop flexible regulations that can accommodate technological change and are focused on outcomes rather than prescribing activities
- Develop policies that also consider improving social and environmental goals and consider impacts on employees/participants
- Harness data generated by sharing economy businesses to assist with governance – for example ridesharing data can assist with transport planning
- Consider the potential for self-regulation, for example worker platforms can set minimum wage levels
- Consider the end-users perspective and consult stakeholders for input into regulations e.g. Barcelona used a consultative, crowd-sourced approach to regulation

A pro-poor sharing economy would need to be enabled by policy to ensure inclusion and accessibility and to protect participants. While some aspects of the sharing economy, such as quality and safety can be regulated through the platforms themselves, social and environmental goals are likely to need external influence and incentives.

5 Future Research Needs

There is significant potential for sharing based businesses to contribute to poverty alleviation and there are many indications that the sharing economy can provide social, environmental and economic benefits. However, many of these benefits are yet to be confirmed by research. The real social and environmental impacts of the sharing economy have not been conclusively determined in any economic setting and academic research is just beginning to address these questions. There is a distinctive lack of research relating to the sharing economy in low-income and fragile contexts.

In order to harness the potential of the sharing economy in developing countries, research is needed to:

- Examine the needs and applicability of the sharing economy in low-income contexts;
- Understand the social, environmental and economic impacts in these settings;
- Identify the most appropriate business models and business sectors to enable a pro-poor digital sharing economy;
- Evaluate policy and program interventions for the sharing economy elsewhere in the world, and identify successful approaches.

6 Preliminary recommendations

As there have been few programs and policies designed to foster the sharing economy and steer positive outcomes, it remains difficult to establish what might represent best practice. Sharing economy activities in Seoul may provide some good examples, however, research regarding the effectiveness of these initiatives is needed.

The policy principles collated in the previous section are oriented towards enabling sharing economy businesses while balancing other objectives and are a useful starting point for regulatory responses. To harness the potential of the sharing economy to improve livelihoods in low-income countries, interventions need to firstly provide the enabling environment and then encourage the types of sharing economy businesses that address livelihood issues in poor communities.

Providing the enabling environment

To enable the digital sharing economy in low-income countries, governments and NGOs need to initially facilitate finance, access to resources and technology. Ideas include:

- Supporting access to crowdfunding sites
- Setting aside community or shop space for sharing and renting businesses (or ensuring affordable rent for sharing businesses) (Retamal, 2017)
- Setting up business incubation hubs and incentives for new businesses
- Providing support for sharing businesses to develop more accessible technology platforms that can be operated by voice and text message
- Supporting development of mobile payment systems or other alternatives to credit card use

Promoting pro-poor business types

To ensure greater social benefits, governments and NGOs can support the development of the following:

- Platform cooperatives, which can distribute profits and provide opportunities to a broader group of people
- Peer to peer platforms which can enable social and environmental benefits at a lower cost
- Sharing economy businesses that target specific community needs and are likely to have social and / or environmental benefits – including shared transport, employment and agriculture

Ensuring better outcomes

To ensure better social and environmental outcomes in key areas, governments and NGOs can support the following:

- Setting minimum wages for worker platforms, or working conditions to enable access to social security. This can be combined with support for business formalisation.
- Businesses providing training or other benefits for participants.
- Sustainability guidelines, awards or standards for businesses, for example:
 - to encourage use of reuseable packaging and optimise transportation of goods
 - to encourage shared transportation that serves more than one passenger at a time (Retamal, 2017)

- Businesses adopting standards for inclusion: to better serve disadvantaged groups and to remove potentially discriminatory factors from platforms (gender, race, ethnicity) (Yaraghi & Ravi, 2016)

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Appendix A – Example Sharing Economy Businesses In Developing Countries

Name	Country	Description	Website
Transport			
Safemotos	Rwanda	Motorcycle taxi app	http://www.safemotos.com
Safeboda	Kenya	Motorcycle taxi app	http://www.safeboda.com
Gawana	Rwanda	Ridesharing	http://www.gawanarideshare.com/
Poolcircle	India	Ridesharing	http://www.poolcircle.com/
Jugnoo	India	Auto rickshaw, transport or delivery of meals or groceries	https://www.jugnoo.in/#/
GoJek	Indonesia	Motorbike transport and deliveries	https://www.go-jek.com/
Logistics / deliveries			
Buddibox	South Africa	Encouraging delivery businesses	http://www.buddibox.co.za/about-us
Swiftly	Ghana	Start-up matching people who need to ship items with spare space in shipping containers	http://swiftly.global/
Bifasor	Burkina Faso	Logistics	http://www.bifasor.com/
Senga	Kenya	Logistics	http://senga.co/
Fastvan	South Africa	Logistics	http://fastvan.com/
Aquantuo	Ghana	Peer to peer transport of goods	http://www.aquantuo.com/
Shypmate	Ghana	Enabling international shopping	https://www.shypmate.com/
Jumia Food	Rwanda	Food delivery service	https://food.jumia.rw/
Human resources			
Okazi	South Africa	Employment agency for SMEs	http://okazi.co
Upwork	International	Freelancing for digital work	https://www.upwork.com/
Jolancer	Nigeria	Freelance work	http://jolancer.com/
1task1job	Cameroon	Freelance work	http://www.1task1job.com/

SweepSouth	South Africa	Connects cleaners with clients	http://www.thisisafricaonline.com/News/Sharing-economy-takes-off-in-Africa?ct=true
Agriculture			
Hellotractor	Africa	Networked share tractors	http://www.hellotractor.com/hellopress/
Plantwise	Africa	Sharing / crowdsourcing of pest information for crops to prevent crop loss	https://www.plantwise.org/
Sarura commodities	Rwanda	Initiative that addresses post harvest losses by consolidating the harvest into a warehouse	http://www.h2ovp.com/what-we-do/agriculture/case-study-sarura.aspx
Miscellaneous			
Traveling spoon	International	Eat in someone's home	https://www.travelingspoon.com/
FON		Sharing of spare bandwidth to create a crowd-sourced Wi-Fi network	http://atmosphere.co.za/newsroom/how-south-africans-too-are-embracing-the-sharing-economy/
The room link	South Africa	Connecting students with those who have spare rooms	https://www.theroomlink.co.za/