What Role Can Digital Platforms Play in Scaling the Social and Solidarity Economy?

Investigating the role of platforms in Indonesia's tourism sector

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Abstract

Digital platforms are increasingly impacting on diverse populations and places. This paper examines how and whether platforms can be used to scale the social and solidarity economy (SSE) in support of the 2030 Sustainable Development Goals. Using insights generated from interview and ethnographic empirical data amongst Indonesian tourism workers and micro, small and medium enterprise (SME) owners in Ubud, Bali and Lombok, Indonesia, we outline how SSE actors are engaging with platforms. These insights shed light on how key SSE practices and objectives – collective organising, collective decision-making, and gender equality – are supported and undermined in the context of platforms. We argue that developing clear metrics, giving voice to SSE actors and developing a national framework are key ways to ensure that platforms contribute positively to scaling the SSE.

Keywords

Platforms, Indonesia, tourism.

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Introduction

This paper investigates how the social and solidarity economy (SSE) supports the implementation of the 2030 Sustainable Development Goals (SDGs), and whether digital platforms may effectively scale the SSE. We focus on Indonesia's tourism sector because Indonesia's vision is to make the country a "world-class tourism [destination], competitive, sustainable, able to encourage regional development and people's welfare" (Republic of Indonesia, 2011). Indonesia's Master Plan for Tourism Development, which comprises its national strategy from 2010 until 2025, outlines how it plans to increase income generation, enhance community participation, mainstream gender, and develop regulations and incentives for small and medium enterprises (SME). These goals align with SDGs 5 (Gender Equality), 8 (Decent Work and Economic Growth) and 10 (Reduced Inequalities) most notably. Our research provides empirical insight into whether and how digital platforms may contribute to these Goals and the SSE simultaneously.

The SSE encompasses ideological frameworks, actors, and social and political movements that broadly pursue social and environmental objectives ahead of economic profit-making (Quiñones, 2015; Utting, 2016). We refer to the SSE as a system that encompasses all of these aspects. Ideologically, the SSE emphasises ethical business practices, and fundamentally challenges the roles of individuals and enterprises in the market economy (Utting, 2016). At a time when trust plays an ever greater role in economies and interaction with digital platforms, considerations beyond purely economic factors are increasingly important (Digital Citizens Alliance, 2018). When considering the SSE as a means to implement the SDGs, the issue of scale is fundamental. Scale implies a range of implementation outcomes, from small localised systems to global internationally networked systems. Although the SSE can be traced back to as early as the 7th Century (Moulaert & Ailenei, 2016), it has not managed to scale massively across global international networks. There is still a need to understand how and why the SSE might scale-up effectively.

One way to increase the scale of the SSE is through digital platforms. However, what platforms are, as well as how, where and by whom they are developed, need deconstructing. Digital platforms involve constellations of big data, algorithms, and web, cloud or networked computing. Yet, platforms are not uniform. Gawer and Cusumano (2002) posited that platforms enabling complementary innovations to take place (*i.e.* being able to create a business using the platform, or designing a widget for it) are important for scale. However, there are additional aspects that need to be considered. Platforms can be used to collect data on how its users are engaging, and they can incorporate algorithms and machine learning to make predictions about patterns and trends about its users and environments. These functionalities are only made possible when platforms have access to adequate computational power, data storage and internet connections. Such constraints have severe implications for where, geographically, platforms can be constructed and by whom. For these reasons, we need urgently to consider how and whether platforms are enacting the social and economic visions that diverse populations actually want.

Nevertheless, a growing body of research has outlined extensive transformations in socio-economic activities due to digital platforms (Drahokoupil & Jepsen, 2017; Martin & Zysman, 2016; Pon, 2015). Digital platforms may have the potential to scale the SSE to unprecedented levels, if policies and practice enable SSE actors to participate fully. However, platforms can both add and detract to the SSE. For example, Heinrichs (2013, p. 229) argued that platforms can be used to "enable shared access to goods, services, data and talent. These systems take a variety of forms but all leverage information technology to empower individuals, corporations, non-profits and government with information that enables distribution, sharing and

reuse of excess capacity in goods and services." This statement implies that platforms have the potential to empower a variety of actors, including members of the SSE. In contrast, Srnicek (2017, p. 6) asserted that "the platform has emerged as a new business model, capable of extracting and controlling immense amounts of data and with this shift we have seen the rise of large monopolistic firms." His observation implies that large monopolistic firms are receiving the most benefits from platforms, which may limit the potential for platforms to contribute positively to scaling the SSE as these firms often prioritize economic profit-making (Galloway, 2018).

  The structure of the paper is as follows. The first section problematises the tourism sector in the context of the SSE, including how social and economic objectives are planned, but that economic may frequently overshadow social objectives. The second section then introduces core issues surrounding platforms in developing contexts. We then present our methodology. The fourth section presents two main findings, and then drills down into three key themes related to the SSE: collective organising, collective decision-making and working towards gender equality objectives. The paper concludes with three recommendations for platforms to contribute positively to scaling the SSE. We anticipate that our findings are relevant for other Asian-Pacific settings, where tourism is a promising source of economic activity.

SSE metrics for Indonesia's tourism sector

According to Utting (2015, p. 2), and drawing on others, the SSE, is

> fundamentally about reasserting social control... over the economy by giving primacy to social and often environmental objectives above profits, emphasizing the place of ethics in economic activity and rethinking economic practice in terms of democratic self-management and active citizenship.

The SSE can therefore be composed of multiple systems, driven by sets of principles and objectives unique to each place and population that is taking part. There are tensions in the way that the SSE is envisioned and implemented, due to pluralism and great diversity in the histories and traditions of the actors involved. For instance the SSE typically merges 'social economy' and 'solidarity economy' traditions (Kawano, 2013). Actors within the 'social economy' have focused on developing people-centred organisations that deliver alternative mutually beneficial solutions, including collective and grassroots enterprises (Gismondi, Connelly, Beckie, Markley, & Roseland, 2016). Whereas, 'solidarity economy' actors challenged the dominance of capitalist economics through collective organising within social forums, labour movements and unions (Canet, 2013; Kawano, 2013). For the SSE truly to have an impact, both dimensions of the SSE must be considered (Lewis & Conaty, 2012). For instance, the gap between the rich and poor is growing, with less resources available for social welfare (Oxfam, 2019). If the market economy continues on the same trajectory, this gap will inevitably widen, with a smaller and smaller pool of resources to redistribute. Meanwhile, it remains a challenge for SSE actors both to deliver social services and to work transformatively in the face of dominant economic and political forces (Lewis & Conaty, 2012).

  The tourism sector is an important focal point to evaluate the potential of the SSE both to grow and to contribute to the achievement of the SDGs. In Indonesia, there are many aspects of the tourism sector that espouse SSE principles. Indonesia's Master Plan seeks to involve *Government Organisations, Local Governments, Private Companies and Community Members* in effectively regulating human resources and operational mechanisms towards greater sustainable tourism development (Republic of Indonesia, 2011). Sustainable tourism development means that tourism should contribute to poverty reduction, to establishing

decent and environmentally sound employment, and to promote gender equality (ILO Jakarta Office, 2012). Indonesia's approach therefore includes both economic and social objectives. Second, the Master Plan implemented through Indonesia's decentralised governance structure could enable widespread community participation, gender mainstreaming, and developing regulations and incentives for small and medium enterprises (SME) from the bottom-up. Creating an independent organising space between states and markets is a way to oppose dominant economic interests within SSE systems (Lewis & Conaty, 2012). Unfortunately, there is little publicly available information on Indonesia's progress towards its Master Plan objectives.

However, by examining how Indonesia is communicating progress, economic objectives seem to take precedence. When the Master Plan was launched, the government was targeting 44 Tourism Destinations for development, which were later reduced to 10 destinations deemed the *'10 New Balis'* as a moniker for future success (see Figure 1). In November 2017, these were further reduced to four (PwC Indonesia, 2017). So far, only infrastructure developments have happened, including airport, road and hotel constructions. Progress on community participation or gender mainstreaming are not yet evident.

As such, it is not clear how and whether the SSE will scale in this context. SSE principles and mechanisms laid out in this section may be rhetoric rather than practice. What is needed are clearer metrics and guidance for what is achievable. We suggest that, in accordance with the Master Plan, that 1) gender equality, 2) community engagement, and 3) involvement in tourism decision-making are three key objectives that are relevant both from Indonesia's tourism development perspective and from an SSE perspective. However, metrics that could be used to understand progress towards those objectives are not clear.

Metrics imply a systematic procedure for, or the results of, measuring something. Yet, defining what they are and how that is done has been the source of much controversy. Metrics are often numbers, with those constructed through processes of scientific verification wielding significant authority since the age of enlightenment (Crotty, 1998). In the field of international development, the rise of 'results' and 'evidence'-based discourses reflected the interests of powerful actors, who often prioritised particular kinds of metrics for decision-making (Eyben, 2013). Drucker's famous quote that 'if you can't measure it, you can't improve it' also points to the impact metrics can have on shaping practice, rather than only measuring progress or outcomes. Moreover, O'Neil (2016) outlined how metrics can amplify falsehoods when computational statistical models are constructed using proxies (like test scores as a proxy for education quality), which is critical to consider in the context of platforms. O'Neil (2016) suggested that metrics should be tested and verified through empirical feedback loops. Yet, most of the SDG indicators aligned with our research are based on proxies, like regulatory frameworks and country-level statistics. Reducing inequality within and among countries is also measured in absolute, rather than relative terms, which is highly problematic (Unwin, 2007).

Our position is that developing metrics for the SSE is a key opportunity that should reflect what may be possible, not only what is available or easy to measure. The SSE as a bottom-up framework and inclusive ideology can inform us here. Many aspects of working towards SSE objectives are measured in some way by the actors involved, however formally or systematically. For us, it is important to think about what could be measured within these existing processes, who gets to decide this and why.

Digital platforms and developing contexts

Up until now there has been little consideration for how digital platforms may impact on the tourism sector, and on the power and position of local actors, especially those in developing contexts, to make decisions about platforms. It is also vital to interrogate how and why platforms are impacting on socio-economic relations, especially as data and artificially intelligent algorithms permeate digital networks and pick up pace of implementation. Algorithms underpinning platforms are in many respects "the new determinants of social order" (IT for Change, 2018, p. 3). However, scale plays an important role in determining such proportions of impact. Consider Facebook to illustrate, which started as a website that certainly was not so influential. Yet, when the user-base expanded and users started sharing data, Facebook began to use that data both to scale-up, as well as to monetise these interactions. Coinciding with this, the mobile revolution provided large populations with internet access due to expansion of mobile networks, computing power, and cost reductions (Steinbock, 2005). Now, Facebook's scale, computational capacity, and powerful position has led to deep ramifications throughout societies, including manipulation of moods (Kramer, Guillory, & Hancock, 2014), shaping news media landscapes (Caplan & boyd, 2018), interfering in political elections (Chang, 2018), and playing a role in the 2017 Myanmar genocide (Mozur, 2018). Clearly, platforms should not be regarded complacently.

Yet, the rise of platforms in developing countries is often deemed a positive gain. Figure 2, drawn from the 2019 World Development Report (World Bank, 2019, p. 3) demonstrated how quickly and massively platforms have scaled e-commerce in certain parts of the world. Platform companies may scale up faster and at lower monetary cost, which can enable people and companies to access marketplaces easier than before. In many countries, like Indonesia, where opening a business permit or finding contractual employment is difficult, platforms could provide new sources of economic opportunity.
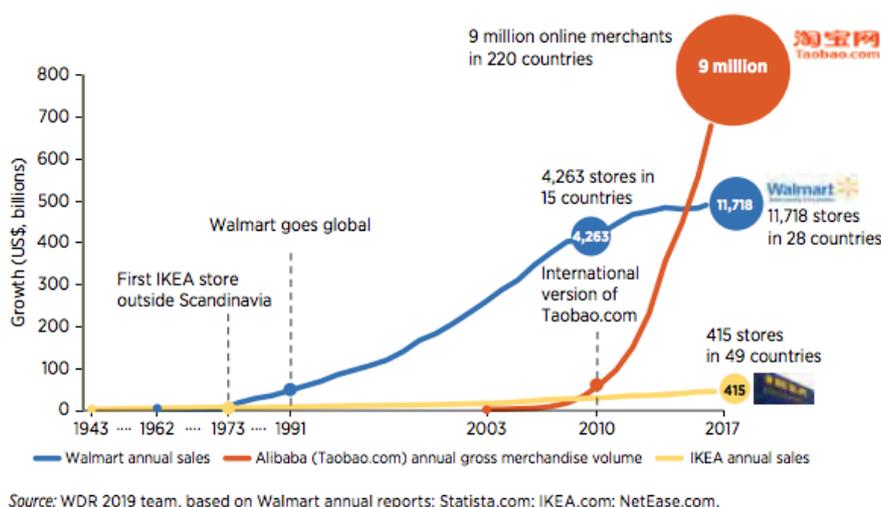
Figure 1 How platforms can accelerate the growth and scale of merchants (World Bank, 2018, p.3)

However, in many developing countries, internet access and social protections for informal workers are often problematic. For instance, the World Economic Forum's Network Readiness Index ranked Indonesia 73 out of 139 countries. Indonesia outperformed a majority of countries on affordability of internet but is lagging behind in individual and business usage, as well as social and economic impacts of internet. Furthermore, although some platform companies are offering social benefits like health credits (Grab, 2019), and loans (Russell,

2018), similar programs in the tourism sector do not exist. Tourism actors do not work directly for platforms, listing their accommodation property, or service instead. Indonesia has made great strides recently to develop a social security system that includes those who work in the informal sector, which could provide adequate social protection. It is not clear, however, if this scheme provides adequate coverage for tourism workers.

For instance, there is a debate surrounding whether and how platforms will spur massive job loss due to automation. The World Bank (2019) argued that citizens should develop 'higher-order cognitive skills' so that they can find employment in new and emerging areas. Yet, many developing countries lack educational programmes and the funds to assist workers in transition. Additionally, this recommendation takes technological progress as a given, such that people should respond to shocks and transformations in employment markets. Reskilling does not necessarily help people to engage critically with new technologies in the employment market in the first place. In contrast, Bentley, Nemer and Vannini (2017) previously argued that it is essential for citizens to develop three things: a situational awareness of technology in context; the ability to practice using technology reflexively; and power and control over technology within their lives. Empowering people to engage critically with technology, in order to consider how their needs can be met in the light of the SDGs should be a primary consideration when scaling platforms, which is not currently the case.

Methodology

This research is part of a broader programme to understand the impacts of platformisation (IT for Change, 2018). Our project adopted a qualitative case study design (Yin, 2008), exploring how Indonesian women, workers and SMEs experience platformisation in the tourism sector. Our research incorporated ethnographic methods because these allowed us to immerse ourselves in the contexts of research, and to learn about the behaviours, practices and values of actors (Hammersley & Atkinson, 2007). We also conducted in-depth interviews with over 100 individuals, so that actors could express meaning in their own words (Seidman, 2006). We selected Ubud, Bali – one of Indonesia's most popular tourist destinations – because of its high concentration of alternative SME models, including co-operatively, and family-owned businesses, ranging from homestays, to artist co-operatives, locally-sourced restaurants, and cultural excursions. This site was ideal to find SSE actors. Second, we chose Lombok island, part of West Nusa Tenggara, situated to the east of Bali. This is an island that is targeted for tourism development (Hawley, 2017), making it an interesting comparison to Bali. For this paper, we analysed our case studies for those we considered to be SSE actors broadly defined as having values, practices or objectives that align with SSE ideology.

Findings

We highlight two general insights, as these were consistent across sites, and important to consider when reading the findings. We then drill down into our findings in three sub-sections, which concentrate on the SSE metrics (gender equality, collective organising and distributed decision-making) that are used to evaluate the impacts of digital platforms in Ubud and Lombok.

First, SSE was not a familiar term or concept to our research participants, thus many actors that we consider to be SSE actors do not self-identify as such. Moreover, on travel platforms specifically, tourism businesses (approximately 18 out of 75 or 24%) may also co-opt SSE related terms, like 'cooperative' or 'eco-tour' as marketing tools to gain business, without participating in the SSE significantly. For instance, artist cooperatives were not cooperatively

owned or operated, but were just a place where artists could sell their items for a fee. Eco-tours involved stopping in rice fields for nature walks or biking through villages. Our analysis therefore focuses on key examples that shed light on SSE dynamics, including insights from tour guide and cultural excursion SME owners, drivers, artisans, and one holistic living company (about 10% of the participants of our wider study).

Second, one of the most widely used travel platforms by tourists in Indonesia was TripAdvisor. TripAdvisor facilitates the traveller's experience and is focussed on enabling tourists to find information and services, to get an idea about a certain place or activity, and to find suggestions for things to do in a certain area. TripAdvisor began as a crowdsourcing platform, such that much of the content involved sharing user-generated reviews. The widespread belief amongst participants was that SMEs can rise to the top of listings if they satisfy customers, gaining positive reviews. However, TripAdvisor incorporates machine learning techniques to make predictions about places and services (Palmucci, 2015). Companies may also pay for sponsored listings that appear high in rankings (TripAdvisor, 2018), which is often out of reach for many SMEs. Opaque algorithms may now also dictate which companies rise to the top of rankings, enjoying the most benefits from platforms. This may mean that smaller, local businesses will increasingly be at a disadvantage.

Collective organising and the shaping of platforms

We present two examples in this section. The first regards a community farm and cooking school that began as a collective endeavour. The collective learned how to promote their Farm by trialling web development and promotion techniques on platforms, growing rapidly. The second example relates to a holistic living business group in Ubud, that has likewise grown exponentially. They have, in contrast, developed their own platform as a means to maintain some control over which businesses are included on their platform and why. We argue that despite the dedication of these businesses to their social objectives, they begin mirroring dominant economic activities to use and shape platforms. This may reduce the potential for platforms to scale the SSE effectively because their collective organising practices and principles do not translate well into existing platform environments.

Turning to the first example, in 2012, a community in the Gianyar regency discussed what they could do to generate employment in the tourism sector. They invited a number of tourism stakeholders including regency government representatives, university professors and citizens. They collected ideas and weighed their options as a community, choosing to open an organic farm and cooking class. Members obtained a portion of land to start off the initiative. They began growing organic fruits and vegetables but had limited experience growing some varieties and it was a steep learning curve. During this time, some of the community members grew pessimistic, and the collective split up. They shared the allocated land between them, with some members choosing to grow elephant grass for cattle feed instead. Remaining members of the collective acquired small bank loans to build facilities, and the Farm opened in 2014. The Farm now has a management team and employs over ten people, all community members. The Farm also offers English classes for children within the community.

Platforms helped the Farm to grow as now over 70% of their customers are achieved online. Yet, managers had no idea how to build a website or use platforms. The manager watched videos on YouTube, searched the internet, and found a free publishing platform. He also had no idea how to write in English, so he found a similar cooking school in Thailand, and copied and pasted the English text from their website to create their own. He built a few websites to experiment and waited to see which design attracted the most visitors. Once they

selected their most popular website, they built additional functionality into it, like a booking facility and schedule. Soon, they were receiving more and more positive reviews on TripAdvisor and their popularity grew quickly.

The second example is the Bali Spirit Group, another socially-conscious business based in Ubud. Bali Spirit began in 2007 with the Yoga Barn establishment (https://www.theyogabarn.com/), and quickly after grew to include the Bali Spirit Festival (http://www.balispiritfestival.com/) and the Bali Spirit Holistic Living database (https://www.balispirit.com/). This business group is much larger than the Farm, but has similar values including being eco-friendly, socially responsible and giving back to the community. For instance, the Group runs two community outreach initiatives, the owners of the Group founded a youth organisation, and Yoga Barn offers free yoga classes to community members.

The Group began the Holistic living database to collectively organise locally owned and run small businesses that share in their values. As opposed to the TripAdvisor model, businesses go through a vetting process. Usually businesses apply to be included in the database, and the Group checks to see if they are a match in terms of its business purpose and values. However, they do not have a process to evaluate if businesses are delivering on their objectives. The benefit of operating this type of platform locally is that the platform managers belong to the community and they usually know who the business owners are and can test the quality of its products and services. In other words, this platform operates heavily on local reputation. Operating the platform is costly, and requires businesses to pay for inclusion, whereas TripAdvisor relies on advertising and conversion rates (from clicks to purchases).

In comparing how each of these SSE actors engage with platforms, there is no information on commercial digital travel platforms, such as TripAdvisor, to help tourists find businesses that align with a set of core values. The Farm needed to adapt its messaging and practices to compete in the TripAdvisor context. Likewise, Bali Spirit Group needed to cover platform support staff and operations costs, which influenced its platform model. If platforms are to scale the SSE effectively, platforms will likely need to be designed and operated in a way that is consistent with SSE frameworks.

Collective decision-making and the denial of platforms

Indonesia has experienced much conflict concerning the regulation of mobility platforms like Uber and Grab (Hines, 2016). In Ubud, drivers joined forces with government to eradicate these platforms from the area. One male driver told us *"before Grab, Uber, there's no problem… There was a meeting, to say it not to be too cheap… They are super super cheap."* The driver was referring to a village meeting within which it was decided to outlaw Uber and Grab. In contrast to other areas of Bali, the way taxis are regulated is distinct in Ubud. There are no metered taxis, and many of the taxi drivers in Ubud double as day-long tour guide drivers and frequently take trips to the airport, 40 minutes away. Because these sorts of longer trips are common, metering does not adequately cover the costs associated with completing return trips. This is why drivers in Ubud wish for taxis to be regulated differently.

Furthermore, there are customary ways in which taxi drivers are regulating themselves to distribute customers fairly amongst them. It is common practice for drivers in Ubud village to work in specific zones, making decisions about who works where collectively. However, according to the drivers we spoke with, competition for customers is increasing, *"competition, it's too much, everyone work as a driver. Before it was really worth it, there's no inflation, the guests are really need us, and then now everyone hire scooter, with the Google Maps."* Drivers are working longer hours from early morning (7-9am) until late in the evening (8-10pm) to make up for it. Even so, these drivers had as little as one job per week. Moreover, their prices

(particularly for local trips) have not reduced to meet the market, and tourists are opting for cheaper modes of transport like scooters.

The drivers' experiences highlight the benefits and drawbacks of collective decision-making when trying to challenge the negative impacts of platforms on their business. The drivers had enough decision-making power in their own community to challenge dominant economic actors, like Uber and Grab, yet, they had no impact on the rates or employment conditions offered by them. In the context of platforms and scaling the SSE, it may be necessary to create feedback loops between local collectives and the powerful actors that dictate the terms and conditions of platform use and abuse. Additionally, the drivers made choices that were based on incomplete information. Other drivers we interviewed had great success obtaining customers through TripAdvisor, but this platform was not banned. Tourists were able to find cheaper transportation alternatives. Clearly, Ubud drivers needed support to better understand the implications of platforms, and how platforms are one aspect in an array of factors that are influencing their business.

Promoting gender equality in unequal places: what role for platforms?

Gender equality means different things to different groups of women and men across Indonesia. There were likewise many ways in which the tourism sector is gendered. For instance, there are some professions that only men and women 'should' do, such as driving or massage. Whereas, there are other professions that are deeply embedded, like the Balinese traditional dance roles that are performed only by women, or the Gamelan (percussion instrument) played only by men due to religious significance. We highlight the experiences of a female hiking tour company and groups of female artisans in Lombok to demonstrate the complexity of working towards gender equality objectives, and how platforms may impact on the process.

Becoming a hiking guide is not traditionally a female profession in Lombok, and female guides face many challenges and barriers. Rinjani Women Adventure (RWA) was started largely to confront these challenges and is dedicated to promoting the position of women in their area. RWA, located in Senaru at the base of Mount Rinjani, takes groups of tourists up the 3000m mountain trek, and through the lush countryside. They are also playing a significant role in maintaining Rinjani's ecological condition through local advocacy. Women in Senaru, and in Lombok more generally, speak English less frequently than men. RWA has been providing training to young women to learn English and how to give cultural and hiking tours. For RWA, platforms have been a source of defiance, which have helped them to establish a professional reputation without being affected by local opinions. For instance, in a recent mountain management group, a male guide complained that tourists were saying that females are not strong enough to be guides. In this case, platforms serve as a public record for the women to draw on both to demonstrate the positive feedback received for their services and to request evidence to support the male guide's claims.

Figure 2 RWA guides (Photo: http://www.rinjaniwomenadventure.com/3d-2n-hiking-rinjani-to-segara-anak-lake/)

In contrast, female artisans, such as the weavers and pottery makers in Pringgasela and Masbagik, have a very different story. Weavers in Pringgasela, for instance, spoke about weaving as the most important marker of their identities. Yet this activity had more social than economic significance. Women sell their woven cloths to boutiques, but they also weave as a way to earn their (future) husband's respect. Domestic tasks also come first, so they must also find the time to do this weaving around their daily cooking, cleaning and caring schedule, which is why many women choose to weave in front of their homes. Another woman from Masbagik explained to us the great lengths that she goes to dig out clay mud from the river bank, carrying the incredibly heavy slab back to her home, turning it into a pottery artefact, and then womaning a seriously hot oven. There is a running joke within the community that the men have nothing to do, and that many of the women prefer it that way because the men would not be able to do their tasks correctly. These women do not want men to do the same things as they do, which are a source of pride for the women in this community.

These artisans that we spoke with do, however, wish to earn more money from tourists, which is why they responded favourably to tourists milling around, taking photos of them. Artisans stated that they thought that tourists could share the photos on platforms to attract more tourists to the area. The more tourists come to the area, the higher likelihood that they can sell their products. Essentially, they believed that photos circulating on platforms would eventually benefit them economically. In our research, platforms tended to benefit male tourism workers more than females such as these artisans. Many of the male participants spoke about how they were able to start businesses, interact with tourists (so as to develop their language skills), gain help to develop their platform presence and so forth. Often, the skills men developed in this process were transferrable to other jobs and sectors. In Pringgasela and Masbagik, however, we were taken first to male boutique owners who spoke English quite well, and we were not encouraged to interact with the artisans. Although platforms may indeed popularise their local area, the wider implications need to be considered. Tensions surrounding how gender equality is conceived in different areas, and what reducing inequality means is of utmost importance when considering how platforms may scale.

Discussion: The future of the SSE and digital platforms at scale

What seems clear from the insights generated through this research is the tendency for SSE to be practised in local contexts, at small(er) scales. We identified a few key ways in which the SSE is expressed in the Indonesian tourism sector, including collective organising, collective decision-making and working towards gender equality. These SSE practices do indeed contribute to achievement of the SDGs but are not common practice in the tourism sector. SSE objectives and practices did not easily translate into platform environments, even when SSE actors had full control over platform design and development. The tendency was for SSE actors to adopt dominant platform models as good practice, without much critical engagement or influence. This tendency does not leave much room for the SSE to scale up, as dominant travel platforms (TripAdvisor, Google) do not offer much, if any, guardianship or promotion of SSE principles or practices. We propose three key avenues to critically engage with how platforms may effectively scale the SSE in ways that support the achievement of the SDGs.

First, it is essential to develop mechanisms for SSE actors to have a voice in the future development of platform technologies. Most platform interfaces are designed with corporate users in mind, and there is no consideration for what it means to use platforms on mobiles or in remote locations. Reflecting on the experience of RWA, it is highly problematic for hiking guides to manage customer relations, online reputations and content as they are scaling the side of a mountain. They do not have enough skilled employees to dedicate a member to this full-time either. Many guides use feature phones because the battery lasts longer. They may go days without messaging potential clients due to these constraints. If SSE actors had a voice in how platforms are designed and developed, it may be much easier for SSE actors to use them at scale.

Giving SSE actors a voice in platform design, development and management will also ensure that Indonesians have a role to play in how the tourism sector develops. At present, travel platforms are only focused on the needs and desires of tourists. Without any intervention, platforms of the future may make it easier for tourists to find places to see, or things to do without having to interact with Indonesians at all. Drones and automated assistants could displace much of the current employment opportunities that exist. This is why the SSE still seems important to scale because these actors demonstrated the most consciousness and dedication to sustainable tourism development issues in their communities. One way for platforms to scale the SSE is therefore to amplify the voices of SSE actors. This is where Indonesia's decentralised governance structure may play an important role in identifying and helping SSE actors to take part. Scaling the SSE may then involve future platform technologies in developing contextual sensitivities and working internationally to challenge platform corporations.

Moreover, there is a need to establish a national framework that outlines Indonesia's position on the use and abuse of platforms in the tourism sector. There is an enormous amount of data generated on travel platforms that could support better planning and community engagement, which could be useful for scaling the SSE. Some travel platforms, like TripAdvisor and Instagram offer application programming interfaces (APIs) such that third party actors can develop insights from the data these platforms own. However, there are restrictions on who can access the APIs, and the types of content that can be accessed. Who owns, and accesses platform data is a major issue. On the one hand, it may seem completely fair for platform companies to have this data, and to dictate who has access to it. Especially, as some governments and commercial actors will most certainly abuse it. Should these nefarious, privacy, and intellectual property concerns outweigh the potential benefits for countries to have

access to data flows that significantly impact on their cultures and places? We recommend that Indonesia develop a national framework to respond to these issues urgently. It is crucial for Indonesia to take a stance, proactively, to establish a framework that represents their national cultural values. Given the important role that SSE actors have in marrying social and economic objectives in the tourism sector, they should likewise be included in developing this framework.

Finally, returning to the discussion surrounding metrics, there is still a significant piece of work that remains. Whilst it seems clear that SSE objectives frame collective action towards sustainable tourism development, appropriate metrics are still open to question. For instance, employment rates and legal frameworks would not detect the regional differences and ways that platforms disadvantaged the female artisans of Pringgasela and Masbagik. Likewise, measuring the presence of collective decision-making in the case of the Ubud drivers would not detect the effectiveness of their decisions for advancing the SSE and their employment conditions relative to TripAdvisor drivers. We argue that effective metrics may only come to light following a period of research, advocacy and engagement to include and represent SSE actors and Indonesia's interests in the global tourism platform arena. We hope that through this process, platform corporations may be influenced to respond not only to the needs and wants of tourists, but also to the ideas, practices and values of Indonesian people and places.

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