Ubering While Poor:

The Socio-Political Implications of Digital Platforms in Underdeveloped Contexts

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ABSTRACT

Digital platforms that employ algorithmic technologies to facilitate transactions have become popular in many contexts characterised by underdevelopment. What does it mean for society and its politics when people in such contexts become pervasive users of digital transaction platforms?

I address this by venturing out to Manila and Jakarta—Southeast Asia's largest megacities—to study ride-hailing platforms through interviews, ethnography, and document analysis. I present three studies, which tackle different aspects of the question. The first study examines how digital platform companies employ strategies to win legitimacy in new markets. The second study investigates how the adoption of digital transaction platforms affects the social clamour to improve public systems. The third study explores the strategies that consumers develop to protect themselves against the algorithms and rules that represent the platform's interests.

I make two important contributions to digital platforms research. First, I uncover previously unexamined ways in which platforms' characteristics provide powerful advantages to platform companies in shutting down opposition and strengthening society's reliance on their services. For example, since workers buy assets for the platform, the investment compels them to defend the platform's interests, enhancing the platform's power to resist and influence authorities. Second, I show how adverse conditions shape the socio-political impacts of digital platforms by amplifying the advantages of platform companies, sometimes triggering socio-political feedback loops that perpetuate underdevelopment. For example, deficiencies in pre-existing public systems can drive platform users to politically support technological solutions that benefit few, while devaluing public systems that benefit many, thus weakening the social clamour for improvements in public services.

The lessons from underdeveloped contexts need not be confined to developing countries. Adverse conditions that hinder people from living a good life exist everywhere, even in so-called developed countries. Thus, my findings can help many governments and societies who are "Ubering while poor"—that is, using digital platforms in adverse contexts—to better understand the perils and potentials of digital technologies.

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CHAPTER 1 THE SOCIO-POLITICAL IMPLICATIONS OF DIGITAL PLATFORMS IN UNDERDEVELOPED CONTEXTS

1.1 A Dispatch from Gridlocked Megacities

In the summer of 2015, I found myself in Ortigas, a bustling business district in Metro Manila, desperate for a ride to the airport. Perspiring under the tropical heat, I had spent the past hour attempting to hail taxis, to no avail. At five in the afternoon, a mass of office workers started to converge on the pavements, and the growing congestion of cars signalled the onset of rush hour, intensifying the competition for transportation. I outran a few middle-aged ladies to chase down a taxi. Like the taxi drivers I had hailed during the past hour, this one lowered his side window and asked for my destination, openly flouting the rules against the cherry-picking of passengers. After hearing my answer, he barked, “To the airport? No way!”

“The airport is just 10 kilometres away.[1] I will add an extra 200 pesos![2] Please, boss,” I pleaded. My offer doubled the usual fare for that distance, but he hollered back, “With the rush hour traffic? And to the airport at that… Tsk!” Manila’s airport is notorious for traffic congestion. He sped away before the middle-aged office workers behind me could catch up and attempt to offer their own destinations and bargaining proposition.

Forced to consider other modes of public transport, I looked at the elevated metro rail 200 meters away. Manila’s metro trains are infamously jam-packed.

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[1] This destination would normally cost around Php 200 (GBP 3)

[2] GBP:PHP = ~65; USD:PHP = ~50. Hence, 200 Philippine pesos is USD 4 or 3 GBP.

Bodies squeezed against each other, and contorted, sweating figures pressed tightly against the train's fibreglass doors. I knew the queue to the Ortigas Train Station's elevated platform would by then have coiled around the stairs and spilled far into the streets two storeys below. The airport's check-in counter would close in 45 minutes, and to rely on mass transport would undoubtedly lead to missing the flight. My girlfriend (now wife), equally desperate, mumbled something about downloading an app. After struggling with Manila's slow mobile Internet network, she installed and set up an account with Grab Taxi, the first Uber-like digital platform to operate in Manila. A few minutes later, a car from Grab Taxi arrived and we made it to the airport's check-in counter just in the nick of time.

Figure 1. Overcrowding in Public Transport Infrastructure

During Manila's rush hour, the queue to the train can spill out to several flights of stairs.
Photo: Sherbien Dacalanio/StockimoNews/Alamy Stock Photo

On the plane, my girlfriend and I marvelled at the app she had installed in the moment of crisis. My thoughts wandered to the employees trooping to Ortigas Station and the ladies I had outran earlier. I remembered how glumly they stood in Manila's polluted streets, still waiting for a ride, while I was comfortably seated in an air-conditioned sedan sent by Grab Taxi. I felt a pang of guilt. After all, I used to be one of them. Before taking up postgraduate studies abroad in development and public policy, I had been an office worker in Metro Manila until 2013. At that time, I lived in a suburb 40 kilometres away from my office. For years, I had to wake up before sunrise and travel for 2.5 hours just to get to work. It was a struggle that entailed riding several modes of transport such as buses, jeepneys,[3] tricycles,[4] and the infamous city trains, where I would often wrap my arms around my chest to protect my ribcage—otherwise, the relentless crush of bodies impeded breathing. Going home meant undergoing the same ordeal for another 2.5 hours, resulting in about 5 hours a day on the road.

Unfortunately, this is not just a personal anecdote, but the documented reality of millions. Metro Manila, teeming with 13 million people, is considered a megacity, a term used to describe very large cities with populations of more than 10 million, creating increased complexity, resource demands, and pressures on urban

[3] Jeepneys are public transport vehicles in the Philippines, originally made from US military jeeps left over from World War II. Unlike most public transport vehicles, it opens from the rear and the seats are two long parallel cushions set flush to the opposite sides of the jeepney, where passengers sit facing other. Moreover, it has a high floor and a low ceiling, which means people have to crouch or lean forward very low when entering and moving around the vehicle. Due to these characteristics, riding a jeepney can be uncomfortable.

[4] Tricycles are transport vehicles composed of a very small cabin attached to a motorbike, and are often assembled by an unregulated backyard industry.

management (Fuchs, 1994).[5] Journalistic and scholarly sources attest that for Manila's citizens, commuting means continual waiting for transport vehicles with no fixed schedules, fighting for a seat against many other commuters, joining train queues whose length can be measured in kilometres (Lopez, 2018), enduring dilapidated infrastructure, spending an average of 4 hours a day on travel (Mijares et al., 2016), and suffering from extremely packed trains (Alindogan, 2017)—all while dealing with pollution (Mijares et al., 2016), the threat of crime (Sanidad-Leones, 2006), possible sexual harassment (Rodriguez, 2016), and corrupt transport enforcers (Philstar, 2016). Demographic concentration in a megacity unable to provide sufficient economic opportunities and infrastructure translates to squalor and petty crime in the city's thoroughfares (Dahiya, 2012; Joseph, 2006; Mason, 2011). Manila also struggles with extreme traffic congestion, the second worst in the world (CNN Philippines, 2020), which the largely Catholic city and its netizens have sardonically nicknamed *carmageddon*—"a portmanteau of car and Armageddon, the biblical place where good and evil are destined to have their last battle… conjuring visions of the end of the world" (Santos 2019).

[5] Strictly speaking, Metro Manila is the national capital region comprised of several areas, one of which is known as the City of Manila. However, per common usage in the Philippines, Manila is often used as a shorthand for Metro Manila. I adopt this conventional use of Manila as a shortcut for Metro Manila.

Figure 2. Carmageddon

Manila's extreme traffic congestion goes as far as the eye can see during rush hour.
Photo: Nathanial Gonzales/Alamy Stock Photo

However, this time, I was able to forego the apocalyptic dysfunction through a ride-hailing app, a type of digital platform for urban transport. A digital platform is popularly defined as an Internet-enabled algorithmic technology owned and managed by a platform company. The digital platform connects a consumer like me to a service provider in mere moments. It does so without requiring me to chase after cars, beg for a driver to take me, and bargain over price—the desperate gesticulations that the scholarly literature calls transaction costs (P. Evans & Gawer, 2016; Kenney & Zysman, 2016). Ride-hailing platforms belong to a class of digital platforms called transaction platforms, which facilitates transactions between interdependent groups, typically the supply and demand sides. The platform itself typically does not offer the asset or service, but instead intermediates between consumers and suppliers. Increasing numbers of either consumers or suppliers attract more of the other side to join the platform, a dynamic known as a network effect (Parker & Van Alstyne, 2005). Platforms can catalyse this dynamic by enticing either consumers or suppliers with subsidies or discounts (Van Alstyne et al., 2016b). These features—algorithms, transaction cost reduction, intermediation, network effects, and the use of subsidies—are some of the things that make platforms distinct from other models of economic activity. With the help of these special platform characteristics, I achieved the means to reach the airport in my precise moment of need. Shocked by the contrast between past struggles and the seeming wizardry of the platform solution, I wondered, "How will digital platforms change society and peoples' daily lives in adverse contexts, like this gridlocked megacity?"

After my fateful brush with digital platforms that summer, another key moment came in 2016, the year I applied to enter a doctoral programme in Oxford. That year, I learned of violent protests in Jakarta, Indonesia. Like Manila, Jakarta is a megacity of 10 million and shares several of Manila's aforementioned transport, demographic, and urban problems (Martinez & Masron, 2020; The World Bank, 2011). The entry of ride-hailing firms such as Uber, Gojek, and Grab in the transport sector threatened not only to slash the profit of incumbent transport providers, but also to unseat their place in the eyes of Indonesia's people and government (Baziad, 2016). Just a year before the riots, the Indonesian Transportation Ministry issued a circular banning ride-hailing platforms for violating laws designed before the advent of digital technology. The public backlash was swift. Signalling society's acceptance of ride-hailing platforms, Indonesians inundated social media with objections to the ministry's ban. Considering public opinion, Indonesian President Joko Widodo intervened. He overturned his own ministry's ride-hailing ban in less than 12 hours (Russell, 2015), and declared support for digital platforms. Disappointed with the government's refusal to protect their primacy in transport, and displeased with the growing social acceptance of digital platforms, taxi drivers organised a series of landmark protests in 2016. These resulted in widespread disturbance and bloodshed, as thousands of taxi drivers barricaded transport nodes, burned tires, and bludgeoned hapless ride-hailing drivers (Munthe & Da Costa, 2016).

Similarly, public discontent over government intervention in the ride-hailing industry was also proving to be influential in Manila. When government agencies, ride-hailing firms, and incumbents bickered over regulation, several unfavourable policies levelled at ride-hailing apps were softened due to the sheer force of public opinion (Nikkei Asia, 2017). The way the public got involved in the politics around the regulation and market entry of digital platforms was extremely unusual. Despite persistent research and conversations with locals, I have yet to encounter other examples of Filipino and Indonesian consumers fighting so purposefully for—and not against—private, profit-oriented companies. Whereas my first brush with ride-hailing platforms in 2015 highlighted the potential social implications of digital platforms, the aforementioned conflicts in Manila and Jakarta emphasised to me the yet unknown political implications of digital platforms. I wondered, "Can digital platforms in adverse contexts influence politics and policy-making in novel ways—and if so, how?"

Inspired by these key moments, I envisioned a study of the socio-political impact of digital platforms in difficult contexts, focusing on three topics. First is the conflict among platform firms, incumbents and government bodies. I saw this as fertile ground for uncovering novel strategies that platform companies could wield when competing for social and political acceptance. Second is the unusual public support for digital platforms, which demonstrates the potential of digital platform companies to shape politics. I realised this was an opportunity to understand how people's reliance on digital platforms might influence policies on public services. After all, if users relatively support private platform solutions more than—or even instead of—public services, the policy preferences they signal to policy-makers might also shift. Third is the emergence of digital platform services, which provide new options to millions of people in adverse conditions, with yet underappreciated implications on the calculus of daily life. I thought that the stories of daily life can reveal how platform consumers exercise agency to assert their interests against the platform's rules and algorithms.

These topics are diverse yet sufficiently interrelated to suit the measured eclecticism of a so-called integrated doctoral thesis, which consists of three separate studies.[6] The ride-hailing phenomenon in Manila and Jakarta, the two largest megacities in developing Southeast Asia, presents an opportunity to uncover new insights around these topics. Across these three different topics, an important unifying factor is the adverse nature of transport systems in Manila and Jakarta. But while difficult conditions such as those in Manila and Jakarta are often associated

[6] Oxford's integrated thesis refers to format requiring 3 different chapters that read like journal articles and investigate different angles of a topic. This is in contrast to the monograph thesis format which reads like a book.

with developing countries, difficult conditions can exist everywhere, even in developed countries. Therefore, understanding the aforementioned three topics through the empirical setting of Manila and Jakarta allows us to potentially uncover insights, problems and opportunities in situations with the same adverse conditions—both in developing and developed contexts. Moreover, the extra complexity facing underdeveloped contexts activates more actors and processes than case studies in the current literature, which has typically focused on Global North contexts, thus surfacing mechanisms and contingencies that may exist but have been harder to empirically detect in typical cases (Flick, 2009; Yin, 2013).

In October 2016, I flew to Oxford to begin the DPhil programme and pursue the research that first I envisioned from that sweltering curbside in Manila. After five years of shuttling between the UK, the Philippines, and Indonesia to conduct fieldwork, I now present the results of this effort.

In section 1.2, I review what the literature says about the socio-political implications of digital platforms in underdeveloped contexts, which often refer to the Global South. I then identify gaps in the literature, offer a conceptualisation of underdevelopment, and formalise the research questions and the scope of this thesis. In section 1.3, I explain the significance of the thesis. In section 1.4, I define digital platforms and ride-hailing platforms, as well as associated concepts including the digital economy, platform economy, and sharing economy. In section 1.5, I discuss case selection, methods and processes undertaken to ensure the trustworthiness of the qualitative evidence. This chapter ends with section 1.6, which provides an outline of the thesis.

1.2 The Study of Digital Platforms in Underdeveloped Contexts

Two broad areas of research have dealt with digital platforms in underdeveloped contexts. The first is the digital platforms literature, which has seen contributions from various social science disciplines, including information systems (IS), management, organisational studies, science and technology studies (STS), and sociology, among others. The second literature is populated by scholars who are involved in both development studies and technology research. These scholars have shown interest in the developmental impact of digital technologies. Some refer to this area in development studies as the "ICT for development" (ICT4D) sub-stream. Based on an extensive review of these two literatures, I selectively collate representative works to outline current scholarly thinking regarding the socio-political implications of digital platforms in contexts of underdevelopment.[7]

1.2.1 Digital Platforms Research in the Social Sciences

The literature on platforms has generally given more focus to advanced industrial economies in Europe and North America, where many of the platform companies first emerged (Gomez-Morantes et al., 2019; Koskinen et al., 2019). Scholars have generally given much more attention to the business economics and commercial aspects of digital platforms. These include empirical and theoretical studies on firm competition (Stallkamp & Schotter, 2019), innovation (Hinings et al., 2018), network

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[7] Since scholars straddle multiple fields, it is impossible to perfectly distinguish which materials identify as platforms research in the broader social sciences, and which ones in development studies research. Hence, some imprecision can be expected in how I group them.

effects (Afuah, 2013; Rochet & Tirole, 2003a; Suarez, 2005), and commercial strategy (Cusumano et al., 2019; Van Alstyne et al., 2016b) among others.

However, there is growing interest in the intersections of digital platforms with society, politics and people's lives. In particular, scholars have highlighted the positive and negative implications of social media in political mobilisation and campaigning (Margetts et al., 2016); as well as the malign use of social media as a tool for disinformation, hate speech, and subversion of democracies (Bradshaw & Howard, 2018; Fink, 2018; Tucker et al., 2018). There is now some theorising (Culpepper & Thelen, 2020) and empirical inquiry (Pelzer et al., 2019) about how public opinion advocates for the interests of platform companies. Several studies have looked at how platform companies manoeuvre for favourable regulation (Aloisi & De Stefano, 2020; J. E. Cohen, 2017; Prassl & Risak, 2015). Moving beyond politics and into broader forms of social change, several studies look into platform governance (Gorwa, 2019b), algorithmic control (Howard et al., 2018; Just & Latzer, 2017), the politics of social media (Bradshaw & Howard, 2018; Tucker et al., 2018), and digital labour (Doorn, 2017; Graham et al., 2017).

There are a smaller number of digital platform studies that deal with both socio-political themes and the difficult conditions in developing countries. Many tackle the adoption of digital platforms in developing countries, and most say little about socio-political implications. These studies examine the process of adopting crowdfunding, e-commerce, and home-sharing in developing countries (Acheampong et al., 2020; Alrawadieh, 2018; Ginindza & Tichaawa, 2019; Gorur & Dey, 2020; Islam & Khan, 2019; Mohan & Punathambekar, 2019; Munim et al., 2020; Rana et al., 2019; Schechtner & Hanson, 2017). Some highlight barriers to adoption in developing countries, such as the lack of ICT infrastructure and human capital (Boachie, 2018). Consequently, studies prescribe social, political, and economic changes in developing countries to accelerate platform adoption and maximise its developmental benefits (Mansell, 2001; Schechtner & Hanson, 2017; Semyachkov, 2019; van Biljon et al., 2017).

In politics, recent scholarly debate about platform companies implicates them as tools of disinformation and hate speech in developing countries like Myanmar (Fink, 2018). While the entrepreneurial yet precarious middle class in developing countries facilitate the recruitment of disinformation agents (Ong & Cabañes, 2019, p. 5778), it is unclear how the difficult conditions in developing countries affect the spread of disinformation. Previous research on developing countries looked at the role of social media platforms in creating political change in contexts of authoritarianism, political oppression, and social injustice in Africa and the Middle East. Since then, the paradoxical effect of digital platforms on politics has been a recurring motif. Digital platforms have been portrayed as both enablers of democracy (Eltantawy & Wiest, 2011; Harlow, 2012), and also harbingers of failed revolutions and instability (Moghadam, 2013). For instance, digital platforms enable marginalised groups in the Middle East to be heard (Shirazi, 2013); but also amplify authoritarian ideology through social media and thus weaken critical journalism in China (Tong, 2019).

Interestingly, few studies on the political implications of platforms in underdeveloped countries generalise their findings to other contexts. For example, Pang (2018) finds that the intense use of social media in China does not enhance the perception that people can influence governance and politics, which she suggests may be relevant to other developing country contexts. Zhang (2020) uses a study of TikTok to argue that at least in developing countries, the indispensability of such platforms to many members of society entrenches the platform's interests within governments. However, these two authors do not specify which aspects of underdevelopment qualify their findings. In contrast, Plantin and de Seta (2019) use the case of WeChat in China to conceptualise a model of platform regulation that combines the socially beneficial functionalities of platforms with state policies that value techno-nationalist regulations and cyber-sovereignty. The uniqueness of Plantin and de Seta's work is that they develop a concept based on a case study from a developing country and offer it as a possible model to be considered all over the world.

Scholars approach platforms' social impact in several ways. By looking at the media narratives resulting from the adoption of ride-hailing platforms in Indonesia and the Philippines, Yuana et al. (2019) find that people frame platforms as: sources of livelihoods; cooperative yet non-conformist entities acting within legal ambiguities; and solutions to people's problems. Moreover, social media has improved outcomes in health provision in Bangladeshi rural areas (Miah et al., 2017), as well as in agriculture in India (Banker et al., 2011) and microfinance adoption in several developing countries (Daowd et al., 2020). These three papers see their contributions as generalisable to developing country contexts only. Again, only a handful generalise their findings to the level of theory. Based on a grassroots community of ride-hailing drivers in China, Frost (2020) posits that the ability of platforms to harness social networks results in greater circulation of economic opportunities and knowledge within communities. Likewise, Yang et al. (2019) use the case of China to posit that digital platform usage enhances people's perceptions of justice, without limiting the conceptual implications to developing countries only.

Especially interesting are a few studies that use developing country contexts to generalise to other contexts while at the same time *pinpointing which adverse conditions in the developing country under study qualifies the effects they see*. Sigler and Wachsmuth (2020) reference Latin America and the Levant to argue that home-sharing platforms bring about transnational gentrification by bringing affluent outsiders to neighbourhoods, to the detriment of low-income locals. They did not limit their conceptual contribution to the Levant or Latin America, but instead specified the income disparity between locals and outsiders as the driver of the reported effect. Similarly, Leong et al. (2016) use a case study of two remote villages in China to argue that e-commerce platforms can help marginalised communities overcome obstacles to self-development. They generalise their study to rural communities—presumably whether in developed or developing countries. Moreover, they also specified the difficult contextual conditions implicated in their study: people's lack of trust in e-commerce, and a rural community's strained access to a large market.

Digital labour in developing countries has also received considerable attention. Most researchers find that digital workers in developing countries face vulnerabilities brought by the relegation of low-skilled work to the Global South (Rani & Furrer, 2020), poor local Internet and electric infrastructure that hinder work (Galpaya & Senanayake, 2018), and the dispersion of worker solidarity by platforms (A. J. Wood et al., 2018). Lack of opportunities (Soriano & Cabañes, 2019) and forced entrepreneurialism (Anwar & Graham, 2021) have driven workers in developing countries to engage in digital labour. Platforms maintain or create institutional voids, leading to power asymmetries, over-competition between workers, platform opportunism, and job insecurity and precarity (Heeks et al., 2020). However, workers in developing countries have evolved ways to counteract platform control and client opportunism through various practices of resistance (Anwar & Graham, 2020; J. Y. Chen & Qiu, 2019; Limpin & Sison, 2018).

1.2.2 Development Studies and ICT4D

The majority of studies under ICT4D frame their findings and insights as applicable to developing countries only. In terms of thematic streams, this literature's treatment of the socio-political implications of digital platforms can be divided into three categories: 1) barriers to entry caused by and resulting from the digital divide; 2) contribution to social empowerment despite institutional and infrastructural challenges; and 3) effects on poverty, precarity, and inequality.

Most development scholarship sheds light on the conditions in developing countries that hinder the adoption of digital platforms and technologies, which result from and reinforce digital divides (Collinson et al., 2020; P. Nielsen, 2017; Rossotto et al., 2018; Salem, 2017). These conditions include poor infrastructure, digital illiteracy, lack of digital trust (West, 2015), deficient data infrastructure (Ciuriak & Ptashkina, 2019), lack of clear regulations (Rossotto et al., 2018), and cultural barriers (P. Nielsen, 2017). These scholars prescribe policies and regulations that aim to alleviate these conditions.

There is a general agreement that digital platforms empower individuals and communities amid severe institutional and infrastructural challenges. Digital platforms remove market impediments in developing markets, such as insufficient information, weak institutions and poor infrastructure (Koskinen et al., 2019), thus creating an environment conducive to solving societal and developmental challenges. In Pakistan, ride-hailing platforms have encouraged the economic inclusion of unemployed groups through self-entrepreneurship (Malik & Wahaj, 2019). The wide adoption of platforms also gives formal institutional recognition to workers that were previously relegated to the informal sector (Gomez-Morantes et al., 2019). Beyond benefits to workers, platforms expand access to superior services, thus expanding consumer power (Gomez-Morantes et al., 2019).

Some scholars find that the adoption of digital platforms in developing countries can worsen social divides, inequality, unfairness, and precarity. The success of digital platforms often diminishes the influence and material well-being of incumbent players (Gomez-Morantes et al., 2019). Ride-hailing in Pakistan showed that opportunities were biased along the lines of gender, age, and geographic locations (Malik & Wahaj, 2019). The ratings system in ride-hailing in India is unfair to drivers (Verma et al., 2020). In Colombia, previous members of the informal economy who joined platform work claim that paying the requisite taxes and insurance contributions creates unwanted cuts to their precarious incomes (Reilly & Lozano-Paredes, 2019). Moreover, most of the tasks involved in online work do not lead to the creation of concrete products and services that generate multiplier effects in the form of jobs and value-creation in developing countries (Heeks, 2017). On a macro level, the adoption of digital platforms can create unfair distributions of resources and work between the Global South and North (Koskinen et al., 2019).

1.2.3 Gaps in the Literature

I note several areas in the literature that are particularly relevant to my research. First, while the current conversations are diverse, these fail to explain the puzzles presented by the proliferation of digital platforms in Manila and Jakarta that I have observed since 2015 and outlined in the introduction. For example, none of the strands of literature I summarised explains how digital platform companies in Manila and Jakarta manoeuvre their way around vacillating bureaucracies and seething incumbents to achieve legitimation in the form of social acceptance and regulatory accommodation. In fact, there are few papers about platforms' legitimation strategies in wealthy countries with well-funded, coherent institutions (Boon et al., 2019; Garud et al., 2020; Pelzer et al., 2019), much less in contexts of underdevelopment (Uzunca et al., 2018).

When it comes to politics, the literature has often explored the politics of social media, but it can scarcely explain the political implications of the putative shift of Manila and Jakarta's commuters away from public systems and toward private platform solutions. Save for a few studies like Culpepper and Thelen (2020) and Pelzer (2019), the literature has paid little attention to how society's reliance on digital platforms could affect public opinion and government policy. This is especially important in societies whose adverse conditions heighten the need for good public policy. In addition, while the literature has looked at the clever practices of platform workers, I could not find research on the strategies of platform consumers, such as Manila's and Jakarta's ride-hailing passengers, and the broader social effects of their daily practices.

The second gap is that while the platforms literature and development studies find value in studying developing country contexts, there is a palpable reticence to generalise to theory any findings from developing country contexts. Of the related literature, only a few studies such as Frost (2020), Yang et al. (2019), Leong et al. (2016), and Plantin and de Seta (2019) studied developing country contexts and pitched their contributions at the level of theory, or offered conceptual constructs about a phenomenon. Many of the digital labour papers on developing countries can be said to implicitly make generalisations; for example, they acknowledge that conditions such as precarity, lack of local livelihood opportunities, and the platform's strong bargaining power are common worker experiences regardless of country (A. J. Wood et al., 2018, 2019; A. J. Wood & Lehdonvirta, 2019). But outside digital labour, many platforms scholars who study developing countries either limit the value of their findings to the specific country of study, or whenever they generalise, they explicitly restrict applicability to developing countries only.

Perhaps this reticence to make contributions outside underdeveloped countries could be considered a non-issue in development studies and among development scholars, insofar as they believe that their discipline aims to provide policy insights to developing countries only. However, this reticence is also alarmingly prevalent in the broader social science research on platforms. Just to give one example of the kind of careful caveats given by platform scholars on the Global South, Shirazi (2013) fluently analyses the role of digital platforms in the Arab Spring, and instead of theorising the role of digital platforms in political mobilisation more generally, it ends by saying, "the author believes that lessons learned from this case study can be applied to other developing countries across the globe" (Shirazi, 2013, p. 1219).

In contrast, in my five years of research, I find it difficult to recall any study done in the Global North, which stresses that its findings apply "to developed countries only." Instead, such studies routinely generalise to theory or create conceptual constructs that are either explicitly or implicitly all-encompassing rather than just applicable to the Global North. For example, influential platform-related concepts such as Bishop's (2019) "algorithmic gossip," Rosenblat and Stark's (2016) information asymmetry in algorithmic control, and Shibata's "fictitious freedom" (Shibata, 2020) were all based on case studies in the UK, US, and Japan respectively, and yet these *do not* come with disclaimers that they only apply to Global North contexts and should be applied elsewhere with extreme caution.

The problem here is not that empirical researchers studying the Global North display no reticence in contributing to theory. The problem is that platform researchers on the Global South do not contribute to theory as much. We have every reason to deviate from this habit. Countries from the so-called Global South constitute more than 80% of the world's population and 75% of Internet users (International Telecommunication Union, 2019; World Bank, n.d.). Their share will only increase in the future. Many (if not most) digital platform users are actually from the Global South. Therefore, experiences from the Global South have at least as much legitimacy as those from the Global North when it comes to shaping the general understanding of platforms. If this reticence continues, we miss an immense opportunity to learn more about the social world and distil useful insights from underdeveloped contexts that can be applied more generally.

1.2.4 Conceptualising Underdevelopment

What is underdevelopment in the first place? How can we conceptualise it in a way that aids generalisation based on studies in underdeveloped contexts?

Underdevelopment is a multi-dimensional concept that can be understood in several ways. It is often defined in economics as the concurrent presence of several long-standing economic problems in a country, such as chronic mass poverty, low consumption levels, poor health services, deficient housing and infrastructure, underemployment, low productivity, dependence on foreign countries, over-reliance on low-value products, lack of industrial capacity, and low capital intensity (Nurkse, 1961; Todaro, 1995). Organisational scholars associate it with countries suffering from institutional voids, or the absence of market intermediaries and formal rules that facilitate productive transactions (Gao et al., 2017; Khanna & Palepu, 1997).

Sociological perspectives often emphasise social inequality and environmental destruction in addition to economic problems (Ingram, 2018). A political science view focuses on systemic human rights abuses, as well as the absence of functional liberal democracies (Ingram, 2018). Nobel Prize-winning economic philosopher Amartya Sen formulated the influential Capabilities Approach, which sees underdevelopment as people's enduring lack of freedom. He defines freedom as people's actual capability to pursue their personalised conceptions of things they want for themselves, such as a good life in general (Sen, 1999, 2005). Reflecting the multiple dimensions that comprise underdevelopment, Nobel Prize-winning institutional economist Gunnar Myrdal (Myrdal, 1968) describes underdevelopment as "a constellation of unfavourable conditions for work and life" that not only afflicts entire countries but even individuals at the level of "the family and the neighbourhood."

Clearly, underdevelopment is a confluence or, as Myrdal poetically puts it, a constellation of adverse conditions. These adverse conditions can come in different forms, and affect entities at different levels—families, neighbourhoods, communities, places, organisations, sub-populations, and sometimes even entire countries. Since I aim to explore the many possible implications of digital platforms, I adopt for the purposes of this research a versatile definition of underdevelopment. Therefore, I take the inclusive, parsimonious view that *underdevelopment is the presence of adverse conditions*.

Naturally, defining adversity or adverse conditions is in order. Amartya Sen's ideas are useful here. Following his influential view, the capability to achieve one's own idea of a good life can be hindered by adverse conditions. In turn, "adverse conditions" are those that prevent the "conversion" of possible inputs into means for pursuing a good life—however one may define what makes a good life (Sen, 1985, p. 11, 1992, 2005). Consequently, I consider conditions of underdevelopment as synonymous with adverse conditions. In this sense, adverse contexts are interchangeable with underdeveloped contexts.

This versatile and inclusive conception of underdevelopment has several analytical advantages. First, by *not* anchoring the idea of underdevelopment on the macro scale of a country, it accepts that underdevelopment can exist at other levels such as specific communities, sub-populations or some other variable. This is important because notions that conceive underdevelopment as a phenomenon that afflicts entire "countries" fail to acknowledge that pockets of underdevelopment can exist even in the most prosperous countries. For example, the high GDP per capita in the United States does not mean that there are no poor sub-populations there.

Second, by not limiting where adverse contexts can exist, my synthesis of Myrdal and Sen disregards the popular binary labels of “developed” and “developing” countries. This thesis holds that underdevelopment is not something so exotic it cannot apply to the Global North. Following my interpretation of Sen’s adverse conditions, underdevelopment undeniably exists in developed countries. For instance, child poverty rates are about 20% in the United Kingdom and the United States (UNICEF, 2017), while the First Peoples in Australia experience a much lower quality of life due to inequality, discrimination and racism (Cunningham & Paradies, 2013; Larson et al., 2007; Walter, 2009). Some of the world’s wealthiest cities such as London, New York, and San Francisco suffer from appalling levels of homelessness (Mason et al., 2017; Schneider, 2020; Watt, 2020). In contrast, poor, tiny Bhutan has avoided this social scourge due to royal laws, called the *kidu* system, which musters the monarch’s wealth and administrative machinery to shelter the homeless (Pommaret, 2015; Ugyel, 2018).

The third and most important advantage of the Myrdal-Sen synthesis builds on the first two I discussed above. Since underdevelopment is a condition that can exist across different levels, and is independent of the binary divide between “developed” and “developing” countries, then there is a logical pathway that allows bounded insights from Manila and Jakarta to be applicable to similar contexts around the world, regardless of whether they are from “developed” or “developing” countries. Moreover, by disaggregating underdevelopment into *specific adverse conditions*, clearly delineated concepts derived from Manila and Jakarta become more portable to other cases, aiding reader generalisation. Thus, societies that are also Ubering while poor—that is, relying on digital platforms whilst experiencing adverse conditions—stand to learn something from my study on ride-hailing in Manila and Jakarta. I explain this more fully later in the section on methodology.

1.2.5 Semantics of Underdevelopment

There is a need to address some semantic issues which arise from the complicated history of the term “underdevelopment” and the idiosyncrasies of the English language. The adjectives “underdeveloped” and “developing” have both been used to refer to countries that are “not developed”—or are far from accomplishing the version of socio-economic order found in wealthy, often Western, societies (Coyne & Leeson, 2004; L. Nielsen, 2011). In the 1960-70s, governments of impoverished post-colonial countries objected to the label “underdeveloped” due to its derogatory connotation (Wolf-Phillips, 1979). Describing these countries with the adjective “developing” instead of “underdeveloped” thus gained traction since (Pearson, 1969). However, the adjective “developing,” despite being more politically correct, does not lend well to lucid prose; it can be confused for a gerund, or a verb in the present participle. For example, “developing contexts” can be misconstrued as the action of developing a context, whereas “underdeveloped contexts” can hardly be misunderstood as anything else. Hence, I regard “developing” and “underdeveloped” as synonymous, and I use the adjective “underdeveloped” more frequently because clear writing favours it.

However, while I use both adjectives “underdeveloped” and “developing” to mean the same in this thesis, I exclusively use the noun equivalent of "underdeveloped"—which is "underdevelopment"— to describe the opposite of development. This is simply because the logical noun equivalent of "developing"—which is "developingness"—is clumsy and no one uses it in the literature.[8]

Using the term "underdevelopment" is not a radical break from convention. Scholars still widely use the term. For example, I searched for scholarly material using the search word "underdevelopment" in the Web of Science and found that 409 articles in the social sciences and the humanities have used it in the last five years alone. I use underdeveloped and underdevelopment without any intention to portray anyone or anything in a derogatory way. I resort to using these simply because we lack similarly well-known alternatives that are free from the historical and semantic baggage I discussed above.

1.2.6 Research Question and Scope

I have so far pointed out that current literature cannot explain events in Manila and Jakarta which touch on platform strategy, the politics of platform, and user agency. I also take note of the reticence to generalise from underdeveloped contexts. After reviewing conceptualisations of underdevelopment, I formulated a theoretically-grounded view of underdevelopment which justifies the generalising of bounded insights from Manila and Jakarta. Consequently, I ask:

How do people's pervasive use of digital transaction platforms impact society and politics in contexts of underdevelopment?

[8] The noun equivalent of "developing'' cannot be "development" because the former refers to the presence of adverse conditions while the latter is a condition of general prosperity and order. The entire point of the exercise is to find a noun equivalent opposite to "development."

With this research question, I call attention to key moments in the ride-hailing industry in Manila and Jakarta that are yet unaccounted for by the literature, while also acknowledging that ride-hailing belongs to a specific type of digital platform called "digital transaction platforms." Since the digital platform is the primary subject of interest, I am naturally interested in whether and how the characteristics of digital platforms play a role in influencing socio-political implications. It is also of interest whether digital platforms induce certain socio-political implications that other organisations cannot. These are surfaced where possible.

To address the reticence in generalisation that I discussed earlier, I also aspire, carefully and where possible, to contribute to the general understanding of the socio-political implications of digital platforms. Whereas binary labels in development studies complicate qualitative generalisation, I skirt around his problem by taking advantage of the Myrdal-Sen synthesis of underdevelopment which is permissive of qualitative generalisation. This synthesised view disaggregates underdevelopment into concrete, well-delineated components I call adverse conditions, which are easier to transport to other cases.

I position the thesis within the broad field of digital platform studies in the social sciences. What sets my project apart from other similar efforts is that it implicates underdeveloped contexts as an empirical domain of special interest, and as a subject of inquiry that can enhance understanding of digital platforms at a general level of theory. The role of underdevelopment in this thesis is that it provides a setting for the empirical study of atypical cases, from which we can detect dynamics and processes that may exist but which we hardly learn about in the typical Global North cases which dominate existing literature. Underdevelopment can exist in the

Global North, but studies on Global North countries do not typically surface conditions of underdevelopment nor mine them for insights (Gomez-Morantes et al., 2019; Koskinen et al., 2019). In any case, underdeveloped contexts can be expected to exhibit more complexity than contexts characterised by affluence and order. Such complexity arises because underdevelopment implies more constraints and more complicated orchestration of scarce resources to navigate those constraints (Halfon, 2016). Hence, capturing this complexity and learning from it is the advantage of implicating underdeveloped contexts in this study.

1.3 Significance

This research is significant for three reasons. First, the study of adverse conditions contributes to the still-nascent scholarship about socio-political implications that arise when platforms—in all their power—operate in underdeveloped contexts. This is important because it allows us to capture experiences that are likely to represent the majority of the world's Internet users and elevate their largely ignored wisdom as part of the general understanding of the phenomenon. Second, understanding the hidden implications resulting from the special characteristics of digital platforms forewarns us of dangers, and enables us to formulate strategies for governments, firms, and civil society.

Third, the specific topics I address and the innovative ways of tackling them do not only answer scholarly puzzles, but also provide insight into real-life policy problems and social issues. In my opening chapter, I investigate the legitimation strategies of digital platform companies in underdeveloped contexts. Understanding their legitimation strategies is important because it allows us to gauge whether and how platform companies shape institutions or assert the legitimacy of a business practice in ways that harm the public interest. A focus on non-market platform strategies can also forewarn scholars and policymakers of legitimation strategies accessible only to platforms, which may overturn the clout of incumbents and the authority of government—for better or worse. Aside from filling a gap in the literature, this also addresses a timely concern given the challenges governments face when they compel digital platforms companies to follow institutions on market entry and exit, monopolistic behaviour, data privacy, oversight, and general regulatory compliance (R. Chen, 2019; Gorwa, 2019b; Loertscher & Marx, 2020; Stemler, 2017).

In the second study, I interrogate whether and how digital platforms could be influencing policy-making in critical public services, whose users may shift to private platform solutions, especially when these public services suffer from underdevelopment. While scholars have already pondered on the policy impacts of digital platforms, only a few relevant studies consider how digital platform companies influence policies that specifically pertain to digital platform technologies (Culpepper & Thelen, 2020). Little consideration has been given to possible knock-on effects in other policy areas, which is the approach I take. Aside from offering a novel angle to a scholarly puzzle, the topic is important because it reveals whether and how dependence on private platform technologies can impede reforms in public systems that serve the majority, including those who cannot afford private platform solutions. This knowledge, in turn, can be used by scholars and policymakers to argue for or against the desirability of technological solutionism in the public sector, and dependence on private platform companies for essential infrastructure and services.

In my final study, I explore how consumers employ their agency through strategies that assert their interests amidst the rules and algorithms representing the platform's interests. This study addresses a glaring scarcity of research on the strategies that individual consumers employ when using digital platforms. In stark contrast, the literature has given disproportionate attention to the agency of digital workers and content creators. Understanding consumer agency in adverse contexts is important because it provides a foundation for investigating how consumer agency affects the interests of the consumers themselves, as well as the interests of workers and of the platform company. This foundation can pave the way for future efforts by scholars and policymakers to determine how to guide consumer behaviour in ways that balance the legitimate interests of consumers, workers, and platform businesses.

1.4 Definition of Terms

Several terms used in this thesis have multiple interpretations and are often conflated with other terms. The purpose of this section is to anchor key concepts in the academic literature and provide brief yet sufficient overviews of the terms. While I select interpretations that best serve the aims of the thesis, I acknowledge that multiple views exist and I refrain from claiming my definitions to be absolute.

1.4.1 Digital Platforms

Digital platforms are central to this thesis. Aside from the definition that I presented through narrative form in the introduction, I also devote Chapter 2 to elucidating the term's evolution in different disciplines, and to determining the most fitting definition for this thesis. In the interest of clarity, I state the result of that analysis here.

I synthesise views from platform economics (D. S. Evans & Schmalensee, 2016) and management (Cusumano et al., 2019) to define digital platforms as information technology systems, created and governed by a platform company, that enable complementary innovations or transactions (or both) among different interdependent groups, thus generating a market that exhibits multi-sided characteristics. In turn, these multi-sided characteristics include the presence of: 1) network effects; 2) the chicken-and-egg problem involved in simultaneously onboarding suppliers and consumers; 3) cross-subsidies versus mark-up pricing; and 4) intermediation instead of inventory-keeping. These characteristics, which enable platforms to achieve explosive growth and special abilities will be explained in greater detail in Chapter 2.

1.4.2 Ride-Hailing Platforms

Ride-hailing platforms are a type of digital platform in the transport sector, which primarily match demand-side riders and supply-side drivers, and determine fares through the app's Internet-enabled algorithmic system (Ramizo, 2018a). Specific features may vary, but the range of functionalities also include GPS tracking, reputation ratings, reward systems, driver-rider messaging systems, billing, dispute resolution, multiple car options, and dynamic pricing, among others. Dynamic pricing refers to the algorithmically determined increases in the fare due to multipliers triggered by certain conditions set by the platform. The triggers typically include traffic congestion and inclement weather, among others.

1.4.3 Platform Economy, Digital Economy and Sharing Economy

Digital platforms, including ride-hailing, are often discussed together with the platform economy, digital economy, and the sharing economy (de Reuver et al., 2018; Sutherland & Jarrahi, 2018). In fact, ride-hailing is also commonly known as ride-sharing (Yuana et al., 2019). Thus, there is a need to explain how these terms are approached here.

"Platform economy" is a very loosely used term that pertains to economic transactions on digital platforms as well as to the ecosystem of actors and value chains that arise from these transactions (Kenney & Zysman, 2016). While it belongs to the same digital platforms literature as this thesis, its economic framing makes it less relevant to a study on socio-political implications.

Meanwhile, "digital economy" is an umbrella term that encompasses a wide array of concepts such as business models, economic and social transactions, core participants, and peripheral ecosystem players which arise from Internet-enabled digital technologies (R. U. Ayres & Williams, 2004; Bukht & Heeks, 2016). The digital economy is a useful heuristic that distinguishes socio-economic transactions that are mostly done online, from those that are conducted physically. However, the term is excessively ambiguous and implicates far too many actors; thus, the digital economy is not a central organising concept of this thesis. I locate digital platforms as one of the many technologies subsumed within the "platform economy" and the "digital economy." While I take into account how the concept of the digital economy can enrich my work, this effort is not a priority.

The sharing economy is a contested concept, but the competing definitions all appeal to the normative and virtuous idea of sharing (Acquier et al., 2017). It has been viewed as an economic model where platforms put under-utilised assets in service of society either for monetary or non-monetary benefits, thus removing the need for others to take the burden of buying these assets (Botsman & Rogers, 2010). Others conceptualise it to permissively include business models that fall into any of "four broad categories: recirculation of goods, increased utilisation of durable assets, exchange of services, and sharing of productive assets" (Schor, 2016, p. 9). This definition is so diluted it can apply to both a ride-hailing business and a noodle stall. After all, every business aims to increase the utilisation of its assets and facilitate economic exchange.

I distance this project from the sharing economy and ride-sharing for two reasons. First, these terms are extraordinarily amorphous. Scholars are not merely debating definitional boundaries (which is the case in every field), but the concept's very nature. Even proponents lament how fractured they are regarding this (Acquier et al., 2017; Pedroni, 2019). Second, the most distinctive definition of ride-sharing is at odds with the reality in my empirical domain. If we follow Botsman's influential definition, the term ride-sharing perhaps applies to Lyft's carpooling business model. However, Lyft is a minor player. The large players in my empirical domain are Uber and similar platforms like Grab and Gojek. Many assets on these Uber-like platforms were bought precisely for use as income-generating assets. Car dealers admit their sales skyrocketed precisely due to people buying fleets for Uber-like platforms (Lorenciana, 2016), resulting in greater traffic congestion. Thousands of drivers admit to taking bank loans just to buy assets for these platforms (De Leon, 2019; Penera, 2018). There is even the odd suicide caused by the failure to pay for amortisation on these assets (The New Indian Express, 2017). Assets used in platforms do not necessarily represent underutilised capacity. Sometimes, these represent newly generated capacity acquired by actors aiming to make a profit, without any commitment to the principle of sharing.

Hence, ride-hailing platforms are not equivalent to ride-sharing platforms. While I acknowledge that the concept of the sharing economy will be useful in other cases, it is not appropriate to my thesis.

1.5 Methodology

Each of the main studies of this thesis, which are structured as journal articles, will have its own methods section. However, I wish to discuss here the broad methodological considerations, problem-solving, and considerable preparatory work that went into the project, which are not discussed in the empirical chapters.

1.5.1 Case Study Approach

The thesis aims to uncover novel socio-political implications of digital platforms in underdeveloped contexts through a multiple case study approach. Yin (2009, p. 14) defines case study research as an “empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context.” Case studies enable researchers to flesh out layers of reality in the search for mechanisms and consequential contingencies (Tsang, 2014). Through this empirically-based elaboration of conceptual mechanisms, the case study approach allows the possibility of generalisation, which can be defined as the act of inferring from specific, observed instances, such as those in a case setting, to general statements (Schwandt, 1997, p. 5).

The respective ride-haling sectors in Manila and Jakarta are appropriate cases for several reasons. First, the adverse transport conditions afflicting these megacities clearly constitute contexts of underdevelopment, which is the key demand of the research question. Second, atypical or extreme cases reveal richer information because they involve more complexity, and activate more actors and more basic mechanisms in the situation studied. These mechanisms may be present in typical cases in a milder form and thus are harder to empirically capture (Flyvbjerg, 2006). Manila and Jakarta, being megacities in underdeveloped countries, represent much higher levels of risk and complexity than typical cities in terms of administration, infrastructure, maintenance, traffic, and public safety, among others (Wenzel et al., 2007). At the very least, they are atypical cases, perhaps even extreme cases. Thus, selecting them presented the possibility of surfacing novel or rich findings. These cities are also atypical in the sense that most of the influential studies in platforms research are conducted in Global North contexts.

Third, choosing two similar cases—such as Manila and Jakarta—reflects the logic of similar-case design, which holds that if a finding is observed in both cases, then its generalisability is heightened (Yin, 2009). Having two cases increased the complexity and costs of research, but it means that the study can produce much more compelling evidence (Yin, 2009, p. 53). In a two-case study, replication or corroboration makes the evidence more generalisable (L. Ayres et al., 2003; Yin, 2013, p. 64).

The view of underdevelopment I elaborated earlier underlines the importance of identifying adverse conditions that have meaningful effects. These specific adverse conditions can then be used as qualifiers that, if present, make the study's findings likely to be applicable. Doing so follows the logic of analytical generalisation and reader generalisation, which are two important modes of generalising in qualitative research. Analytical generalisability is the abstraction of empirical findings from qualitative study, followed by a reasoned explanation of how these abstractions contribute to the understanding of a general phenomenon (Polit & Beck, 2010). On the other hand, reader generalisability is the practice of providing descriptions and qualifying criteria that allow readers to make inferences about whether and how the findings from the qualitative study can be applied to other settings, such as those settings that interest the reader (Misco, 2007).

1.5.2 Methods and Execution

Case studies require multiple sources of evidence (Yin, 2009, p. 18). I used four methods in my case studies. Over the course of five years, I undertook document analysis of ride-hailing regulation, circulars, and relevant news articles; in-depth semi-structured interviews with 64 ride app users and 12 drivers; expert interviews with 13 respondents from governments, taxi associations, and platform firms; and ethnographic fieldwork in Manila and Jakarta for a total of 15 months. The empirical chapters do not mention ethnographic fieldwork in their respective methods section because I did not use my fieldnotes as the main evidence. I instead deferred to the first-person account of my interviewees as well as extensive document analysis. However, I will show in this sub-section that all my methods and evidence are tied to the highly involved fieldwork I conducted in Manila and Jakarta.

Fieldwork was an arduous process of problem-solving. I realised early on that due to opposition from governments and some incumbents, there was a reluctance to talk to researchers. Frictions between the government and incumbent transport groups filled the news, and people remembered the sting operations conducted by the governments against Uber drivers to prosecute them (Rappler, 2014). Consequently, the drivers I approached early in my fieldwork viewed me with suspicion. Two ride-hailing drivers pointedly told me they had no way of making sure I was not a government mole. Moreover, asking commuters to be interviewed by a stranger in random cafes and restaurants did not inspire confidence.

Many potential interviewees in Manila and Jakarta, whom we can call the "common people" (rather than, say, Manila and Jakarta's elites), were not very familiar with Oxford—thus, I could not leverage its supposed institutional reputation to attract respondents and consistently spark trust.[9] However, Filipinos and Indonesians hold great respect for their premier national universities. Hence, in March 2017 I joined an academic conference held in the Jakarta campus of Universitas Indonesia, the nation's premier university, to present findings of my pilot interviews, and more importantly, to scout for potential partners. I later secured formal agreements with the Universitas Indonesia to be a visiting fellow. I also

[9] I discussed this with my local collaborators. Our hypothesis is that save for the most educated classes, the masses know about their top local universities, those American universities often shown in Hollywood, and to a lesser extent, universities from countries that had colonised them. Indonesia was colonised by the Dutch, and the Philippines by Americans. If that indeed is the criteria, then it makes sense that Oxford is not on the radar of the common people.

personally went to the University of the Philippines to hash a deal to become a temporary research staff member. I gained an office space and acquired the requisite institutional reputation in each city. With interview venues in respected local universities, my calls for participation gathered more interest.

As I am a Filipino, the actual execution of ethnographic fieldwork in Manila was not overly complicated. Jakarta presented a greater challenge. After the first phase of my fieldwork in Manila, I began preparations for my fieldwork in Jakarta. I took a two-month Indonesian class offered by the Indonesian Embassy in Manila.[10] Around that time, I also spent 8 months of laborious paperwork just to obtain an Indonesian Research Visa from the Indonesian Embassy in Manila. Unfortunately, upon arriving in Jakarta, I learned that there was yet *more* paperwork to do. Indonesia requires foreign researchers to obtain numerous clearances from the immigration office, police headquarters, and *several* ministry-level and city-level government agencies before they are allowed to gather data such as interviews. Complying with these dizzying bureaucratic requirements—often in formal Indonesian, no less—took almost two more months of near-daily trips to Indonesian government offices scattered all over Jakarta. While thoroughly unenjoyable, this experience taught me how to engage and access government gatekeepers and write effective letter requests in formal Indonesian, using a particular style favoured by the bureaucracy. It also taught me about some implicit social rules in Indonesian

[10] I did very well in the language class, hence I was given the task of giving a speech completely in Indonesian during our graduation ceremony at the Indonesian Embassy in Manila. Giving that speech had the fortunate effect of catching the attention of high-ranking officials at the Embassy, who then instructed staff within their consular services to help me prepare the documents for the Indonesian Research Visa.

government agencies. This knowledge helped me later when I sought interviews with government agencies related to ride-hailing.

I made strategic use of these two months when I was not yet allowed to do interviews. Initially armed with some classroom knowledge of the language, I quickly learned enough during my first month in Jakarta to enable me to converse with ride-hailing drivers, taxi drivers, street vendors, and fellow commuters on familiar topics such as transportation and their daily routines. I tried all the conventional transport modes and ride-hailing platforms in both megacities in a systematic way: I sought variation in terms of the places I went to, the times of the day when I travelled (including rush hour), the weather conditions, and the days of the week. Consequently, I took over 200 ride-hailing trips in Manila and over 150 in Jakarta, including a heart-stopping, perilous trip on a two-wheeled GrabBike, which sped carelessly in between moving cars. These trips represent more than 2,000 km of distance travelled.

Figure 3. Online Motorbikes in Congested Roads

Online motorbikes like this one can zip between vehicles, which explains why they can reach destinations despite congestion—and also why they can be dangerous to passengers.
Photo: Author

My fieldwork included spontaneous conversations in the streets, the knowledge imparted by local guides (in Jakarta only), frequent consultations with collaborators in local partner universities, and my personal experience of systematically trying all modes of transport. Fieldwork was instrumental to my interviews with users, drivers, and experts in several ways. First, all these helped refine my question guide. Second, I established rapport and trust by responding to the answers of interviewees in ways that show “this guy is not some random interviewer from the ivory tower, he actually has an idea of what I go through.” I leveraged the fact that I often knew which station or road the interviewees from Manila and Jakarta were complaining about or the precise local realities that infuriated them.

Third, background knowledge from fieldwork allowed me to formulate meaningful probing questions. I knew the context behind many of their statements. Thus, I was able to detect and clarify inconsistencies, cross-check with my interpreter during the interview, and extract deeper explanations behind the thoughts and actions of interviewees. Lastly, my personal relations with people in Manila and Jakarta, which were only possible due to my in-person fieldwork, allowed me to successfully access gatekeepers and get sought-after interviews with top government officials and company employees.

Figure 4. Exploring a Gridlocked Megacity

Left: Heavy traffic and smog in Jakarta, under overcast skies. The weather forecast indicated inclement weather that afternoon. I deliberately went around the city to experience commuting under rainy conditions.
Right: On another day, I used public transport outside of “rush hours,” or the periods of heaviest traffic in the area. Unfortunately, many smoked inside the vehicle, flouting Indonesian law. One such instance is shown in the background of the photo, as a man can be seen puffing white smoke (his face is blurred for anonymity).
Photos: Author

1.5.3 Trustworthiness

In a seminal work, Guba and Lincoln (Lincoln & Guba, 1985) propose trustworthiness as the measure of rigour in qualitative research. For them, trustworthiness is the quality of thoroughness and care that persuades readers that the research findings are worthy of attention. Trustworthiness has four inter-related aspects: 1) credibility, the confidence in the truth of the finding; 2) transferability, the applicability of the findings in other contexts; 3) dependability, the consistency of the findings; and 4) confirmability, the extent to which findings are shaped by the respondents' views rather than the researcher's bias. Below, I list the strategies prescribed in the literature which I have undertaken to improve the trustworthiness of my findings.

Table 1: Strategies to Improve Trustworthiness

Strategies	**How this was achieved**
Triangulation (Yin, 2013)	I employed four different methods to achieve triangulation.
Piloting (Flick, 2009)	I piloted the interview question guides on small samples and improved them based on the pilot.
Review of instruments	I consulted my supervisors and collaborators in refining the question guides.
Peer debriefing (Lincoln & Guba, 1985)	I often discussed progress with my academic collaborators in my partner universities to test the soundness of emerging findings. This is another value of the formal partnerships I established with Universitas Indonesia and the University of the Philippines. I also sent materials to my collaborators and local experts to receive corrections and feedback.
Reliability Check (Leung, 2015)	Interpretations from my Jakarta interviews were checked by two bilingual speakers. Transcripts from Manila were cross-checked by at least two people.

Prolonged engagement and persistent observation (Lincoln & Guba, 1985)	I engaged in 15 months of fieldwork and continually monitored relevant news for five years.
Member Check (Leung, 2015)	This refers to confirming with respondents that they were understood correctly. It can be done during the encounter, through interview techniques, or at a later time, to ask for formal or informal validation of findings. All interviewees were asked to clarify or summarise important statements. In addition, I also communicated post-interview with 10 interviewees (six in Manila and four in Jakarta), and received validation.
Expert review	I arranged for a senior journalist with long experience covering ride-hailing platforms in Indonesia and the Philippines to review the first empirical paper, which is heavily reliant on the analysis of news articles. To satisfy her stringent scrutiny, I revised the chapter and submitted to her my course of action on how to address the points raised in her feedback. I also consulted two lawyers since Study 1 has some parts that deal with competition regulation. With this process, Study 1 has been vetted for the accuracy of facts and soundness of claims.
Inter-Coder Agreement (Campbell et al., 2013; O'Connor & Joffe, 2020)	For my studies that heavily rely on qualitative coding of user interviews, I undertook to obtain inter-coder agreement, which minimises the biases of the main coder and ensures the conceptual integrity of the codes used to analyse the data. I trained two coders and we went through at least 10% of all user interviews, which follows the threshold set by methods scholars (Campbell et al., 2013; O'Connor & Joffe, 2020). As per best practice in the literature, Krippendorf's alpha is the most robust statistical measure of inter-coder agreement. I used a statistical package to compute the inter-coder agreement scores and aimed for the accepted standard of an alpha of at least 0.80. After each round of coding, I had discussions with the coders to generate agreement and refine code

	definitions where necessary. After three rounds, all codes achieved an alpha of at least 0.80, with the vast majority achieving much higher alphas than the minimum. Alpha scores are provided in Appendix A.
Selection of two cases (Yin, 2013)	As discussed earlier, this enhances generalisability.
Sound interview techniques (Rubin & Rubin, 2005)	I studied and observed good interview techniques to minimise bias. These include asking thoughtful probing questions, pushing for clarity and nuance, and avoiding leading and double-barrelled questions, among others.

1.6 Outline of the Thesis

The rest of the thesis consists of a literature review, three original empirical studies, and a conclusion chapter.

Chapter 2 consists of a thorough literature review of digital platforms and the sub-fields involved in this thesis. I begin this chapter by elucidating the evolution of digital platforms in different disciplines, presenting their special characteristics, and selecting the most fitting definition for this thesis. I then identify three important theoretical gaps that are relevant to the socio-political implications of digital platforms. These gaps pertain to the following literatures: platform strategy, the politics of platforms, and algorithmic control and user agency.

In Chapter 3, I present my first empirical paper, titled "Platform Strategy and Institutional Work: The Legitimation Strategies of Digital Platforms." I examine how digital platforms employ non-market strategies to win legitimacy. Current literature in management studies and platform studies is only beginning to understand how digital platforms are establishing legitimacy. Through a multi-method study on ride-hailing platforms in Manila and Jakarta, I contribute to the platform strategy literature in three ways. First, I present the range and novelty of legitimation strategies that they can employ when entering highly contested markets. Second, I explain how some platform characteristics confer an advantage to the legitimation strategies of platform firms. Third, I explain how certain adverse conditions can amplify some of the strategic advantages that platforms can wield.

In Chapter 4, I present my second empirical paper, titled “The Stasis Effect: How Digital Platform Adoption Undermines Policy Reforms.” I investigate how the adoption of digital platforms and subsequent reliance on them might affect the social clamour among digital platform users to improve public systems in sectors where the platform has achieved success. This is an important puzzle because when digital platforms are used to solve social problems, scholars argue that these technological solutions are mere temporary palliatives. According to this perspective, comprehensive government reform in the relevant sector still is the real, long-term solution. However, this study finds that digital platform adoption may influence public opinion in ways that impede government reforms of public systems. I present evidence pertaining to the idea that people’s reliance on platform solutions can make public systems less important to them. This shift of issue salience away from reform of public systems can put in stasis the connection between public opinion and government action. Thus, governments may have fewer incentives to pursue policy reforms that provide comprehensive solutions to pressing social problems.

In Chapter 5, I present my third empirical paper, titled “Platform Playbook: A Typology of Consumer Strategies against Algorithmic Control in Digital Platforms.” In this final empirical piece, I explain how consumers protect their own interests when faced with technologies and rules embodying the platform’s interests. I contribute to the literature on algorithmic control and user agency in two ways. First, I propose a fine-grained typology of consumer strategies used in algorithmic digital platforms, consisting of five major types and 18 sub-types. To my knowledge, this is the first time that consumer agency on algorithmic digital platforms has been elaborated in such detail. Second, I analyse how consumers' deployment of these strategies affects the interests of the consumers themselves, the supply side (the workers), and the platform. This analysis shows that demand-side economic constraints and sectoral underdevelopment result in self-sacrificial strategies and those that harm workers. However, consumers' attempts to soften platformic control ironically hardens consumer reliance on the platform, thus ultimately serving the platform's long-term interests.

In Chapter 6, I conclude the thesis by summarising key findings, discussing transferability, and outlining future research possibilities. My three studies show that the characteristics of digital platforms shape society and politics in more ways than we thought—for better or for worse. These findings warrant several questions. What can we do to maximise the newfound advantages and potentials of these technologies? And what can be done to remedy the socio-political ills that my and others' research warn us about? Hence, I recommend policies to help governments, firms, and civil society exploit advantages and mitigate the risks revealed in my thesis. After all, managing potentials and risks is becoming more important as digital platforms are poised to expand further across the world, bringing with them complex socio-political effects.

CHAPTER 2 THEORISING DIGITAL PLATFORMS: STRATEGY, POLITICS, AND USER AGENCY

2.1 Introduction

The rise of digital platform companies has led to transformations in a wide range of industries, including hospitality, healthcare funding, social media, finance, retail, online labour, and urban transport. The socio-political implications of digital platforms in underdeveloped contexts "remain largely understudied" (Koskinen et al., 2019, p. 319) in the digital platforms literature. This thesis seeks to fill that gap, with a focus on Southeast Asia's gridlocked megacities. The aim is to widen our theoretical understanding of the socio-political implications of digital platforms, and—where possible—to uncover any novel implications that arise when platform companies leverage their distinct advantages and deploy technologically sophisticated solutions in adverse contexts.

But what exactly are digital platforms, and what makes them distinct? I answer this in section 2.2 by reviewing relevant disciplines that examine "platforms" as a special type of organisation. I then define the concept of a *digital platform* and the features that differentiate it from other types of organisations.

While this project intends to contribute to the digital platforms literature, many relevant and well-established insights can be found in development studies and political economy—literatures that have long studied what happens when corporate actors, such as digital platform companies, enter the adverse contexts often found in developing countries. Existing research paints a mixed story of opportunity and caution. Corporations may provide jobs, welfare-enhancing competition, superior products and services, greater consumer choice, inward investments, and technology transfers (Kumar, 1998). However, their profit-seeking behaviour, market penetration strategies, and manoeuvres toward long-term success can shape politics, institutions, and social behaviour in ways that undermine the public good. Foreign multinational firms, a category that applies to Uber, Grab, and Gojek, are especially implicated. Well-resourced foreign multinational firms are known to flout laws by employing specialist teams who can outwit regulators and government negotiators (Otusanya, 2011; Reuter, 2012). They outcompete smaller local players by offering discount prices and then switch to price gouging upon achieving monopoly power (Chaudhuri, 2012). Some firms succeed in implanting supporters within governments or converting key figures into proponents, thus capturing regulation in service of corporate interests (Braithwaite, 2006; Kingston, 2011; Kouneva-Loewenthal & Vojvodic, 2012; Shirodkar et al., 2019; B. Zhu, 2017).

Corporate firms command greater bargaining power in adverse contexts characterised by societal challenges, poor public services, consumer desire for better products, lack of government expertise in the firm's domain, scant resources to defend local interests, and the country's sheer need for investment, infrastructure, and technologies (Assies, 2003; Kumar, 1998; Vivoda, 2009). Development scholars note that developing country contexts exhibit many of these adverse characteristics and therefore are especially vulnerable to corporate power.

The playbook of corporate firms may lead to conflicts with incumbents and state actors. It may also lead to net welfare loss for society as seen in highly unbalanced resource-extraction agreements between western oil companies and African states who gain very little from those agreements (Bousso, 2019; Raval &

Munshi, 2019; Taylor, 2018). In some cases, it may also bring about new dysfunctional patterns of behaviour among citizens. For example, Facebook tried to increase the number of users in developing countries by launching free mobile Internet for exclusive use on Facebook. However, researchers argue that free access to Facebook without access to search engines, where information from Facebook feeds can be fact-checked, encourages the spread of disinformation, hateful speech, and toxic politics in these developing countries (O'Maley & Kak, 2018).

The above examples demonstrate that a firm's strategic behaviours— such as penetrating markets, maximising profit, enlarging its userbase, and positioning for long-term success—have social and political implications. Hence, the strategic behaviours of ride-hailing platform companies present a fitting starting point for investigating the less understood socio-political implications of ride-hailing platforms in adverse contexts. However, a key difference is that platform companies are known to have special features absent in typical corporate firms. These special features are a potential source of socio-political dynamics that are not understood in political economy and development studies. Investigating whether and how these special features lead to novel socio-economic implications is an opportunity to contribute to the digital platforms literature. Hence, in section 2.3, I discuss the entry strategies of digital platforms in new markets. I then explain how the theory of institutional work presents an opportunity to re-assess platform strategies in ways that differ from dominant accounts focused on commercial strategies.

But could the widespread adoption of digital platforms also have socio-political impacts at the individual level? To address this logical evolution in the project's line of inquiry, I explore in section 2.4 the intersection of digital platforms and micro-level politics. I note that there is little conceptualisation of the potential negative implications on individual politics arising from the wide adoption of digital platforms. I then show how concepts from the literature on public opinion could be useful in studying the political implications of digital platforms on individuals.

What is so far missing from the story is whether these very individuals are only recipients of impacts from digital platform companies. Or can individual consumers also show agency when faced with digital platforms that may sometimes operate counter to their interest? To address this, I tackle in section 2.5 the algorithmic and non-algorithmic means that digital platforms use to shape user behaviour, and the ways users express agency against these forms of control.

In sum, this chapter provides a theoretical background to three related and important aspects of digital platforms: platform strategies, politics at the level of individuals, and user agency. In each succeeding section, I explain the theoretical gaps and, where relevant, the interpretative theories that will structure inquiry. I conclude by stressing key points of the chapter, and the literatures to which each empirical chapter will contribute. The research questions, the specific literatures they contribute to, and the theoretical gaps addressed are presented in a table at the end of this chapter.

2.2 Conceptualising Digital Platforms

First of all, what is a platform? How did it come about?

Connoting a conducive space for coordinating some activity, the term "platform" has been used in various fields such as operations management (M. H.

Meyer & Lehnerd, 1997), technology strategy (Gawer & Cusumano, 2002), industrial economics (Rochet & Tirole, 2003b), and the digital economy (Eisenmann et al., 2006). Due to the intuitive versatility and figurative potential of the word “platform,” it has also been appropriated to mean different things in everyday language, media discourse, and intellectual circles (Gillespie, 2010). Hence, it is necessary to trace the evolving understandings of “platforms” in various disciplines and identify definitional boundaries relevant to this thesis.

2.2.1 Internal and External Platforms

Gawer and Cusumano (2014) contend that the first popular usage of “platform” as a specialised term was in the field of product development (Wheelwright & Clark, 1992). The term was used to describe a company’s in-house system for incremental yet standardised modes of innovation around reusable components or technologies. Subsequent authors later conceptualise this as an *internal platform*—a set of assets organised under a common structure through which a company can efficiently produce derivative products (Gawer & Cusumano, 2014; M. H. Meyer & Lehnerd, 1997; Muffatto & Roveda, 2002). On the other hand, *external platforms,* also called *industry platforms* or *product platforms,* are understood in the field of technology strategy as products, services, or technologies that provide the foundation upon which external firms—also called complementors—can attach and develop their own complementary products, technologies, or services (Gawer, 2009; Gawer & Cusumano, 2002; Simpson et al., 2005). While the conceptualisation of external platforms is commonly associated with European and American authors like Gawer and Cusumano, a fairly recent book by Steinberg

(2019) shows that Japanese scholars such as Deguchi Hiroshi (1993) have written on external platforms, using very similar terminologies and expounding similar ideas as far back as 1993. While they were a decade ahead of American and European scholars, their ideas did not influence international scholarship.

While both internal and external platforms provide a common set of reusable components or technologies, the latter opens its platform components for external firms to utilise. The complementary technologies, products or services developed on the external platform (also called industry platform) are then targeted toward a consumer base (Gawer & Cusumano, 2014). Microsoft's Windows Operating System exemplifies an industry platform. After developing Windows, Microsoft provided incentives and tools to software developers, encouraging them to become "complementors" who build applications that are compatible with Windows. With a wealth of available software from complementor firms, Windows succeeded in enticing users and achieved commercial success. Industry platforms can also be built around hardware. For example, Intel and ARM microprocessors are industry platforms that release a portion of their overall designs and intellectual property to complementors, ensuring that upgrades and innovations in other areas of PC circuitry remain compatible. Other examples include the Linux operating system (OS); Apple's iTunes and App Store; Sony's PlayStation; and Google's Android operating system for smartphones.

2.2.2 Platforms as Multi-sided Markets

In economics, a platform is understood differently. While the exact definition varies per author (Filistrucchi et al., 2014), it is commonly understood as a coordinator of a multi-sided market (MSM), which is a market with two or more interdependent sides who need each other in some way (D. S. Evans, 2003; Rochet & Tirole, 2003b). MSMs have also been known as multi-sided platforms (MSPs). Japanese scholars such as Imai Kenichi and Kokuryo Jiro (1994) have already theorised about multi-sided markets in an edited volume entitled *Purattofomu Bijinesu* (platform business) published as far back as 1994. Their volume conceptualised multi-sided platforms by examining credit cards (Hayashi, 1994) and online auctions (Danno, 1994). These did not become well-known internationally. A decade later, beginning in 2003, Rochet and Tirole (2003b) and other authors publishing in English looked at these very same industries to conceptualise MSPs, leading to the popularisation of MSPs in international scholarship.

The interactions among multiple sides generate economic value, which is shared between platform participants and the platform owner. The relations among the sides of the market are governed through internal mechanisms such as price and external mechanisms such as government regulation. The main function of the multi-sided platform is to match the supply side and the demand side. However, the sides of a market need not be strictly seen as demand and supply sides. For example, in dating clubs that typically match men and women, it is unclear which group is the demand or supply side (D. S. Evans & Schmalensee, 2005). MSPs can exist in the form of technologies such as computer operating systems that connect end-users and software developers, but they also arise in brick-and-mortar industries such as malls where shoppers interact with tenant merchants (D. S. Evans, 2003). More importantly, I gather from the MSP literature four characteristics that differentiate MSPs from conventional, non-platform markets: 1) the presence of network effects; 2) the chicken-and-egg problem; 3) cross-subsidies versus mark-up pricing; and 4) intermediation versus inventory.

Multi-sided platforms exhibit network effects—a situation whereby a change in the number of participants has an outsized impact on the value of the entire network (Rochet & Tirole, 2003b; C. Shapiro & Varian, 1999, p. 13). Network effects are direct (also called same-side effect) if changes in one side affect the value that the same group derives from the platform. This is exemplified in Facebook, a multi-sided market for social media users and advertisers. Facebook is of little value to someone considering to join the platform, if it has only a few users to befriend, but Facebook becomes increasingly valuable to its users as more people join. In contrast, indirect network effects pertain to changes in one group that affect the value of the platform for the other group. For example, as drivers on Uber increase, the value of joining Uber increases for consumers, who can then expect to get a ride with shorter waiting times.

Network effects are also categorised based on whether their same-side or cross-side impact is positive or negative. Positive network effects improve the value of the platform for a particular user group, as in the aforementioned examples of Facebook and Uber. However, network effects can also lead to negative outcomes such as when the rapid in-flux of users creates congestion that overloads systems for managing the platform (Belleflamme & Peitz, 2018). Another negative impact is the rise of sub-optimal levels of same-side competition; for example, a disproportionate increase in male participants in a dating club may create a negative same-side effect among them as they have to compete for the attention of so few females.

Another important characteristic of network effects is that they can trigger feedback loops between the two sides (Van Alstyne et al., 2016b). For example, the increase in commuters using Uber represents a beneficial cross-side network effect to the drivers, thus incentivising more drivers to join Uber to profit from increasing numbers of commuters. At the same time, the resulting increase in drivers means wider coverage and shorter waiting times for commuters, and thus represents another cross-side network effect that benefits commuters this time. Eventually, the growth of drivers and commuters mutually reinforce each other. These simultaneous instances of network effects, mutually reinforced by feedback loops, explain the potential of multi-sided platforms for catalytic growth.

However, before network effects can kick in, MSPs must first face the imperative of simultaneous onboarding to generate the market, also called a platform's "chicken-and-egg problem" (Caillaud & Jullien, 2003). In other words, how can platforms entice multiple sides, each of whom will only be persuaded if the other side is already on board? For example, a platform like Uber needs both drivers and passengers, but drivers will stay away if there are no passengers. In turn, passengers will not sign up if no drivers are working for the platform in the first place.

To solve this characteristic deadlock, MSP's follow unconventional pricing strategies such as cross-subsidies, whereby one side is charged little or nothing (Rochet & Tirole, 2003b). Indeed, most malls do not charge shoppers, and operating system platforms provide many free services to software developers. Platforms may shoulder the subsidies enjoyed by one side, or force the other side to defray the costs of the subsidy. MSPs design their subsidies and pricing depending on which side needs to grow at a particular juncture in the platform's expansion. In contrast, typical non-platform markets follow a mark-up pricing model where prices are some function of production costs (Hagiu, 2004, p. 30, 2007). The final distinguishing feature of MSPs is that their value lies in intermediating between sides that need each other (Hagiu, 2007). In contrast, non-MSPs often create value by acquiring goods and human resources, transforming the former as inventory and the latter as contract labour, to be provisioned to a customer.

To clearly illustrate these four distinguishing features, it is useful to examine in concrete terms how a multi-sided market differs from a conventional market transaction—such as buying jam from a corner shop. First, while the supply side's product (jam) is in the scenario, the supply-side itself (jam company) is not. From the supply side's perspective, the jam was already a completed sale the moment the shopkeeper bought it from the wholesaler (or perhaps even the moment the wholesaler bought it from the company's warehouse). This removes the supply side from the picture. The absence of an interdependent supply side precludes network effects. Second, the corner shop does not encounter the problem of having to simultaneously bring together the supply-side and demand-side around any product, thus exempting it from the chicken-and-egg problem that is characteristic of MSP's. Third, due to the previous point, there is no need for special cross-subsidies. The shop simply follows the conventional mark-up model for pricing the jam. Lastly, instead of intermediation, the shop's core function is acquiring jam in its inventory. However, shops can be configured to become an MSP too. For example, Wal-Mart now rents floor space to suppliers such as Sony, which independently supplies, displays, and markets its electronics inside Wal-Mart. In this case, Wal-

Mart assumes the form of an MSP where Sony and consumers can interact (Silverthorne, 2006).

2.2.3 How Digital Platforms are Understood in this Thesis

The key issues that need definitional boundaries revolve around the “digitalness” and “platformness” of digital platforms. The meaning of “digitalness” is easier to resolve since there is general agreement that digital platforms are distinct from non-digital ones as the former involve information technology systems, computing power, rules built into computer code called algorithms, and the Internet—all of which bolster the platform’s capacity for real-time interactions and algorithmic governance of stakeholders (Gorwa, 2019b; Kenney & Zysman, 2016, 2015). Digital platforms also circumvent limitations imposed by co-location and its associated costs. For example, in e-commerce platforms, the e-seller and buyer do not have to be physically co-located to transact. Likewise, in ride-hailing, even if the actual service requires physical co-location of driver and passenger, the intermediation necessary to match driver and passenger happens digitally. In contrast, non-digital, multi-sided platforms—exemplified in fairs, malls and dating clubs—require participants to be co-located to enable matching, term setting, and the carrying out of the actual exchange. Moreover, there are costs involved in setting up a stand at the fair, a kiosk at the mall, and the bar for the dating club. Digital platforms circumvent these two limitations: participants do not need to be co-located to activate intermediation in a digital platform; and the multiple instances for intermediation happens in the digital space with minimal marginal cost (Sanchez-Cartas & Leon, 2019).

Prior labels of internal or external platforms from the 1990s no longer capture new forms of platforms, and do not incorporate recent economics research on multi-sided markets from the last two decades. Hence, Cusumano et al. (2018, 2019) recently proposed an updated definition of platforms as "company-owned businesses" (digital or physical) that connect individuals and organisations to enable innovations or transactions among users and other market participants, generating network effects in the process. They categorise platforms into three types: *innovation, transaction* and *hybrid platforms*.

Innovation platforms are products or services that serve as a foundation on top of which other firms develop complementary technologies, quite similar to *external platforms* from past nomenclature. On the other hand, transaction platforms are technologies, products or services that serve as intermediaries facilitating exchange or transactions between different consumers or buyers on one hand and suppliers or service providers on the other. Examples of transaction platforms include Uber, Amazon Marketplace, and eBay. Transaction platforms capture value mostly through commissions taken from the supply side. Platforms combining innovation and transaction functions are hybrid platforms. For example, Facebook facilitates interactions among media consumers and advertisers (the transaction component), and simultaneously allows third-party developers to embed complementary services like games within Facebook (the innovation component).

The updated conceptualisation from Cusumano et al. (2019) is instructive. However, it can be further tailored to this thesis by limiting the definition to digital platforms to exclude brick-and-mortar platforms like malls. Also, the distinction between the platform owner and the platform needs to be made clearer since a study on socio-political implications will conceivably necessitate nuance between the platform apps people use and the agentic company behind the apps. With these minor adaptations in mind, digital platforms are understood in this thesis as an *information-technology system, created and governed by a platform company, to enable complementary innovations or transactions (or both) among different interdependent groups, thus generating a market that exhibits multi-sided characteristics.* In this thesis, I use the term *digital platform* to refer to the socio-technical system or the app or software itself, such as the Uber app and its features. I use *platform company* or *platform firm* to refer to the companies who create, govern, and extract value from these platforms. For the rest of this thesis, the terms "digital platforms" and "platforms" will be used interchangeably, for the sake of brevity.

In sum, digital platforms are a means for platform owners to extract value through information-technology systems that enable complementary innovations or mediate interactions among interdependent groups. These processes exhibit in varying degrees the characteristics of multi-sided markets: network effects, the problem of simultaneous onboarding, unconventional pricing strategies, and intermediation. The digital nature of these platforms allows the leveraging of computing power, algorithms, and the Internet to provide real-time intermediation and data-driven governance. Their digital-ness also obviates the role of co-location and the material costs of physical intermediation,[11] both of which constrain non-digital platforms.

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[11] This is not to say that the human experience with digital platforms does not involve physical artefacts, only that the main method of intermediation is through digital spaces, rather than through physical spaces.

The final definitional issue that needs to be settled pertains to the term "digital platform" having several types such as transaction, innovation, and hybrid—with more types possibly developed or discovered in the future. This variety raises the question of whether my study only engages with a specific type of digital platform. My position is this: ride-hailing platforms are transaction platforms, therefore I mostly reference literature on platforms with "transactional" components (such as transaction and hybrid platforms) to structure and inform my thesis. However, I do not discount the idea that the insights from my thesis have relevance to other types of platforms beyond pure and hybrid transaction platforms. Through reader generalisation, current and future audiences can determine whether my findings have relevance to the platform and context they are studying. As I explained in chapter 1, I have purposefully carried out analysis in my three empirical studies to specify qualifying conditions where possible, as a way of aiding reader generalisation.

2.3 The Strategies of Digital Platforms

Now that we understand what digital platforms are, it is appropriate to begin an exploration of the socio-political implications of platforms by looking at a macro view and understand their corporate behaviour and strategies. *Platform strategies* are defined as the mobilisation of a networked business platform to expand into and operate in a given market (Cusumano & Gawer, 2002; Parker & Van Alstyne, 2016). I first provide a brief overview of platform strategy, often understood in market terms. Afterwards, I discuss emerging literature on their non-market strategies, which are also called institutional strategies.

2.3.1 Platform Strategies: The Well-Beaten Path

Business and strategic management literatures have been prolific at investigating the strategies of platforms in environments rife with unyielding incumbent rivals and unconventional economic calculus. The special characteristics of a digital platform require platform owners to undertake platform-specific strategies for market entry, rapid upscaling of market share, and commercial success.

As mentioned earlier, digital platform firms rely on unconventional pricing strategies to solve the unique problem of simultaneous onboarding. Digital platforms periodically subsidise consumers to join, provide generous incentives for suppliers to grow the supply side when needed, or sometimes charge the consumer higher fares through dynamic pricing to encourage the supply side to work. Subsidies can be temporary or permanent. These can also come in the form of free or partially-sponsored services until platform participation becomes self-sustaining (Parker & Van Alstyne, 2005). Once a platform onboards a sufficient number of users, it is important to protect its multi-sided network from external attacks and user disengagement. The usual strategy is to increase the user costs of switching to another system (Cusumano, 2010). Another powerful method is to limit the compatibility of the platform's core functions with external systems, or require the supply-side to onboard their assets exclusively on that platform, thus ensuring users "single-home" on that platform (Rysman, 2009). Conversely, platforms defending their networks are averse to "multi-homing," whereby actors can easily participate in many similar platforms at the same time.

Platforms with enough scale can also attack other platforms in different markets through “platform envelopment.” The attacking platform bundles new synergistic offerings that exist in the target platform, to entice existing users of the target platform to abandon it (Eisenmann et al., 2011). For example, Grab, Southeast Asia’s largest ride-hailing platform, expanded to on-demand food delivery and thus pressured FoodPanda whose sole focus is food delivery (Goh, 2019). Platforms also defend against disengagement through non-discrimination strategies such as enforcing price parity or most-favoured-nation clauses. These ensure that the supply side offers their best prices on the platform (Wang et al., 2018; Zimmer & Blaschczok, 2014), and refrains from giving more favourable terms to off-platform transactions (Parker & Van Alstyne, 2016).

2.3.2 Institutional Strategies: A Novel Lens for Platform Strategy

The commercial and business strategies of platforms described above have been the subject of much theoretical and empirical work since the early 2000s. However, these do not encompass all the strategies that platforms deploy, and neither is market share the only strategic aim of any firm. Just like traditional firms long described in institutional theory, platform companies also employ *institutional strategies* to influence the rules and definitions of legitimate behaviour in their target contexts. In many cases, the main obstacles to platforms are not the usual commercial counter-strategies by rival firms in the form of better marketing, competitive pricing, sales development and execution. Rather, the bigger puzzle for many controversial platforms is how to shape the pulse of society—the common people, influential organisations, and governments—to bring about social acceptance despite contestation from incumbents. Platform firms have fought for informal norms and formal regulation that permit the platform’s operation, despite the uncertainties its novelty and special features bring. For example, Uber is known to barge in and achieve explosive growth before incumbents and regulators can mount cohesive resistance. Uber then uses people’s positive opinions as part of non-market strategies to manufacture institutional acceptance (Pelzer et al., 2019; Ranchordás, 2017).

But what are these non-market strategies, which are also called institutional strategies?

First, a discussion of institutions is in order. Institutions can be defined as the formal rules (North, 1990), agreements (Bonchek & Shepsle, 1996), informal rules, social scripts (Jepperson, 1991), and taken-for-granted assumptions that organisations and individuals are expected to follow. Institutions may simultaneously possess three aspects in varying degrees (Scott, 2013). The first one is the regulative aspect, which refers to the enforceable rules of the game which command compliance through coercion and fear of punishment or demerit. Normative institutions are norms and values which emphasise socially permissible and legitimate conduct, which actors follow out of duty, responsibility, ethics, or morality. Cognitive institutions are the shared conceptions, meanings, cultural ascriptions, mental templates, and taken-for-granted assumptions that shape social actors (Scott, 2008).

For any structure to possess any regulative, normative, and cognitive power to organise society, it must first attain a quality that commands compliance (Scott, 2008). Institutional theory argues that legitimacy is one of these critical qualities.

The prominent institutional thinker Mark Suchman (1995, p. 574) defined legitimacy as the "generalised perception or assumption by society that the actions of an entity are compliant, desirable, proper, or appropriate within a socially constructed system of norms, values, beliefs and definitions." This base definition of legitimacy can be further elaborated into three types: pragmatic, moral, and cognitive legitimacy. Pragmatic legitimacy is the support for an entity based on self-interested calculations by immediate audiences that the entity can be expected to provide utility (D. J. Wood, 1991), respond to their broader interests (J. Meyer & Rowan, 1991), or behave coherently (Suchman, 1995). Moral legitimacy refers to moral judgements about whether the entity promotes public welfare as defined by society's values. The last type of legitimacy relies on cognition (Aldrich & Fiol, 1994), which pertains to mental codes about how the world works—collectively internalised by a critical mass to become a legitimising force. The more striking manifestation of cognitive legitimacy is the widespread perception that the entity has become a "given," thereby extinguishing the possibility of dissent (Suchman, 1995).

Digital platforms trying to enter new markets and influence a field populated by incumbent actors can be conceptualised as organisations trying to legitimise their preferred socio-technological order. Institutional and organisational scholars have fleshed out the strategies and activities undertaken by institutional entrepreneurs to achieve legitimacy, which encompasses not only user support but also influence over regulations and norms. Lawrence and Suddaby (2006) call the strategies and activities of individual entrepreneurs and organisations for disrupting, creating, and maintaining institutions as "institutional work."

Leading the platform strategy literature to venture into non-market or institutional strategies is a valuable approach. Doing so promises to provide insight into important events that are not yet well accounted for in platforms literature, which has often focused on market strategies. The battles for legitimacy among ride-hailing platforms, government agencies and incumbent transport players in Indonesia—which led to the bloody Jakarta Riots of 2015—can help reveal the institutional strategies of digital platforms, the possible advantages to legitimation granted by their special features, and the role of underdevelopment in legitimation. Thus, in an effort to contribute to the nascent literature on the institutional strategies of platform firms, Study 1 will investigate how digital platforms carry out institutional work in adverse contexts to achieve legitimacy. In particular, I aim to understand whether digital platform companies can wield novel strategies or deploy old ones in exceptional ways due to context adversity and the unique features of digital platforms.

I have so far discussed theories about the macro-level implications of digital platforms on institutions and organisations. However, could the widespread adoption of digital platforms also have socio-political impacts at the individual level? The next section looks at this puzzle.

2.4 Implications of Digital Platforms on Micro-level Politics

2.4.1 The Politics of Platforms: Finding a Niche

Digital platforms and the platform economy are perceived to have deep implications on media, labour, public transport, healthcare funding, and housing, among others. These directly relate to politically sensitive concerns such as economic development and social progress, thus capturing the attention of policy-makers, politicians, and the general public. Not surprisingly, the intersection between platforms and politics has become an expansive area of research. The idea of politics and its constituent literature are vast and complex. To establish clarity amidst this complex literature, I refer to the uncontroversial definition of politics as "the activities involved in getting and using power in public life, and being able to influence decisions that affect a country or a society" (Oxford English Dictionary, n.d.).

Digital platforms have been implicated in an overwhelming number of areas that overlap with some facet of politics, such as international relations (Gorwa, 2019a; Howard & Kollanyi, 2016; Land, 2019), human rights (Gillespie, 2018), political persecution (R. Lee, 2019), national and supra-national policy-making (Helsper & van Deursen, 2015), and electoral politics (Hong & Nadler, 2012). The level of analysis ranges from states, political parties and international organisations to micro-level individuals. However, socially transformative digital transaction platforms in social media, ride-hailing, home-sharing, and online work are mostly intended for and are used by individual users, rather than by state or organisational entities. Hence, it remains of utmost importance to scrutinise how digital platforms implicate politics in ways that involve individuals whose shared beliefs become a potentially transformative force. Consequently, I limit this section of the literature review to studies that explain how digital platforms affect the political beliefs and actions of individuals, which sometimes constitute politically meaningful collectives, and how these micro-level conditions may have macro-level political consequences.

The link between social media platforms and political mobilisation among diffuse individual actors has been the subject of prolific work since the early years of social media. Some authors see digital platforms as enablers of social movements seeking political change (Castells, 2012) or as catalysts of democratic processes (Hermanns, 2008). Providing empirical support, many scholars argue that social media was instrumental in carrying out anti-government street protests, which in some cases have even escalated to an uprising or revolution (Eltantawy & Wiest, 2011; Harlow, 2012; Lim, 2012). Using large data sets of petition-signing behaviour and experimental methods, Margetts et al. (2016) argue that social media platforms diminish transaction costs, erasing the need for formal organisation and charismatic leadership in political action. Grassroots and minority groups are then better able to influence political issues, thus checking entrenched political interests and re-balancing power toward under-represented groups.

However, the impact of digital platforms is not always clearly positive. Margetts et al. (2016) also warn that social media movements encourage socially destabilising revolutions and failed protests. Social media platforms can encourage low-effort political engagement such as “liking an online petition” or leaving a “heart” reaction to political posts, often known as slacktivism or clicktivism (Drumbl, 2012; Karpf, 2010; Thimsen, 2015). Slacktivism assuages collective sensibilities and creates a sense of action toward important issues yet brings little effect. Hence, debates focus on the positive and negative impacts of slacktivism and whether it is a desirable political act regardless of its immaterial impact (Drumbl, 2012; Halupka, 2014; Karpf, 2010; Thimsen, 2015). Moreover, social media platforms and platform companies abet disinformation campaigns aiming to polarise the public’s political opinion (Tucker et al., 2018); encourage individuals to support authoritarian regimes and enable hate speech (Fink, 2018; R. Lee, 2019); and manipulate voting behaviour during elections and referendums (Bradshaw & Howard, 2018; Mejias & Vokuev, 2017; S. Walker et al., 2019). Digital platforms facilitate the emergence of public opinions that influence policy processes (Dekker & Bekkers, 2015). Culpepper and Thelen (2018) indicate that individual consumers are used by platform companies to vocally oppose regulations or politicians that curtail the platform's interests. Users can become so reliant on the platform such that they become a formidable source of opposition to regulations that threaten these platforms (Culpepper & Thelen, 2020).

2.4.2 Political Externality: A Hypothesis

In the conversations on the politics of platforms I summarised above, nowhere is there any recognition that the efficiency gains from a digital platform might shape individual politics by dampening the social clamour for deep reforms in pre-existing public systems supplanted by platforms. No one has yet hypothesised or empirically shown that efficiencies generated by platforms may have a negative political externality: specifically, that the positive experiences of platforms users encourage them to care less about substantive reforms that benefit a bigger segment of society. If applied to the empirical domain of this thesis, the efficiency gains from ride-hailing platforms might be dissipating the interest among users to support difficult reforms in mass transportation, urban infrastructure, and general safety.

This political externality hypothesis conceives the possibility that certain conditions may link platform adoption and reduced social demand for reform. For example, the underperformance of government-led systems may catalyse migration into a platform-based solution and thus shift peoples' support to technological solutions. Moreover, Morozov (2013) and Kling (1991) have long recognised that cognitive pro-technology biases in a society lead to the valorisation of technological solutions. Building on their point, I speculate that some combination of pro-technology attitudes, actual experience of platforms, and certain adverse contexts can condition people to valorise platform technologies, to the detriment of public systems in the same field.

In Study 2, I investigate whether and how reliance on platforms leads users to form certain beliefs around salient issues. Although I focus on this general question, I will pay attention to my political externality hypothesis, which holds that the adoption of platforms may dampen social clamour for long-term reform in the relevant policy field. I also keep an eye on whether conditions of underdevelopment, in the many ways it manifests, could be contributing to the emergence of the hypothesised political externality.

According to the view of politics I adhere to in this project, the micro-level is not important by itself, but because it has the potential to have macro-level effects on the broad webs of power that constitute politics. I study the individual opinion of platform users to conceptualise how the nature of their opinions could possibly affect the dynamics between public opinion and policy. To best address this angle, Study 2 considers appropriate lenses from political science that have already theorised the potential macro-level effects of micro-level opinion by individuals. While this venture into public opinion is rarely taken as an approach in the literature on the politics of platforms, Study 2 demonstrates that this novel cross-fertilisation is a way of pushing the literature forward.

2.5 Algorithmic Control and User Agency

2.5.1 The Digital Platform as a System of Rules

The literatures and research questions I have detailed so far look at two things: 1) how digital platforms' strategies affect organisational actors who, in turn, resist these platforms; and 2) how reliance on digital platforms shapes the political beliefs of individuals. These concerns underline the ability of platforms to impact societies, organisations, and individuals, whether purposeful or inadvertent. A puzzle that stands out is whether individuals reliant on digital platforms are only receivers and objects of impacts from digital platforms. Or, like incumbent organisations who try to resist digital platform companies, can individuals also assert their interests and constrain digital platforms despite the latter's technical prowess?

Being the formal mediator between multiple sides of the ecosystem, and the author of technologies aiding intermediation, the platform company creates the rules governing technology use and the behaviour of actors in the ecosystem (Gorwa, 2019b). However, platform entities are not neutral arbiters of the platform ecosystem. There is increasing attention on the rule systems platform companies develop to shape the behaviour of users and workers in ways that serve the interests of the platform companies. A central idea in the literature is that digital platform companies do this through *algorithmic control*, which is the automated, data-driven means of governance, oversight, and punishment effected through the software (Cotter, 2019; Möhlmann & Zalmanson, 2017).

Moreover, platform entities also impose rules through non-algorithmic forms of control. Examples of formal non-algorithmic rules include those governing the ratings and reputation systems in platforms, as well as policies on the terms of use and the non-circumvention of the platform. Jarrahi et al. (2019) also find that some non-algorithmic means of shaping user behaviour are not formal rules, but are constraints on behaviour intended to generate particular norms among individual users. For example, Upwork, a platform for gig work, imposes time trackers to ensure workers comply with committed work hours. Upwork’s in-house communication system is also designed to make interactions between gig workers and clients as impersonal as possible to prevent circumvention of the platform (Jarrahi et al., 2019). Hence, a platform can be conceived as a system of formal rules and informal nudges toward particular norms, both of which are designed to bring about the platform’s goals, such as achieving adoption, user reliance, rule compliance and non-circumvention (Just & Latzer, 2017).

The literature indeed finds that a platform’s system of rules can constrain and shape individual behaviour in various ways. In some cases, people can be compliant with a platform’s rules even when doing so comes at a non-trivial cost. In an influential study on algorithmic control, Rosenblatt and Stark (2016) find that information and power asymmetries produced by the Uber application powerfully erode the supposed autonomy of “driver-entrepreneurs.” Thus, their work patterns are structured in ways that render them similar to employees—albeit ones without employment benefits from Uber. Similarly, online workers in Southeast Asia and Sub-Saharan Africa experience sleep deprivation and exhaustion just to complete tasks from demanding clients, for fear of less than stellar customer ratings in the platform (A. J. Wood et al., 2019).

2.5.2 User Agency, Adversity, and Social Implications

Despite the behaviour-shaping power of these platform rules, individual users of digital technologies have been conceived as capable of exercising agency, and thus able to execute actions that offset the constraints imposed by structures such as rules and norms (van Dijck, 2009). Agency has long been recognised in various literatures, each with their attendant interpretations, internal disagreements, and special meanings. Nonetheless, agency is broadly understood as implicating the pursuit of self-determined goals in contexts where agents inhabit a structure that conditionally provides means or imposes constraints.[12]

The user agency literature can be characterised by two major trends. First, papers unsurprisingly focus on how platformic control shapes people's behaviour and how this behaviour affects them. For example, social media content producers form "pods" where they contrive reciprocal engagements (Cotter, 2019), employ

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[12] For example, agency theory in economics describes rational organisational relationships between a principal and an agent. The latter is contract-bound to work for the former's interests but may instead repurpose the principal's resources toward self-interested goals, incurring agency loss for the principal (S. P. Shapiro, 2005). Thus, economics conceive agency as the degree of alignment between a principal's interests and agent behaviour. Giddens' structuration theory sees agency as a spectrum between the unreflective and the reflective dimensions of action, but privileges routinised, taken-for-granted practical consciousness as the key form of human action driving the mutually-shaping relationship between structure and agency (sue, 1979, p. 56). In contrast, the sub-field of sociology represented by Emirbayer and Mische's (1998) influential work conceives agency not only as routinised practices, but also as the actor's "capacity to mediate between structural contexts within which action unfolds," thus weaving together past routines, future calculations, and the contingencies of the moment. For many institutional scholars, agency pertains to why organisations ensconced in highly professionalised, ritualised, and standardised settings want to and are able to forge a deviant path—especially when being so alike with model firms is often the optimal survival strategy (Garud et al., 2007; Heugens & Lander, 2009).

third-party bots on social media (Petre et al., 2019), or form communities that exploit recommender algorithms (Bishop, 2019)—all to boost their visibility and financial gain. Workers also create online communities to figure out and share ways to improve work conditions, gain some advantage, or offset the platformic control and client opportunism they face (Lehdonvirta, 2018; A. Shapiro, 2017a; A. J. Wood et al., 2019). In other words, studies on user agency often limit their gaze to the same-side implications of the users' strategies. This itself is an important contribution to the social implications of platforms.

However, the literature can be pushed forwards by also problematising the implications of user agency on the platform and the cross-side counterparties—whether they be enterprises or individuals. For example, if consumers can gain some advantage by discovering and employing certain strategies, how do these behaviours affect the welfare and interests of the other parties such as workers and the platform company? Second, as intuited by the examples above, the literature gives disproportionate attention to the agency of workers and social media users, and shows relative disregard for platform consumers beyond those on social media platforms.

To push the literature forward, in Study 3, I investigate how individual consumers exercise agency to assert their interests against platformic control; while also examining how consumer agency affects the interests of the platform and the workers. At the same time, in accordance with the overarching goals of the project, I consider how context adversity meaningfully shapes consumer behaviour and the eventual impacts on the platform and the supply side. A look into consumer agency is a fitting end to a project which investigates the socio-political implications of digital platforms. While earlier discussions look at the ability of digital platforms to bear upon institutions and individual politics, the focus on user agency reveals the scope common people still have to rebalance the relationship with such powerful digital platforms.

2.6 Conclusion

I began by assessing the various academic definitions of “platforms” across disciplines and through time. I then conceptualised digital platforms as information systems that allow innovation or interactions (or both), and thus generate and govern a market with multi-sided characteristics. The information technology system we call “platform” is differentiated from the agentic platform company behind the technology. I then identified three important theoretical areas and the gaps therein which this thesis will address: 1) platform strategy, 2) the politics of platforms, and 3) algorithmic control and user agency.[13] I provided here the high-level view of these specific strands under the broader platform literature and sketched how the three main papers will contribute to these literatures.

Following the motivations gleaned from development studies and political economy regarding the socio-political impacts of corporate activities in adverse contexts, I first problematised the strategies of digital platform companies. As a contribution to platform strategy literature, the first study uses institutional work to understand the non-market strategies of digital platform companies and the ensuing

[13] Earlier in this chapter, I referred to platformic control as a more inclusive term that encompasses algorithmic and non-algorithmic control. However, the term algorithmic control is still more widely used in the literature. Hence, it is a more recognisable label for other scholars with whom the third paper converses.

organisational battles with incumbents and governments. Shifting from a macro-level view of organisational competition to a micro-level view of individual impact, I then ask whether digital platforms also have implications on the political beliefs of individuals. Hence, the second study borrows from the public opinion literature to explore whether negative political implications arise from reliance on efficiency-generating digital platforms, thus contributing to the politics of platforms. Lastly, amidst an emerging narrative of platform power with socio-political effects on both institutions and individuals, I problematise whether individuals only ever are passive recipients of the platform's purposive designs and inadvertent implications. The research questions, theoretical gaps, specific literatures, scholars, and journals relevant to each study are summarised in Table 2 below.

While the studies are self-contained, they collectively implicate digital platforms and society in a narrative of power and resistance amid adversity. In this integrated thesis, the story of the socio-political implications of digital platforms in adverse contexts begins with the display of platform strategies to shape institutions, then ponders on the platform's inadvertent implications on individual politics; but it ends with a glimpse of the power, albeit constrained, that ordinary people still command to reshape digital platforms for their purposes.

Table 2. Gaps in the Literature and the Corresponding Studies

Literature	**Identified Gap**	**Research question**
Platform Strategy	More work is needed on institutional strategies, and those unique to platforms, especially in adverse contexts.	Study 1: How do digital platforms carry out institutional work to achieve legitimacy in adverse contexts?
Politics of Platforms	It is unknown how efficiency gains from platforms might influence social pressure for reforms.	Study 2: How do digital platforms influence the political beliefs of users on fields in which platforms operate?
Algorithmic Control and User Agency	Most studies in this stream do not look at consumer agency and its cross-side effects in terms of user agency.	Study 3: How do consumers exercise agency on digital platforms to assert their interests?

CHAPTER 3 PLATFORM STRATEGY AND INSTITUTIONAL WORK: THE LEGITIMATION STRATEGIES OF DIGITAL PLATFORM COMPANIES

Abstract

Digital platforms attempting to penetrate markets and establish novel businesses need to not only seek market share and profit, but also to establish their legitimacy—that is, the social acceptability of their business operations. Management and platform studies are only beginning to understand how digital platforms establish legitimacy. However, there is little attention on whether and how the special features of digital platforms influence the legitimation strategies that they can employ. Through a multi-method study on ride-hailing platforms in Manila and Jakarta, I scrutinise the legitimation strategies of platform firms and thus contribute to the literature on platform strategy in three ways. First, I show that digital platforms trying to penetrate markets can wield known legitimation strategies in exceptional ways, as well as employ some manoeuvres that can be considered novel. Second, I emphasise how certain platform features accord strategic advantage to the legitimation strategies of platform firms. Third, I explain how conditions of underdevelopment further amplify some of these strategic advantages.

3.1 Introduction

Similar to traditional firms, digital platforms attempting to penetrate markets and establish novel businesses need to do more than seek market share and profit. They also need to contend with governments grappling with how to regulate the new business, and incumbent market actors bracing to quell a new competitor. Society itself needs persuading that platform firms serve some social good and deserve a legitimate place in the market. Management and institutional scholars have studied how firms strategise to achieve the legitimacy needed to obtain permissive regulation, necessary industry partnerships, and social acceptability—thus creating an environment that supports the firm's commercial success. However, digital platform firms are not like most firms. Digital platform firms have special features such as the ability to match demand with supply, control platform participants through algorithms, and exploit network effects to grow rapidly. Could the special features of platforms enable them to wield legitimation strategies in unusual ways or deploy new ones? What is the role of contextual factors in the platform's deployment of legitimation strategies?

In this article, I use Lawrence and Suddaby's (2006) typology to identify the legitimation strategies employed by digital platforms aiming to provide innovative services in new markets. The empirical data is drawn from the experience of ride-hailing platforms (RHPs) in Manila and Jakarta—megacities characterised by deficient transport infrastructure and lax compliance with transport laws, and incumbent actors eager to protect the status quo. Ride-hailing in these megacities provides a fertile ground for studying how platforms seek legitimacy in highly contested environments. I undertook a multi-method approach employing extensive document analysis and expert interviews with senior government officials, RHP representatives, and local business incumbents opposing RHPs.

This paper offers three contributions to the literature of platform strategies. First, I detail the breadth of legitimation strategies that platform firms can employ when entering contested markets. Second, I show that due to certain characteristics of platforms, platforms trying to penetrate markets can wield known legitimation strategies in exceptional ways, and employ some manoeuvres that can be considered novel. Third, I show that sectoral weakness and economic vulnerability are contextual factors that can amplify their special abilities to win legitimacy and gain institutional influence.

3.2 Digital Platforms and Legitimation Strategies

Digital platform companies are firms that own an algorithmic system which intermediates between supply and demand sides, to facilitate innovations or transactions (or both) and thus generate a multi-sided market that exhibits network effects. Digital platforms have distinct features which allow them to behave in ways that are different from conventional business organisations. Rather than sell physical inventories or services, digital platforms match two interdependent sides composed of the supply and demand sides, whom they coordinate through complex algorithms. The most prevalent explanation behind the strategic uniqueness of platforms is that they can grow rapidly due to positive network effects. This advantage refers to how an increase in the number of participants makes the platform exponentially more valuable to prospective participants, thus encouraging more of the latter to onboard and benefit from the network's value (Rochet & Tirole, 2003b; C. Shapiro & Varian, 1999, p. 13). Sellers flock to a market where they can serve more buyers, and in turn, buyers prefer a market with an increasing number of sellers as this typically results in reliable supply, increased choices and lower prices. Thus, successive growth of participants in one side of the platform accelerates the growth of the other side in a mutually reinforcing dynamic. These feedback loops between the supply and demand sides explain the potential of platforms for catalytic growth.

Just like traditional firms long described in institutional theory, platform owners also need to employ *institutional strategies* to influence the definitions of legitimate behaviour in their field and orchestrate an environment conducive to business growth.

3.2.1 Institutional Work: Strategies for Achieving Legitimacy

Institutions can be defined as the formal rules (North, 1990), agreements (Bonchek & Shepsle, 1996), informal rules, social scripts (Jepperson, 1991), and taken-for-granted assumptions that organisations and individuals are expected to follow. But for any of these to achieve institutional power, it must first attain a quality that commands compliance from society to begin with. At the heart of institutional theory is the insight that this critical quality is legitimacy, which has been defined as the "generalised perception or assumption by society that the actions of an entity are compliant, desirable, proper, or appropriate within a socially constructed system of norms, values, beliefs and definitions" (Suchman, 1995, p. 574). Legitimacy empowers an organisation's efforts to mobilise resources and pursue self-interest while withstanding opposition, or altogether avoid contestation (Aldrich & Fiol, 1994). In the words of Suchman (1995, p. 576), "legitimacy and institutionalisation are virtually synonymous."

Tensions among civil service agencies, politicians, platform companies, and lobby groups can then be conceptualised as a contest for the legitimacy of digital platforms. Legitimacy has also been found to be a prerequisite for the formation of new industries and the success of new technologies (Bergek et al., 2008; Harris-Lovett et al., 2015; Markard et al., 2016). This further underlines the importance of understanding how digital platforms offering novel technological solutions seek legitimacy.

Mair and Reischauer (2017) were among the first to advocate the study of platform strategies through the lens of institutional work and legitimacy. A few papers have recently followed their approach, sometimes with surprising results. Rather than stifle platform growth, stricter rules assure platform participants about the legitimacy of their entrepreneurial activities on the platform and therefore drive growth (Uzunca & Borlenghi, 2019). Contrary to tropes of “disrupting” existing business ecosystems, platforms are more likely to launch “creation strategies” to spur new institutional arrangements, rather than disrupt existing ones (Boon et al., 2019). In contrast to conventional organisations whereby distinctiveness counteracts legitimacy, actors on a digital platform that evince distinctiveness can bolster their legitimacy (Taeuscher et al., 2020). These studies hint that in terms of legitimacy, platforms behave in ways that differ from most types of organisations, further highlighting platforms as an interesting subject of inquiry.

Recent scholarship on platforms and legitimation is still scarce, and the majority scrutinise how strategies are executed, and provides strategic recommendations. Digital platforms can generate social legitimacy by focusing on the needs of users more than on anything else (Kwak et al. 2019). When people recognise the social utility of platform solutions, digital platform companies can mobilise them to support the interests of the latter (Boon et al., 2019; Culpepper & Thelen, 2020)—for instance, through online petitions (Ranchordás, 2017).

However, while the nascent literature on platforms and legitimation strategies explains how platforms behave differently from non-platform organisations, or describes specific aspects of platform strategies, none have studied the breadth of legitimation strategies employed by platforms. More importantly, we have scarcely investigated how the special characteristics of platforms influence their ability to undertake legitimation strategies. Hence, this paper asks: *How do digital platforms carry out institutional work to achieve legitimacy?*

In an influential work, Lawrence and Suddaby (2006) identify known legitimation strategies for *creating*, *maintaining*, and *disrupting* institutions as "institutional work." Creation strategies, the subset of institutional work receiving the most attention, refer to strategies that aim to create new institutions possessing the requisite legitimacy to define and claim territory for a novel enterprise. Maintenance strategies are the necessary actions needed to buttress any erosion in the self-perpetuation of institutions, and strengthen social support. Lastly, disruptive strategies refer to actions that undermine the extant set of institutions, thus diverting formal and informal privileges toward preferred practices and entities.

Using Lawrence and Suddaby's typology of "institutional work," [14] I investigate the actions of digital ride-hailing platform companies that directly or indirectly affect their legitimation in Manila and Jakarta. Empirically, the goal is to map out the wealth of legitimation strategies. At the analytical level, the goal is to determine whether and how the "digitalness" or "platformness" of digital platforms enables platform companies to use novel legitimation strategies or use old ones in exceptional ways.

[14] Lawrence and Suddaby call it "institutional work" but they themselves explain institutional work as heavily tied to legitimation. I take the position that institutional work is essentially synonymous to legitimation strategies as they themselves explain. As Suchman (1995: 576) himself rightly points out, "legitimacy and institutionalisation are virtually synonymous."

While there are some scholars who define strategies as purposive actions, I side with Mintzberg's (1987) permissive definition of "strategy," which includes actions without strategic intent that nonetheless create strategic impact, as well as configurations of events where firms can theoretically locate strategic opportunities. This is compatible with my aim of surfacing strategically meaningful actions that readers can take with them and conceptualise as legitimation strategies of digital platforms. Hence, during data-gathering, I also analyse actions of platforms that have putative strategic effects even if there is no clear strategic intent from the platform company.

3.3 Method

This study utilised two main methods. First, I performed an extensive document analysis of news articles, white papers, press releases, and in-depth, semi-structured interviews. Second, I conducted in-depth, semi-structured expert interviews with relevant agencies and personalities, as a way of triangulating findings. In addition, I subjected the paper to expert reviews.

3.3.1 Document Analysis

Using Google search, I collected news articles from January 1, 2013, to December 31, 2019. I chose the start date as such because the first ride-hailing platforms began their attempt to enter the market in 2013. I selected 2019 as the end date of the initial search due to practical considerations. I began the analysis in 2020 and it made sense to limit the initial search to the end of 2019. I used several combinations of keywords that indicate the geographic context and the subject of ride-hailing, and consistently repeated the same keyword patterns for both Manila and Jakarta. Given that the media uses several terms to discuss ride-hailing and that authors often use the city and the country interchangeably, the keywords were also structured to account for these permutations.[15] I expected search results to be in English, Indonesian, and Filipino and I did not exclude any of these languages from the search. Under these parameters, Google generated 597 articles. Careful inspection of the entries filtered out 119 materials unrelated to ride-hailing. I assessed the remaining 478 for instances where institutional work seemed present. Lawrence and Suddaby's typology of institutional work guided the heuristic evaluation of each document's relevance. However, I weighed each document against the typology quite loosely at this point, since I did not want to prematurely discard topics that otherwise would have been relevant had I scrutinised it more closely with additional desk research. Out of these 478 articles, 170 revealed topics or events that pertained to corporate or grassroots actions that may putatively legitimate ride-hailing. To deepen my understanding, I conducted desk research on the relevant topics that surfaced from the 170 news articles. This focused search yielded 212 documents that include not only news articles but also government regulations, press releases, and publicly available corporate documents. In this second round, I did not limit the document search to 2019. This is because some topics included in the first round of document search were unresolved issues that

[15] The search words for Manila are:
(ride hailing OR ride sharing OR ride apps) AND (Manila OR Philippines)
(Uber OR Grab OR Angkas) AND (Manila OR Philippines)
For Jakarta:
(ride hailing OR ride sharing OR ride apps) AND (Jakarta OR Indonesia)
(Uber OR Grab OR Gojek) AND (Indonesia OR Jakarta)

progressed—and became the subject of news articles—well into 2020. Combining the 170 relevant news articles and these additional 212 materials, I looked at a total of 382 documents.

The primary first-cycle coding method is provisional coding, whereby codes are “developed from anticipated categories” (Saldana, 2009, p. 120). The codes are patterned after Lawrence and Suddaby’s (2006) typology of institutional work. However, actions that are not fully captured in this taxonomy—but nonetheless potentially aid the legitimation of ride-hailing platforms—are assigned their respective codes. For second-cycle coding, I employed elaborative coding, which aims to “refine concepts” borrowed from pre-existing theoretical constructs (Auerbach & Silverstein, 2003, p. 14) based on the taxonomy of institutional work. In this study, elaborative coding entailed re-ordering codes, and creating more granular sub-categories which elaborate specific manifestations of known types of institutional work.

3.3.2 Expert Interviews

From 2018 to 2019, I cultivated relations and sought interviews with relevant government agencies, ride-hailing executives, and incumbent interest groups in Indonesia and the Philippines. I succeeded in undertaking the following expert interviews with 11 respondents who are affiliated with nine organisations, as described in Table 3.

Table 3. List of Experts Interviewed

Position	Affiliation	Function of the Organisation
Director	Indonesian Ministry of Communication and Information Technology (Abbreviation in Indonesian: KOMINFO)	This ministry implements Indonesian regulations concerning online applications, software and digital services; and drives efforts to improve Indonesia's digital economy.
Former Commissioner	Indonesian Telecommunications Regulatory Body (BRTI)	This is a sub-unit within the Ministry of Information. It was disbanded in 2020, one year after the interview took place. This body was used to create specific stipulations for the telecommunications sector.
Consultant	Ministry of Communication and Information Technology (KOMINFO)	This particular consultant is engaged by the Minister to help craft policies aiming to spur entrepreneurship in the digital economy, and protect data security.
Representative	Indonesian Competition Commission (KPPU)	This Indonesian agency is in charge of implementing competition law. *Instead of a personal interview, they preferred to provide written answers to a questionnaire sent via email.
Executive	Gojek Indonesia	This is one of the biggest ride-hailing companies in Indonesia, often called a "home-grown unicorn."
Former employee	Uber Indonesia (*Uber left Southeast Asia in 2018)	Uber used to be a major ride-hailing platform in Southeast Asia, which has ceased operations in March 2018 as part of an acquisition deal with Grab.
Three Senior Officers	Jabodetabek Transportation Management Agency, Indonesia (BPTJ)	This agency is under the Ministry of Transportation and is tasked to develop an integrated transport system that caters to Jakarta and the surrounding smaller cities.
Senior Official	Philippine Competition Commission	This is the Philippine agency in charge of implementing competition law.
President	Philippine National Taxi Operators Association	This organisation represents the interests of taxi drivers and operators, who were involved in several disagreements with ride-hailing companies and government agencies

		regarding the operation of ride-hailing services in the Philippines.

I also conducted separate interviews with the Indonesian Ministry of Transportation and the Philippine Land Transportation Franchising and Regulatory Board (LTFRB). The senior officer at the Indonesian Ministry of Transportation consented to a recorded interview. However, his office said that formal consent for the interview to be used in the study would be given later on. The LTFRB official also agreed to a recorded interview but insisted that he would need to see the interview transcripts before consenting to their inclusion in this research. I sent both transcripts for their review by October 2019; unfortunately, both the Indonesian Ministry of Transport and the LTFRB still have not given their consent at the time of writing. Hence, the interviews with them were not used in this thesis. I also spent months negotiating with the Philippine Department of Transportation, Grab Philippines, Grab Indonesia, and Blue Bird Indonesia. Blue Bird is an Indonesian taxi company whose drivers were among the most active in opposing ride-hailing services in 2016. However, these four entities eventually decided not to participate in my research, or simply stopped communicating despite agreeing to participate in my study.

3.3.3 Expert Reviews

To my knowledge, this is the first scholarly attempt to combine comprehensive document analysis and extensive expert interviews with top officials in Southeast Asia's two biggest megacities. In pursuit of balance and precision, I subjected the paper to expert reviews. I requested two experienced lawyers from well-known legal institutions in the Philippines to review and challenge parts of the paper (and the thesis) that deal with competition regulation and laws more generally.[16] I also engaged a senior journalist and field correspondent who has worked for prestigious outlets such as Bloomberg and CNN, and whose assignment in the past years has been to cover stories on technology and ride-hailing platforms in the Philippines and Indonesia. She thoroughly checked the chapter to ensure that the facts are accurate and the claims are sound. I revised the paper in consultation with these experts.

3.3.4 Context

Ride-hailing platforms (RHPs) have offered alternative yet controversial solutions to commuters in Manila and Jakarta, Southeast Asia's biggest megacities, both exceeding 10 million in population. Both cities struggle to enforce transport laws, maintain general order, and prevent crime (Overseas Security Advisory Council (OSAC), 2015, 2016; The Economist, 2015). Urban transport infrastructure is deficient in both cities (Chilkoti, 2016; Esplanada, 2014). Traffic congestion in both cities is among the worst in the world (Waze, 2016). Consequently, millions of commuters suffer from gruelling commutes in these gridlocked megacities.

Grab and Gojek are currently the dominant ride-hailing platforms in Southeast Asia. Grab began as MyTeksi in Malaysia in 2012, and later rebranded as Grab in 2016. In 2013, it expanded to the Philippines, Singapore, and Thailand (Digital News Asia, 2013). In 2014, the company transferred its headquarters to Singapore (K. L. Lee, 2016), and began operations in Vietnam and Indonesia,

[16] A few paragraphs in the conclusion chapter also deal with competition regulation and I subjected the idea in those paragraphs to the scrutiny of a lawyer, to ensure it has merit.

where it competed with Uber and Gojek, Indonesia's local technology start-up (Chandra, 2014; Do, 2014). Inspired by Grab's model, Gojek's app was launched in Indonesia in 2015. Aside from providing ride-hailing car services, Gojek differentiated itself by providing traditional Indonesian motorcycle taxis called ojek, multi-service offerings (i.e. food, groceries, etc.), and an integrated e-payment ecosystem. Since 2018, Gojek has launched in Singapore, Thailand, and Vietnam to contest Grab's eminent position following Uber's departure from Southeast Asia in March (Channel News Asia, 2019; Ellis, 2018; K. L. Lee, 2016; Morales, 2019; Russell, 2018).

Uber entered Southeast Asia in 2013. However, Uber failed to turn a profit in Southeast Asia due to stiff competition from Grab and Gojek. Uber agreed to be acquired by Grab in exchange for a 27.5% stake in the latter (Goel & Lim, 2018; Ng, 2018). Uber handed over its assets to Grab and suddenly stopped operations in March 2018. Consequently, Uber's departure allowed Grab to achieve near-monopoly status in Manila (Canivel, 2018; Ramizo, 2018b). However, in Indonesia, competition between Gojek and Grab continues. Around the time of Uber's departure, several small local ride-hailing platforms have appeared to compete with Grab in the Philippines, such as Hype, Micab, OWTO, and Angkas, among others. Most of these platforms have struggled merely to grow the number of their drivers and passengers, much less challenge the dominance of Grab in the market (Oplas, 2020; Rey, 2018d). Similar to Gojek in Indonesia, the motorbike taxi service of Angkas has found public patronage due to its cheap fares and the ability of motorbikes to nimbly whiz through traffic (Lagusad, 2019).

Manila and Jakarta similarly suffer from economic underdevelopment and deficiencies in transport. Studying two cases with similar conditions confers methodological advantages because doing so increases the chances of apprehending the variety in which the phenomenon under study manifests (Yin, 2003, p. 64). In other words, having two cases also allows us to find more kinds of institutional work. The selection of the two most infrastructurally challenged megacities in Southeast Asia also confers another advantage (Asian Development Bank, 2009; McMillan, 2020; Tabor, 2015; The Jakarta Post, 2020). Compared to existing studies on ride-hailing platforms in developed countries (P. Cohen et al., 2016; Cramer & Krueger, 2016; Hall et al., 2018; Rosenblat & Stark, 2016), atypical cases reveal more information because they activate more actors and more basic mechanisms in the phenomenon studied, that may also be present in typical cases but are not pronounced enough to be empirically detected (Flyvbjerg, 2006).

3.4 Findings

Among Lawrence and Suddaby's three categories of institutional work strategies, I found an array of actions that fall under strategies for creating legitimacy. I did not detect any action that can be classified as strategies for maintaining or disrupting institutions. The table below describes the creation strategies in Lawrence and Suddaby's typology.

Table 4. Typology of Creation Strategies by Lawrence and Suddaby

Creation Strategies	**Short Description**
Theorising	The development of abstract categories and chains of cause and effect
Advocacy	The mobilisation of political and regulatory support through social suasion
Mimicry	Associating new practices with existing sets of taken-for-granted ones
Defining	The construction systems for conferring status and defining membership boundaries
Vesting	The creation of rule structures that confer property rights
Constructing identities	Defining the relationship between an actor and the field in which the actor operates
Changing normative associations	Re-making the connections between practices and the moral foundations for those practices
Constructing normative networks	Constructing inter-organisational connections which normatively permit certain practices
Educating	Equipping actors with the education needed to support the new institution

I did not detect all of these creation strategies in my data. Moreover, I also report several actions and events that illustrate strategic possibilities yet these are not described in Lawrence and Suddaby's typology.

3.4.1 Theorising

Theorising strategy is "the development and specification of abstract categories, and the elaboration of chains of cause and effect" (Greenwood et al., 2002, p. 60).[17] RHPs in Manila and Jakarta sought to propagate concepts that theorise the social

[17] Theorising as a legitimation strategy can be confused with theorising as in "academic theorising," or the process of building academic concepts or theories. To avoid this confusion, in this chapter, I only use theorising to mean the legitimation strategy and nothing else.

benefits of their services. They describe their services as part of the sharing economy or ride-sharing, while using a language that supports or invokes pre-existing popular conceptions of the sharing economy as virtuous and modern. By leveraging their credentials as a collaborative technological entity, platform companies can angle for different treatment.

For example, Uber commissioned Boston Consulting Group to study the social impact of ride-sharing in Southeast Asian cities, and actively disseminated the findings through journalists and publicised media events (Chin et al., 2017; Pillas, 2017). This commissioned study claims that ride-sharing can keep a million private cars off the roads and therefore help solve congestion (Chin et al., 2017; Manotoc, 2017; Pillas, 2017). Moreover, when interviewed by news outlets, spokespersons from RHPs put forward the idea that their firms are technologically proficient participants in a "sharing economy" that is distinct from sharply profit-oriented and technologically backward taxi firms. This idea is then used to justify exemptions from price controls and franchise requirements imposed on conventional taxis (Hegina, 2015). "We are not averse to regulation. What we are asking for is the right regulation and right process. We cannot impose 1900s regulations, when there were no Internet, GPS, smartphones, *ride-sharing then*, on today's technological innovations (author's emphasis)," reasoned the head of the public policy unit of Uber Philippines (Elemia, 2017).

Another often-used method of theorising is RHPs' portrayal of their services as solutions to poor urban transport and lack of job opportunities. When the government plans to reduce the platform's supply side or render them unable to provide services, RHPs often invoke the pitiful state that their unemployed drivers face (Tuquero, 2019b). Many RHP spokespersons also describe their platforms as providing safer and faster modes of transport that current systems composed of government planning and private incumbents cannot provide. Their marketing strategies reflect this messaging. For example, Grab's #safereveryday campaign in Manila and #pilihaman (choose safety) in Indonesia directly presents Grab as the safer transport option, given the prevalence of crime and road accidents in these megacities. Pressing the point further, Grab launched a controversial campaign that portrayed how choosing conventional two-wheeled transport is unsafe and could lead to a gory death, to emphasise Grab as a safer alternative to Jakarta's transport system (The Straits Times, 2016). In this controversial video advertisement from Grab, a young lady progressively assumes the gruesome physical injuries of a road accident victim as she approaches a conventional motorbike driver. She regains her healthy appearance when she decides to take a ride-hailing service instead. Exhibiting a similar approach, Gojek Indonesia's marketing campaign is based on the slogan *Pasti ada jalan*, which means that there is always a way out of a difficult situation. This can be perceived by observers to mean that Gojek is a way of "escaping of congestion in the cities' chaotic roads" (Samantha, 2020).

Spokespersons and leaders from RHPs themselves confirm this strategic portrayal of their firms as solutions to society's problems. As stated by the General Manager of Uber Philippines:

> Carpooling is a means to solve the traffic congestion in Metro Manila. It doesn't require us to put in new investments. The tech is here, and ride sharing is here, so the solution that we are offering is something that will not require years. It is a multifaceted solution. (Marasigan, 2016)

The Chief Marketing Officer of Gojek Indonesia also adds:

> The strategy behind the campaign was quite simple, provide a simple and effective way of reminding travellers stuck in cars in traffic that they have other options. Jakarta is a city that has been plagued by debilitating traffic for years. (Srivastav, 2017)

Figure 5. Aggressive Theorising Strategy: Grab's Gory TV Advertisement

In this controversial video advertisement from Grab, a young lady progressively assumes the gruesome physical injuries of a road accident victim as she approaches a conventional motorbike driver. She regains her healthy appearance when she decides to take a ride-hailing service instead.
Screenshots of Grab's ad taken from a video clip archived in Campaign Asia (2016).

RHPs also exert efforts to demonstrate that they are socially responsible corporations, whose positive impact goes beyond providing convenient transport. In the interview with Gojek Indonesia, the executive discussed that they have programs that underline their concern for the welfare of drivers, in areas such as digital literacy, women's right to work, and road safety (Executive, Gojek, personal communication, August 16, 2019). Gojek also haggled with Allianz Indonesia, a market-leading private insurance company, to enable drivers to afford high-value insurance at a huge discount.[18] They have partnered with prestigious international and local institutions to study and publish reports about the social impact of RHPs, the most notable of which are improvements in workers' lives and the accretion of value to the economy by billions of dollars (Chin et al., 2017; Pillas, 2017; Takwin et al., 2019; Walandouw et al., 2020). This wealth of evidence allows RHP companies to cultivate in the mind of their consumers and the general public that they are good societal actors deserving a legitimate place in the industry.

3.4.2 Advocacy

Advocacy strategies involve efforts to mobilise political and regulatory support through direct and deliberate techniques of social suasion. RHPs heavily employ advocacy strategies, not least through direct social suasion of demand-side and supply-side users to extract concessions from governments.

The social media accounts of RHPs have hundreds of thousands of followers and are powerful channels to mobilise users. In Indonesia, the decision of the Transport Minister in 2015 to ban ride apps was met by what appears to be an organic backlash from Indonesian society. Expressed in the hashtag #savegojek that turned viral in less than a day, Indonesians intensely opposed banning services that provided them with a level of convenience and safety that existing transport systems could not match (Handayani, 2015). Gojek's founder was quick to support

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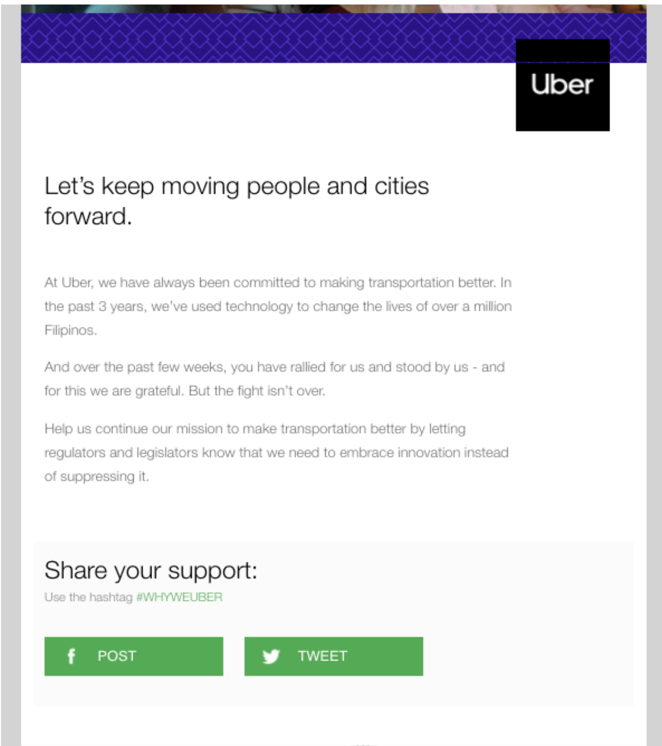
[18] For balance, it must be noted that relations between RHP companies and their drivers are not always smooth sailing. RHP drivers also have grievances against platform companies (The Jakarta Post, 2019).

this social movement by asking people to share his own hashtag, #gorakyat, which is an exhortation for the people to continue supporting the government's pro-RHP position (The Jakarta Post, 2015b; Tiwi, 2015).

Since RHPs store the contact information of all users, they can directly send emails or text messages to them, or simply send messages in the app itself. They have used these communication channels to propagate their theorised ideas (such as those discussed above) and mobilise users toward some concrete actions that help RHPs overcome crises. RHPs also embed hashtags in these messages to trigger virality. The figure below shows an email sent en masse by Uber to encourage their demand-side consumers to share the hashtag #whyweuber and thus pressure the government to cancel fines and penalties. Going a step further, the figure below also shows an in-app intercept deployed by Grab Philippines asking their users to join a petition. Uber and Grab succeeded in fanning an online backlash from the public, which strongly supported Uber for providing convenient transport alternatives to Manila's unscrupulous taxis and dilapidated mass transport systems (Alba, 2015; Macaraig, 2017; Tulio, 2017).



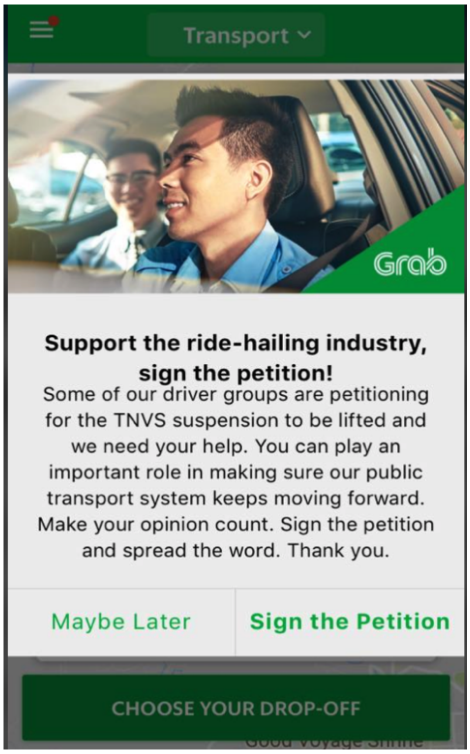


Figure 6. Emails and In-App Intercepts as Tools for Advocacy

Source: Email received by Author; screenshot taken from a public social media page

RHPs can employ the same strategies to mobilise the supply side against adversaries. The most daring at using social media to carry out irreverent advocacy strategies is Angkas, an RHP for two-wheeled transport (motorbikes). Since national regulations did not have provisions to support two-wheeled transport, the government mulled banning two-wheeled ride-hailing. In response, Angkas used social media to push consumers to submit online petitions and make pro-Angkas hashtags viral (Angkas, 2018a). In 2018, Angkas also announced free concerts graced by the country's biggest artists to gather crowds and social support. Angkas even brazenly organised a street protest involving 8,000 drivers (Angkas, 2018b; Peralta, 2018). In 2019, they marshalled 20,000 drivers to ride around Manila in what they called an “indignation rally” against the government (Dionora, 2020; Domingo, 2020).

RHP companies need not always mobilise their drivers since the latter often self-organise against regulations and organisations that undermine supply-side interests. One example is the conflict over hatchback cars. Philippine regulators banned the use of hatchback cars on RHPs since it is not among the vehicle categories allowed under Philippine transport laws. However, hatchbacks are much cheaper than sedans and therefore were a popular choice for thousands of drivers who had bought cars on bank loans just to join RHPs (M. R. Bondoc, 2018). Hence, the Metro Manila Hatchback Community, which consists of drivers from both Grab and Uber, self-organised to sue regulators, stage transport strikes to gain public attention, and issue statements to the media (M. R. Bondoc, 2018; Rita, 2019). Explaining their determination to fight the ban, a member of the hatchback community said in a media interview (M. R. Bondoc, 2018), “I am scared. How will we feed our families? ...I put myself in debt just to buy the hatchback and am I still paying for it. They want us to change it to sedan. But how could we change it [to a] sedan if we still have existing bank loan[s]?”

The prospect of workers’ destitution enables platforms and the supply side to use “worker victimisation” and “anti-poor” narratives to resist inimical actions by governments and incumbents. The Philippine government often institutes supply caps on RHP vehicles to control traffic congestion (Rey, 2018a). When the supply cap revision in 2019 meant the dismissal of 17,000 drivers, Angkas latched on the impending unemployment and impoverishment not only of these drivers, but of their families. “17,000 families. Think about that,” Angkas intoned in a post that went viral

(Angkas, 2019). RHP drivers and their allied civil society groups bitterly complained that bans and other restrictions victimise workers and are anti-poor (De Los Reyes, 2019; Porcalla, 2018; Uy, 2019). The hatchback community stressed the effect of the hatchback ban on the "livelihood of these small Filipino families" (M. R. Bondoc, 2018). In societies experiencing poverty, such diction has special emotive power. In fact, even if the government explicitly decried the use of these strategies as "emotional blackmail" (Laurel, 2019), the government eventually made concessions to Angkas (Dionora, 2020; Lalu, 2020).

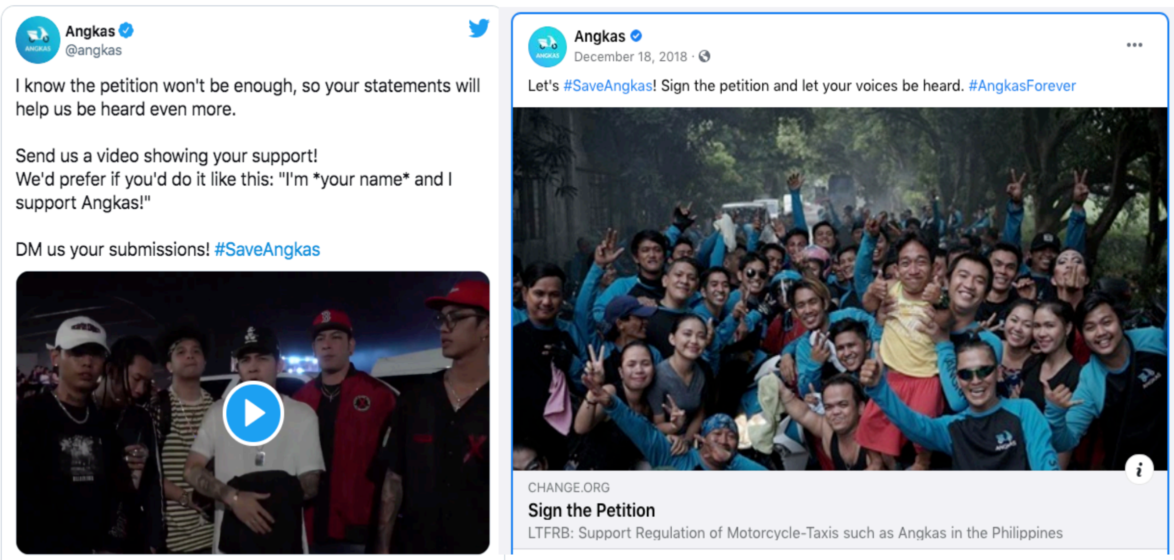


Figure 7. Mobilising Consumers and Workers to Protect Platforms

Source: Screenshots from the public social media account of Angkas

When faced with advocacy strategies that generate hundreds of thousands of petitioners and huge media coverage, Indonesian and Philippine authorities have capitulated or softened their stance several times. For example, President Joko Widodo overruled his own Transport Minister's ride-hailing ban less than 12 hours after #savegojek became viral (Russell, 2015). In the Philippines, suspensions were softened into fines and concessions were made in favour of RHPs (Berdos, 2019; Nikkei Asia, 2017; Subingsubing, 2019; Tuquero, 2019a), in response to backlashes purposively initiated or stoked by digital platform companies.

In contrast to these advocacy strategies which instrumentalise consumers and workers to influence government regulators, RHPs also deploy advocacy strategies that help governments grapple with severe social problems, and thus intersperse RHPs in the very governance of the city and country. For example, RHPs directly communicate with city officials regarding the advantages of *smart city* projects where the platform's in-house technological prowess, algorithms, and real-time data can be used by city governments to solve problems in navigation, safety, and traffic congestion (LCP, 2017). Several local governments have already begun formal partnerships with RHPs in these areas (LCP, 2017; Malaya Business Insight, 2019; J. Suzuki, 2019), rendering the provision of some governance functions reliant on these RHPs. The interview with Gojek Indonesia reveals that they are collaborating with the Jakarta City government to implement evidence-based allocation of public transport and targeted placement of urban infrastructure such as sheds for two-wheeled transport (Executive, Gojek, personal communication, August 16, 2019).

The head of Gojek Indonesia's public policy team also states that Gojek has programs that help the government alleviate long-standing problems in Indonesian society which especially afflict drivers and other low-income earners, such as lack of financial literacy, low enrolment rates in national health insurance schemes, and high rates of "unbanked" Indonesians. For example, Gojek has projects that nudge the million drivers on their platform to open bank accounts. Gojek has also nudged their drivers to enrol in these government schemes by making it part of the onboarding process. These efforts signal to the government that Gojek can be a valuable partner in governance, and thus deserves accommodation.

3.4.3 Co-optation

Co-optation can be defined as the process of absorbing rivals and integrating their operations within that of the co-opting organisation, as a way of neutralising threats to stability or existence (Selznick, 1949). Co-optation is not included in Lawrence and Suddaby's typology of institutional work, but the empirical findings reveal patterns of co-optation. When formerly opposed incumbents share in the practices of the new entrant, opposition to the platform's legitimacy dissipates. At the same time, the legitimacy of pre-existing players then rubs off on the new player.

Consider the following examples. In Jakarta, *ojek* drivers treated Gojek as a competitor and viewed it with distrust and hostility. In fact, local ojek and taxi drivers occasionally assaulted ride-hailing drivers who they thought to be violating their self-proclaimed territories (The Jakarta Post, 2015a). Despite their suspicions against ride-hailing platforms, these *ojek* drivers were potential suppliers of services on the platform. To overcome Gojek's lack of legitimacy in the eyes of their potential supply-side, Gojek sent representatives to invite ojek drivers for *kopi darat* near places where they waited for passengers, until several driver groups onboarded the platform (Executive, Gojek, personal communication, August 16, 2019). *Kopi Darat* is an Indonesian cultural norm where strangers chat over coffee and snacks. Similarly, in the earliest days, Grab Philippines's general manager undertook grassroots efforts to convince small taxi operators to join the GrabTaxi fleet (Manila

Bulletin, 2019). He personally went to taxi garages despite being repeatedly rebuffed, until he convinced a few to finally onboard. From these small beginnings, the supply side in Manila and Jakarta eventually grew.

Moreover, when RHPs began operating 4-wheeled transport vehicles in Indonesia, the taxi industry denied the legitimacy of ride-hailing, citing its illegality and condemning it as an existential threat to the heavily regulated taxi industry. Led by powerful incumbents from the ranks of Blue Bird, Indonesia's largest and most reputable taxi company by far, the taxi industry formally lobbied regulatory bodies to ban RHPs and pushed the Indonesian police to investigate the operations of RHPs and detain RHP drivers (Chilkoti & Hidayat, 2015). Hostility from conventional drivers, small taxi operators, and big companies culminated in violent riots in March 2016 which saw thousands of protesting taxi drivers (turned rioters) leave parts of Jakarta in flames and several RHP drivers bloodied. Although Blue Bird's management did not instigate the protests (Jakarta Globe, 2016), taxi drivers from Blue Bird, easily distinguishable in media photos by their blue *batik* uniforms, were among the most active barricading the thoroughfares (Munthe & Da Costa, 2016).

However, by August—just five months after the anti-RHP riots—about 30% of bookings made on Blue Bird's 33,000 taxis were made through Gojek's app (J. Suzuki, 2016). Blue Bird and Gojek collaborated to include the former's taxis as a type of service on Gojek's app. When asked to comment on Blue Bird's astonishing transformation from rival to platform participant, my interviewee at Gojek responded, "A lot of things that's happened with Gojek is very much to fulfil demand… Some people may, you know, want to ride a taxi for their own reasons, so we're like, you know what, this is a good idea, and the platform can be used to help that. So yeah, it was... I think it was just a natural process." Blue Bird's director, Sigit Djokosoentono, confirms how the irresistible attraction of market demand that could be accessed through the platform transformed rivalry into collaboration. According to Sigit, "We have a couple of ways to book taxis… The trend is coming through apps, so we are opening up… Gojek will enable us to have more channels of distribution" (J. Suzuki, 2016).

Commentators explicitly state that Blue Bird's decision to collaborate means granting legitimacy to Gojek (Mariano, 2019; Nurhadi, 2018). Kristin Mariano, editor of Travel Daily Media, writes:

> Blue Bird is one of the most trusted transportation services in the country. Therefore, Blue Bird's credibility is rubbing off to Gojek… Through the partnership, Bluebird essentially gave the legitimacy to Gojek... Moreover, with Blue Bird on its side, it will be harder for regulators to crack down on Gojek… (2019)

3.4.4 Fait accompli

Although the typology of institutional work does not include the fait accompli as a legitimation strategy, platforms scholars have taken note of digital platforms who employed it. The fait accompli is a strategy of establishing facts on the ground to nullify any subsequent legal and normative objections, encapsulated by the principle of "ask forgiveness, not permission" (Kenney & Zysman, 2016, p. 67; Pelzer et al., 2019; Uzunca et al., 2018).

Evidence suggests that this strategy was involved in the story of RHPs. In fact, the president of the Philippine taxi groups lamented during the interview that when the government launches experimental pro-RHP pilot runs, or pauses anti-RHP plans while deliberating the way forward, RHPs exploit these to rack up the number of RHP drivers (President, PNTOA, personal communication, July 8, 2019). The fast growth of the number of drivers and commuters using RHPs rendered government and incumbent opponents overwhelmed by the scale at which RHP operation had become so entrenched in urban life. Several news sources corroborate his statement. For example, by the time the Philippine government had managed to mount a sufficiently organised inquiry into Uber and Grab in 2017, they were astounded to learn that together, the companies accounted for a total of 120,00 drivers and 300,000 trips a day (BizNewsAsia, 2017). The government ordered Grab and Uber to stop accepting and activating new drivers due to concerns over traffic congestion and lack of proper regulatory oversight. Both RHPs ignored the order and continued activating thousands of drivers, citing strong passenger demand and the plight of commuters if no new drivers were added (CNN Philippines, 2017; Talabong, 2017).

In 2018, the Indonesian government provided more comprehensive ride-hailing regulations, which require RHP drivers to submit new forms and obtain a special type of driver’s license, among others. However, compliance is very difficult to enforce. "This is the government's good intention to provide clear legal ground," says Lilik Susilo, a researcher at Gadjah Mada University's Center for Transportation and Logistic Studies. "But it should have rolled out the regulations much sooner, when there were not a lot of online taxis. Now the problem has widened—it is no longer just a transportation problem but a social problem" (W. Suzuki, 2018). Once fait accompli is achieved, the contest between RHPs and authorities wanting to rein in RHPs shifts to another front, one fought between authorities and ordinary citizens who now rely on RHPs for their livelihood and daily transportation.

3.4.5 Grey Zones

Borrowing from grey zone warfare in defence studies (Bachmann et al., 2019), grey zones are present in situations whereby companies can pursue their interests without crossing the thresholds of illegality or public outrage. Grey zones arise from ambiguities in formal rules and norms, and any mismatch between the purpose of rules and the instruments for enforcing them.[19] The critical element is that actions within grey zones inhibit other parties from launching an immediate and strong response, and instead only incur belated and tolerable reactions. The typology of institutional work does not explicitly account for strategies that exploit grey zones. However, grey zones appeared in the data as a recurring and important tool for defending legitimacy. While I do not accuse Uber and Grab of intentionally exploiting grey zones, the events I scrutinised for this study provide examples of grey zones that facilitate the interests of digital platform firms.

By characterising themselves in ways that defy categorisations based on precedent and existing laws, RHPs can occupy a legal “grey area” that affords

[19] One may think grey zones are synonymous to loopholes. However, the term loophole is already understood to describe flaws in *formal* laws (Bank, 2020; Bijsterbosch & Fourie, 2020; Gualco-Nelson, 2020; Konishi & Managi, 2020). Lawrence and Suddaby emphasise that legitimation strategies not only implicate formal laws, but also informal ones such as industry norms. Hence, there is a need for a concept that pertains to both the circumvention of formal and informal rules. Whereas “loophole” already has a legalistic connotation, grey zone does not have this semantic baggage, and is therefore quite an appropriate term to use. I acknowledge that the examples I provide under grey zone strategies pertain to formal laws. But this does not mean that future studies or other cases will not encounter grey zone strategies against informal rules.

protection from attack (J. Bondoc, 2018; Ipac, 2017; Palma, 2019). The aforementioned theorising strategies—which categorise RHPs as ride-sharing and as a technology-based matching service, rather than a transport company—allowed them to avoid onerous regulation for transport companies. There indeed were no enabling clauses in pre-existing regulation for sharing transactions, but there was no prohibitive clause against access sharing or asset sharing, thereby giving companies grounds to operate unfettered by regulatory constraints for their sector, at least initially (Ipac, 2017).

Another example of a grey zone is the mismatch between the objectives of competition regulation and their current instruments, which leads to a situation where platform companies can pursue monopoly power without triggering conventional antitrust safeguards. Following international standards, the Philippine Competition Act obliges companies involved in mergers and acquisitions (M&A) to notify authorities when the M&A exceeds certain threshold values. These threshold values are often set in terms of assets or revenues of the parent company (De Guzman, 2018; PCA, n.d.). Competition authorities then review whether the transaction harms competition. M&A transactions that trigger the automatic review process can only be consummated once competition authorities give approval. Grab's acquisition of Uber's Southeast Asian operations involved a complex months-long negotiation between the two companies. However, authorities only learned about this on the 25th of March 2018, roughly two weeks before the Uber app stopped providing services in April across Southeast Asia (CNA, 2018b).

Indonesia's competition commission quickly declared that the acquisition was indeed below the notification threshold and voiced no further challenge (KPPU, 2018). However, the Philippine Competition Commission launched a *motu proprio* (by its own initiative) antitrust review as a proactive yet belated measure. Under the law, a *motu proprio* review can be done in special circumstances even if automatic review thresholds were not triggered. A senior official at the Philippine Competition Commission told me that they have the power to force companies to return to ex-ante market conditions (Senior Official, PCC, personal communication, June 26, 2019). In theory, Philippine laws indeed grant them such powers. But in practice, many experts agree that the most the local government of Manila could do was file restraining orders against further transfer of assets, and undertake the *motu proprio* review (Venzon, 2018a, 2018b; Cabuenas, 2018; Tan, 2018)—at a time when Uber's office employees had already been let go, its offices emptied, and its drivers transferred to Grab. Even if the Philippines filed interim measures on April 3 to stall the consummation of the acquisition whilst regulators were beginning the *motu proprio* review (Cabuenas, 2018), much of the unwinding of Uber's operations had already taken place. Uber underlined that it is one thing to stall or stop an acquisition, and another thing altogether to force an entity to do business when it simply no longer wants to and can no longer do so. In fact, Uber Asia Pacific chief business officer Brooks Entwistle told the Philippine Competition Commission, "Our funding is gone. Our people are gone. We don't intend to come back to these markets" (Goel & Lim, 2018).

In a sense, this was another example of a fait accompli. Forcing a return to ex-ante market conditions was impossible given that the rapid unwinding of Uber's on-the-ground operations had begun in March (Goel & Lim, 2018; Rey, 2018b), several days ahead of the hastily issued restraining order, to say nothing of the *motu* *proprio* review whose results came out only in August (PCC, 2018b). I interviewed a former employee at Uber Indonesia's office, who revealed that they were told about the acquisition on the same day they were all fired. Indeed, they were given just a few hours to pack and leave the office for good. "We had a big meeting… people were crying. It was 1 pm and by 4 pm we were told to take our stuff and go" (Former employee, Uber, personal communication, March 8, 2019).[20] This further illustrates the suddenness of the acquisition and Uber's exit across Southeast Asia.[21] With all office employees gone and critical back-office functions no longer manned, transport officials rightly worried that forcing the Uber app to operate would endanger the safety of passengers. Hence, transport officials promptly revoked the license of Uber to operate, even if that meant directly contradicting the Competition Commission's restraining order, which had wanted Uber to continue operating as per ex-ante conditions. One of the competition commissioners later admitted that the facts on the ground had been irrevocably shaped beyond the Commission's control (Bernabe, 2020).

However, fait accompli is not the only strategic element at play. The very reason why the acquisition proceeded under the radar of competition authorities was because Grab and Uber did not have to tender notification before Uber turned off its app (KPPU, 2018; Marasigan, 2018; Yusof, 2018). They could credibly argue that they did nothing wrong by not voluntarily notifying authorities. In the Philippines,

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[20] To be clear, I am referring to employees here in Uber's office who handled management and oversight tasks. I am not referring to ride-hailing drivers. For their part, these drivers who are not considered employees, were encouraged to sign-up to Grab instead.

[21] M&As are typically arranged in secret. Hence, it is not an issue that Uber's employees learned about the acquisition after both Uber and Grab have finished negotiations. However, what is unusual and illustrative of the sudden exit is the fact that employees were told to leave the same afternoon as they were not to come back to the office the next day.

only acquisition deals that exceed two billion pesos ($38 million) in the value of assets or revenue require mandatory review by the competition authority (De Guzman, 2018). The acquisition was way below the threshold values across Southeast Asia, thus these RHPs did not have to report the acquisition earlier.

The grey zone here is the mismatch between the aim of the Competition Act and the specific instruments at its disposal. To be specific, thresholds that automatically trigger competition reviews are meant to catch M&As that could create monopolies. And yet, thresholds based on assets could not properly gauge the impact on market competition when asset-light platform companies are involved (Motta & Peitz, 2021). This grey zone imbued Uber and Grab's claim of lawfulness with a modicum of credibility (Yusof, 2018). In turn, this plausible lawfulness helped Grab and Uber explain the acquisition to media commentators and the general public in ways that permitted social acceptance of the acquisition; after all, they could claim that they "did not intentionally or negligently breach competition laws" (Abdullah, 2018).

3.5 Analysis

I identified theorising, advocacy, co-optation, fait accompli, and grey zones as legitimation strategies that we can glean from the experience of ride-hailing platforms in Manila and Jakarta. The findings also indicate that the typology of institutional work can be expanded to include co-optation, fait accompli, and grey zones as strategies for creating legitimacy.

It is beyond this paper's objectives to empirically evaluate the extent to which legitimation strategies are successful. However, it is worth noting that the government has given many concessions at some point after the execution of legitimation strategies. Due to public clamour, the Philippine government even created a new category of transport services just to cater to ride-hailing (DOTR Order No 2015-11, 2015). President Widodo overturned his own ministry's ban against ride-hailing. In the Philippines, ride-hailing directive was amended so as not to require RHPs cars in Manila to follow the rules of their taxi counterparts, such as: having to take on liveries; having to install meters, closed-circuit television cameras, and dash cams (President, PNTOA, personal communication, July 8, 2019); submitting to inspections; and maintaining expensive workshop-garages (DOTR Order No 2015-11, 2015). Moreover, while the governments in both countries regulate the fare structure of both conventional transport and ride-hailing platforms, the latter are allowed to charge algorithmically determined surge prices, while taxis are not (Rey, 2018c).

More importantly, the findings indicate that the special characteristics of digital platforms underpin the viability and exceptional effectiveness of the strategies discussed earlier. This is the direction to which I devote the analysis.

3.5.1 Platform Features that Aid Legitimation Strategies

Digital platforms possess key characteristics absent in conventional firms which increase the viability of certain legitimation strategies. The findings indicate that the virtuous connotation of ride-sharing, the sharing economy, digital platforms, and technological modernity make the public more welcoming of platform companies. These pro-technology attitudes benefit platform companies by aiding advocacy strategies. However, I will not belabour these here as scholars have already discussed how pro-technology attitudes aid the quest for legitimacy of technology companies (Gillespie, 2010; Kling, 1991). Instead, I highlight those platform characteristics that have not yet been explicitly linked to legitimation strategies. These platform characteristics help close rifts with opponents, enabling the platform company to bolster its legitimacy and commercially succeed.

Asset Provision Offloading

First, the fact that platforms offload the obligation of asset provision to small players creates several strategic advantages for the platform in its pursuit of legitimacy. It is not the RHPs who need to buy cars, motorbikes, and take bank loans for these, but the mass of individuals and small cooperatives on the platform's supply side (De Leon, 2019; Penera, 2018). Even if there are supply-side actors who truly are using pre-existing assets, the evidence shows that many acquired new assets just for use on the digital platform (M. R. Bondoc, 2018). The potential economic benefits of supplying the platform attract even those who do not have the pre-existing assets needed to provide the service. Once these small players have committed to these asset investments, any threat to the continuity of the platform's business incentivises them to fight for the platform's interests. Facing pressure from RHPs' workers, governments attempting to limit the platform's business have repeatedly been shown amenable to move their position closer to the platform's interests.

Naturally, if workers can simultaneously work for other platforms—a situation called multi-homing—then this decreases the strategic bonus granted by asset provision offshoring to the besieged platform. If their original platform is not under threat, workers may not always choose to multi-home because transferring to another platform can entail bothersome bureaucratic procedures (Grab Philippines, 2019). Moreover, high reputation scores which allow workers to make more money on their original platform may not be portable to the target platform (A. J. Wood & Lehdonvirta, 2019). Naturally, if their original platform is under serious threat by regulators, workers have incentives to just multi-home despite these drawbacks rather than fight for their original platform. Workers will leave the beleaguered platform and shift to other platforms. However, if the entire field—such as the entire ride-hailing sector—is under threat, then multi-homing will have minimal impact on the strategic bonus granted by asset provision offloading since all platform firms are similarly in danger. In such case, my analysis indicates that platform workers will fight for the platforms.

Another advantage of asset provision offloading is that it creates grey zones that conventional firms can hardly contrive. These allow platform firms to avoid regulatory scrutiny during market exits and still credibly portray themselves to society as lawful and compliant with ideals of public good. Bargaining theory on firm-government interactions states that once multinational firms invest in a country, the government's relative leverage increases since the firm's investments in the form of factories and inventory can be held hostage by unfavourable government regulation (Fagre & Louis T. Wells, 1982; Tarzi, 1991). Conventional firms cannot easily leave the country without risking government retaliation, because extracting value from residual physical assets through the market exit process is vulnerable to government interdiction. For example, asset-heavy firms wanting to exit through an M&A can be more easily constrained from doing so because competition laws will require them to notify authorities well in advance. If these rules are categorically breached, the conventional firm will have a hard time defending the lawfulness and social acceptability of their actions. However, due to asset provision being offloaded to the supply side, digital platforms evade this vulnerability. Dispersed, small-time players such as individuals or cooperatives own the assets operating under the platform. The platform firm itself owns few assets, thus are unlikely to trigger M&A thresholds that obligate them to notify competition authorities (Argentesi et al., 2021; Motta & Peitz, 2021).

Rather than conventional assets, the most valuable thing Uber sold and ceded to Grab was the loss of competition (Bernabe, 2020). The sale freed Grab from inter-platform price wars and subsidies, finally giving it a better chance of dominating the market and charging fares at a profit. By having a 27.5% stake in Grab, Uber for its part will be able to take advantage of its former rival's future success (CNA, 2018a). Thus, offloading assets to workers allows a digital platform a pathway to advantageously exit a market in a way that evades government interdiction—especially when there is a rival platform to hash a favourable deal with, like Uber had in Grab. In other words, they can exploit this grey zone without being called out for illegitimate behaviour due to the strategic advantage conferred by offloading asset provision to workers.

Intermediation of Multi-sided Markets

As the second feature of platforms that aids legitimation, being the coordinator of a multi-sided market with network effects allows platforms to more easily co-opt rivals. Once platforms have achieved a critical mass of demand-side consumers, they can entice powerful rival incumbents with the promise of access to a huge consumer base. The direct loss in Blue Bird Taxi's revenue as RHP market shares went up (J. Suzuki, 2016, 2018) was an alarming signal to Blue Bird that citizens do not merely see RHPs as alternatives, but as substitutes to taxis. Thus, having access to the platform's consumer base is the easiest way for incumbent firms to regain consumers who have abandoned them. Even if the service of incumbent rivals is not directly similar to existing services on the platform, the digital platform can create a service sub-type that caters to them. This is exemplified in the collaboration between Blue Bird and Gojek to create GoBlue as a service type within Gojek's app. Thus, rifts with powerful incumbent rivals can be closed, removing a major source of contestation against the platform company's legitimacy.

The legitimacy of new entrants can be contested not only by big incumbent firms like the company Blue Bird, but also by diffuse, small players such as groupings of local drivers, who may be loosely federated under taxi driver associations even as each driver group can behave autonomously. Unlike big firms that can be co-opted by new entrants through deals struck with their management teams, grassroots opposition requires a different method of co-optation. Grassroots opposition can have fluid, ad-hoc organisational and leadership structures, complicating efforts to identify and target grassroots leaders. Co-opting a loosely federated movement by hashing a favourable deal with apparent leaders does not necessarily solve this source of contestation. Several groups can amalgamate to oppose new entrants this week, while another set of groups can stage fresh protests next week.

I combine available empirical evidence in this study and the well-known concept of network effects to posit that digital platforms have a way of co-opting these nebulous grassroots players efficiently, as follows: Grab Philippines and Gojek Indonesia's experience in grassroots co-optation tells us that they only sent their agents to a relatively small sub-set of traditional taxi and ojek drivers, who were often resistant and suspicious of ride apps. In fact, local ojek and taxi drivers were known to assault ride-hailing drivers who they deemed to infringe on their often self-proclaimed territories (The Jakarta Post, 2015a). And yet despite this antagonism and the many early rejections experienced by Grab and Gojek's agents, the few traditional drivers they did recruit were enough to begin the process of co-opting increasing numbers of previously antagonistic traditional drivers. My interview with the president of the Philippine National Taxi Association revealed that as ride-hailing gained momentum in the early years, taxi drivers saw more opportunities in ride-hailing platforms and therefore ditched their taxi companies en masse in favour of driving for platforms (President, PNTOA, personal communication, July 8, 2019).[22] Likewise, the executive at Gojek also explained it was actually *ojek* drivers who were the first to join Gojek, rather than private drivers (Executive, Gojek, personal communication, August 16, 2019). Indonesia's RHPs initially struggled to onboard distrustful ojek drivers through *kopi darat* overtures, but now, over two million drivers work on the platform.[23]

[22] To my surprise, he also revealed that as ride-hailing gained momentum in the early years, much of the revenue losses by taxi companies were caused not so much by weaker demand for taxis, but because many of their drivers left for ride-hailing platforms. This further reinforces the idea that after the slow start whereby Grab's country head himself had to personally court taxi garages, taxi drivers flocked to platforms *gradually then suddenly*.

[23] Gojek's strategic use of *kopi darat* does not mean that certain cultural factors are needed for co-optation strategies to succeed. Rather, platform companies can make use of existing cultural scripts in conjunction with network effects to execute co-optation strategies on grassroots opposition.

These evidence a pattern of slow starts among distrustful grassroot incumbents, followed by rapid supply-side onboarding. One can reasonably surmise that network effects and positive feedback loops between small supply side and existing demand led to bigger demand, which in turn enticed more incumbent drivers to join RHPs. Due to network effects, other grassroots players were co-opted without much need for additional grassroots advocacy beyond Grab and Gojek's initial efforts. These efficient routes of co-optation at the firm and grassroots level are driven by network effects in multi-sided markets, and therefore, are arguably inaccessible to non-platform organisations that do not command network effects.

Command of User Data and Algorithmic Technologies

The third feature of platforms that aids legitimation is that they possess and control user data and algorithmic technologies. These grant them the ability to deploy certain legitimation strategies inaccessible to most non-platform entities. Having access to users' updated contact information allows platforms to mobilise both consumers and workers to aid advocacy strategies. There is a risk that people do not check their emails, but the ability to command user attention through in-app intercepts can help galvanise user support for platform companies under siege by governments and incumbents. Many data types generated by user transactions and behaviours harvested on the platform are also relevant to governance. The data can also be leveraged by platform companies to form symbiotic partnerships with local governments in the form of technology-heavy and data-reliant solutions like "smart city" initiatives. These collaborations incentivise governments to soften their stance towards platform companies.

Table 5 below summarises what the analysis contributes to Lawrence and Suddaby's typology of creation strategies when applied to digital platform firms.

Table 5. Creation Strategies of Digital Platforms: Contributions to the Typology

Forms of Creation Strategy	**Short Description**	**Seen in the study?**	**Aided by platform features?**	**Is the strategy type a new addition to the typology?**
Advocacy	The mobilisation of political and regulatory support through social suasion	Yes	Yes	
Theorising	The development of abstract categories and chains of cause and effect	Yes	Yes	
Co-optation	Integrating rivals within the operations of the co-opting organisation, to bolster legitimacy	Yes	Yes	Yes
Fait Accompli	Establishing facts on the ground to nullify any subsequent legal and normative objections	Yes	Yes	Yes[24]
Grey Zones	Exploiting ambiguities and mismatch between rules and instruments, to preclude an immediate and strong response from other actors	Yes	Yes	Yes
Mimicry	Associating new practices with existing sets of taken-for-granted ones			
Defining	The construction of systems for conferring status and defining membership boundaries			

[24] Other scholars have already described this, but without explaining what platform characteristics aid it or locating it as a part of any similar typology (Kenney & Zysman, 2016; Pelzer et al., 2019).

Vesting	The creation of rule structures that confer property rights			
Constructing identities	Defining the relationship between an actor and the field in which the actor operates			
Changing normative associations	Re-making the connections between practices and the moral foundations for those practices			
Constructing normative networks	Constructing inter-organisational connections which normatively permit certain practices			
Educating	Equipping actors with the education needed to support the new institution			

A few caveats are in order. First, it must be noted that I do not claim that platform firms use only the legitimation strategies that I found in this study and depicted in Table 5. The ones I report are those that are evidenced by the data in the particular settings of Manila and Jakarta. Indeed, platform firms may be using other types of legitimation strategies, including those in Lawrence and Suddaby's typology and perhaps and those that the literature is yet to encounter. The subject of my studies are platform firms in new and highly contested markets, hence it is reasonable that creation strategies surfaced, rather than maintaining and disrupting strategies. However, this does not mean that platforms firms do not launch strategies for maintaining and disrupting institutions.

Another caveat is that the new types I propose may have partial overlaps with other types of legitimation strategies. However, this issue is not specific to the new legitimation strategies I propose. Even the original set of legitimation strategies exhibit definitional overlaps. For example, if we compare Lawrence and Suddaby's definitions of theorising strategies (creating theories that support the firm's legitimacy and interests) and defining strategies (creating systems that confer status), it is evident that certain firm actions can be categorised as either. If Grab hypothetically propagates the idea that Grab drivers who served during the pandemic are heroic frontliners and thus deserve more public patronage and policy accommodation, such firm behaviour can be construed as a theorising strategy. After all, Grab is theorising a link between working for Grab and heroism during a crisis. At the same, it can also be seen as a defining strategy since they are defining which groupings are deserving of the kind of status and privilege befitting heroes. Hence, the fuzziness of boundaries is not a particular defect of the new strategy categories I propose. This fuzziness can instead be understood as simply the nature of categories which grapple with the complexity of strategic firm behaviour. These imprecisions do not detract from the value of my proposed new categories of legitimation strategies, which sensitise scholars and practitioners to firm strategies that were previously given less research attention.

3.5.2 Adverse Conditions as Qualifiers

I have so far discussed how asset provision offloading, multi-sided market characteristics, and data control grant strategic advantages to platform companies pursuing legitimacy. These characteristics are common to platforms, and the mechanisms behind their effects are likely to hold regardless of context. For example, in any country or context that one can conceive, workers who bought assets especially for use on platforms are more likely to fight for the platform's legitimacy than do typical employees for a non-platform firm.

Based on the evidence here, I propose that while the strategic exceptionalism of platforms can manifest in any context, it is greater in contexts characterised by adverse conditions, such as *sectoral weakness* and *supply-side economic vulnerability*.

I define sectoral weakness as problems or deficiencies in a sector which results in undesirable outcomes to stakeholders, especially consumers. When sectoral weakness is severe, the public has stronger incentives to quickly migrate to superior platform solutions than otherwise. The rapid growth of demand for RHPs among the public, which surprised authorities and incumbents, illustrates how sectoral weaknesses in Manila and Jakarta's transport sector motivate users to migrate to platforms. Consequently, fait accompli strategies can be completed faster. Advocacy strategies also benefit because the relative superiority of platform solutions over pre-existing services makes it easier to muster public support.

I define supply-side economic vulnerabilities as systemic economic problems that affect a considerable number of the platform's supply-side actors and make them reliant on the platform for their economic wellbeing. Supply-side economic vulnerability can manifest in several ways; but in the case presented here, it presents as the lack of alternative job opportunities. These factors make the platform worker even more tied to the platform's interests. Under normal circumstances, the offloading of asset provision to workers already conditions the latter to defend platform interests, but more so when such vulnerability exists. Consequently, workers have greater reason to aggressively advocate for the platform's interests. In addition, supply-side economic vulnerability also enables pro-platform advocacy strategies to deploy very powerful narratives such as labelling the platform's adversaries as anti-poor.

As a final point, when both sectoral weaknesses and supply-side economic vulnerabilities are present, there are more governance challenges that platforms can credibly portray as solvable through their data and technological prowess. We see in this study how platform companies offer smart city solutions to city governments grappling with urban transport problems and other social ills. By interspersing the platform's solutions into public governance, the platform company obtains another layer of protection against contestation from within the government itself. It is only logical to surmise that in contexts without such governance challenges, the platform has fewer openings to package their data and technologies for legitimacy-enhancing partnerships with governments.

3.6 Conclusion

Digital platforms trying to penetrate markets can wield known legitimation strategies in exceptional ways, and employ some manoeuvres that can be considered novel. I identify three unique features of platforms that either facilitate compromise with opponents or forcibly shut down opposition. First, digital platforms offload the task of asset provision to small players who range from individuals to small cooperatives, creating several strategic advantages for the platform—such as allowing it to legally evade state control, and incentivising platform workers to fight entities opposed to the platform's legitimacy. Secondly, being the coordinator of a multi-sided market with network effects allows platforms to more easily co-opt rivals—both big corporations and grassroots groups. Third, the data and informatised technologies that platforms possess allow them to deploy certain legitimation strategies inaccessible to most non-platform entities. Moreover, these strategic advantages are likely to be amplified in adverse conditions characterised by supply-side economic vulnerability and sectoral weakness.

However, the study's close focus on special features of platforms that fortify their ability to pursue legitimation strategies led to some limitations that future research must address. There is less attention to features of platforms that might actually harm the platform's quest for legitimacy. Future research can explore how waning supply-side subsidies—resulting from the platform's reduced need for supply-side growth—may trigger a supply-side backlash that coincides with contestation from governments and incumbents. With both internal and external upheavals to weather, how does a platform company fare? Secondly, while this paper focused on the platforms' actions, opponents naturally also employ counter-strategies, which are missing here. Thirdly, there might be instances where digital platforms are especially powerful due to the presence of adverse conditions and strong support from consumers and suppliers, and yet government authorities were able to institute policies inimical to the platform ecosystem's interests. Those cases provide an important counterpoint by revealing mechanisms that erode the impressive ability of platforms to win legitimacy.

Lastly, the analysis underlines that digital platforms can use legitimation strategies that mobilise consumers and workers to fight policies that are harmful to the platform's interests. The analysis points to a worrying possibility. Platform companies can exploit their extraordinary strategic potential to oppose even those policies that may harm the platform, but serve the greater interest of the public. Since platforms can deploy legitimation strategies in exceptional ways, future research on balancing the power of platforms and the public good is crucial for a future where big platforms expand in new markets around the world.

CHAPTER 4 THE STASIS EFFECT: HOW DIGITAL PLATFORMS UNDERMINE PUBLIC POLICY REFORMS

Abstract

The use of digital platforms to solve social problems is often argued by many academics and commentators to be merely temporary palliatives. According to this perspective, state-enacted policy reform in the relevant sector still is the real, long-term solution. Public opinion is one source of impetus for such government-led policy reforms. However, this paper argues that digital platform adoption may influence public opinion in ways that could impede government reforms of public systems. Qualitative interviews with ride-hailing platform users in Manila and Jakarta indicate that when certain platform features and specific contextual factors are present, platform solutions may trigger what can be termed as the stasis effect. This concept describes a mechanism through which platform adoption causes users to shift issue salience away from public solutions and toward private platform solutions. The shift of salience away from policy reform puts in stasis the connection between public opinion and government action. Thus, governments have fewer incentives to pursue policy reforms that provide comprehensive solutions to pressing social problems.

4.1 Introduction

Band-aid solutions. This is the firm indictment passed by many academics, civil society figures, and public commentators on the digital platform solutions being adopted by societies to address social problems (D'Ambrosio, 2020; Hiskes, 2017; Kenworthy, 2020; Ramos-Araneta, 2019; Rivera, 2018). While ride-hailing platforms in gridlocked cities provide convenience to struggling commuters, these have been called temporary palliatives that do not solve massive traffic congestion and deficient mass transport provision (Ramos-Araneta, 2019; Rivera, 2018). Another example would be medical crowdfunding platforms, which have helped patients without private insurance—yet crowdfunding merely applies “band-aids to gaping wounds” left by unequal healthcare policies, according to researchers from the University of Washington (D’Souza, 2018). Thus, following this thinking, government reforms and renewed public investment in public transport and healthcare respectively are still needed to solve these social problems (D’Ambrosio, 2020; Hiskes, 2017; Kenworthy, 2020; Ramos-Araneta, 2019; Rivera, 2018; Snyder, 2016).

It is therefore important to understand how governments can be compelled to launch policy reforms that solve public problems for which digital platforms only provide “band-aid solutions.” We know from theories of the opinion-policy link that public opinion is an extremely important lever that can push governments to act in certain ways (Burstein, 2003; Wlezien & Soroka, 2012). Hence, it is pertinent to ask how people’s pervasive use of digital platforms influences people’s opinions. Does society’s pervasive use of digital platforms enable or hinder the kind of politics needed to create long-term policy reforms to solve difficult social problems? What are the implications of whether users see digital platforms as temporary or permanent solutions to problems which can be addressed by better public policy?

The intervening role of public opinion between digital platform adoption and government policy has already received some scholarly attention (Epstein, 2018; Zollo, 2018). Culpepper and Thelen (2020) conceptually argue that platform adoption enmeshes the platform’s services into people’s lives, resulting in strong public support, which in turn compels governments to favour policies that directly benefit platform companies. An alternative approach is to go beyond policies directly related to digital platforms, and instead look at how platform adoption affects public opinion about reforms in pre-existing systems which offer similar services as the platform firm. To illustrate this in the context of ride-hailing platforms, the former approach by Culpepper and Thelen looks at how society's use of ride-hailing affects public opinion regarding government policies on ride-hailing companies; in contrast, my approach looks at how the uptake of ride-hailing affects public opinion on government policies toward reforms in the pre-existing public system in transportation. Public systems are understood here as the combination of established rules, norms, infrastructure, and plural actors that deliver an important service under the direction of government policy (Contandriopoulos et al., 2004; Newman, 2001, p. 23). By definition, public systems are geared towards the welfare of broad sections of society (Clarke et al., 2000, p. 252; Stewart & Walsh, 1992, p. 499). Given the impact of public systems on the public good, it is important to understand how digital platforms could be affecting reforms of public systems.

Unfortunately, there is little, if any, recognition that digital platform adoption might shape public opinion in ways that alter the social demand for deep reforms in pre-existing public systems. To my knowledge, no formal research has hypothesised that efficiencies generated by platforms may dampen public support for government reforms in pre-existing public systems that benefit the general public beyond platform users. This is important as digital platforms might inadvertently bring about a kind of politics that undermines socially beneficial policies in pre-existing sectors where digital platforms gained success.

Leveraging the literature on the opinion-policy link, this study investigates how people's use of ride-hailing platforms in Manila and Jakarta influenced the issue salience that users attribute to policy reforms in conventional public transport. I use findings from these cases to develop the concept of the stasis effect—a process through which digital platform reliance reduces the social clamour for reforms in pre-existing public systems. Thus, the undeniable attractions of platform solutions indirectly put in stasis a key mechanism that compels governments to reform public systems that address difficult social problems.

4.2 Digital Platforms and Issue Salience

The link between public opinion and policy has been described as behaving like a thermostat: When there are deviations from the favoured policy temperature, the public signals the government to tweak policies accordingly, and once sufficiently adjusted, the signal stops (Wlezien, 1995). After reviewing influential concepts in the literature, I posit that the opinion-policy link can be summarised by a sequential four-part process: issue salience, signal emission, signal capture, and signal response.

The first component of the opinion-policy link is issue salience, which refers to the importance individuals attach to politically relevant issues (Burstein, 2003, p. 30). Not all issues elicit a signal from the public, and thus only salient issues are accorded priority by managers of the state (Arnold, 1990, pp. 271—272; Jones, 1994). The public pays more attention to policymaking in areas it deems important, and on which it expects policy responsiveness from the political class (Wlezien & Soroka, 2012, p. 1408). The second stage is signal emission, which refers to several mechanisms through which opinions on salient issues are converted from abstractions in people's minds into concrete political signals. Critical events such as elections, government polls, and private surveys (Geer, 1996), media coverage (Dunaway et al., 2010), social media and online spaces for public discussion (Bohman, 2004; Coleman & Blumler, 2009) reveal to the political class which matters have issue salience and the direction of opinion on these issues.

The third step, signal capture, refers to whether relevant policy-makers indeed capture and acknowledge the signal. Signal capture is not guaranteed. Policymakers may fail to track the signal generated by public opinion. They may also pay attention only when convenient (Hill & Hurley, 1999), or dismiss it when its veracity, representativeness, or legitimacy is in doubt (Dekker & Bekkers, 2015, p. 503). Lastly, once signals from the public are received, a policy response from the government is contingent on resource constraints (Charalabidis & Loukis, 2012), complimentary organisational values (Chadwick & May, 2003), inertial forces (Pierson, 2000), and the consequence of non-action (McConnell & Hart, 2019). See figure below.

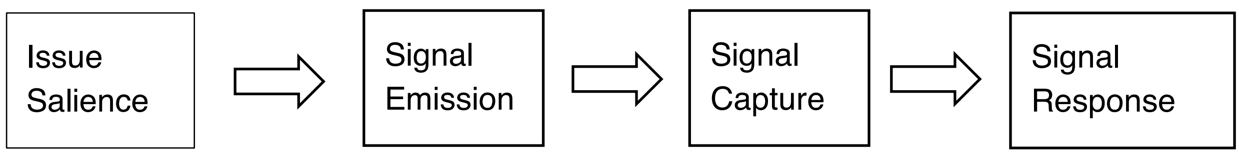

Figure 8. The Opinion-Policy Link

I incorporate the concept of issue salience into the study of digital platforms because it is useful for two reasons. First, the existing literature on issue salience can provide guidance on how to operationalise a qualitative inquiry into political opinion. Second, using issue salience allows us to tap the theory of the opinion-policy link to theorise the implications of the empirical findings. Leveraging the opinion-policy link, I ask:

How does the adoption of digital platforms influence the issue salience of policy reforms in the public sector offering equivalent services?

The empirical case study looks at users of ride-hailing platforms in Southeast Asia's two largest megacities. I investigate whether and how the use of ride-hailing platforms influences which issues gain and retain salience among commuters. In particular, I aim to understand what happens to the salience of issues concerning public transport systems, compared to topics related to ride-hailing platforms. Signal emission is also of interest because committing to a political action also gives clues regarding the nature and direction of issue salience. Signal capture and signal response, which are best studied from the perspective of policy-makers, are left out in this study since the focus is on the opinion of platform users.

4.3 Operationalising Issue Salience in Digital Platform Research

The qualitative study of digital platform consumers means having to diverge from how issue salience is operationalised in election studies and public opinion literature, both of which are often quantitative and predictive in nature. A sensible starting point is the widely acknowledged notion that issue salience must at least capture the *personal importance* people accord to issues (Burstein, 2003; Johns, 2010; Miller et al., 2017). In fact, for decades, asking people what they think is the "most important problem"—or some version of it—was the predominant way of operationalising issue salience (Johns, 2010; Wlezien, 2005). In this study, the issues that were compared in terms of "personal importance" are those related to digital platforms and transport policies. To filter out potentially fickle responses due to people's cognitive limits (Nisbett & Wilson, 1977), it is important to corroborate participants' statements with their personal involvement in those things they claim to be important (Johns, 2010; Wlezien, 2005). In other words, the personal importance accorded to platform solutions relative to pre-existing public systems must also be understood by looking at how people actually use these competing solutions in their daily life.

The second way to detect the presence of issue salience is whether people reflect these beliefs through political behaviour (Wlezien, 1995). In public opinion literature, this is often understood in terms of voting behaviour. However, other means of political expression and action are more accessible in the digital age, such as social media, online media, and other virtual spaces for public opinion (Bohman, 2004; Coleman & Blumler, 2009; Dahlgren, 2013). Besides, issues regarding digital platforms are unlikely to be put to popular vote. Hence, political action is not defined here in terms of elections, but is inclusively understood as the offline and online actions by respondents that in some way facilitate the expression of preferences or demands to government authorities. This includes anything from letter-writing, protests, rage posts on government Facebook pages, to online petitions, among others. Another difference with election studies is that election scholars see political action, often in terms of voter behaviour, as evidence of the presence of issue salience (Miller et al., 2017). But platform users—as people enacting their daily lives—cannot be expected to necessarily do something political, and the lack of political action cannot be grounds for rejecting the presence of issue salience. Consequently, I consider *political action* not as a marker of the presence of salience, but as a construct for triangulating *personal importance*, and as a descriptive indicator of salience strength. Surely, taking the mayor to court over the lack of street lamps speaks of much stronger salience than just complaining about it privately over dinner.

Lastly, I attach importance to the temporal aspect of issue salience. Miller et al. (2017) note that real salience is not fleeting and entails considerations beyond the short-term. I simply build on this and posit that when people accord salience to an issue, they do so precisely because they hold some belief about its long-term future. It is important to understand the temporal aspect of issue salience as it reveals under what conditions people's concern for some issue becomes durable or changeable. I operationalise this under the term *projected futures,* which investigates what respondents expect to see in the future of digital platforms, non-platform transport systems and government policies around these.

Table 6. Issue Salience: An Assessment Criteria

Aspect	**Substance**
Personal Importance	presence of issue salience
Political Action	strength of salience
Projected Futures	temporal aspect

4.4 Methods

To answer the research question, this study conducted in-depth, semi-structured interviews with commuters who use ride-hailing platforms in Metro Manila and

Jakarta. To be inclusive of users' views, public transport is understood broadly here, and includes any aspect of non-platform, non-private transportation.[25]

4.4.1 Case Context

Ride-hailing platforms (RHPs) have offered alternative yet controversial solutions to commuters in Manila and Jakarta—Southeast Asia's two biggest megacities, both riven with demographic, institutional, and infrastructural problems. High population densities strain urban infrastructure and contribute to overcrowding in public transport. Metro Manila has a population density of 21,000 people per km^2 (Philippine Statistics Authority, 2015) while the figure for Jakarta is 15,000 people per km^2 (Jakarta Government, 2017). This is four and three times as dense as London, respectively. Both cities struggle to enforce transport laws, maintain general order, and prevent crime (Overseas Security Advisory Council (OSAC), 2015, 2016; The Economist, 2015). Urban transport infrastructure is deficient as governments in both cities struggle to provide sufficient transport infrastructure. Traffic congestion in both cities are among the worst in the world (Waze, 2016). Consequently, tens of millions of commuters suffer from gruelling commutes in these gridlocked megacities.

Many commuters now have a choice between new ride-hailing platform solutions and pre-existing transport systems long under the ambit of transport policy. The potential migration from public systems to digital platforms solutions provides an opportunity to examine the differences between conventional and

[25] Manila and Jakarta play host to transport service providers who are part of the informal economy, rather than officially part of the public transport. As anticipated, these informal providers are considered by many interviewees as part of public transport.

platform systems in terms of issue salience. I use the two cases of Manila and Jakarta rather than just one city, since empirical findings, analytic conclusions, and constructs have more credibility if replicated across multiple cases (Yin, 2003, p. 64). Manila and Jakarta are arguably among the most infrastructurally and institutionally challenged cities, more so when compared to cities in Europe and the US where many ride-hailing papers focus (Cramer & Krueger, 2016; Rosenblat & Stark, 2016). This unfortunate distinction can confer advantages. The use of atypical cases reveals more information because they activate more actors and more basic mechanisms in the phenomenon studied, that may be present in non-extreme cases but are not pronounced enough to be empirically detected (Flyvbjerg, 2006, p. 229).

4.4.2 Qualitative Design and Data Gathering

I employed in-depth semi-structured interviews using maximum variation sampling, which is appropriate because it helps capture a comprehensive view of the phenomenon and highlights important patterns that persist across heterogeneous respondents (Patton, 2002). Variations in the following are prioritised: home location, places of work or study, and frequency of use. Home location and places of work or study are important variables because these allow us to capture the variety of experiences involved in travelling through a megacity, including its major roads and thoroughfares. After all, conditions can be reasonably expected to vary depending on the origin, destination, and the places they need to pass through on the way. Variability in home and work location ensures that I gather the views from those who live in dense residential areas in cities, and suburban areas in the outer reaches; and those who work in major business districts which tend to be extremely congested yet serviced by train networks and various transport options, and those who frequent economically less important areas with relatively lesser access to major roads and city trains. I assessed that there must also be variability in the frequency of use because inadvertently ending up with a pool of infrequent users would throw doubt about how well the sample really knows ride-hailing platforms. Conversely, having too many frequent users will silence the views of users who only need ride-hailing platforms occasionally. Following conventional practice in qualitative research, I also paid attention to variations in demographic markers such as age and gender.

The sample achieved good variability on all important variables. Respondents in both megacities either lived or worked across various sub-cities, including the most economically important and most populated ones. Hence, the sample represents deep experience with a large number of major and minor routes weaving across Metro Manila and Jakarta. Twenty-five (25) males and 39 females participated. There were 19 students, some of whom work, and the remaining 45 are either employees, entrepreneurs, or unemployed. Their ages range from 18 to 53, with an average respondent age of 29. Respondents hail from a wide variety of backgrounds and bring rich personal stories: travelling sales personnel, gig workers, working mothers, entrepreneurs, students, retirees, housewives, struggling rank and file employees, and high-ranking executives, among others. Such a diverse sample has allowed the study to gain a comprehensive understanding of the phenomenon and highlight the credible, well-corroborated beliefs and practices that exist in the heterogeneous sample.

To gather a pool of potential interviewees from which to perform maximum variation sampling, I joined Facebook groups or WhatsApp groups of ride-hailing users, students in premier universities, and employees in central business districts.[26] Recruiting from premier universities is a strategic decision because unlike lesser-known universities which only attract students and faculty from local adjacent neighbourhoods, premier universities draw in students, staff and alumni from all over the city, thus aiding the goal of recruiting people living in various parts of the megacity. During instances where maximum variation sampling could not be satisfied through recruitment strategies based on Facebook and WhatsApp, I resorted to a snowballing technique. For example, to get the view of users from older age groups, I approached elderly participants or research collaborators to introduce me to their older acquaintances who used ride-hailing apps. In total, 133 interested participants in Manila and 130 in Jakarta expressed interest in participating in the study. I chose respondents from this pool in a way that prioritised variation in home and work/study locations, over other characteristics.

In determining the final sample size, I weighed three things in the following order: conforming to research conventions regarding sample size for interviews, reaching saturation, and applying prudence. Completing 30 interviews is widely acknowledged by many methods scholars as a reasonable number that penetrates beyond very small numbers without the hardship of endless data gathering (Baker & Edwards, 2012). Hence, I decided that I would stop at 30 unless there are reasons

[26] In Jakarta, I consulted with my collaborators and agreed that we would find a better reception if it were an Indonesian who joined those exclusive social media and messaging groups. Hence, my interpreter joined the relevant Facebook and WhatsApp groups and posted the calls for interviewees on my behalf.

to believe that saturation has not been reached. In interviews, saturation refers to a point where additional interviews no longer impart new information (Morse, 1995). I stopped at 30 in Manila. However, as I am not Indonesian and therefore cannot presume to understand the life of ride-hailing users in Jakarta as well as I do in Manila, I thought it prudent to add a margin of safety by doing a few more interviews in Jakarta. Thus, I completed 34 interviews in Jakarta.

Interviews lasted around 1.5 hours, which is fairly lengthy, reflecting the in-depth discussion involved. Interview transcripts were processed through NVivo 12 Pro using detailed eclectic coding as a first-cycle coding method. For the second-cycle coding, I subjected the exhaustive list of codes to focused coding, whose aim is to streamline and re-organise codes in ways that make the most analytic sense (Charmaz, 2006, pp. 46, 57). I trained two coders and undertook inter-coder agreement on at least 10% of the transcripts, as a way of reducing biases, establishing that the interpretation of interviews is well corroborated, and sharpening the definitional integrity of codes. We reached agreement scores above the conventional threshold of 0.80 Krippendorf alpha. In Appendix A, I explain the process of achieving inter-coder agreement and report the Krippendorf alphas of all codes. The question guide for user interviews is presented in Appendix B.

The three-way test of issue salience I developed earlier shows how the conceptual framework itself introduces filters to ensure the reliability of findings. Another layer of robustness is introduced through the research method itself. The interview process was developed to approach each of the three variables in several ways and through differently-phrased questions. Social desirability bias, whereby respondents consciously select answers that will be viewed favourably by others, was anticipated to complicate data gathering. After all, commuters might assess that a good person would always prioritise public infrastructure over private solutions, even if they think the contrary. Hence, I also employed techniques that are known in the literature to counteract social desirability bias, such as rapport building, probing, and forced choice items during the interview process (Nederhof, 1985).

4.5 Findings

4.5.1 Changes in Personal Importance

I asked interviewees to list, in order of priority, the three most important problems in transport that they personally encounter in their megacities, *before* and *after* RHPs arrived. For convenience, I refer to “most important problems” simply as “problems” in this sub-section.

For the pre-RHP period, the 30 interviewees from Manila gave 87 problems that were related to *pre-existing systems* in transportation (henceforth called PES for brevity). They emphasised the dilapidated state of transport vehicles, difficulties in getting a ride, haggling with unscrupulous drivers, lack of safety, and having to take multiple modes of transport in one trip (also called multi-modality). But in the post-RHP period, transport-related problems dropped from 87 to only 54. More importantly, of these 54 problems in the post-RHP period, only 15 are exclusively related to the *pre-existing system* in transportation. These PES-related problems mostly refer to deficient infrastructure, poor planning, lack of integration among modes of transport, and the inability of law enforcement to effect discipline among motorists and pedestrians. Seven (7) problems exclusively pertain to RHPs, such as high costs of RHP fares especially during inclement weather, and high demand for RHPs during rush hour. The rest pertain to problems that apply to both users of PES and RHP, such as traffic congestion. The key point is that while problems exclusive to PES dominate the pre-RHP period, these decreased to account for less than half of problems in the post-RHP period. In addition, while all 30 respondents cited problems in PES in the pre-RHP period, only 12 (40%) of them mentioned problems exclusive to PES during the post-RHP period. This further underlines how PES became less important in terms of the Most Important Problem.

The 34 respondents from Jakarta indicate the same decrease in PES-related problems. For the pre-RHP period, they cited 88 problems consisting of grievances in the pre-existing transport system, such as multi-modality, petty crime in transport, severe traffic, overcrowded vehicles, long waiting times, and haggling with drivers. The total figure slightly decreased to 79 in the post-RHP period. However, out of these 79 problems, only 35 exclusively relate to PES, such as commuter safety, and complaints with specific modes of conventional transport. A lot of problems (20) exclusively pertain to RHPs, such as errors in the app interface, wild fluctuations in algorithmically computed prices, unscrupulous behaviour of online drivers, and intrusive government policies against RHPs. The remainder pertains to issues that affect both PES and ride-hailing, such as traffic congestion. Similar to Manila, problems exclusive to PES dominated the pre-RHP period, but account for less than half of MIPs in the post-RHP period. Moreover, whereas 34 complained of PES-related problems in the pre-RHP period, only 20 (59%) mentioned problems exclusive to PES in the post-RHP period.

In other words, after RHPs arrived, problems in PES became the Most Important Problems much less frequently than before, and for fewer respondents. Why is this the case?

Probing questions reveal that the adoption of ride-hailing apps results in far less reliance on PES as most interviewees now rely on RHPs. For the Manila sample, the use of PES remains effectively unchanged for only two interviewees (7%). Four (13%) completely stopped using PES and now exclusively rely on RHPs or personal cars. The rest (24 or 80%) share that they regularly rely on RHPs, which led to decreased use of PES. For these Manila respondents, the increased reliance on RHPs explains why problems in PES disappeared from their list or went down in rank.

Moreover, for 19 interviewees (63%) in Manila—a significant majority—the decrease in PES-related problems is accompanied by the prioritisation of problems that involve RHPs. In other words, reliance on RHPs lessens exposure to old problems in PES, thus nullifying the latter's perceived importance. For example, a respondent cited 3 PES-related problems in the pre-RHP period: traffic, lack of available modes of transport, and the stress of using public transport. However, she only mentioned "traffic" as the lone problem in the post-RHP period. These respondents naturally still encountered traffic when using RHPs. When I asked why problems exclusive to conventional modes of transport disappeared in her post-RHP list, her reply captured the sentiment of other interviewees, "Like I said, given that there's already, like, Uber or Grab, I don't really take public transport as much… The problem is mainly just the traffic for me now." Another respondent came to Manila from another Philippine island as an economic migrant, and her ignorance of the city was preyed upon by drivers of conventional transport. Hence, she gave an impassioned narration of her 3 biggest problems in the pre-RHP period. But when I asked for her post-RHP problems, she mentioned “the roads are cramped.” When I pressed her for other big transport problems in the post-RHP period aside from “cramped roads,” she stopped me by saying, “I take ride apps… Yeah, I think that’s all.” Another memorable interview was with a respondent who had complained about dysfunctional terminals, traffic and the possibility of encountering crime while commuting in the pre-RHP period. Like the previous examples, this respondent naturally encountered traffic when using RHPs. When I probed for his other biggest problems in recent times, he mentioned traffic and found it difficult to complete the three most important problems in the post-RHP period. He said, “Well, now, sorry, because I don’t really take public transport that much anymore… For the second problem... Sorry, nothing is coming to mind.” These underline how regular use of RHPs erased several problems in PES from the gaze of RHP users.

The findings in Jakarta are similar to those in Manila. In Jakarta, all interviewees except one report relying less on PES. Nine (26%) have essentially stopped using PES while the rest report varying yet substantial degrees of reliance on RHPs. For 23 interviewees (68%), reliance on RHPs directly resulted in the demotion or outright removal of some or all of their PES-related problems. For example, when asked why his previous problems on public transport no longer matter to him now, a respondent enthused, “Well, I don’t have any complaints now, actually. Because I enjoy using [online transport].” Moreover, for 17 interviewees (50%) in Jakarta, the demotion of PES-related problems is accompanied by the prioritisation of problems that involve RHPs. Consider how the same interviewee mused, "I don't have any complaints… *No, except… like the Ministry of Transportation wants all online transportation to have the same pricing policy as traditional taxis…* I think it's nonsense… (my emphasis)." As another example that represents many other interviewees, a respondent mentioned long waiting times, traffic congestion, and bad service as his top 3 problems in the pre-RHP period; and yet, *all* his post-RHP problems now pertain to irritants in the ride-hailing app, completely replacing all his previous preoccupation with issues in conventional transport. Revealing why PES-related problems no longer preoccupy him, he said he uses conventional transport much less frequently, and that ride apps "solved previous problems, for example, the waiting time for transportation, and so, the travel time is faster."

Several other memorable interviews emphasise the diminished attention to problems in PES as a result of using RHPs and discovering its advantages. A female respondent lamented about the overcrowding, sexual harassment, and blatant theft inside buses in the pre-RHP period. But in the post-RHP period, she shared that RHPs have become a way to render irrelevant the problems in buses that she used to suffer from before. "I use the ride app because I avoid, you know, to continue with public transportation, which is very difficult." Another one complained about the lack of comfort in pre-existing modes of transport and the proliferation of pickpockets in buses as serious problems in transport. Later on, when our conversation touched on more recent times, she shared that those problems no longer bother her since she used RHPs, "I don't use the bus anymore right now… [Ride apps] solved my problems!"

Thus, the analysis of the Most Important Problem indicates that problems related to PES either command relatively lower priority among interviewees in the post-RHP period or disappear from their gaze; this is often accompanied by increased prioritisation of RHP-related problems. This happened because interviewees had reduced exposure to these PES-related problems after they began using RHPs.

The Most Important Problem is an essential and widely used lens for understanding the *personal importance* aspect of issue salience. However, I identify two limitations of the MIP approach in platforms research (which may not be present in elections and public opinion research where I borrowed this concept from). First, the Most Important Problem could simply reflect the sheer number of defects of something, rather than its absolute importance to the respondent. For example, when a person cites two problems in the train system and one problem in Uber, it may be the case that trains simply have more areas to improve on compared to Uber. Second, asking people what they think are problems do not necessarily reveal what they value as solutions to achieve their overarching goals. A student may cite overcrowding in buses as a problem, but her preferred solution might have nothing to do with buses at all. Instead, she might hope for a train station to be built close to her dorm, or that she receives extra cash allowance to afford Uber. Hence, the Most Important Problem analysis must be supplemented with what I call the Most Important Solution analysis, thus allowing us to gauge which ones are as seen as solutions that command higher personal importance.

One way to do this is by asking people to rank fixed options (Nederhof, 1985), which constrain choices and therefore facilitate comparability. I asked interviewees to rank hypothetical petitions directed at the government in order of importance, before and after the arrival of RHPs. Naturally, all three petitions in the pre-RHP period are PES-related. These PES-related petitions reflect Southeast Asian aspirations in transportation that are well corroborated by journalistic accounts, heuristic evaluation, and expert opinion (Asian Development Bank, 2012). These petitions call for needed reforms in areas such as: 1) better transport infrastructure, as well as institutional aspects such as 2) better enforcement of laws on traffic and general order, and 3) cheaper transport costs. In contrast, the post-RHP scenario includes a fourth petition calling on governments to allow the continued operation of RHPs despite any challenge from incumbents or specific government agencies, in effect protecting RHPs from contestation.

The results are intriguing. Nineteen (63%) from Manila prioritised better infrastructure in the pre-RHP period, while five (17%) prioritised better enforcement and only one (3%) prioritised cheaper fares. In the post-RHP period, 17 (57%) still rank the infrastructure petition most highly. However, seven (23%) declared protection of RHPs against legal and regulatory challenges as the most important petition. Ten (33%) ranked it second most important, usually over cheaper fares and better law enforcement. In sum, 17 (57%), or more than half of Manila respondents, rank RHPs as either first or second, displacing traffic enforcement and price recalibration, and sometimes even infrastructural improvements.

Again, the Jakarta sample exhibits the same trend of RHPs becoming seen as the Most Important Solution relative to PES. In the pre-RHP period, 21 (62%) ranked the infrastructure petition as first. Only one (3%) elected the enforcement petition and six (18%) chose the cheaper fares petition as the most important.

However, in the post-RHP period, respondents who ranked infrastructure as first fell from 21 (62%) to 12 (35%). Traffic enforcement and cheaper fares were ranked first by only two (6%) and four (12%) interviewees respectively. In contrast, 10 (30%) prioritised the petition to allow RHPs to continue operating as the most important, and a further six (18%) ranked it second. And so, 16 (47%) from Jakarta rank safeguarding RHPs from contestation as either first or second, usually over enforcement of traffic and general order, and cheaper fares.

In sum, the Most Important Solution analysis suggests that in both Manila and Jakarta, it is conceivable that the adoption of RHPs could result in RHPs being perceived by many as the more important solution than intangible, institutional aspects of transport reforms—such as stronger enforcement of traffic rules and general safety and order, and cheaper fares. To a surprising extent, it could even displace reforms in transport infrastructure such as roads and trains in terms of perceived importance, as in the case for many in Jakarta and Manila.

Why do interviewees perceive RHPs as an important solution to such an extent?

The interviews reveal that it is because their experience clearly shows that RHPs enable them to avoid old problems in conventional transport, and thus address their over-arching need for better transport. Twenty-four (80%) in Manila and 28 (93%) in Jakarta—the overwhelming majority—attribute to RHPs any improvements in their transport experience.

Consider the following interview excerpts. A person with disability (PWD) in Manila attributed their newfound ease in commuting to RHPs because, “As a PWD, it's really easier if… you know well what your ride will be, so it won't be a problem for you anymore. Unlike before, right, you can't sleep in public transport or taxis because you don't know where they might take you or something.” Another interviewee in Manila said it is because he can always book an Uber from his house to go anywhere. When I probed if there were other reasons for improvements in his transport experience other than RHPs, his reply was swift and precise: “Actually, that’s all.” A respondent from Jakarta, whose private tutoring job requires him to travel frequently, explained why he attributes his improved transport experience to RHPs: “Because I don’t have to walk anymore to get to the intersection to get a conventional *ojek*. [With online transport], the driver will appear in my house.” These statements, which show the proven superiority of RHPs versus conventional transport in lived experience, explain why so many respondents see RHPs as the most important solution to transport problems.

When asked for specific platform features that substantiate how RHPs improve their transport experience, respondents give answers that can be grouped into two categories. First, RHPs reduce transaction costs according to 25 (83%) respondents in Manila and 27 (79%) in Jakarta. They cite the on-demand nature of RHPs as a differentiating factor, often lauding the ability to get a ride by “tapping on your phone” or having “an on-demand chauffeur.” Location tracking, algorithmic matching of drivers and passengers, upfront pricing, and point-to-point travel eliminate search costs in between each inter-modal transfer. Matching and upfront pricing also preclude the need to haggle with drivers, thus reducing bargaining costs. Automated redress mechanisms and customer service channels via the app also lessen the costs of enforcing rules. Second, RHPs deliver superior output quality according to 30 (100%) in Manila and 31 (91%) in Jakarta. Borrowing from

Davis et al. (1992), output quality refers to better experiences in functions relevant to the technology in question. In this case, ride-hailing platforms provide superior experiences in terms of safety, comfort, navigation, and sometimes, even cost. Through RHPs, they can also avoid the inconveniences of multiple transfers, and enjoy door-to-door conveyance.

Thus, the Most Important Solution analysis shows that not only are PES-related problems losing personal importance for many, RHPs have also become valued as preferred solutions to them. At the same time, several kinds of reforms in conventional public transport were deemed less important.

4.5.2 Changes in Projected Futures

Are these shifts in personal salience transient or durable?

To find out, I asked interviewees how they envisioned the future. Since the future is an intangible projection, the ideational—including concepts such as trust—figure heavily in the interviews. In this research, no special definition of trust was imposed on respondents. The general layperson's understanding of trust, defined by the Oxford Dictionary as the “firm belief in the reliability, truth or ability of someone or something,” accurately reflects respondents’ use of the term as they freely shared their thoughts in the in-depth, semi-structured interviews.

Out of 30 respondents, 13 (43%) in Manila believe that regardless of any future hypothetical improvements in PES, they will continue to need RHPs and so these must be allowed to operate permanently. Thirteen (43%) respondents believe that RHPs are only short-term solutions to their transport needs and that they will rely more on public transport once it becomes “good enough.” For them, “good enough" means having a well-integrated transport system that compares well with the convenience of ride-hailing or with transport systems of advanced countries, and is relieved of crowdedness, criminality, and disorder. But of these 13 (43%) who think of RHPs as mere short-term solutions, only one (3%) sees no need for RHPs once "good enough" public transport emerges. What these all mean is that out of 30 Manila respondents, only one (3%) can countenance the idea of RHPs being gone at some point. Most believe that RHPs should still be available to them in the future regardless of drastic improvements in conventional transport.

With regard to the Jakarta sample, 14 (41%) respondents indicate that they need RHPs to become permanent, and that they expect long-term reliance on RHPs. Sixteen (47%) believe that their current reliance is temporary. When traffic congestion is addressed, and PES become sufficiently safe and comfortable, these 16 participants (47%) will partially increase the use of PES. Only two respondents (6%) believe that once an ideal transport system is achieved, RHPs become unnecessary and must be shut down.

Why do so many interviewees see a future where they rely on digital platform solutions, rather than on pre-existing public systems?

Their answers pertain to varying levels of trust in platform solutions and governments; after all, they invariably opine that reforms toward an ideal transport system rely on government action. While all interviewees from Manila believe that PES will not improve without government initiative, 20 (67%) do not trust that the government can improve public transport. Respondents' estimates of the length of time before PES will attain a "good enough" state ranged anywhere from five to 50 years, with an average of 18 years. Consequently, the vast majority (29 respondents or 97%)—including many of those who envision RHPs as temporary—state that they will need RHPs in the foreseeable future due to the sheer improbability of seeing PES become "good enough" any time soon. Distrust of the government explains why interviewees expect to rely on RHPs. As one pessimistic interviewee sighed, "They've been talking about the Metro Rail Transit [improvement] for a long time, but until now nothing is happening."[27] When I asked another respondent whether the government can help bring about her idea of "good enough" transport, she remarked, "The Philippine government? No, I, I highly doubt it… I mean, more than half the budget goes into their pockets. That's why it's not happening." When I asked another respondent the same question, she was visibly flustered at the prospect of commenting about the government's ability to improve transportation. After reassuring her that the interview is anonymised and confidential, she blurted out, "Honestly? No. [I don't trust it.]"

Negative perceptions of government are in stark contrast with a more trusting view of RHPs' ability to provide better services well into the future. Interviewees were asked why they have complaints about public transport, government effort, *and RHPs*, and yet by their own account, they hold more positive perceptions of RHPs. This is partly because they have experienced superior output quality from RHPs compared to PES.

However, ideational aspects also play a role. Consider how Manila interviewees found fault in both conventional transport systems and ride-hailing solutions, and yet tended to be more tolerant of grievances in the latter. All interviewees complained about several issues in conventional transport such as

[27] The Metro Rail Transit is a train service in Manila.

cherry-picking, overcharging and other forms of unscrupulous driver behaviour in taxis, and the dilapidated condition of vehicles. All interviewees also pointed out negative impressions of RHPs arising from driver misbehaviour, high fares, and problems related to the technology. However, 26 (87%) Manila interviewees tolerated negative aspects of RHPs such as surge pricing, and considered the opacity of fare calculation through justifications rooted in the ideational appeal of technological systems.

Of these 26 respondents, 8 (27%) explained that the use of technology and automation of features justifies the persistence of trust. One said, “I think that since it's the 21st century already, we focus more on technology now. So, since it's technology, same with people, we're the ones who are adjusting to them.” For 22 (73%) respondents, surge-pricing may appear to be unfair at first glance, but they reason that it is part of a technological system with its own peculiar workings. It matters less to them whether surge pricing is transparent and fair, than that it be normal and therefore legitimate. For example, a respondent complains that his trip home could reach exorbitant surge prices, yet he says, “That’s expected. That’s how the app works. So, that’s all.” Another one said, “For me, it's automated so it's... it's fair. I never try to question.” Referring to technologies incorporated in RHPs such as GPS and navigation apps, one remarked “It’s impressive, right? So, you get impressed somehow.” And yet another said, “Again it's more systematic plus it's more transparent for me to see it from the app that the area is a bit red. Like it would be orange and all.[28] Compared to the taxi driver who would say ‘There's traffic here.’ He doesn't have proof you know… That's number one. There's basis. You know there's a formula and all. Then they have customer service when you need assistance, right?” In perhaps the most telling indication of the ideational power of technology, an interviewee remarked on the negative aspects of RHPs:

> So I think it's something that you should be willing to accept because you accepted the technology, like it's okay... With me… Actually, I'm very annoyed about those Facebook posts because a lot of people are commenting about surge pricing and everything… So, I think that's it… Because this is an app, everything that's part of the package should be okay with you… I have this notion that if it's a package application... It has inner workings. I have that notion that Uber's app has inner workings that... It's part... It's all part of the package.

In contrast to respondents in Manila, only six (18%) of Jakarta respondents hold explicitly distrustful perceptions of the Jakarta government’s ability to correct small inconveniences of everyday commuting and drive transport reform on a big scale. But while the majority trust that the Jakarta government has the ability or is at least trying hard, many concede that it is hampered by unforgiving exogenous factors and contingencies. One opined, “The government is already doing a great effort for the improvement of transportation but the problem is because of the overpopulation.” Sometimes, the citizens of Jakarta are blamed for sub-optimal

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[28] The interviewee is pertaining to levels of demand and congestion portrayed through color designations on the map shown in the app. Green represents low demand or low traffic congestion, which means one can easily get a driver. Orange is moderate demand, while red typically means high demand and bad traffic congestion.

policy outcomes. "They (the government) tried, but the driver and the people often break the rules," stated one respondent, while another one lamented, "The government is trying to improve all the transportation… It's mission impossible… it's not about the policemen, it's because of the road users." Given a fairly trusted yet beleaguered government facing so much uncertainty, respondents expect between five to 30 years, with an average of 14 years, before their ideal transport system materialises. Despite considerable trust in their government, the vast majority (28 or 82%) support the continued entrenchment of RHPs in transport because of the belief that earnest government effort simply is not enough to solve Jakarta's insurmountable exogenous factors, or that it will take such a long time.

Like in Manila, support for the long-term presence of RHPs in Jakarta is also justified by positive and trusting perceptions toward RHPs. This is despite their negative experiences with misbehaving RHP drivers, the opacity of surge price calculation, and the vulnerability of platform ratings systems to drivers' intrusive requests to be given perfect ratings, among many others. Their trusting view persists not only due to rational assessments of RHPs' net positive impact on their transport experience, but from an ideational tendency to bestow it with the benefit of the doubt on account of its technological nature. Twenty-three (68%) respondents are critical of the lack of predictability and fairness in public transport, exemplified in inexplicable fares imposed by conventional taxi drivers and *ojeks*. However, 27 (79%) are more tolerant and uncritical of the same shortcomings in RHPs, such as the usual opacity of surge pricing, driver misbehaviour, and app glitches.

Of these 27 interviewees, 17 (50%) explain their willingness to continue trusting RHPs by invoking the ideational desirability of technology. One interviewee states, “So, technological advances have also been one of the reasons for my use of online applications.” Another declares, “I trust the company because they use high technology for transportation in the biggest city in Indonesia.” They also valorise the assumed internal precision and order of platform technologies, which they explicitly refer to as systems: One justifies trust in ride-hailing platforms since “It’s already monitored from the system.” Another one explains, “Because in online transportation they have a system that has been integrated and has data.” Another respondent justifies her acceptance of very high surge prices by again invoking the system: “Because it is related to a system, right?” For some, the infallibility of technology systems is taken as a given. When asked whether they deem surge-pricing to be fair, four expressed incredulity that the system could be conceived as imperfect, exclaiming “No, I never think about this!” or “Actually I just realise it now that it can be imperfect… I am now curious about this,” while yet another stated, “(The application) can detect all problems, right?” These positive perceptions of RHPs’ technologies are neatly summarised by an interviewee who admits to understanding little about the inner workings of RHPs, and to not caring about it: “I just believe.”

In sum, respondents from both the Manila and Jakarta projects described a sustained reliance on and support of RHPs into the foreseeable future, due to two reasons. First, there is the general perception that significant reforms that lead to “good enough” PES *cannot* be achieved in the next decades, hence the continued need for RHPs. For Manila respondents, this assessment is explained by their general distrust of the government‘s ability to drive reform. In contrast, trust for government is relatively higher in Jakarta, but they acknowledge the limits of government action when faced with insurmountable exogenous factors and contingencies. Thus, the result is the same: the pervading beliefs among interviewees presage a future where extensive reliance on digital platform solutions continues. Second, pro-technology beliefs and daily experience of ride-hailing's superior value both foster trust in the ability of RHPs to continue providing good service into the future. These factors motivate continued reliance on RHPs as a permanent mode of transport into the future. Consequently, a lesser role for public transport is envisioned.

4.5.3 Changes in Political Action

Issue salience is especially detectable when people are willing to politically act on a particular issue, but less so on other matters. In Manila, only four (13%) respondents engaged in political action in the pre-RHP period to advocate for PES-related issues.[29] The predominant modes of political action consist of liking, sharing, and commenting on relevant social media posts. In the post-RHP period, only six (20%) respondents engaged in PES-related political action, indicating a similarly low level of PES-related political action as the previous period. In stark contrast to the fact that only six (20%) respondents mobilised for PES-related issues, 17 (57%) respondents advocated for RHP-related causes, indicating much greater political action for RHP issues over PES-related ones.[30] Regarding the shift in advocacy from PES to RHP, one respondent captures the prevailing sentiment among

[29] To complete the picture of political action in the pre-RHP period, 2 respondents supported non-transport concerns such as social justice and climate change.

[30] In the post-RHP period, a further 3 respondents supported non-transport advocacies pertaining to religion and meritocracy.

interviewees. “[My political involvement] was not so much back then, but now... I just feel that you know... I feel threatened that ride apps might disappear."

In the post-RHP period, engaging with social media remained the predominant mode of voicing political opinion on PES-related and non-transport issues. Offering some contrast, online petitions aimed at specific government agencies—thus a more organised and purposive form of political action—was the predominant way respondents advocated for RHP-related concerns. In fact, 14 (47%) respondents joined various online petitions that either demanded the government to reverse its suspension of Uber, or sought to persuade the government to allow RHPs to operate under favourable laws.

Further underlining the increase in political action that favours RHPs, 15 (50%) respondents in Manila who supported RHPs through some kind of advocacy were totally apolitical in the pre-RHP period or on PES-related issues. These respondents hardly even expressed opinions related to politics outside of family and close friends. When pressed why they suddenly voiced political support for RHPs, they explain the importance they accord to platform solutions over the conventional transport system, or simply indicate that other causes lack salience to them. One respondent said, “When Uber was suspended, (I joined the petition) because ease of commuting was gone… I couldn’t really go out much because if did, then I would have had to take a taxi.” Another said, “It was the only petition I supported.” And yet another told me candidly, “Uh, actually, umm, to tell you frankly, I’m not really active in any other advocacies.” One of the very few respondents who continued to support public transport-related advocacies such as the modernisation of jeepneys (a mode of mass transport) shared an observation that further explains the striking decrease in advocacy for PES and the increase in pro-RHP political engagement: "The people who I thought were, like, advocates of public transportation were, at the end of the day, privileged elitists. Like, they would cry out for Uber being banned, but wouldn't cry out for the rights of jeepney operators… They are radio silent about it… They only speak out on matters that affect them."

The Jakarta sample told a somewhat different story. In the pre-RHP period, only two (6%) respondents reported some form of political activity related to PES.[31] In the post-RHP period, only two (6%) respondents advocated for PES, while four (12%) did so for RHP-related causes.[32] Jakarta respondents consistently showed a general lack of interest in advocacies, in both pre and post periods. One declared, "I didn't really care about it." There is no discernible difference between PES and RHP in the post-RHP period. However, the respondents who supported PES did so exclusively through social media posts and likes, while those supporting RHPs did so through targeted online petitions.

In sum, political action for PES is consistently small in both Manila and Jakarta, both in pre and post periods. Moreover, the Manila sample advocated much more for RHPs than PES and used more purposive means such as targeted petitions to advocate for RHPs. The same cannot be said of the Jakarta respondents. What is clear is that the increase in political action favouring RHPs in Manila is driven by respondents' fear of losing RHPs amid hostile decisions made by the Philippine government. One such hostile decision is the total ban on Uber in

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[31] To complete the picture in the pre-RHP period, 11 respondents engaged in political action for non-transport causes such as children's issues, environmental protection, women's rights, and climate change.

[32] In the post-RHP period, a further 3 respondents advocated for non-transport issues such as disaster management.

2017, which citizens fought through social media campaigns and online petitions (BBC News, 2017). Jakarta respondents did not report similar apprehensions about serious threats against RHPs in their city. Desk research confirms that aggressive government bans against ride-hailing platforms in Manila did not materialise in Jakarta. The one time an Indonesian ministry tried to ban RHPs, Indonesian President Joko Widodo overturned the ban in less than 12 hours (Sundaryani, 2017). Hence, there were no stimuli for the Jakarta sample to be politically involved in the same way as the Manila sample.

4.6 Analysis

The study in Manila and Jakarta indicate that it is conceivable that issue salience—in all its three aspects—can drift away from pre-existing modes of transport that operate under the ambit of government policy. Instead, issue salience can shift toward digital platform solutions. The discussion on "personal importance" shows that using platforms as alternatives or complete substitutes to pre-existing systems can increase reliance on the former, and decrease exposure to pre-existing systems. Consequently, PES-related problems can lose personal importance, and preferred solutions revolve around platform technologies instead of the pre-existing public system. Rather than stake the future on reforms in PES, people can instead envision projected futures where their platform reliance persists. And these pro-platform thoughts and habits can be matched with corresponding political action away from PES-related causes, and toward platform-related advocacies. Just to protect a platform from its opponents, consumers can even engage in more purposive kinds of political action that they do not accord to other causes—

especially when platform companies are faced with existential threats as in Manila's case.

The qualitative approach and the small number of participants in the study do not allow any inferential claims about whether platform users indeed transfer issue salience toward digital platforms; or whether platform users in Manila and Jakarta regard platforms as permanent solutions to social problems the same way my interviewees did. What the qualitative empirical findings allow is the surfacing of underappreciated links between digital platform adoption, micro-level opinion and policy reforms—and the conditions that activate these mechanisms. Thus, while we cannot generalise findings to any population, we can use the empirical findings to develop a concept whose applicability goes beyond the immediate context of the study and could also apply to situations where the activating conditions are present. This is a way of extracting insights from qualitative studies which Yin (2003) calls analytical generalisation.

I earlier presented a puzzle on what the implications are if users see digital platforms as temporary or permanent solutions to problems caused by sub-optimal public policy. The empirical findings allow me to argue that alarmingly, sometimes it matters little which one is true. Either way, there are possible causal pathways through which platform solutions cause users to shift issue salience from public solutions to private platform solutions. More importantly, this shift in issue salience has potentially severe implications on policy-making and the public interest. I conceptualise this chain of events as the stasis effect.

4.6.1 The Stasis Effect

I develop the stasis effect as a concept that refers to how digital platform adoption could potentially inhibit socially beneficial public policy reforms in the area where the digital platform is being used as a solution. Morozov (2013) has warned about the trap of technological solutionism, which is the ideational bias that every social problem can be solved through technologies such as algorithms and digital platforms, to the detriment of non-technological solutions. Soriano and Cabañes (2019) describe a more specific solutionism whereby governments encourage society's adoption of digital labour platforms such as Upwork, to elide the responsibility of driving economic reforms toward job creation. I add another mechanism that hinders necessary public reforms. I specify the stasis effect, whereby society's organic adoption of digital platforms stifles the issue salience of a pre-existing public system, thus placing in stasis the opinion-policy link supporting policy reforms of that public system. Consequently, policymakers do not receive the public signals that incentivise governments to drive difficult policy reforms.

The stasis effect implicates digital platforms that compete with incumbent systems, the improvement of which relies on government action. People may use platform solutions as substitutive alternatives, or even as complete substitutes for incumbent public systems. Consequently, a segment of society shifts their reliance from incumbent systems to digital platforms. As this happens, people accord less importance to problems in incumbent systems as platform solutions provide means to circumvent these pre-existing problems. Moreover, people may consequently perceive digital platforms, and not government-led solutions, as the most important solution to social problems. The shift of salience toward platforms cannot be underestimated as transient. Instead, these can represent the long-term vision of platform users. When existential threats to these digital platforms arise, people are more likely to engage in political action to defend platforms on their own accord—and through more organised and purposive means that they will not otherwise do for other causes. The notion that people will purposefully advocate for platform solutions but perhaps not for pre-existing systems also signifies stasis in terms of political action.

According to public opinion theory, issue salience is the fundamental starting point of the opinion-policy link. When it is present, strong opinions can be gathered through critical political events such as elections or other political actions, leading to subsequent stages in the opinion-policy link. Since the reform of incumbent public systems has lost issue salience, the primary fuse of the opinion-policy link is deactivated. The subsequent stages of signal emission, signal capture, and signal response are endangered. The linkages that connect social pressure and policy-makers are held in stasis, curtailing the bottom-up impetus for policy reforms in areas in which the platform solution intersects. Thus, the successful growth of platforms could depress social clamour and political action toward non-platform policy goals in transport, healthcare, and housing, among others. Instead, salience may be diverted to policy areas directly related to platform solutions.

As a further clarification, given that my study only sampled from users of digital platforms and excluded non-users, I conceptualise the stasis effect as a phenomenon that could manifest among users of digital platforms. I make no claims that the stasis effect spills over to non-users. However, the reduction in social demand for improved public systems among platform users logically means that the overall level of social demand for that aspiration decreases. Hence, it stands to reason that the stasis effect can lower social demand for public system reform even if the stasis effect only affects digital platform users. This is even more true when platform users reach critical mass such that their opinions carry weight, or have outsized media influence such that their opinions appear compelling to policymakers.

This diversion of salience away from public systems is especially alarming in sectors where platform usage is the reserve of the vocal, tech-savvy middle class; meanwhile, the pre-existing public systems needing reforms serve the silent majority who do not benefit from platform solutions. It must be noted though that in cases where a sector necessitates infrastructural and institutional reforms, the evidence here suggests that institutional reforms are more likely to lose salience, while infrastructural reforms are more resistant to salience shift in favour of platform solutions.

4.6.2 Factors Behind the Stasis Effect

It is not prudent to claim that all instances where platforms are used to solve public problems will lead to the stasis effect. Interviews with respondents in Manila and Jakarta indicate that two platform characteristics and three contextual factors form an environment that may activate the stasis effect: 1) transaction cost reduction, 2) superior output quality, 3) pro-technology biases, 4) sectoral underdevelopment, and 5) low confidence in government-led outcomes.

The first factor, transaction cost reduction, motivates the shift to digital platforms in the first place. By binding the demand and supply side to internal rules enforced by algorithms, platforms can virtually eliminate transaction costs such as search costs, bargaining costs and enforcement costs. Search costs disappear as platforms provide automated matching, and bargaining becomes unnecessary since algorithms determine the terms of the transaction. The elimination of enforcement costs can be especially attractive since automated mechanisms of redress in digital platforms offer a stark contrast to comparatively inscrutable and unresponsive ways of seeking redress from non-automated systems or government bureaucracies.

Second, superior output quality (Davis et al., 1992) also motivates people's reliance on platforms. I found that a better user experience in terms of safety, comfort, navigation, and vehicle cleanliness entices consumers to rely on ride-hailing platforms instead of taxis, jeepneys, buses or trains.

Third, digital platforms benefit from and reinforce pre-existing pro-technological biases among people. I detect in the empirical findings a special type of pro-technology bias which I refer to as techno-legitimacy. By this term, I mean the shroud of legitimacy conferred on an otherwise opaque or questionable practice when it is internalised as part of a technological system. This is evident in how respondents mention several things they dislike about the platform, but justify them as part of a technological system with its own peculiar workings. It matters less to them whether things are transparent and fair, only that they are normal parts of the system, and therefore legitimate. These pro-technology biases mute discontent that might otherwise lessen people's support for platforms.

Fourth, sectoral underdevelopment, or the multitude of problems in a sector that lead to sub-optimal outcomes to stakeholders, is precisely why consumers shift to superior platform solutions instead. Moreover, the more pronounced sectoral underdevelopment is, the task of fixing it appears more daunting, further decreasing people's trust in the government's ability to solve difficult social problems.

Lastly, the level of confidence people have in the outcomes of government action is pivotal. Like some in the sample, there may be users who think that platforms should not be relied upon in the long term, and that public policy solutions benefiting many are the real answers to intractable social problems. But when these users deem that public systems *cannot* match or approximate private platform solutions despite the government's effort, users then shift issue salience away from public systems, and toward platform solutions. Thus, these users accept that digital platforms practically become the realistic long-term solution, and nonetheless support policies permissive of platforms while opposing those that endanger the continuation of the platform. Consequently, sometimes it may not matter much if people harbour notions of platforms as merely short-term palliatives. If confidence in the government's policy outcomes is low, they will nonetheless support platforms as long-term solutions to public problems, and the stasis effect therefore remains a threat. (See figure 9.)

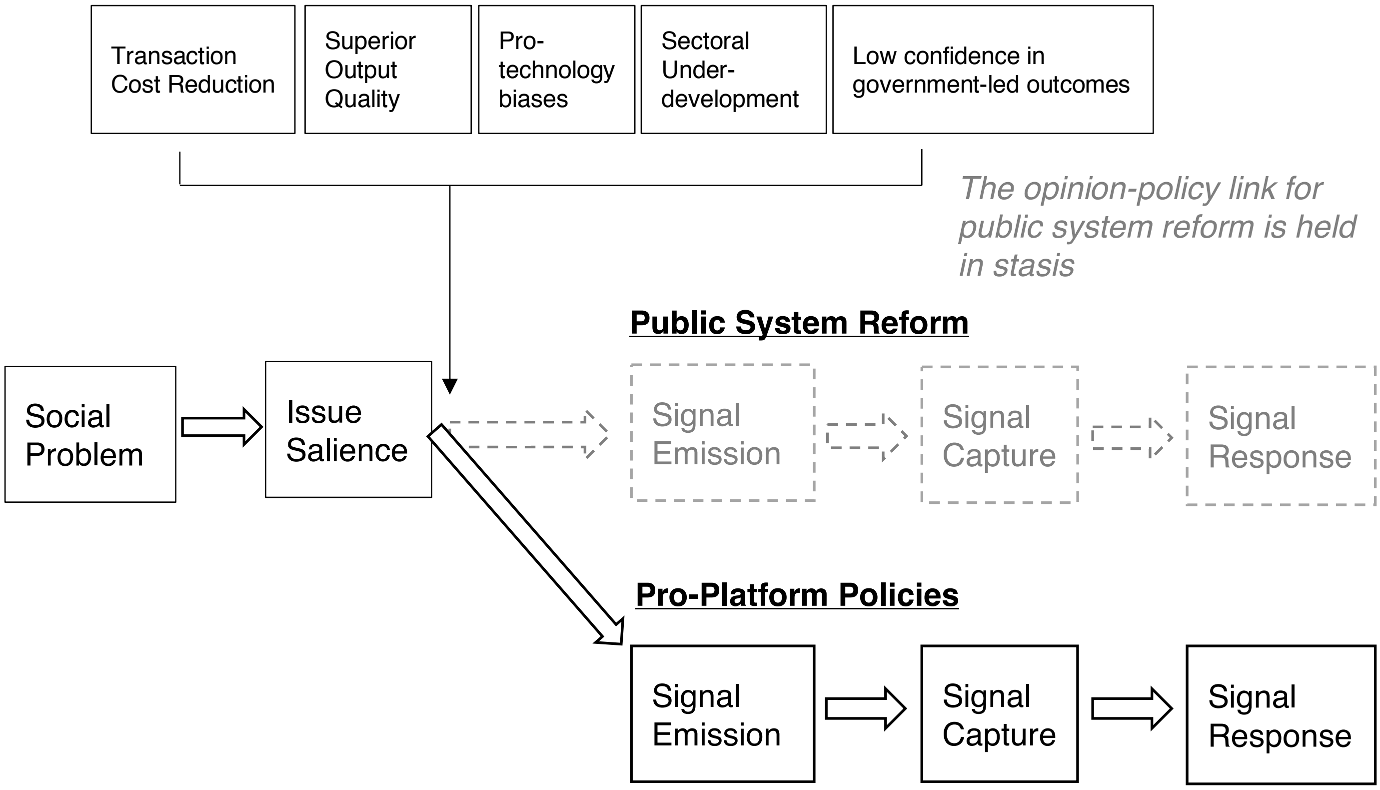

Figure 9.The Stasis Effect

4.7 Conclusion

Existing literature has not yet understood how digital platforms affect policy reforms that aim for long-term, comprehensive solutions to difficult social problems. To investigate this puzzle, I borrowed from theories on the opinion-policy link to design an empirical study into how people's use of digital platforms could undermine reforms in public systems. To my knowledge, this study is the first time that issue salience and opinion-policy link from political science have been adapted and applied to qualitative digital platforms research.

Based on empirical evidence from ride-hailing, I conceptualise that digital platform adoption can indirectly impede policy reforms, through what I call the stasis effect. The stasis effect refers to the insidious way in which platform adoption impedes policy reforms due to the inverse relationship between the issue salience of government-led solutions and that of platform solutions. Issue salience is the critical starting point of the opinion-policy link—an important political mechanism for compelling governments to undertake difficult reforms. Due to the weakened salience of pre-existing systems, the opinion-policy link supporting policy reforms is held in stasis. The stasis effect is especially dangerous when pro-platform users are more vocal, and resort to purposive political action to capture the government's attention, thus crowding out the opinion of other social groups. The Manila and Jakarta interviews indicate that two platform characteristics and three contextual factors provide the activating conditions behind the stasis effect: 1) Transaction cost reduction, 2) superior outcomes, 3) pro-technology biases, 4) sectoral underdevelopment, and 5.) low confidence in the outcomes of government effort.

The impetus behind government action does not only come from public opinion, which is susceptible to the stasis effect. International pressure, the mimetic force of international or regional exemplars, and the agency of civil service personnel and elected officials can all drive reforms of public systems. These other drivers, which are not reliant on public opinion, are possibly impervious to the stasis effect. Nevertheless, public opinion remains an important driver of government action. Given the perils of stasis, I enjoin researchers and practitioners to examine whether digital platforms in their fields are inhibiting difficult, long-term yet socially beneficial reforms. For example, the attractions of Airbnb, crowdfunding, and fintech platforms may be introducing stasis in much-needed reforms in housing and hospitality, social safety nets, and rural banking and credit respectively. The stasis effect can also implicate an area that is not directly related to the platform in question. For example, people's reliance on social media to expose injustice, shame offenders, or decry inaction by government prosecutors may effectively create movement on pending legal cases. However, it may be obscuring the need to reform basic deficiencies in justice systems that drive the aggrieved to "social media justice" in the first place.

The stasis effect could also be extended to algorithmic systems that are not necessarily considered as digital platforms. For example, the success of AI may dampen social clamour for difficult, long-term reforms that comprehensively address a public problem. Similarly, reliance on AI solutions may dampen the need for non-technological policy options that treat the root cause of public problems. For example, future crime-fighting AI solutions may very effectively fight crime through deterrence and near-perfect apprehension of criminals. However, such impressive AI solutions may obscure from the view of policy-makers the social, cultural or political root causes that push people to commit a crime in the first place; or weaken the social demand for reforms in these critical, non-technological root causes of crime. More importantly, this paper can enrich future discussions about maximising the social value of platforms while suppressing the stasis effect.

CHAPTER 5 PLATFORM PLAYBOOK: A TYPOLOGY OF CONSUMER STRATEGIES AGAINST ALGORITHMIC CONTROL

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Abstract

Digital platforms consist of algorithms and rules that shape consumer behaviour. When faced with these embodiments of the platform's interests, how do consumers protect their own interests? Through multi-method, qualitative fieldwork focused on commuters using ride-hailing platforms in Manila, this paper shows that consumers develop strategies to achieve better terms for themselves. This paper contributes to the literature on algorithmic control and user agency in two ways. First, I develop a fine-grained typology of consumer strategies used in algorithmic digital platforms, consisting of five major types and 18 sub-types. Second, I differentiate consumer agency from worker and prosumer agency, and explain how consumer strategies affect the interests of the consumers themselves, the supply side, and the platform. The analysis shows that demand-side constraints and sectoral underdevelopment result in sacrificial strategies and harm workers. However, consumers' attempts to soften platformic control ironically hardens consumer reliance on the platform, thus ultimately serving the platform's long-term interests.

5.1 Introduction

Meynard (not his real name), a 20-year-old student and part-time worker, described his daily commute in Manila using the language of battle. "There are so many of us… When the bus is approaching, people are already racing against each other toward the bus. I have to fight with the others to get in. It's like I'm in The Walking

Dead."[33] Once he manages to get in a bus despite the horde of other commuters, he then has to contend with intense traffic, forcing him to allot 1.5 hours to travel a mere 6 kilometres. When asked about other conventional modes of transport, he recounts being routinely rejected and cornered into hard bargains by taxi drivers, whose capacity for ruthlessness he has vividly experienced firsthand. For instance, his family once found themselves needing to commute close to midnight. "We had a baby with us, my sister's baby, but several taxi drivers kept on refusing us because they said they wouldn't get passengers in our area. Then, my sister asked 'How much?' and they said PHP 500 (GBP 7.5)." They found the asking price exorbitant, being higher than the daily minimum wage of PHP 481. With baby in tow during the wee hours of the morning, they waited for a bus, and got home three hours later.

Since he began using ride-hailing platforms like Uber and Grab in 2015, Meynard enthused about being able to avoid "The Walking Dead" as he gets a ride all to himself through the platform's matching of commuters and drivers, and avoids the stressful bargaining and pleading with rude drivers. However, he finds the rules for price-setting opaque, and the algorithmically determined peak-hour prices a financial burden. The differential expense also means he has to forego meals in school, and yet his reliance on the platform persists. "I give up my allowance as an 'offering' for Uber," Meynard admitted.

Acting as technologically proficient matchmakers between suppliers and consumers, digital platforms such as Airbnb, Uber and Upwork wield algorithmic systems and rules that encourage user adoption, reliance and compliance

[33] The Walking Dead is an American TV series about survivors fighting hordes of undead, as a zombie apocalypse engulfs the world.

(Rosenblat & Stark, 2016). When faced with these systems and rules, how are platform consumers like Meynard able to assert their interests in daily life—and with what implications on our understanding of consumer agency?

Scholars have paid increasing attention to the strategies of the platform's supply-side actors, such as gig workers on Upwork and drivers on Uber (Anwar & Graham, 2020; Jarrahi et al., 2019; A. J. Wood et al., 2018). However, there is much less attention on the strategies demand-side consumers employ to assert their interests. Our current understanding of supply-side strategies may not accurately capture consumer strategies because these two sides are different. For instance, workers may have less propensity to bend platform rules, lest they risk automatic penalties such as suspension, and so lose their income. Consumers cannot be expected to behave similarly because the platform's penalties against consumers who provide revenue to the platforms are typically less harsh. Consumers gain leverage simply by being the revenue source of both the platform company and the supply side, and thus can be expected to exercise agency in distinct ways.

Understanding demand-side user agency is important since consumers constitute a large part of the digital economy. Studies into consumer strategies can shed light on how consumers resist platforms' techniques of control, and provide a useful framework on how platforms can be constrained in the service of legitimate consumer interests. Likewise, studies on consumer strategies also help assess whether demand-side actors impinge on the legitimate interests of the platform company and the supply-side workers. To this end, I employed a qualitative approach including in-depth interviews and direct participation in the ride-hailing platforms of Metro Manila. In this paper, I contribute to the literature on platform control and user agency in two ways. First, I propose a fine-grained typology of strategies consumers use to assert their interests in digital platforms. Second, I analyse the wider implications of these consumers strategies: in particular, I differentiate consumer agency from worker and prosumer agency, and ponder the implications of consumer strategies on consumers' own interests, as well as the interests of workers and the platform company.

5.2 Literature Review: Algorithmic Control and User Agency

5.2.1 Digital Platforms and Forms of Control

A digital platform is an information-technology system that facilitates innovation or intermediates a market with network effects (Cusumano et al., 2019). Most platforms that involve individual consumers such as Amazon, Upwork, Uber, and Airbnb have been classified by Cusumano et al. (2019) as digital transaction platforms, which are technologies that facilitate exchange or transactions between consumers and the supply-side (Cusumano et al., 2019). The platform entity creates the rules governing technology use and the behaviour of participants on the platform. However, the literature has cautioned that rather than perform as neutral arbiters, platform entities push their own interests through two main modes of control.

First, digital platform entities introduce a formal system of rules through algorithmic control. This term refers to the automated, data-driven means of governance, oversight, and punishment of both supply and demand sides effected through software (Cotter, 2019; Möhlmann & Zalmanson, 2017). Algorithmic control can manifest as automated systems that match demand and supply (Murillo et al., 2017), determine prices (Gupta et al., 2018), aggregate the supply side's performance metrics (Basukie et al., 2020; M. K. Lee et al., 2015), calculate rating scores (Basukie et al., 2020), employ gamification to motivate participation (Sun, 2019), deploy recommender systems to stimulate consumer demand (Gal & Elkin-Koren, 2016), and impose automatic penalties (Möhlmann & Zalmanson, 2017).

Second, platform entities also exercise managerial control, through techniques of control, design interfaces, or norms that may be partly deployed through the algorithm, but are neither completely executable nor policed by it (Jarrahi et al., 2019). Examples of semi-algorithmic managerial techniques include the part of the ratings and reputation systems that require inputs from human clients (Newlands, 2021); as well as policies on the terms of use and the non-circumvention of the platform. Platform entities also shape user behaviour through surveillance and by pushing particular norms among users. For example, some gig work platforms have time trackers to bind workers to a certain number of work hours, and communication systems designed to render interactions between gig workers and clients as impersonal as possible to prevent circumvention of the platform (Jarrahi et al., 2019). Combining algorithmic control and semi-algorithmic managerial techniques gives rise to what Jarrahi et al. (20019) call "platformic control." Hence, platforms can be conceived as a system of formal policies, informal nudges toward particular norms (Just & Latzer, 2017), and algorithmically enforced rules that help the platform company achieve user reliance and rule compliance.

5.2.2 Agency Versus Forms of Control in the Platform

Despite the power and versatility of platformic control techniques to shape user behaviour, individual actors have been conceived in the literature as able to exercise agency (van Dijck, 2009). Bakardjieva (2005, p. 30) defines agency as people's contingent actions to specific encounters between technology and typical human projects arising in typical situations. This formulation around contingent actions and "human projects" highlights instrumental strategies and self-interest as important aspects of agency. Reflecting the importance of practical strategies, the digital platform literature has explored how users offset the constraints imposed by the systems of control pervading the platform. More specifically, users devise strategies to use the platform's features in creative ways, influence how rules are enforced, and undermine the natural advantage of digital platforms (Anwar & Graham, 2020).

To a considerable degree, empirical studies on user agency and strategic behaviour against algorithmic digital platforms pertain to workers and service providers. Worker strategies generally revolve around guessing how the algorithm works, resisting the demands of platforms and consumers, multi-homing to other platforms, and gaming the platform through loopholes (Möhlmann & Zalmanson, 2017). For example, gig workers on Upwork develop strategies to bypass non-circumvention policies. They also assemble substitutes for Upwork's auxiliary technologies to limit the surveillance and imposition of platform rules (Jarrahi et al., 2019). Once platform workers gain experience in the platform, they begin to form folk theories about the workings of opaque algorithms (DeVito et al., 2018), use bespoke software (Lehdonvirta, 2018), create communities for learning and sharing workarounds (A. J. Wood et al., 2018), and develop intuition on their clients' strategies (A. Shapiro, 2017b, p. 2965). Workers with weak bargaining power against the platform company are still able to exhibit actions of resilience, reworking and resistance on and off the platform (Anwar & Graham, 2020). In addition, several scholars detail how workers can employ collective mobilisation to improve the terms they get from the platform (Tassinari & Maccarrone, 2017; A. J. Wood & Lehdonvirta, 2019).

5.2.3 Demand-Side Agency in Digital Platforms

As shown above, scholarship on user agency in platforms largely pertains to the supply-side such as gig workers on Upwork or service providers on Uber, rather than on the demand-side such as platform consumers. However, supply-side and demand-side agency may be sufficiently different such that concepts on the former may not always apply to the latter. First, platforms can function as a significant source of income for supply-side actors, limiting their ability and motivation to play loosely with platform rules and risk penalties or account deactivation. But consumers do not face such strict punishments and income risks when they play loosely with platform rules and experiment with ways to outsmart the system.

Second, worker strategies include self-organising into collectives (Wood & Lehdonvirta, 2019) or even mobilising into unions (M. Walker, 2020), in hopes of attaining better terms from the platform. In contrast, demand-side users of many platforms are dispersed, individual consumers who simply use platforms as ways to address the highly individualised contingences of daily life. These individual consumers have much fewer incentives to exercise agency through collective efforts like the supply-side do (Culpepper & Thelen, 2020, p. 303). Lastly, it is conceivable that individual consumers have developed strategies that leverage their unique position as the primary revenue source in the platform ecosystem. Due to these fundamental differences, current literature on worker agency cannot adequately characterise consumer agency.

There have been studies directly related to the agency of demand-side actors, but these are often limited to the context of social media platforms. Users of social media platforms are often considered as “prosumers” because they both consume and produce content. Prosumers are known to execute several user strategies, such as forming “pods” where they contrive reciprocal engagements (Cotter, 2019), employ third-party bots on social media (Petre et al., 2019), or form communities that exploit recommender algorithms (Bishop, 2019)—all to boost visibility and financial gain. However, literature on social media prosumers does not capture the reality of a wide class of digital transaction platforms. First, social media prosumers, by producing and partaking of media content, are simultaneously supply and demand, and thus they are a special case. Second, social media prosumers rarely give up something as material as money for vital services, the way consumers of transformative digital platforms like Uber, Deliveroo, Upwork, and Airbnb do. Hence, the stakes are lower for prosumers.

Third, the very sociality of social media platforms means that prosumers are strongly reliant on social interactions in ways that do not represent a broad class of digital platforms. And indeed, prosumer strategies that leverage social interactions—such as reciprocal “pods” (Cotter, 2019), “algorithmic gossip” (Bishop, 2019), and faked engagement—can be hypothesised as having limited applicability to how non-prosumer consumers exercise agency. Consider this: a prosumer such as a YouTube content creator needs subscriptions and engagement from other social actors to succeed, hence the need for reciprocal “pods” and strategies that require the leveraging of social relations. But a ride-hailing commuter or an Amazon shopper—both of whom are non-prosumer consumers—can successfully complete their transactions by just clicking buttons on the app, without once having to socialise with anyone. Due to these three differences, we need to look beyond social media prosumers to better understand individual consumer agency in non-prosumer platforms such as online labour, ride-hailing, e-commerce, food delivery, and fintech, among others.

There are few relevant studies that directly tackle non-prosumer, demand-side agency against platform control. Gillespie (2017) highlights the case of an American activist manipulating the affordances in Google’s search engine platform for a political purpose. Velkova and Kaun (2021) study the case of a Swedish design student who launched a campaign against racial bias in Google’s search engine. These authors usefully remind us that individual activists can successfully force platform entities to change the rules. However, the activist is imbued with a sense of mission to change the platform’s rules. In contrast, millions of demand-side users only interact with platforms as an instrument for carrying out their daily lives. Hence, there is a need to look beyond individual activism, and better apprehend how platform users resist, re-purpose and creatively assimilate algorithmic and platformic rules through the practices of daily life (Kitchin, 2017; Kubitschko, 2018). As Velkova and Kaun (2021, p. 2) point out, user agency in platforms is still empirically and theoretically neglected.

Therefore, I address a specific puzzle in the literature: looking beyond supply-side actors and the well-studied prosumers in social media platforms, how do platform consumers employ strategies against the platform's means of control to assert their agency and interests?

This paper aspires to surface a fuller picture of strategies available to consumers, characterise how these differ from supply-side and prosumer agency, and analyse its implications on the consumers themselves, the supply-side workers, and the platform's interests.

5.3 Method

5.3.1 Qualitative Design and Data Gathering

The study used a qualitative design that mainly employs in-depth semi-structured interviews with ride-hailing consumers in Metro Manila. To triangulate findings, I also conducted interviews with drivers and directly participated in the phenomenon, using ride-hailing services for more than 1,000 km of travel over 10 months in Manila.

In 2017, I conducted pilot interviews with eight RHP users who were gathered through snowball sampling. For the main data-gathering phase, maximum variation sampling—a type of purposive sampling—was deemed appropriate because it captures a wide range of experiences from respondents whose traits vary in meaningful ways. Maximum variation sampling gives a comprehensive view of the phenomenon and highlights important patterns that persist despite the heterogeneity of respondents (Patton, 2002). Variations in the following were found to be important, in order of priority: home location, place of work or study, frequency of use, gender, and age.

Recruitment of consumers was done by posting calls at strategic online spaces where people from various backgrounds converge, such as the Facebook groups of ride-hailing users, employees in the central business district, and members of the University of the Philippines, the premier state university which attracts students and staff from all income groups and all sub-cities of Metro Manila. Out of 133 interested participants, 22 were selected based on the variables identified in the pilot study. The eight interviews in the pilot study and the 22 interviews in the main data-gathering phase account for the 30 interviews which comprise the data in this study.

The sample of consumers achieved good variability on all important variables. Thirteen males and 17 females participated. There were 10 students and 20 are either employees, entrepreneurs or unemployed. Their ages range from 18 to 50, with an average of 27. They either lived or worked in 14 out of 17 sub-cities of Metro Manila, including the most populous and economically important ones such as Quezon City, Makati, Taguig, and the City of Manila. Hence, the participants in the sample have deep experience with a large number of major and minor routes weaving across Metro Manila. Two interviewees are from the high-income class, one is a low-income earner, and the rest fall within the lower and upper range of the middle class. Respondents hail from a wide variety of occupations. Such a diverse sample has allowed the study to gain a comprehensive understanding of the phenomenon and highlight the credible, well-corroborated patterns that exist in the heterogenous sample.

Interview transcripts were processed through NVivo 12 Pro using detailed eclectic coding as a first-cycle coding method. For the second-cycle coding, I employed focused coding to streamline and re-organise codes in ways that make the most analytic sense (Charmaz, 2006, pp. 46, 57). In Appendix A, I discuss and report the inter-coder agreement. Question guides for interviews with consumers and drivers are presented in Appendix B and C respectively.

Due to the social desirability bias, consumers may hesitate to discuss their strategic behaviours that serve their interests but could be construed as going against norms regarding good social behaviour, or possibly infringe on the driver's welfare. The most appropriate way to counteract the social desirability bias in this case is to interview drivers to seek triangulation. Hence, I undertook interviews with RHP drivers, with whom it was more difficult to arrange interviews. The need to work when incentives are high meant that they could not determine their free time well in advance. Moreover, some were wary of speaking about their experiences working for RHPs to a stranger. To get around this constraint, I recruited a driver through personal connections, and used snowball sampling from there to interview five drivers.

5.3.2 Research Context: Ride-Hailing in Metro Manila

Ride-hailing platforms have offered alternative yet controversial solutions to commuters in Metro Manila—a Southeast Asian megacity burdened with demographic, institutional, and infrastructural problems. Metro Manila suffers from a high population density. Metro Manila is home to 13 million people, with a population density of 21,000 people per km^2 (Philippine Statistics Authority, 2015), which is four times the density of London. The local government of Manila also struggles to enforce transport laws, maintain general order, and prevent crime (Overseas Security Advisory Council (OSAC), 2015). Metro Manila's urban transport infrastructure is widely regarded as deficient. Since 2004, the city's trains have been operating well above maximum capacity (Dancel, 2015), and traffic congestion in Manila is among the worst in the world (Waze, 2016). Consequently, millions of commuters suffer from gruelling commutes in this gridlocked megacity.

RHPs, the biggest of which are Uber and Grab, use algorithms that match user demand and driver supply to provide origin-to-destination conveyance. On top of base fares, RHPs employ surge pricing which algorithmically increases base fares by a multiplier during certain conditions, incentivising drivers to meet user demand. Services range from regular sedans, bigger vehicles for larger groups and those with luggage, and a luxury car variant. The commuter indicates the pick-up point and the destination point. The apps then present the estimated waiting time of the ride, and the price or a price range. If the commuter agrees with the details, the system finds a match. The app enforces several other rules. For example, demand-side actors who frequently cancel their booking after a certain number of minutes are automatically suspended by the app for a few hours to a full day. Only four passengers are allowed in a regular sedan and commuters with heavy luggage must order the bigger vehicle variant. Circumventing the platform by transacting with the driver directly is also not allowed.

5.4 Findings

5.4.1 Optimisation

Upon first use, respondents quickly learned that RHPs hold certain advantages over conventional modes of transport. One recounted, “I was already in school at that time that I decided to download and actually try the app. And it was so much more convenient and cheaper and all the cars are much nicer. And the attitude of the drivers also, as well.” Another one shared, “So, I said, let’s try this Uber thing… And within two minutes, there was an SUV that showed up… I was shocked at how efficient and easy it was to get a ride. When I opened the app, it already knew where my location was, because I thought that I needed to type in my address and everything, so I said, ok, this is quite fast. Once I got on to the ride, the driver was very friendly. It was a nice air-conditioned car. It felt like one of... It felt like a private car. It didn't feel like I was hiring somebody to drive me.” Echoing the same sentiments, yet another said, “So, actually, I tried it once. When I first tried it, I expected that it would take a while. What happened is, right after I booked, the driver arrived right away. So, I, I think it's quite good because when I tried Uber, when I tried a driving app, looking for a ride is less of a hassle.”

Motivated by early realisations that RHPs can substantially improve their transport experience, respondents attempted to discover the fuller range of benefits from RHPs under different conditions, and to continually identify the optimal configuration of practices that maximise these benefits. Twenty-five reported discovering a wide range of benefits that can be categorised as forms of transaction cost reduction. They benefit from algorithmic matching, price determination, and a semi-automated dispute resolution process, which eliminate search, bargaining and enforcement costs respectively. Moreover, everyone unanimously agrees that

RHPs are also usually superior in certain aspects of output quality, such as safety, comfort, vehicle cleanliness, navigation, driver behaviour, and in certain circumstances, even cost.

Twenty-seven interviewees, which is nearly all of them, engaged in a process of learning and experimentation to discover and maximise benefits from RHPs. They often used rival RHPs and their different services (i.e. two-wheeled taxis, standard car, premium, six-seater) under different times, weather conditions, and personal circumstances. These efforts allowed them to understand the realistic differentials in cost, time savings, comfort, and other meaningful factors among public transport and the several ride-hailing companies and services. Users often explore how best to monitor and chase discounts from competing ride-hailing firms. In addition, experimentation revealed additional synergies with their daily life. For example, many also realised that they could organise office colleagues living in roughly the same area to book as a group, therefore providing them additional safety in numbers and extra opportunities to socialise with each other on the way home, while at the same time splitting the bill and making RHPs a more financially viable transport option.

Optimisation also revealed surprising quirks in the system that can be leveraged. Some users found that booking from a pinned landmark resulted in higher fares, so placing the destination a few meters away to a nondescript location resulted in substantially cheaper fares. When surge-pricing kicks in for regular sedans due to increased demand, they found that it could be easier to book the premium car—and for cheaper—due to the usual low demand for premium cars. They also engaged in attempts to test which routes and timeframes of car-pooling options resulted in them being the lone passenger, essentially enjoying a standard RHP car but at the cheaper cost of the car-pooling variant.

5.4.2 Mitigation

Through observation and active experimentation, users discovered disadvantages and probable risks, and attempted to mitigate these. Nineteen (19) interviewees discussed the ways they found to mitigate known risks and problems. Learning from the previous difficulties with GPS accuracy, the comprehension abilities of drivers and their dubious tech-savviness, users have learned to text or call RHP drivers in advance to confirm the pick-up location, and guide them toward the pick-up point to prevent mishaps. Interviewees also found how best to schedule their activities to ensure that they used RHPs during time windows when surge-pricing was unlikely to activate based on their accumulated experience. RHP drivers are penalised by the platform if they reject destinations. To avoid these penalties, they sometimes ask users to cancel, leading to a stand-off when the user refuses to cancel. However, while the booking is active, neither driver nor user can make another booking. To mitigate this risk, some users carry multiple phones which allow them to play hardball with the driver while they use the other phone to make a new booking. One interviewee has come up with a stock answer: “Someone else made the booking on my behalf”—thus fully placing the onus on the driver to cancel and accept a demerit from the system.

In a few cases, mitigation is not targeted on drawbacks identified through experience, but instead, on passengers' beliefs about the risk and dangers in the contexts they are inhabiting. For example, one male interviewee who lives in an ungated residential area in a less affluent part of Manila shares that he does not pin the exact location of his house as he is uncomfortable letting RHP drivers—who are complete strangers—know his address. To give another example, all seventeen female interviewees pro-actively use the real-time location tracker feature of RHPs to keep their loved ones informed of their whereabouts. While most of the female interviewees have not experienced harassment, accidents, or crime while using RHPs, they are pre-emptively strategising against dangers that often happen outside the confines of platform services, just in case the assurances provided by platform firms also fail. After all, drivers with ill-intent may still make it through the RHP's strict process for selecting drivers with clean records and good conduct. These examples underline that people’s perceptions of problems in their wider environments spill over to their behaviours on platform services and guide their individual in-platform strategies.

After judging the trade-off as resulting in net gains, interviewees also made strategic adjustments and sacrifices to blunt some undesirable aspects of using ride-hailing platforms. For example, three interviewees reported having to forego meals just to afford ride-hailing platforms, and thus avoid the inconvenience of conventional public transport. They usually ate breakfast at home, reserved their lunch money toward RHPs, then had their second meal at home upon arriving in the evening, enduring their hunger at work and in school for around 10 hours. Twenty-five interviewees reported seeing their savings diminish or being unable to save at all, endangering their long-term financial security in a society with few and weak social safety nets. Eight interviewees suffered through hours of idling at malls and deserted school buildings, or simply worked overtime in their offices just to wait for surge-pricing to lower.

5.4.3 Boundary Hunting

Despite knowing that rules govern the transaction, users experiment and test the shifting boundaries between what is prohibited yet permissible, and the absolutely forbidden—a kind of strategic experimentation that can be termed boundary hunting. This is often followed by users pushing the boundary ever so slightly to their advantage. Eight interviewees themselves directly admitted to engaging in boundary hunting. These users sometimes bypassed ride-hailing platforms by getting the numbers of their RHP drivers when they found out that their usual routes and schedule coincide with the work patterns of the driver. In other cases, users who are members of ride-hailing groups on Facebook tried to “book” drivers by posting on such Facebook groups. Using one’s RHP account to book for other people, even if the rules are against this, is also often practised. They have figured out that drivers do not object to this.

Most examples of boundary hunting revolve around promos and discounts. Some users scour the Internet for promo codes divulged by other users online. In many cases, these promo codes are naturally meant for a target sub-set. Nonetheless, interviewees chasing after these promos tried out multiple codes, testing whether those would work for them too. Likewise, interviewees also admitted to asking students and senior citizens to book for them to avail of the student and senior citizen discount. Under Philippine law, students, senior citizens, and persons with disabilities are entitled to receive discounts from transport services. One interviewee has a particularly ingenious scheme. He refers RHPs to friends who do not need RHPs as they have cars or drivers, thus gaining referral bonuses. And to compound his gains, he asks these friends to use their promotional discounts by making bookings for him.

When the travelling companions of interviewees have different end destinations, they do not select the multiple-stop option—which costs more than a regular booking. Instead, they just request the driver to make multiple stops. In compelling drivers to concede, passengers sometimes reason that it is not a big deal. Two interviewees with errands in provinces far outside Metro Manila admitted that they indicate a destination near the boundaries of Metro Manila and once in the RH car, they dangled additional fares to shoehorn the driver into accepting destinations far beyond the city limits set by the platform. Drivers in similar cases are in a weak bargaining position to refuse, since they are unlikely to get another booking from the fringes of the city limits where ride-hailing demand is low.

Drivers claimed that a host of other exploitative practices are attempted by users. For example, users tried to book 4-seater cars for 5 people, and used a previous successful boundary hunt to psychologically manipulate the driver to agree to the same arrangement. Drivers reported hearing the argument, “That’s what we’ve done before and all those drivers agreed. Why can’t you agree too?” The same is evident in how people with luggage book the cheaper “regular sedan” option rather than the SUV option especially meant for passengers with heavy luggage. When certain conditions exist, such as when the platform consumer is accompanied by kids, drivers are forced to accede, since doing otherwise would be quite cruel.

Other passengers would place the pick-up pin closer to the main road and farther from where they actually are, to bring down the fare. They then just asked the driver to pick them up in their actual location. Some passengers booked a certain destination even if their real destination was still a few hundred meters away, and just requested for drivers to go “just a bit farther” so they end up paying less for the distance travelled, thus short-changing the driver and the platform. Passengers also frequently made drivers wait for them at pick-up points beyond the time allotted by platform rules.

However, drivers said that they often felt they had a weak bargaining position, since they had already spent time and fuel driving to the pick-up point. Cancelling the trip would only waste the time and fuel they had expended. Hence, they would wait for the passengers even if that meant having to take the stress of sneakily driving around the building to evade security guards and traffic enforcers trying to prevent cars from idling by the roadside and impeding traffic.

5.4.4 Straddling

Interviewees also experimented on practices that straddle platform and non-platform systems. These led to the synergistic use of rival systems to accommodate different priorities in each trip. Twenty-nine interviewees still use public transport and rely on RHPs on particular trips, often to economise. However, there is a pattern where seven interviewees combined both conventional public transport and RHP in the same journey, resulting in a hybrid trip. After analysing factors such as the location of train stations, time windows, and proximity to areas easily accessible to ride-hailing cars, they began to select desirable trip permutations with elements from both pre-existing and RHP-based systems. For example, two users who have family living in suburbs outside Metro Manila used public transport up to the city limits where RHPs operate, and then shift to RHPs toward their final destinations. In these cases, they prefer to use RHPs and only resort to conventional public transport when they traverse distances that are outside the service areas decreed by both the platform companies and the city government.

Three interviewees combined ride-hailing apps with conventional public transport to strike a balance among cost, comfort, and speed. The most common practice is to use cheap and fast modes such as city trains up to the nearest station and then shift to RHP for last-mile connectivity. This practice prioritises speed and lessens cost. Another strategy is to use public transport just to get past areas where surge-pricing is likely to be worst, and then transfer to RHPs even if the destination is still some distance away. In contrast, this strategy prioritises comfort while avoiding undesirable aspects of platform solutions such as surge-pricing. These strategies expanded the permutations available to consumers, allowing them to reduce susceptibility to the downsides of any one option, and to accommodate their changing constraints and purposes.

5.4.5 Heuristic Formation

As usage and experimentation accumulate, interviewees eventually decided that certain strategies produced reliable outcomes and catalogued these as heuristics for routine use. Eleven interviewees explicitly described their decision trees and thresholds using the language of “personal rules,” “thresholds,” and “principles,” signalling that these practices must command routine compliance, rather than being merely provisional theories. Interviewees employed decision trees, which refers to the individualised heuristics for determining actions that have an acceptable probability of achieving desired outcomes. Twenty-seven had decision trees on whether they will use conventional public transport or RHPs. All interviewees had decision trees on which type of RHP service, ride-hailing firm, and strategies to use depending on the situation.

Their decision trees often rely on thresholds to determine the next step in decision-making. For example, some interviewees have decided that they will accept higher RHP costs during peak hours as long as the algorithm’s price multiplier does not exceed their self-determined threshold, ranging from three (that is, 300% of normal RHP fares) to five (as stated by one interviewee even willing to accept such increase). Otherwise, they would either wait or take non-platform modes of transport. Others set thresholds based on the estimated waiting time for the RHP car.

Users also showed an openness for incremental revision to their heuristics. After they found satisfactory strategies, their experimentation slackened into continual albeit less determined scanning for changes in the algorithms and platform rules, and for potential improvements in their routinised practices. For example, interviewees would sometimes check other ride-hailing platform prices just to see if their current beliefs on which is the cheapest platforms still held true.

5.5 Discussion

5.5.1 A Playbook of Consumer Strategies

Previous studies have identified the strategies employed by workers, service providers and social media prosumers. However, those strategies are hardly applicable to individual consumers on digital platforms. Informed by the empirical findings, this study contributes to the literature by proposing a typology of consumers strategies comprised of five major types (optimisation, mitigation, boundary hunting, straddling, and heuristic formation) and 18 sub-types.

As respondents began using digital platforms, the early glimpse into its ability to reduce transaction costs and offer superior output quality motivate subsequent use, learning, and experimentation. Increasing experience and the ensuing learning and experimentation lead to the creation of a wide range of consumer strategies. These strategies are made possible by exploiting algorithmic features and loopholes, committing infarctions that are invisible to fallible platformic systems, undermining social enforcement of platform rules, capitalising on buyer's leverage, and tapping consumers' social connections. To my knowledge, this is the first time that an empirically supported, fine-grained typology of consumer strategies has been presented in the literature. Table 7 below explains the typology and gives examples.

Table 7. Typology of Consumer Strategies in Digital Platforms

TYPE	DEFINITION	EXAMPLE
1.Optimisation	Figuring out how to maximise the benefits of using the platform, including the leveraging of loopholes without directly violating platform rules.	
Variation Discovery	Learning and experimentation, sometimes guided by word-of-mouth advice, aimed at identifying how various platform features, advantages and real-life usage suit a variety of needs and contexts. The resulting knowledge motivates further experimental efforts, and provides a foundation for subsequent consumer strategies.	Consumers repeatedly trying out features of the mobile app.
Perk Seeking	Searching for consumer perks across platforms, especially to take advantage of demand-side subsidies during periods where platforms prioritise demand-side growth or engage in price wars with other platforms.	Consumers look for promos across all competing apps.
Cost Sharing	Attempts at sharing the cost of platform solutions with other consumers, which may sometimes involve re-organisation of routines to tap wider social networks that can share costs.	Consumers arrange to go home at the same time with their colleagues to share a ride and split costs.
Proximity Exploitation	This is a type of algorithmic loophole exploitation, made possible when the algorithm allocates markedly different output values to strictly defined input parameters, such that an input proximate to these parameters yield a very different output. Proximate parameter	Consumers pin their origin in locations close to landmarks, to have the algorithm assign them cheaper fares than if they had pinned the landmark itself. This can potentially be present in existing and future algorithms as well. For

	exploitation refers to consumers choosing these proximate input parameters so that they gain similar service outcomes for far less cost, or some other advantage.	example, in a hypothetical loan platform, loan-takers could request a loan amount just below the amount to which the algorithm assigns markedly higher interest rates, thus taking advantage of lower interest rates for a very similar loan size.
Pattern Exploitation	Finding patterns in the operation of the algorithm, and instead of manipulating input parameters (like in proximity exploitation), users adjust their behaviours so that they can synchronise their activities with the algorithm's patterns in ways that yield net benefits.	Some RHPs offer a much cheaper carpool option, alongside the typical door-to-door service. After determining that algorithms do not assign additional passengers to car-pool services at certain times or based on certain conditions, consumers adjust their routines accordingly to take advantage of these patterns. Consequently, they get premium service for carpool prices.
2. Mitigation	Identifying problems and risks in integrating platform use into daily life, and developing practices to offset these.	
Pre-emptive communication	Direct communication with human service providers on the supply side to prevent mistakes in service delivery. This is often necessary to compensate for imperfections in the algorithm or human errors.	Consumers call ride-hailing drivers in advance to relay instructions when the pick-up point is an area that the ride app's navigation system has not mapped out well yet
Personal compensation	Adjusting personal routines and habits to mitigate problems arising from the use platforms, for as long as consumers garner net benefits despite the sacrifices made.	Consumers idling in malls for hours to wait out surge pricing, after deciding this trade-off is still better than taking other transport modes.

Multi-homing (F. Zhu & Iansiti, 2019)	Use of multiple platforms to reduce risks of relying on just one platform.	Consumers cancel trips with difficult drivers, despite the risk of receiving a temporary, automated penalty, since they can use another ride-hailing app.
3. Boundary Hunting	Identifying and exploiting the limits of enforceable platform rules. Consumers defy rules when enforcement relies on mutual social compliance, or infractions are likely to be invisible to the algorithm.	
Perk Piggybacking	Appropriating perks granted to other users.	Consumers use the ride-hailing accounts of students or the elderly to gain the latter's discounts.
Platform dis-intermediation (F. Zhu & Iansiti, 2019)	Consumers circumventing the platform and transacting directly with the supply side.	Consumers joining social media groups populated with ride-hailing drivers, to bypass the platform.
Baiting	Once the supply-side commits to a point where costs committed to the transaction are high enough, consumers coax the supply-side to breach platform rules, with or without incentives.	Consumers asking ride-hailing drivers to drive to the edge of the allowed service area, where the driver is unlikely to receive a new booking. And once there, offer extra pay to drive them to destinations outside the city, despite platform rules against working outside city limits.
Normative Manipulation	Invocation of norms of goodwill, sympathy and consideration to compel human actors on the other side to concede to consumers' requests, often involving complicit circumvention of platform rules; sometimes in ways that harm the interests of the ones who accede to such requests.	Placing the destination pin a few kilometres short of the actual point to reduce fares, and then asking the driver to be understanding and "just drive a bit farther" until the real destination is reached.

Precedent Exploitation	Precedents are used to make claims that the concessions demanded by consumers are legitimate, thus replicating previously successful boundary hunts.	Consumers cornering drivers into accepting 5 passengers for a 4-seater sedan by saying, "That's what we've done before and all those drivers agreed. Why can't you agree too?"
4. Straddling	Conditionally shifting to pre-existing and/or rival alternatives in response to changing constraints and purposes.	
Contingent Straddling	Straddling the platform and non-platform solutions to take advantage of usage permutations that best suit the needs of the moment.	To prioritise speed, consumers use fast modes like trains and then use ride-hailing for last-mile connectivity.
Hedged Straddling	Straddling platform and non-platform solutions to reduce exposure to the platform's undesirable features.	Using public transport to avoid surge-pricing, and then shifting to ride-hailing afterwards.
5. Heuristic Formation	Designating proven strategic repertoires, and the conditions for their use, as mental templates to guide fast decision-making.	
Decision Trees	Use of individualised heuristics for determining conditional action sequences that have an acceptable probability of achieving desired outcomes.	Experienced consumers have established rules for when to choose between Uber and Grab, and which service type.
Thresholds	Use of specific, often quantitative, conditions as triggers for activating a decision.	After experiencing the trade-offs involved, consumers decide up to which surge multiplier is acceptable. If the surge multiplier exceeds that point, suffering through public transport is deemed worth it.
Horizon Scanning	The continual albeit less determined scanning for changes in the platform, and potential improvements in routinised practices.	Interviewees occasionally check other ride-hailing platform prices just to check if their current beliefs on which is

		the cheapest platform still hold true.

5.5.2 Characterising Consumer Strategies in Digital Platforms

The strategies in the typology shed light on key characteristics of consumer agency. First, consumer agency is distinct from supply-side and prosumer agency. As expected, consumers can exert leverage in ways that the supply side is unlikely to replicate. For example, several forms of boundary hunting leverage the supply side's profit imperative and mounting costs committed to a transaction. However, strategies that rely on social interactions are distinct from those of workers and prosumers. Workers learn from supportive communities the information needed to offset platform advantages, or leverage mass numbers to force concessions from platform companies. Prosumers join reciprocal pods to share algorithmic gossip, among others. Both groups engage in social alliances that are expansive, whereby growing membership adds value to each member. In contrast, consumers' same-side social strategies can be characterised as limited client-patron relationships exemplified by commuters (client) who piggyback on the discounted ride-hailing accounts of their grandparents (patron); or as selective cliques, exemplified by office colleagues forming small, cost-sharing groups.

In contrast to the *expansive* worker and prosumer communities, the logic of consumers' *client-patron* and *cliquish* relations is to keep member sizes optimal and exclusively involve people with highly specific attributes who can be quickly tapped at the moment of need. Hence, while the notion that consumer strategies lack a social element is incorrect, it still holds that previous literature on the social strategies of workers and prosumers do not necessarily apply to consumers.

Second, consumer strategies affect consumers, workers, and the platform's interests in different ways. Needless to say, consumer strategies allow consumers to assert their interests and get a better deal than otherwise. However, it is evident in the study that certain adverse conditions compel consumers to resort to strategies that sacrifice their other interests or some aspect of their welfare. These adverse conditions are *demand-side resource constraints* and *sectoral underdevelopment*. Demand-side resource constraints are those that limit the ability of consumers to use platforms as much as they want. In this study, these constraints primarily refer to low purchasing power or the lack of disposable incomes. Sectoral underdevelopment refers to problems in pre-existing alternatives, which make it compelling to use platform solutions despite the latter's cost premium and other qualitative disadvantages. For the consumers in the empirical study, sectoral underdevelopment manifests as the poor state of the urban transport sector.

When platforms are critically needed because of sectoral underdevelopment, but consumers face resource constraints, they can resolve this tension by sacrificing other interests that they deem relatively dispensable. Just to afford platform solutions, users have endured hunger, idled in malls or in dimly lit buildings that have closed for the day, or knowingly endangered their financial future by eroding or completely wiping out their monthly savings. Consumers deem the trade-off to be worth it. Alluding to a sacrificial ritual to invoke the platform's aegis of protection, Meynard willingly surrenders his food budget as an "offering to Uber" to ward off the "Walking Dead."

When consumers have limited budgets yet the non-platform alternative is unbearable, consumers have incentives to not only employ self-sacrificial strategies, but also undertake predatory practices that harm platform workers. To save on costs or pursue some other advantage, consumers experiment and develop a wide variety of strategies to leverage their status as the platform's revenue source, while also taking advantage of the tendency of platform workers to fall for the *sunk cost effect*. The sunk cost effect is the tendency to continue an endeavour once an investment in money, effort, or time has been made (Arkes & Blumer, 1985). Exemplifying the sunk cost effect, the ride-hailing driver's prior investment in time, fuel, and effort to pick up the passenger can condition them to tolerate consumer behaviours that violate platform rules, rather than decline and earn nothing at all. For example, drivers are forced to accept situations where the number of passengers exceeds the limit allowed, or consumers bring in heavy luggage for hatchback types when the SUV service is more appropriate. These save costs for consumers, but result in material losses to drivers as the extra weight increases fuel costs and worsens car depreciation, but without commensurate compensation. Thus, insofar as demand-side resource constraint intensifies the cost-saving imperative, then consumer strategies can be expected to exploit the supply side. In such cases, the propensity of consumers for boundary hunting threatens the supply side's interests.

Sectoral underdevelopment also appears consequential in behaviours that may be harming worker interests. For example, the lack of convenient, speedy, and comfortable transport options between central Metro Manila and neighbouring provinces makes the platform solution critical to people who need to reach these provinces. This motivated some users to perform boundary baiting as a way of forcing RHP drivers to go past the service area of RHPs within Manila, and drive to the provinces. After all, one could say that consumers are forced to do this because of sectoral underdevelopment: The transportation system is so deficient they have no other convenient way to travel comfortably from the city to adjoining provinces.

The impact of consumer strategies on the platform's interests is more nuanced. Consumer strategies harm platform interests, often by reducing the amounts paid to the platform. Several optimisation and boundary-hunting strategies deliberately misclassify the consumer's use category so that the algorithm assigns it a lower price—for example, being assigned a student discount when one is not a student. Except in cases where the platform shoulders all the promotions and subsidies provided to consumers, most consumer strategies reduce the revenue of both worker and platform. The worker's revenue decreases directly; and since the platform often takes a cut from the worker's revenue, its revenue decreases too. However, the direct loss to a worker is absorbed by one person, while the indirect loss to the platform is absorbed by an entire organisation. Moreover, the priority of the supply side is uniform; it aims to be profitable and any profit reduction is uniformly detrimental. However, the platform's priority depends on its phase of development. The negative impact on the platform's revenues is not necessarily consequential, since platforms may prioritise market share and consumer reliance over profit during certain phases of its growth.

As a final point, consumer agency can have unexpected, paradoxical effects on the platform's interests. The strategies I uncovered allow consumers to reap advantages by bending the platform's rules and outsmarting its algorithms. Hence, consumer strategies harm the platform's interests to a certain degree. However, the benefits consumers gain through these strategies encourage them to more fully integrate platforms into the constraints, purposes, and contingencies of daily life. Once these strategic repertoires stabilise into heuristic strategies, it essentially means that they have reorganised aspects of daily life around platforms and have developed a degree of platform reliance. These are very beneficial to the platform's interests. After all, society's widespread reliance is the basis of the platform's influence over society, commercial sectors, and public policy (Culpepper & Thelen, 2020). Moreover, platform reliance also means that the platform can influence consumer agency beyond the short-term. Thus, consumers' agentic deployment of strategies to soften platformic control ironically facilitates consumer reliance on the platform and therefore hardens the platform's ability to influence the lives of consumers.

5.6 Conclusion

Consumer strategies have not received as much attention as supply-side and prosumer strategies, which is unfortunate given the importance of consumers in the digital economy. Moreover, the existing literature on user agency and algorithmic platforms does not yet explain the implications of consumer agency on the interests of actors on the platform. This paper addresses this gap in two ways. First, it characterises consumer agency by developing a fine-grained typology of consumer strategies in digital platforms. It identifies optimisation, mitigation, boundary hunting, straddling, and heuristic formation as five main types, and details 18 sub-types. To my knowledge, this is the first time that consumer strategies in algorithmic systems have been elaborated in this level of detail.

Second, in this paper I discuss how these strategies reveal several important insights about consumer agency. Consumer agency is different to supply-side and prosumer agency, in terms of innate leverage, and in how these consumers form, conduct, and derive strategic value from social interactions. Moreover, consumer agency has different effects on actors in a platform. Adverse conditions such as demand-side resource constraint and sectoral underdevelopment compel consumers to develop sacrificial strategies that harm some of their own interests. Consumer strategies often inflict disproportionate costs on the supply-side, but these same efforts to soften platformic control can ironically serve the platform's interests because consumer strategies reinforce the consumers' long-term reliance on platforms.

The typology and conceptual implications laid out here can sensitise future studies to the breadth and complexity of user strategies used in algorithmic systems and digital platforms. A promising direction is to explore how these consumer strategies can be used to serve consumer welfare and the public good, while still respecting the legitimate interests of platform companies, service providers, and workers.

CHAPTER 6 CONCLUSION

6.1 Digital Platforms in Adverse Contexts: A Critical Summary

In the summer of 2015, I first experienced using a digital transaction platform in a gridlocked megacity where government-regulated taxis flouted rules, and government-provisioned urban infrastructure failed to provide reliable transportation. The stark contrast between the platform solution and an underdeveloped, pre-existing public system left a deep impression. A ride-hailing driver came and whisked us away, while I watched the muted chaos from inside the comforts of an air-conditioned ride-hailing car. People queued under the heat, suffered through jam-packed trains, or fought over buses stuck in apocalyptic traffic. The ladies I had outrun to chase a taxi driver glumly languished by the roadside, still waiting for a ride. Meanwhile, pollution thickened as cars began to choke the roads—the carmageddon of the evening rush-hour had begun.

That was the first time I asked myself: how does the pervasive use of digital platforms affect society, politics and daily life in such contexts of underdevelopment? After years of research, I finally have some answers to this question, and at the same time contribute to the following topics: platform strategy, the politics of platforms, and user agency.

In this section, I provide a critical summary of my thesis. I position my findings in relation to the wider literature, explain key concepts in terms of platform characteristics and adverse conditions, and demonstrate transferability to other contexts.

6.1.1 Platform Strategy

The literature on platform strategy has given more attention to market strategies that target market share and profitability (Cusumano et al., 2019; Eisenmann et al., 2006; McIntyre & Srinivasan, 2017; Van Alstyne et al., 2016b). In contrast, attention to non-market strategies that pursue legitimacy is more recent (Mair & Reischauer, 2017). The few existing studies on non-market strategies mostly expound how platforms seek legitimacy, through well-known strategies such as hiring lobbyists, forming strategic alliances with other firms, and compliance with government regulations, among others (Boon et al., 2019; Garud et al., 2020; Kwak et al., 2019; Pelzer et al., 2019; Uzunca & Borlenghi, 2019). However, most of these studies do not explain what it is about platform companies that make a difference in the pursuit of legitimacy.

Against this background, Study 1 is among the first to explicitly detail how platform characteristics and adverse conditions influence legitimacy-seeking by digital platforms. I find that certain platform characteristics enable platform companies to deploy legitimation strategies in extraordinary ways or deploy manoeuvres that non-platform firms will find hard to replicate. The first relevant feature of digital platforms is that they offload to suppliers the need to provide assets. This leads to a situation where the suppliers hold a lot of assets required to provide services, while the platform company holds very little. When suppliers have acquired assets meant for the platform and monetising them is harder outside the platform, any threat to the platform’s continuity also endangers their economic welfare.

In effect, the ride-hailing drivers I have met since 2015 are tied to the platform's interests if at least one of the following applies to them: they bought their vehicle solely for ride apps; they have no other means to reliably extract value from the asset; they are otherwise unable to pay amortisation on the asset; they have no alternative sources of livelihood; and/or they have no social safety nets that will cushion income loss and amortisation liabilities. Consequently, these platform workers have incentives to self-organise and fiercely fight policies that endanger the platform's business. They are also easily marshalled by the platform to oppose these inimical policies. Thus, asset provision offloading helps digital platform companies execute advocacy strategies to legitimate themselves and to create a favourable regulatory and business environment.

In theory, multi-homing can conditionally offset platform companies' ability to use asset provision offloading to mobilise the supply side in the platform's defence. Multi-homing means that platform participants can join or use multiple platforms (Bryan & Gans, 2019).[34] If the original platform is under siege and at risk of closure, then multi-homing offers a way for the supply-side to abandon the besieged platform and shift to a different platform, despite the bureaucracy involved and the imperfect portability of reputation scores (Layug, 2019; Santos, 2019; Wood and Lehdonvirta, 2021). This is how multi-homing offsets the ability of asset provision offloading to mobilise workers in the platform's defence. However, if the entire industry is under

[34] Digital platforms often have incentives to enforce single-homing and discourage multi-homing because they naturally want to keep their consumers or suppliers away from competitors. However, regulation or lack of leverage to influence the behaviour of platform participants can constrain platforms from preventing multi-homing.

threat, then multi-homing will have little effect—no platform company is safe, and therefore we can expect the supply side to fight for the platform companies.

The effect of asset provision offloading to keep the supply side committed to business continuity is reminiscent of asset specificity in transaction cost economics. Asset specificity is the degree to which an asset can be redeployed for alternative purposes without sacrificing its profitability (Williamson, 1988). In digital platforms, assets cannot be easily redeployed and monetised outside the supplier's original platform for several reasons. Non-platform alternatives will not do because these cannot provide access to big markets that platforms provide. As for other platforms, suppliers may not always be able to monetise their assets at all if their original platform enforces single-homing, or if the aforementioned barriers exist: bureaucracy and imperfect portability of reputation scores.

Scholars of transaction cost economics (TCE) typically consider asset specificity as an explanation behind buyer opportunism (Heide & Stump, 1995), or as a justification for advising buyers to subsume the seller's operations (Vita et al., 2011).[35] But these are not the only implications of asset specificity. In my study, it surfaced as a motivation for the platform's supply side to fight on behalf of digital platforms seeking legitimacy.

[35] In a TCE-style analysis, asset specificity is often used to describe a buyer-seller relationship where the seller invests in assets that are specific to the buyer's needs and therefore cannot be monetised through other means. Cognisant of the seller's weak leverage once it purchases the specific assets, the buyer can opportunistically squeeze concessionary terms from the seller later on. But being rational entities, sellers can anticipate this threat, and therefore hesitate to enter into such transactions unless strong guarantees against buyer opportunism exist. These guarantees increase transaction costs. To prevent the need for such high transaction costs, the prescription of TCE is to eschew a market-based contractual arrangement between them, and instead integrate the seller into buyer's formal organisational hierarchy. (Vita et al., 2011).

It may be surprising that workers will self-organise to fight for the platform company's interests, given the many bitter and occasionally violent protests launched by European digital platform workers against their platform company (Osborne, 2016). However, these European platform workers protest against the platform to call for better social protections (Joyce et al., 2020), and not to suppress the platform's business or advocate for its closure. If an external actor, such as an incumbent competitor or a government, moves to stifle the platform's business in ways that stop or limit the profitable utilisation of workers' assets, then my analysis still stands: those platform workers who acquired assets for express use on the platform have strong incentives to support the platform in that specific battle with external adversaries (and still concurrently wage their internal dispute with the platform). Many noteworthy failures of digital platforms to win institutional battles happen when they face workers and consumers, rather than incumbent competitors. For example, the recent ruling by the UK to classify Uber's drivers as having more privileges than just self-employed contractors was a result of legal action by Uber workers, rather than incumbent transport groups or government agencies (Russon, 2021). This fact adds credence to my argument. Workers and consumers are important resources that digital platforms can deploy in institutional battles against incumbents and governments. Conversely, the platform is not as powerful when contested by its own erstwhile power base.

Aside from the above advantages, asset provision offloading also enables platforms to employ fait accompli and grey zone strategies. I find that platform companies were able to proceed with the acquisitions that could lead to monopolies, without alerting authorities. This is because current thresholds look at the companies' combined asset value to determine whether an acquisition requires automatic review by antitrust authorities. But since Grab and Uber had few physical assets, the review process was not automatically triggered, alerting competition authorities too late. Recent research has already apprehended this implication of asset-light digital platforms on antitrust regulation in Europe and Asia (Bernabe, 2020; Motta & Peitz, 2021). Consequently, I only make a modest contribution to that conversation by emphasising the link between asset acquisition offloading and the evasion of antitrust thresholds. However, as I will explain later in the Future Research section, my emphasis on asset acquisition offloading led me to insights on how to update antitrust principles with respect to digital platforms.

The second consequential characteristic of platform companies in terms of legitimation strategies is that they possess algorithmic expertise and updated data of consumers and workers. There is prior research on the ability of digital platforms to leverage data for value creation, competitive advantage, and refinement of algorithmic models—all in pursuit of commercial benefit (Bonina et al., 2021; Nuccio & Guerzoni, 2019; Pesce et al., 2019). I posit that aside from pursuing these commercial objectives, digital platform companies can also leverage data and algorithmic technologies to bolster legitimacy in ways that non-platform companies can hardly match.

Platform companies have the up-to-date contact information of consumers and can push in-app intercepts which consumers are bound to see for as long as they remain users of the app. Through these, they can easily marshal consumers to support their advocacy strategies. This echoes previous literature which describes how platforms harvest public opinion through digital platforms (Pelzer et al., 2019; Ranchordás, 2017), but my modest contribution in this regard is that I emphasise how special characteristics of platform firms make this possible. We can transact with non-platform companies without ever giving our contact information, even if they nudge us to do so. And even if we provide our contact information, the non-platform company has limited means to update its list when we change emails or numbers. Neither is there any guarantee that we will read their emails, much less the notices posted on their shops. In contrast, commanding users' data and attention is almost inherent to the platform business model, enabled by technologies that push in-app intercepts and require updated contact information as a condition for continued use.

In addition, platform firms package their data and proprietary algorithms as technological solutions to problems facing governments. The digital platform's unpaid partnerships with governments can be used as part of advocacy strategies that erode government opposition against platforms. For example, platform companies have launched smart city or urban planning partnerships with municipal governments in Manila and Jakarta. I have not encountered any similar data-driven policy partnerships between governments and traditional taxi companies in these cities, which emphasises the distinct advantage platform companies possess over conventional organisations. It is well known that governments work with technology companies to deliver government services or solve grand social problems (Barns, 2018; Lam & Yang, 2020). However, these studies usually refer to client-vendor relationships where the technology company mainly earns revenue rather than institutional influence. Some scholars have shown that digital platforms are being creatively used by governments to improve citizen engagement (Feroz Khan et al., 2014), peace and order (Panagiotopoulos et al., 2014), e-government (Small, 2012), and disaster management (Chatfield et al., 2013; Holderness & Turpin, 2015). However, these studies do not illuminate the legitimacy-enhancing potential of platform-government partnerships. I offer the novel notion that command of data and algorithms allows platform companies to pursue government partnerships that enhance the legitimacy of platform companies in ways not available to their non-platform competitors.[36]

The third platform characteristic that enhances legitimacy is that platforms are intermediators of multi-sided markets. Platforms with a certain level of market share have access to the very group of consumers that their non-platform rivals also wish to reach and profit from. This makes platforms naturally poised to perform co-optation strategies that allow them to ride on the co-opted incumbent's long-standing legitimacy and institutional clout. The sudden conversion of Blue Bird Taxi from Gojek's antagonist to collaborator exemplifies this. If Gojek were just another big conventional taxi company, it would not have any leverage for co-opting Blue Bird. But since it is an intermediary platform, it dangled access to the demand side as an incentive for competitors to drop their opposition and become service providers to the platform. Thus, it turned fierce rivals into wary collaborators quickly, and in ways that non-platform firms cannot match.

[36] However, in light of the many collaborations between technology companies and governments spurred by the pandemic, I anticipate that we will soon see many studies about government-platform partnerships. Perhaps some of those studies will shed more light on how platform firms purposefully use those partnerships to bolster legitimacy or institutional influence. Some digital platforms such as Facebook, Amazon and Google have received so much negative press in the past years, and it is interesting whether and how they are using these pandemic-related government partnerships to improve their institutional influence.

It is well-known that being intermediators grants platforms the ability to orchestrate multiple players and thus dominate industries (Gawer & Cusumano, 2008; Parida et al., 2019; Tiwana, 2015). Likewise, many have shown that platforms co-opt, cooperate, and compete with non-platform incumbents in new markets (Ansari et al., 2016; Cozzolino et al., 2018, 2021; Hannah & Eisenhardt, 2018). These scholars study “coopetition” between platforms and incumbents as a means to pursue market objectives such as profit, market share, technological lead, sustained innovation, and value capture. In study 1, I contribute to the literature by showing how platform companies can use their affinity for co-optation to achieve not only market objectives but also non-market objectives, such as legitimacy and institutional influence.

Study 1 also explains how adverse conditions amplify the ability of platforms to achieve legitimacy. One of these consequential adverse conditions is the economic vulnerability of the platform’s supply side. This can manifest in several ways, such as lack of alternative employment, lack of savings to weather income loss, lack of transferable skills, and lack of access to social safety nets, among others. Supply-side economic vulnerability makes the supply side even more reliant on the income brought by their assets on the platform than otherwise. The loss of that income could mean outright destitution, as the lack of savings or social protections mean that workers cannot even financially sustain themselves. On top of that, the most unfortunate will also have to amortise assets acquired through loans. Faced with such calamitous consequences, suppliers have greater incentives to fight any policy or organisation that threatens the continuity of the platform business.

This adverse condition stood out in Manila and Jakarta, but it can also be seen in developed countries. For example, social protections in many EU member states hinge on being formally employed, which means that self-employed platform workers are left vulnerable (Hauben et al., 2020). Self-employed platform workers in Latvia, Portugal, Sweden, Denmark and Finland need to opt-in to unemployment benefit schemes (European Commission, 2018). The social protection coverage rate of these European workers tends to be very low (Ogembo & Lehdonvirta, 2020; Spasova et al., 2017). Hence, economic vulnerability is a variable that can exist anywhere on the planet, and can be a useful construct for understanding the social implications of platforms.

The second adverse condition is sectoral underdevelopment, defined as deficiencies in a sector that results in undesirable outcomes to stakeholders, especially consumers. Sectoral underdevelopment matters, because it amplifies the ability of platform companies to pursue legitimacy. It creates complex policy problems that platform companies can frame as solvable through the platform's data and technological prowess. Such data partnerships with governments can then be used as part of the platform company's advocacy strategies. Moreover, sectoral underdevelopment heightens public awareness of the stark difference between existing dysfunctions and the platform's technological wizardry, which aids the firm's attempts to portray the platform as "solving grand societal challenges" (Uzunca et al., 2018, p. 248). The migration of consumers also abets fait accompli strategies that rely on the rapid uptake of consumers and workers. It also motivates consumers to cooperate with the platform company's deliberate attempts to use public opinion against unfavourable policies.

In Study 1, sectoral weakness refers to deficient infrastructure and dysfunctional institutions in Manila and Jakarta's transport sector; but it can refer to any sector in any country, such as healthcare, education, and banking and finance, among others. For example, rural banking in the United States can be conceived as suffering from sectoral underdevelopment. People in rural America experience a lack of access to financial advice, bank loans, and general banking services due to the scarcity of bank branches (Federal Reserve Board, 2019). At the same time, rural borrowers on lending platforms are increasing (Cornaggia et al., 2018; Maskara, 2020). Conventional banks might deem that lending platforms could pose significant competition in the future and seek to stifle them. Likewise, authorities might consider online lending as an opaque activity that differs little from unregulated shadow banking, and should therefore be quashed, which has already happened elsewhere (Mitchell, 2021; Tang, 2020). My work suggests that if lending platforms are besieged, sectoral underdevelopment in rural financial services incentivises rural Americans to advocate for the lending platform or cooperate with the platform company's legitimation strategies.

Given their extraordinary potential to achieve legitimacy, platforms can overturn the clout of incumbents, civil society groups and the authority of government—for better *or worse*. After all, the interests of digital platforms do not necessarily align with the broader public interest. Governments may be imperfect but they play a large role in balancing corporate demands and the public interest. And indeed, the governments examined in my study pushed for some policies that were intended to protect the public interest. For example, Southeast Asia's competition agencies tried to deter the monopolistic behaviour of ride-hailing platform companies. Another example is the Philippine government's imposition of supply caps to lessen externalities caused by a deluge of ride-hailing cars worsening the traffic for everyone—including people who do not use ride-hailing apps. However, the extraordinary ability of platform companies to mobilise the powerful voice of workers and consumers means that they can reverse or dilute even those policies that potentially protect the public good. Platform companies can use consumers and workers to legitimise practices that serve the platform's interests but do not necessarily uphold the overarching interests of society.

Having laid out the argument about the extraordinary potential of platforms to achieve institutional influence, it is worth addressing why platforms still leave markets or fail to upend very restrictive policies. Naturally, I discount those instances where platforms fail due to flawed commercial strategies (Van Alstyne et al., 2016a), or losses from intense subsidy wars against other platforms (Hook, 2016). These exits are irrelevant to my arguments in Study 1 as these are driven by unsuccessful market strategies, rather than failures to fend off unfavourable rules. With that said, I posit that weak institutional influence can lead to market exits or grievously restrictive regulation because some factors attenuate the sources of leverage I discussed in Study 1. When the supply side does not suffer from economic vulnerability and instead is quite well-off, even asset specificity can hardly drive them to fight for the platform. When sectoral underdevelopment is faint, the demand side has few incentives to support a beleaguered platform company.

An example would be Airbnb in Santa Monica, California, a municipality that instituted very tough regulations that ended up slashing Airbnb listings by 80% in 2015 (Bender, 2015). Unlike many tough postures by authorities elsewhere, this has not been overturned. Famed as a beachfront coastal city, Santa Monica's housing properties are around 360% more expensive than the US average (Payscale, n.d.). Property owners wealthy enough to own houses in Santa Monica to list in Airbnb are unlikely to be experiencing economic vulnerability, and therefore have weaker incentives to fight for Airbnb. Moreover, consumers of Airbnb are not necessarily from Santa Monica but from all over the US and the world, thus their voice will hardly sway authorities who naturally care more about their jurisdiction's interests and local voters. Lastly, tourism and temporary renting may not be so critical to people's lives for them to join Airbnb's fight.

This example shows the limits of my arguments as they are presented in Study 1, and warrants minor refinements. The presence of sectoral underdevelopment may not be sufficient to generate legitimacy-enhancing effects; the sector itself should be important enough to make people care. Also, it may not be enough to say that consumers can be tapped by digital platforms as their defenders in institutional battles. These authorities should be beholden in some way to these consumers, otherwise the former have no incentives to listen to the latter's voice. However, while these conceptual adjustments to Study 1's points are revealed by the disconfirming case of Airbnb in Santa Monica, it is worth highlighting that the lessons from Study 1 are not invalidated. Findings from Study 1 are simply refined with the addition of qualifying conditions, which shows the usefulness of the findings.

6.1.2 Politics of Platforms

The literature on the politics of platforms has made impressive progress in understanding disinformation (Bradshaw & Howard, 2018; S. Walker et al., 2019), hate speech (Ben-David & Fernández, 2016; Fink, 2018; Nurik, 2019), and other political activities on social media (Margetts et al., 2016; Thimsen, 2015). These research strands largely treat digital platforms as spaces for political activity or as methods for pursuing a political agenda. Many others see digital platforms not only as spaces or means for political action, but also as organisations that can purposefully or inadvertently influence politics and policy-making (Culpepper & Thelen, 2020; Gillespie, 2010; Seidl, 2020; Thelen, 2018). However, this group of studies mostly looks at how digital platform companies influence policies that specifically pertain to digital platform technologies. Thus, the literature has largely neglected possible knock-on effects in *other* policy areas, which is the approach I take.

In Study 2, I demonstrate a novel effect whereby the platform reliance on consumers could potentially dampen social clamour for reforms in pre-existing public systems. When users substitute platform solutions to pre-existing public systems, they may accord less personal importance to the latter. They could also tend to politically support the platform when it is under threat, and envision long-term reliance on the platform rather than on the public system. When social clamour is reduced, the government has weaker incentives to improve public services that benefit the many, not just the few who can afford private platforms. Thus, a platform-induced obstacle to reform arises. I call this the stasis effect. As a caveat, I do not claim that the stasis effect totally precludes reform. After all, government offices and individual leaders possess agency to pursue particular policies even without prodding from the public (Boin & Christensen, 2008; Dollery & Wallis, 1997).

I demonstrate the stasis effect by showing how interviewees in Manila and Jakarta shifted issue salience from conventional transport to ride-hailing platforms. The interviews reveal that reliance on the platform caused the shift in issue salience for many. In turn, this reliance was driven by two advantages they enjoy in platform solutions but can hardly find in pre-existing public systems: transaction cost reduction and superior output quality.

Transaction costs refer to the burdens involved when performing economic transactions (Williamson, 1979). The term encompasses costs in searching for a suitable service or counterparty to transact with (search costs), bargaining for an acceptable agreement (bargaining costs), and enforcing the other party's compliance with the agreement (enforcement costs). The interviews show that digital platforms solve search costs by algorithmically matching demand and supply, eliminate bargaining costs by establishing rules of transaction and determining prices, and shoulder the enforcement cost by providing algorithmically-aided options for redress, as well as punishing delinquent drivers with automatic demerits and deactivation. The ability of digital platforms to drastically reduce transaction costs is well-known in the literature (P. Evans & Gawer, 2016; Kenney & Zysman, 2016).

Superior output quality (Davis et al., 1992) is the other platform characteristic relevant to the stasis effect. In my research, I found that aside from transaction cost reduction, superior qualities such as better safety, comfort, navigation, and vehicle cleanliness entice consumers to rely on ride-hailing platforms instead of taxis, jeepneys, buses or trains. Superior output quality is possible on digital platforms because real-time data and automation enable many desirable features that other non-platformic solutions can hardly match. Examples in my study on ride-hailing include in-app fusion with other navigation software, rating systems that compel drivers to behave, and the safety feature which allows the commuter to send the vehicle's real-time location to family and friends to reassure them.

Just like the reduction of transaction costs in platforms, the idea that digital platforms can offer better output quality is not new (Brown & LaValle, 2020). However, what is novel is the discovery that these advantageous platform characteristics can create platform reliance, which triggers shifts in issue salience and may lead to the stasis effect.

Study 2 also indicates that adverse conditions play a role in the stasis effect. Sectoral underdevelopment, which I discussed earlier, is relevant here again. My interviewees consistently share that ride-hailing platforms offer much better outcomes compared to public transport, which suffers from so many problems such as frequent breakdowns and scarce transport capacity. In other words, the superior output quality of platform solutions becomes magnified when the pre-existing system is so underdeveloped to begin with.

The other adverse condition is the lack of trust in the outcomes of government efforts. When this kind of distrust exists, consumers expect no improvement in the public system for which the platform is a substitute. Consequently, they simply envision future reliance on the platform and care less about the public system. To be clear, I am *not* referring to distrust in government, instead, the lack of trust is directed at outcomes of government action. This distinction is important. The Manila sample generally did not trust that the government will earnestly attempt to even do the right things, and naturally, they have no trust that outcomes will improve. However, many interviewees in the Jakarta sample trust that their government will do the right things. However, they deem the problem is too big such that positive outcomes cannot be expected. While the two samples differ in their trust level in government, they share the same distrust in outcomes of government action.

These two adverse conditions—sectoral underdevelopment in a domain where the platform is a substitute (or an alternative), and lack of trust in government outcomes—create strong incentives for consumers to potentially shift issue salience, and trigger the stasis effect.

At first glance, the stasis effect may appear reminiscent of well-known problems arising from the privatisation of public services. The most common problem with privatisation is that it follows the market logic of providing supply where demand is profitable, which can reduce access for lower-income groups or underprivileged sub-populations (Bayliss, 2002; Birdsall & Nellis, 2003; Mulreany et al., 2006). However, the stasis effect pertains to a different issue. The problem is not that digital platforms are private, profit-oriented firms that will not necessarily serve the lower-income majority. Rather, the problem is that the reliance on this private solution can reduce the social clamour for reforms in public services which, by definition, should have some aspiration to serve a broad section of society (Clarke et al., 2000, p. 252; Stewart & Walsh, 1992, p. 499).

I posit that the stasis effect concept can be transferrable to other contexts and platforms. For example, healthcare in the United States can be conceived as suffering from sectoral underdevelopment. The US public healthcare system does not cover all citizens and requires many to take expensive private insurance, leaving many underinsured and an illness away from financial crisis (Claxton et al., 2015; Collins et al., 2019; Department for Professional Employees, 2016; Schoen et al., 2011). Amid the continuing underdevelopment of healthcare in the US, Americans turn to medical crowdfunding platforms (Berliner & Kenworthy, 2017; S. Lee & Lehdonvirta, 2020). Following the stasis effect, the increasing popularity of medical crowdfunding in the US may be diminishing the social pressure to fix dysfunctions in the healthcare system of the world's biggest economy.

6.1.3 Algorithmic Control and User Agency

The literature on user strategies that offset algorithmic control and platform rules has focused on workers and social media prosumers (e.g., Jarrahi et al., 2019; DeVito et al., 2018; Lehdonvirta, 2018; Wood et al., 2018). There is much less attention given to consumer strategies, which is astonishing given that consumers play a major role in platform economies. To address this important gap, Study 3 shows how consumers attempt to offset algorithmic control and platform rules to assert their interests through creative, experiment-driven strategies. I detailed 18 specific consumer strategies under the following five main types: optimisation, mitigation, boundary hunting, straddling, and heuristic formation. The typology I developed presents the most exhaustive analysis of consumers' agency in the literature.

Two characteristics of platforms that I have described earlier—transaction cost reduction and superior output quality—are again relevant to consumer agency.

The in-depth interviews reveal that these advantages motivate them to discover new ways of integrating such a beneficial technology into their routines. These strategic repertoires eventually stabilise into heuristic strategies. When this happens, it means that they have reorganised aspects of daily life around platforms and have developed a degree of platform reliance, which is beneficial to the platform's long-term interests. Thus, transaction cost reduction and superior output quality create conditions toward a paradoxical effect: consumer strategies aim to soften the rules and algorithms representing the platform's interests, and yet these same wilful strategies end up strengthening the platform's quest for long-term reliance.

In Study 3, I also demonstrate how adverse conditions shape consumer agency to create unfortunate implications. The first of these adverse conditions are demand-side resource constraints, which prevent consumers from procuring platform solutions as much as they want. The second adverse condition is sectoral underdevelopment, which heightens the superiority of platform solutions, makes pre-existing solutions unbearable to the consumers, and makes platforms very important to them.

When consumers face resource constraints but are unwilling to suffer from sectoral underdevelopment, they employ strategies that sacrifice their other interests just so they can use the platform. For example, ride-hailing consumers with limited budgets idled in malls or buildings just to wait out surge pricing, or endured hunger just to pay the regular ride app fare. Just to avoid the extreme difficulties in the public transport system, platform consumers without sufficiently high incomes gave up the possibility of saving money. The inability to save is detrimental to their long-term financial wellbeing especially since their societies have weak social safety nets. When platforms are necessary due to sectoral underdevelopment and consumers have limited budgets, the latter have incentives to also undertake predatory practices on platform workers. For example, consumers' boundary-hunting strategies often leave workers suffering from income loss, longer service times, and manipulation by consumers desperate to squeeze the most bang from their buck.

However, the impact of consumer strategies is not nearly as negative to the platform's interests. Motivated by the many advantages offered by platforms, consumers hone their strategies until they form heuristics that entrench platform reliance into their daily lives, thus serving the platform's critical goal of creating a dependent user base. In sum, when faced with the scarce resources and the critical need for platforms due to sectoral underdevelopment, consumers' attempts to resist platform rules can end up with them sacrificing some aspects of their own welfare and that of platform workers, while ironically supporting the platform's long-term interests.

I have already discussed earlier that sectoral underdevelopment exists in many other sectors and places. As for demand-side resource constraints, these can be due to people's limited purchasing power, or some adverse condition. This can also manifest beyond platform consumers in poor countries. In the European Union, 16.8% of the population were at risk of poverty[37] in 2019, and therefore have limited purchasing power (Eurostat, n.d.). Therefore, the paradoxical effect of consumer

[37] The at-risk-of-poverty rate is the share of people with an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers such as pensions and state assistance.

strategies I detailed in Study 3 can be a useful lens for understanding digital platforms in other contexts too, albeit with the necessary adjustments.

Take for example, food delivery platforms in Europe. Consumers are experiencing budget constraints, given the retrenchments and uncertain environment caused by the COVID-19 pandemic. This can be considered a symptom of demand-side resource constraint. Many shops and restaurants have not pivoted into offering delivery services, and there are few government-led efforts to deliver food to the sick and elderly who are staying in place, which has been done in other places (Zhong & Mozur, 2020). These can be framed as sectoral deficiencies (if “sectoral underdevelopment” is too harsh) which drive consumers to rely on delivery platforms. People resort to food delivery platforms as a convenient way of obtaining food when they are sick, or struggling to juggle household chores alongside childcare, carer duties and the stress of work-from-home arrangements; or they simply wish to break the monotony of lockdowns. However, due to the presence of demand-side resource constraints, consumer strategies may be harming the interests of consumers themselves. They might be resorting to personal compensation strategies just to afford food delivery, such as sacrificing other essentials, or depleting their cash buffers at a time when the pandemic warrants financial prudence.

Following Study 3, consumers facing these adverse conditions may be motivated to prey on workers. Interestingly, European platform workers indeed complained in 2020 that consumers on delivery platforms had begun attempting new, unscrupulous money-saving tactics that harmed the interests of delivery personnel (UnknownDub, 2020).[38] They observed that customers had been placing the customer pin in the same location as the restaurant pin. The short distance translates to minimal delivery fees for the customer, but the set-up forces the platform worker to deliver to the customer's real address far too cheaply. This is similar to the boundary-hunting tactic in Study 3 whereby ride-hailing consumers place the destination pin kilometres away from the real destination to cut costs. Consumers may be resorting to this wily money-saving tactic due to the pandemic-related economic downturn in Europe. Even though these consumer strategies inflict some losses on the workers and platform company, these strategies enable these consumers to integrate delivery services more deeply into their daily life, thus the platform wins from people's prolonged reliance. Thus, as in Study 3, the scenario illustrates a situation where consumer strategies harm the consumers and workers, whilst doing little harm to the platform's interest—possibly even bolstering it by establishing reliance beyond the short-term.

The example of delivery platforms in Europe shows some limitations of my analysis in Study 3. The particular consumer strategy involved was so outrageous that Deliveroo workers complained on Reddit that the people behind them were "scammers" and not consumers (UnknownDub, 2020). If true, then such "consumers" are not experimenting on how to better use the platform. Rather, they are just pursuing one-off or short-term scams, intending to disappear from the platform once their modus operandi has been rendered ineffective by the platform's management. Such "consumers" do not develop the strategies that entrench the

[38] I describe them as Europeans because the forum post mentions costs in Euros. It is not possible to specify which EU country is being referred to.

kind of platform reliance that underpins my argument. Thus, the argument in Study 3 weakens to the extent that this fly-by-night behaviour characterises the majority of consumers.

Despite this caveat, the insights from Study 3 encourage thoughtful consideration of yet under-studied ways consumers exercise agency, and the distributional impact of these strategies on consumers themselves, workers and the platform.

The table below presents a summary of the project's main arguments and contributions.

Table 8. Novel Implications of Platform Characteristics and Adverse Conditions

Area of Socio-Political Impact	**Platform Characteristics**	**Novel Effects of these Characteristics**	**Relevant Adverse Condition**	**Role of Adversity**
Platform Strategy	-Asset provision offloading -Multi-sided market intermediation -Data command	These afford special strategic advantages to platform firms. These advantages bolster theorising, advocacy, fait accompli, grey zones and co-optation, beyond what non-platform firms can typically perform.	- Sectoral Underdevelopment - Supply-side economic vulnerability	These amplify the strategic advantages of digital platforms.
Politics of Platforms	-Transaction cost reduction -Superior output quality	These incentivise platform reliance, which increases risk of the stasis effect.	- Sectoral Underdevelopment in sectors where platform services are substitutes/ alternatives - Lack of trust in government outcomes	These create contextual conditions which may trigger the stasis effect.

Consumer Agency	-Transaction cost reduction -Superior output quality	Users are motivated to develop a whole typology of strategies to assert their interests, but they eventually form heuristic strategies, which entrench platform reliance and thus serve the platform's interests.	- Demand-side resource constraint - Sectoral Underdevelopment	These lead to sacrificial strategies, and strategies that jeopardise supply-side interests.

6.2 Ubering While Poor: A Synthesis

The three studies describe the tension between the power of platforms and the interests of incumbent organisations, governments and individuals—all unfolding in a world of adverse conditions. The socio-political implications of digital platforms arise from their extraordinary potential to influence their environment and the behaviours of people and organisations. These special characteristics provide them with advantages in terms of rapid growth, strategic options, and influence over society, its government, and people. Platform companies can purposefully use this power, or inadvertently trigger hidden socio-political effects. Governments, competing organisations, and the people in their daily lives chafe against this power. Certain adverse conditions—such as dysfunctional prior systems or sectoral underdevelopment—amplify this power or aid its inadvertent conversion to unexpected socio-political effects.

The studies also demonstrate the immense value that digital platforms bring to society, affirming existing findings in the literature. Digital platforms reduce transaction costs for consumers (Rangaswamy et al., 2020) and offer alternatives to pre-existing dysfunctional systems, allowing people to better deal with the challenges of daily life. They also provide new income opportunities to workers (Agrawal et al., 2013). In addition, I found that digital platforms can nudge their workers to comply with government policies. For instance, Gojek nudged its drivers to enrol in state registration systems and open bank accounts, thus helping the government achieve its goals on financial inclusion, among others. Digital platforms can also package proprietary data and technological prowess to help governments eager to solve intractable social issues. For instance, ride-hailing platform companies partnered with Southeast Asian municipal governments to launch potentially beneficial smart city projects.

However, the greater value of my work lies in uncovering insidious dangers behind the undeniable advantages we get by “Ubering while poor,” which I use as a metaphor for relying on digital platforms amid conditions of underdevelopment. My thesis warns that Ubering while poor can potentially keep us poor, or even poorer. That is, society’s reliance on digital platforms in contexts of underdevelopment can potentially perpetuate or even worsen some aspects of underdevelopment. This possibility can happen in four ways. First, Ubering in societies with poor pre-existing systems and scarce economic opportunities means that platform companies can marshal consumers and workers to legitimise practices that serve the platform’s interests but possibly undermine public interests. Second, from the perspective of policy reform, Ubering while harbouring poor trust in government-led outcomes could mean dampening social clamour for much-needed policy reforms, if issue salience of reforms weakens. Third, for individual consumers, Ubering while poor means employing consumer strategies to blunt the platform's control, only to end up sacrificing their own welfare, exploiting workers, and yet ironically supporting the platform's interests.

Fourth and finally, the three papers collectively elucidate how digital platforms and adverse conditions generate a particular socio-political feedback loop whereby Ubering while poor can mean staying poor. Study 1 discusses how digital platforms employ institutional strategies to achieve legitimacy. Adverse conditions such as sectoral underdevelopment not only provide digital platform firms with a commercial opportunity to exploit, but also enables platform firms to portray themselves as solutions to grand societal problems. Hence, underdevelopment strengthens a platform firm's claims of legitimacy amid contestation from incumbents and government organisations.

However, this inter-organisational conflict is not the only node in the feedback loop. Study 3 shows that the daily lives of people are another front with great socio-political implications. Consumers learn through experimentation that digital platforms provide transaction cost reduction and superior output quality, compelling them to develop strategies that enmesh their daily lives with these advantageous platforms. People have even more reason to integrate platform solutions into their daily lives when certain adverse conditions such as sectoral underdevelopment make pre-existing solutions so unbearable. Consequently, users become reliant on the platform in varying degrees. This platform reliance creates social support for platform-based technological solutions. In turn, this social support can be purposefully harnessed by the digital platform's institutional strategies to bolster its legitimacy. With its legitimacy bolstered, the digital platform can continue operating well into the future.

Abetting the platform's legitimacy is not the only consequence of the social support enjoyed by superior platform solutions. Social support for platforms can mean people care less about pre-existing public systems. As shown by interviews in Study 2, this can potentially create an environment ripe for the stasis effect. Since the stasis effect diverts political and material resources away from reforms targeting these conditions of underdevelopment, the prospects of solving these very same conditions diminish. With this, the loop which starts with underdevelopment comes full circle by perpetuating underdevelopment.

Underdevelopment triggers feedback loops which create incentives for digital platforms and users to act in particular ways—and potentially end up perpetuating underdevelopment as an unfortunate consequence. Persistent underdevelopment will in turn sustain the need for platform solutions, triggering the feedback loop anew. I depict this feedback loop in the figure below.

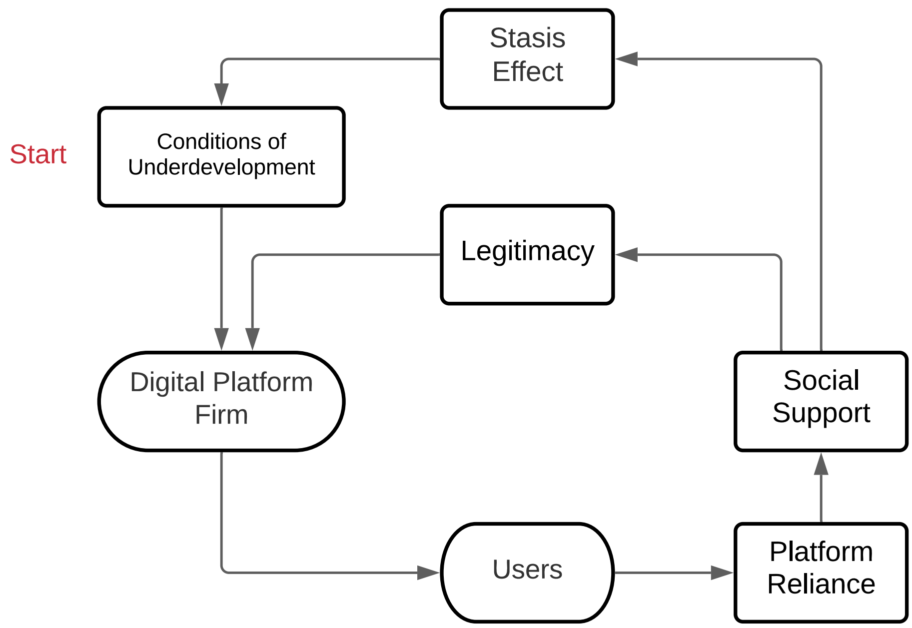

Figure 10. The Socio-Political Feedback Loop of Digital Platforms

6.3 Future Research

In this sub-section, I outline some interesting issues that my studies did not address, and discuss some puzzles that arise from my findings.

6.3.1 Platform Strategy

Study 1 discovers that certain features of digital platform firms grant them special strategic advantages in institutional contests against other organisations. However, the reverse is also worth asking. Are there platform characteristics that hinder platforms from effectively deploying market and non-market strategies? Future research can also explore how waning supply-side subsidies—resulting from the platform's reduced need for supply-side growth—may trigger a supply-side backlash that coincides with contestation from governments and incumbent competitors.

One limitation of Study 1 is that it focused on the platforms' actions, and paid little attention to the counter-strategies of incumbent competitors and government authorities. It would be interesting to investigate how non-platform organisations cope or offset the institutional strategies of digital platforms, and how recursive counter-strategies dynamically unfold among these organisations.

In the future, there also needs to be more discussion on how to ensure that the platform's right to pursue legitimacy does not harm the public good. Since platforms can deploy legitimation strategies in exceptional ways, future research on balancing platform power and the public good is crucial for a future where big platforms expand in new markets around the world. It is also interesting to research government strategies that counter asset provision offloading since it grants a big strategic advantage to platforms. Is there value in having governments discourage the acquisition of *new* assets that are meant for use in platforms?

6.3.2 Politics of Platforms

Due to the stasis effect I uncovered here, researchers and practitioners need to examine whether digital platforms in their fields are inhibiting difficult, long-term yet socially beneficial reforms. In this chapter, I have so far mentioned how crowdfunding could be hindering reforms in healthcare. Other sectors are ripe for similar analysis.

The stasis effect could also be extended to algorithmic systems that are not necessarily "platformic." Governments around the world are increasingly integrating AI into governance and public services (Boyd & Wilson, 2017; Mehr, 2017; Valle-Cruz & Sandoval-Almazan, 2018). I contend that the successful deployment of AI in government services may dampen social clamour for difficult, long-term reforms that comprehensively address the public problem involved. Similarly, reliance on AI solutions may dampen the need for non-technological policy options that treat the root cause of public problems. For example, AI is seen to be beneficial, if not critical, to future efforts at fighting crime (Hayward & Maas, 2020; Ku & Leroy, 2014; Rigano, 2019). Future crime-fighting AI solutions may effectively lessen crime through deterrence and near-perfect apprehension of criminals. However, such impressive AI solutions may obscure from the view of policy-makers the social, cultural or political root causes that push people to commit crimes in the first place; or weaken the social demand for reforms in these critical, non-technological root causes of crime.

One limitation of Study 2 is that it outlines the factors (platform characteristics and adverse conditions) behind the stasis effect that appear consequential based on the statements of interviewees. However, the qualitative method I employed is unable to determine a hierarchy of importance among these factors, or establish whether a few of these factors are already sufficient to create incentives that induce stasis. This can be addressed in future studies.

6.3.3 User Agency

Study 3 provided, what is to my knowledge, the most extensive elucidation of strategies used by individual consumers on digital platforms. Since the typology sensitises future research to a wider variety of strategic consumer actions, researchers are better placed to assess how consumer actions impact the consumers themselves, the platform's interests, the supply side and other peripheral actors in platform ecosystems. Moreover, the strategies of the supply and demand sides are often studied separately. It would also be interesting to use the typology I developed to structure studies that simultaneously look at how supply-side actors react to consumer strategies (both benign and exploitative), and describe the counter-manoeuvres that ensue.

Another area of future research could look at the nature of sociality in consumer strategies. My findings suggest that consumers' strategies that rely on social interactions appear different from those of workers and prosumers. In contrast to expansive worker and prosumer communities, the logic of consumers' *client-patron* and *cliquish* relations is to keep member sizes optimal and exclusively involve people with highly specific attributes who can be quickly tapped at the moment of need. As an analogue to current research on worker mobilisation, future research can look at how consumer mobilisation could form given the nature of consumer sociality I discovered in my research.

6.3.4 Regulation

Study 1 confirms previous claims that the supply side acquires new assets to offer on digital platforms (Gupta et al., 2018; Stemler, 2017). In some cases, this increases externalities, such as more cars aimlessly driving around while waiting for a booking, or idling in areas while waiting for a booking or a passenger. Future research can look into whether platforms should carry the burden of these externalities.

There should also be more research on how to regulate platforms given that they can deploy grey zone tactics that exploit asset provision offloading, making asset figures on their balance sheet meaningless in measuring their market effects. It is well-known that digital platforms can evade M&A thresholds that are based on the firm's asset valuations (Argentesi et al., 2021; Motta & Peitz, 2021). Pointing out the link between asset acquisition offloading and this M&A-related grey zone is therefore a modest contribution. But perhaps, what is of greater interest is that the focus on asset provision offloading may inform antitrust principles, in ways that differ from ideas that are currently percolating.

Current thinking on how to remedy porous M&A notification thresholds is to consider the price of valuable non-physical data and intellectual property transferred between the tech companies (Bernabe, 2020; Bundeswettbewerbsbehörde, 2018). The presumption is that the value of data that is transferred between the merging entities can be computed using the purchase price as a proxy. Hence, the idea being put forward is to create new thresholds based on the purchase price (Bernabe, 2020). The purchase price is often reflected in the value of equity that the exiting firm gains from the M&A; like the 27.5% equity in Grab (the acquiring firm) that Uber (the exiting firm) gained from that deal. This percentage is worth US$1.65 billion—a huge amount that would have easily triggered alarms and safeguarded market competition. And so it would seem like it is a good idea to create thresholds based on equity given to the exiting party. However, a threshold based on equity given to the exiting party can be circumvented by simply announcing a low value during the M&A to circumvent the notification requirement; and just bestow more equity to the exiting firm *after* the M&A is cleared. Alternatively, the exiting firm can also take control of the other party's equity without alerting regulators through well-known ownership obfuscation techniques such as the creation of shell companies (de Willebois et al., 2011; Habershon & Krause, 2020; Sheehan, 2011).

Given the possible ways of defeating a threshold based on the purchase price, I posit another basis for future antitrust thresholds for digital platforms: The assets of the diffuse supply side can be estimated and combined with the platform firm's assets, and the aggregate amount compared against asset-based thresholds. This threshold does not have the vulnerabilities of the purchase price threshold. Naturally, I foresee some problems given that estimating the total value of assets available on the platform will require information about the supply side, such as the number of suppliers, rate of utilisation on the platform, and depreciation of their assets. Still, a threshold that considers the implications of asset provision offloading is worth considering in future studies and debates.

I acknowledge that these may be more relevant to antitrust and competition, which is more in the remit of competition economics and legal studies. Nonetheless, these are worth mentioning here.

6.4 Recommendations

In the previous sub-section, I discuss how the findings could advance theory and future regulation through future research. But at the same time, my thesis also provides insights with immediate practical use for digital platform firms, government policymakers, and civil society more generally.

6.4.1 Digital Platform Firms

The following are recommendations that benefit a profit-maximising company and at the same time, either support the interests of consumers and workers, or at least do not harm them.

#1. Give users some room to play with rules, as it encourages platform reliance.

Consumers play loosely with platform rules, such as exploiting algorithmic loopholes and perk piggybacking. It may seem like such user attempts to weaken platform control and maximise benefits need to be stamped down by platform companies. However, my data suggests that these user strategies allow them to integrate the platform into the fabric of daily life and circumvent financial and situational issues that hinder platform use.[39] Later on, they form heuristics that lock in these strategies for long-term use. Hence, the losses the platform takes from such “user creativity” can be possibly offset by gains from long-term platform reliance. This presents a potential win-win arrangement for both platform and consumer. This is even more advantageous to the platform during phases where it needs to grow the demand side more than anything else.

#2. Protect the supply side from exploitation resulting from consumer strategies.

Unfortunately, exploitative consumer strategies such as boundary hunting can put the supply side at a disadvantage. So while recommendation #1 above advocates giving some freedom to users to appropriate platform rules because it serves the platform’s interests, a line must be drawn when user agency infringes on worker interests; and protecting workers against excessive user agency is to the platform company’s interest too. When several digital platforms compete, the supply side could multi-home where possible or when work conditions in their current platform are disagreeable. In such cases, the supply side are more likely to work for the platform that best protects them from exploitative consumer behaviour. Hence, it pays for platform firms to protect workers.

[39] Vocal cues, facial expressions and body language of respondents during the interviews suggest that there is a “feel good” factor that increases enjoyment of the technology when they feel that they have outsmarted the platform. Admittedly, these non-verbal information are not captured in the transcripts, and are only based on my subjective interpretation, which is why I did not consider these as data in my empirical chapters. But I feel that this is worth mentioning here, to emphasise how having the space to experiment (and outsmart the big tech company) makes consumers look at the platform positively.

One way to do this is to let the supply-side effortlessly report consumers who resort to particularly damaging behaviours. The platform can typify these behaviours and create pre-programmed buttons that the supply side can choose from after completing a transaction. The supply side can also be given a free-form field where they can report other behaviours, and from which the platform can infer new types of damaging user behaviours. If the number of times a consumer has been reported for these behaviours exceeds a threshold, then the platform can warn the consumers, and then penalise later on if offences continue. Of course, this issue gains more importance during phases where keeping a loyal supply-side is crucial, and less so when attracting the demand-side is paramount.

The softer method is to educate consumers about platform etiquette and elevate this into a social norm. Platforms can fuse institution-building techniques, media campaigns, and in-app intercept technologies to bombard consumers with materials that popularise and valorise the “ideal consumer.” If this succeeds, the supply side might be spared of exploitative consumer strategies more often than otherwise.

#3. Nudge or require platform workers to sign up for government initiatives.

Sometimes, governments have a hard time enrolling supply-side workers or organisations into national schemes related to areas such as tax, public health insurance, administrative recording, public pension systems, and bank access, among others. When platforms need to form positive relations with governments in pursuit of firm interests, it pays to consider nudging or requiring their workers to sign up for these government initiatives. This way the platform bolsters its legitimacy and social capital, while also serving the government's policy goals. A possible downside to this is that some of these government initiatives may be unpopular and create resentment among the supply side toward the platform.

#4. Package data and algorithms as governance solutions.

There are many possible instances where platforms possess data that can *truly* help some area of public policy. A platform company can position itself more favourably in its institutional environment if it can package data as a compelling aid to governance.

6.4.2 Government and Civil Society

#1. Beware of the stasis effect.

Governments must be aware that when a platform substitutes for a pre-existing public system, the platform's popularity among platform users may reduce the social pressure to improve these public systems. It may be the case that many who cannot frequently afford platform solutions still rely on these old public systems. The stasis effect then becomes a threat to the public good because it dilutes the urgency of long-term, difficult reforms. Policy-makers should therefore consider whether a policy space is under threat of the stasis effect and accordingly calibrate how much weight to assign to social pressure or the lack of it. Citizens also need to be aware whether or not the convenience they derive from platforms makes them care less for public systems that they no longer use, but still serves many others.

#2. Harness other drivers of reform to offset the stasis effect.

Fortunately, public pressure is not the only impetus for reform in government. Civil service officials and elected leaders still possess agency and can pursue policy reforms that are demonstrably beneficial to national goals and people's lives even if there is no overt social demand advocating for those reforms.[40] This means that government officials who detect stasis in an important policy space can address the problem, without waiting for public opinion to create signals that are commensurate to the problem's urgency. Civil society can also harness unfavourable comparisons with other jurisdictions and the mimetic force of international standards to force governments to undertake needed reforms. Purpose-driven journalism can also re-sensitise public opinion on the plight of people who rely on public solutions and do not have access to platform offerings.

#3. Educate people about using platforms in socially beneficial ways.

Purposeful exploitation of over-exhausted workers on Upwork by malicious clients is probably beyond the reach of this recommendation. But infractions by consumers need not be big, deliberate nor particularly malicious to create outsized problems for the supply side. For example, a passenger's request for an Uber driver to wait more than five minutes can mean having to waste gas and experience stress while worrying about being caught by security guards and traffic enforcers that apprehend idling cars. For these instances, civil society can use traditional and social media to propagate social norms around platform etiquette and considerate attitudes toward people on both sides of the platform.

[40] Although, naturally, officials aiming to exercise this kind of agency should consider whether there are social groups who oppose the planned reforms.

Such media campaigns can also be used to remind society about the areas of public reform that may be obscured by the popularity of platform substitutes. This is a way of using education to counter the stasis effect.

#4. Approach data partnerships with platform firms strategically.

Platforms can package their data and algorithms as solutions to governance. For example, we have seen in Study 1 the use of “smart city” collaborations by some platform companies. Government experts should pursue the collaboration if deemed beneficial, but with some precautions. It is simply prudent to suspect that this is a non-market strategy by the platform to gain institutional influence. The government’s aim should be to extract benefits without conceding unwarranted leverage to the platform. First, the government should ensure that no critical government system or public services become reliant on data or technologies (Ramizo, 2021), which the platform can withhold or falsify. The platform should not be so indispensable that its disappearance becomes inconceivable. Second, the government can consider building an institutional wall between those involved in the data/technology partnership and those involved in the policy-making and oversight of digital platforms, to ensure impartiality. It is prudent to operate on the notion that it does not require wilful behaviour on the part of the platform company for any damage to be done.

#5. Leverage a relatively stronger bargaining position during critical moments.

Study 1 showed that platforms can sometimes face critical moments, such as sustained opposition from several directions. The market entry phase is one such critical moment. Platform companies have not yet garnered formidable legions of supporters, nor acquired formal institutional legitimacy. That is also the time when they are vulnerable to opposition by incumbent competitors. Hence, it is the point where they may be more willing to make concessions in exchange for some recognition.

Study 1 shows that platform companies can close the legitimacy gap faster than we would expect non-platform firms to accomplish. However, it still stands that during such moments of relative bargaining strength, governments have a better chance of extracting concessions. During critical moments, governments should tie platforms into legally binding agreements which commit them to provide information that makes platforms more governable. The nature of such information depends highly on the sector of the platform. Nonetheless, it is advisable to include information that can help aid taxation; measure the size of supply and demand sides; determine possible externalities, fairness of price, and abuse of dominant position; and facilitate complaints or legal challenges by consumers and workers.

#6. If regulations are broad, it is useful to have agile amendment mechanisms for small, targeted changes.

The digital economy brings sizeable economic benefits and some governments, such as that of Indonesia, prefer loose regulations to spur economic growth (Lukman, 2016; Maulia et al., 2016; Paine, 2019; Purwanto, 2017). However, my thesis shows that platforms can employ grey zone tactics and can sometimes create unexpected effects and externalities. Hence, loose regulation must be paired with adequate safeguards and clear amendment mechanisms. Governments will do well to establish a clear and efficient way of inserting small, targeted amendments to address emergent social problems that loose regulations are unlikely to pre-empt. Otherwise, if minor changes require wholesale review of regulation because no prior mechanism was established to accommodate agile recalibrations, then social problems will fester before they are addressed.

#7. Address conditions of underdevelopment.

This seems like a self-evident point to make, but I believe this remains extremely important. Conditions of underdevelopment, which I also call adverse conditions in this thesis, manifest in many forms and can exist anywhere. These adverse conditions amplify the ability of platforms to shut down the opposition, which is part of a healthy society where plural voices are heard. Underdevelopment also increases the risks of inadvertent negative socio-political effects such as the stasis effect, and motivates consumer strategies that harm consumer and worker interests. Underdevelopment also sets conditions for the negative socio-political feedback loop, which perpetuates underdevelopment. Hence, governments and civil society should undertake the social, economic, and political changes needed to banish adverse conditions. Doing so makes platforms more governable and accountable to the public good, and also limits the negative socio-political implications of platforms.

6.5 A Dispatch to a World Facing Adversity

When I began studying digital platforms in adverse contexts five years ago, I never imagined I would be completing this manuscript during a pandemic. Nearly all countries, both meek and mighty, are experiencing the adverse conditions we typically associate with “developing countries”: unemployment, business closures, scarce hospital beds, depleted savings, economic contraction, policy incoherence, a sense of despair. All these describe much of the world during my final months at Oxford. Suddenly, my work on digital platforms in adverse contexts takes on a new meaning and urgency—a fitting dispatch carrying both hope and caution to a world in turmoil.

Digital platforms undeniably offer a semblance of resilience to societies shaken by adversity. The pandemic made this very clear. Unemployed aircraft pilots become bikers on delivery platforms (Olarn, 2020). From New York to Beijing, high-risk groups like the elderly get food through Uber Eats and Meituan (Ho, 2021; Vega, 2020). Bankrupt restauranteurs and shopkeepers resort to vlogging on YouTube, in hopes of earning ad revenues. Laid-off workers try their luck working for digital labour platforms, or selling whatever items they can on e-commerce platforms (Davidson, 2020). With public transport paralysed, health workers commute between hospitals through ride-hailing apps (Beedham, 2020). Hybrid platforms companies like Google, Alipay and WeChat leverage data and algorithm expertise to provide technological solutions to governments in the fight against the pandemic.

Adverse conditions put in stark contrast the advantages of digital platforms over non-platform alternatives, catalysing platform adoption and influencing how the special characteristics of platforms create socio-political implications. Their special characteristics allow them to eliminate transaction costs, provide superior output quality, facilitate transactions without the need for physical interaction, instantly provide access to large markets, spread economic opportunities, and lend resilience. However, they can also create tragic socio-political consequences. The literature has shown them to bring social chaos (Eltantawy & Wiest, 2011; Fink, 2018), disinformation (Bradshaw & Howard, 2018), global inequality (Soriano & Cabañes, 2019), and exploitation of digital labour (Doorn, 2017), among others.

My study has brought attention to other perils, which are now especially relevant as governments and influential institutions speak of a post-pandemic society ever more reliant on digital platforms, remote work, online labour, e-commerce, the digital economy, and algorithmic technologies (International Data Corporation, 2020; Saliola & Islam, 2020; UK Government, 2020; World Bank, 2020). We must ensure that partnerships between digital platform companies and governments in adverse contexts bring genuine value, rather than become the platform company's means to gain undue institutional influence. The use of these wondrous digital technologies should not lead to stasis effects, or obscure root causes of social problems that technologies can hardly fix. These algorithmic technologies should be designed while recognising that adverse conditions and platform features can lead consumers to harm their own interests, and those of workers. Otherwise, we might be creating a self-perpetuating loop of underdevelopment.

As platform companies enmesh themselves further within new markets, societies, and our daily lives, it is ever more important to understand their mechanisms, uncover new potentials, surface insidious effects, and ideate solutions. The literature has done this but has not closely focused on the general knowledge we can gather from platforms in adverse conditions.

This thesis has contributed to that effort by studying the interplay among the special features of platforms, adverse conditions, and society's acts of resistance. By doing so, I accomplish four things. First, I uncover previously under-appreciated ways in which platform characteristics accord powerful advantages to platforms, leading to potentially negative social effects. Second, I show how adverse conditions can shape the socio-political impacts of digital platforms. Despite being rooted in Manila and Jakarta, these insights have plausible applicability in other contexts experiencing adversity, making the thesis timely and relevant beyond the specific space and time of my empirical study. Third, I synthesise all of these into a socio-political feedback loop which describes how our use of digital platforms can perpetuate underdevelopment. Lastly, I provide specific directions for future research, practical recommendations, and thoughtful constructs that guide thinking on platforms.

These insights contribute toward a future where digital platforms provide the most benefit and least harm, in a world where adversity is the reality for most.

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Appendix A: Inter-Coder Agreement Scores

Intercoder agreement (ICA) entails two or more coders reconciling through discussion any coding discrepancies they may have for the same unit of text (Garrison et al., 2006). ICA minimises the biases of the main researcher and also ensures the conceptual integrity of the codes.

Computing ICA is an iterative process that continues until accepted ICA thresholds are reached. Hence, it is unknown at the onset how many cases will be involved. And so, there should be an unbiased way of determining which respondents will be included in the successive rounds of review. I undertook two steps to do this. First, I arranged the interviewee's anonymous identifiers in alphabetical order, to eliminate any ordering that is based on gender, age and other variables. Second, I established a rule for determining which respondents (or cases) will be included next; and that is through systematic sampling whereby I selected every 10th interviewee from the alphabetised order of anonymised identifiers.

I proceeded to unitise blocks of text that would be used for inter-coder review, in line with Campbell et al. (2013). I trained two coders regarding the initial set of codes through online "study sessions" and hands-on attempts to code a sample of passages. They also were given detailed code definitions to review. Following the accepted standard of subjecting at least 10% of data units to ICA (O'Connor & Joffe, 2020), I designed the first round of inter-coder exercises to have 10% of data units. The coders and I met after each round, and generated an agreement. The codes were refined after each meeting and new data points were sent out for another inter-coder review. We performed this process until we reached at least a Krippendorf alpha of 0.80.

The Krippendorf alpha is widely accepted as the most robust and versatile statistic for computing ICA (O'Connor & Joffe, 2020). I arrived at the ICA scores using an SPSS script for computing Krippendorf alpha. Note that many codes achieved perfect inter-coder agreement (Krippendorf alpha of 1.0) because the questions in those categories were straightforward and interviewees gave very explicit answers, or they were probed during the interview when their answers were initially unclear. Hence, there was often not much space for disagreement among coders in the second round and later rounds, except for codes that are relatively more abstract and conceptual.

Code	Description	Krippendorf alpha
Post Prob	Interviewees were asked to list their main problems in transportation. Answers are classified according to whether the problem pertains to conventional transport only, to ride apps only, or to both.	1.0
Change in Difficulty	Interviewees were asked to discuss the difficulty in commuting before and after ride apps came. Reasons behind the change in the difficulty of urban travel are categorised.	0.8623
Temporary vs Permanent	Interviewees were asked whether they see ride apps as temporary or permanent. Their statements are categorised to indicate either temporary or permanent.	1.0
Trust in Government	This categorises the kind of trust respondents have in the government when it comes to improving conventional transport systems.	1.0
Views on Technology	Interviewees were asked about how the negative aspects they experience with	1.0

	ride apps affect their trust and perceptions of ride apps. Answers are classified based on categories that surfaced during first-cycle coding.	
Political Action_Pre	The interviewees were asked whether they had some kind of political activity during the period when there were no ride apps yet. Their answers are categorised based on whether they were engaged in any political action, and whether it involved ride-hailing, public transport, or non-transport issues.	1.0
Political Action_Post	The interviewees were asked whether they had some kind of political activity during the period after they began using ride apps. Their answers are categorised based on whether they were engaged in any political action, and whether it involved ride-hailing, public transport, or non-transport issues.	1.0
Reasons	This categorises explanations of interviewees when asked why they use ride-hailing platforms.	0.8688
Strategy	The interviewees were asked how they use digital platforms. Strategy refers to actions that consumers undertake to maximise the value of ride app, minimise the risk, and help them use ride apps despite constraints they face in daily life. Interviewee statements are classified according to the 5 categories determined during first-cycle coding.	0.8527

APPENDIX B: QUESTION GUIDE FOR CONSUMERS

1. **Commuting habits before ride apps came**
    a. When did you begin using ride apps?
    b. Before that time, what was your most common trip? How would you describe this trip?
    c. What made it easy?
    d. What were the problem/s? What made it difficult?
    e. (optional) Any memorable anecdotes about commuting during that time?
2. **Experience with modes of transport**
    a. What's the worst mode of public transport, and did you need to ride it?
    b. Did you use taxis? What was your experience with taxis?
    c. Have you been overcharged by taxis and how did that make you feel?
    d. When you have negative experiences in public transport, do you report complaints?
3. **Specific questions about experiences before ride app use**
    a. During this time, what were your biggest problems about urban transportation?
        i. Probe for examples.
    b. In a scale of 1 to 10, with 10 being the most difficult, how difficult was urban transportation during this time?
    c. Did you share your good and bad commuting experience with other people? How?
    d. Did you join any advocacy back then?

(I.e. social media, protests, online petitions, letter writing, etc.)

e. About which transport issues were you active, if any?
f. Say there are three online petitions: one for building new trains/bus/roads, one for making fares cheaper, one for making sure traffic enforcers are not corrupt. Please rank petition/s that you will support in order of importance.
g. What led you to decide so?

4. **Transitioning to present use of ride apps**
    a. How did you get introduced to ride apps?
    b. When you heard about ride apps, what advantages were advertised?
5. **Commuting habits after the introduction of ride apps**
    a. Which ride apps have you used?
    b. How do you choose among different ride apps and services?
    c. Do you use ride apps for work or leisure, or both?
        i. Probe from usage patterns and purpose.
    d. How do you get around now after you've begun using ride apps?
    e. How frequently do you use it?
    f. Which route do you usually travel?
    g. Tell me about the most recent instance you commuted on this route?
        i. Probe for points when they had to make decisions and how did they make that decision (e.g. app or bus, based the weather / if they were running ahead of time or late, cost considerations, interaction with other people (drivers, other passengers, etc.) on the commute

h. Is that commute we have talked about pretty typical?
    i. If not, what was unusual about it?
i. Do you still use conventional public transport?
j. You mentioned _____ as the worst form of public transport. Do you still need to ride it?
k. Are you able to save time?
l. Any tips on how to maximise the benefits/convenience of ride apps?
m. Any tips on how you minimise cost/inconvenience?
n. What strategies do you have when you use ride apps?
o. Do you offer incentives to ride app drivers to make them accept your booking?
p. What are the advantages of using ride apps?
q. Disadvantages, or problems you encounter?
r. Are there things you could do now that you are using digital platforms?
s. Are there things that you could no longer do now that you are using digital platforms?
t. (optional) Any relevant anecdotes?
u. When you have a problem with ride apps, do you reach out to the ride app companies?
v. (For Manila only) What was your experience when Uber was suspended in August?
w. What would happened if tomorrow, all ride apps disappeared?

6. Comparing Ride Apps and conventional transport

a. Are ride apps cheaper or more expensive compared to public transport?

b. How do you feel about it?

c. How do you feel about surge pricing?

d. Do you know why, and how ride apps charge surge pricing?

e. Do you think taxi overcharging is the same or different to surge pricing? Why?

f. Do you trust ride apps? Why?

    i. Probe what trust means for them.

    ii. If they trust ride apps, reference previous answers on the things they find disadvantageous or disagreeable in ride apps, and ask why they still trust ride apps despite those negative factors.

g. What do you think of this statement, "It's only natural to get what you pay for. If you don't pay for convenient transport, you won't get it. If you pay more, you get more convenient transport."

h. If you can't afford ride apps, how would you feel?

    i. How would you commute throughout the city?

i. Do you know anyone who just can't afford ride apps?

    i. Do you know how they get around?

    ii. Does it limit them in any way, or can they do all the same things you do?

7. Problems in transportation after ride apps came

a. In a scale of 1 to 10, with 10 being the most difficult, how easy or difficult is it to go around the city these days?

    i. What are the reasons behind the increase/decrease in difficulty?

b. Without ride apps, what score would you give?

c. At present, what are the three biggest problems in transport that affect you?

    i. Probe for clear examples.

8. **Role of government**

    a. Who should make sure people have good transport?

    b. What should be the role of government?

    c. Are you aware of any government effort to solve problems in urban transport?

    d. How do you think the government is doing?

    e. What do you think of the way the government has handled the entry of ride apps? (What facts do you know? Give specific example of notable clashes between gov't and ride app companies, then ask for their reaction.)

    f. Who do you side with? Why? (Then dig for nuance, whatever the response is.)

9. **Politics**

    a. What influences your opinions on transport issues?

        i. Probe for specific sources, i.e. News programs, FB feed, social media influencers, hashtags, transport columnists, friends/family

    b. Do you share your thoughts about your commuting experiences to other people? How?

    c. Do you express your political opinion on transport? How?

    d. Have you commented or forwarded posts about transport?

    e. Which topics do you usually engage in?

f. Do you participate in discussions on transport issues?

g. Say there are four online petitions: one for building new trains, one for making fares (train/bus/taxi) cheaper, one for convincing the government to let ride apps operate permanently, one for making sure traffic enforcers are not corrupt.

    i. Which petitions will you support in ranking order?

    ii. Why?

h. More recently, have you joined advocacy?

    i. Probe for things like supporting causes through social media, protests, letter writing, petitions, donation campaigns, etc

10. Opinion on ride apps

a. Do you see ride apps as a permanent or temporary solution to transport problems in your city? Why?

    i. Probe if interviewee answers “temporary”: If you say temporary, do you mean that at some point you will rely less on ride apps, or do you mean ride apps can leave without affecting you?

    ii. Probe if previously answered that it is the role of government to improve transportation: How long do you think it will take the government to improve transport so that you no longer need ride apps as much?

    iii. Do you think the government can accomplish that in that period?

b. Do you think ride apps contribute to traffic?

c. (If yes) Does that stop you from using it?

d. Considering the advantages and disadvantages of ride apps, do ride apps do more good than harm or vice versa?

APPENDIX C: QUESTION GUIDE FOR DRIVERS

1. **Shifting to Ride Apps**
    a. For which company do you drive now?
    b. When did you begin driving for this company?
    c. What was your job before this?
    d. How many hours did you work in that previous job?
    e. What made you shift to this job?
    f. How was your experience dealing with government agencies?
        i. Probe whether they had problems getting licenses, or they encountered unclear rules, etc.
    g. What are the advantages in this job?
    h. What are the difficulties?
    i. How do you try to solve these challenges?
2. **Dealing with passengers**
    a. How would you describe your experience driving for your passengers?
    b. What problems do you encounter with passengers?
    c. How do you deal with these problems?
3. **Work Quality**
    a. How do you feel about your earnings?
    b. Can you describe how it feels like to work as a driver for this company?
        i. Probe whether they feel that the company is treating them fairly or not.
    c. What can you say about the fares?

d. How long is your work hours? And is that fine with you?

4. Driver strategies

e. Do you have strategies to earn more? What are they?

f. Do you have strategies to make your work easier? What are they?

g. Do you have strategies to avoid difficulties in your work?

5. Mobilisation

h. What do you think of (taxi, ojek drivers/ online drivers)?

i. Is there conflict between you and (taxi, ojek drivers/ online drivers)? What did the other group do to you and how did you respond?

j. Did you participate in any effort to oppose (taxi, ojek drivers/ online drivers)?

6. Final Questions

k. Can you share how much you earn in a month?

l. What can be done to make things better?