ECOSYSTEMS OF ENGAGEMENT: DIGITAL PLATFORMS AND WOMEN'S WORK IN SRI LANKA AND INDIA

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CENTRE FOR POLICY RESEARCH

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Ecosystems of Engagement: Digital Platforms and Women's Work in Sri Lanka and India

Final Report
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1. Introduction

Over the last two decades, the world has witnessed a proliferation of digital platforms and the emergence of an ecosystem of digital work. In a world where evolving technology is constantly improving the efficiency of communication and production, the platform economy is reinventing the world of work. Platforms create new work opportunities that offer different nature of working conditions than have been available on the spectrum of informal and formal employment in India/global South. Claims that platforms create more employment are often countered by workers who see platform work as a 'trade-off' that offers the benefits of being employed as independent contractors of large platform companies while being subject to 'chronic precarity and inequality' (Heeks 2017).

A fair bit of research examines the overall opportunities and challenges of work mediated through digital platforms, but there is little disaggregated analysis of how this form of work is gendered; how it affects outcomes for women; and how it does or does not shift power relations for women in the economy, society, and in their own households. This report, supported by the International Development Research Centre, Canada, sets out to help fill this gap by examining digital labour platforms[1] and women's work in India and Sri Lanka. Against the backdrop of significantly lower female labour force participation rates (FLFPRs) relative to men, and the decline in FLPRs since the turn of the century (ILO-ILOStat 2022), policymakers in both countries are looking at digital platforms as a way to promote higher levels of labor force participation among women. A key question is whether digital labour platforms can deliver higher participation rates, but also better employment and empowerment outcomes for women.

The population of working age women in India and Sri Lanka is perhaps more heterogenous today than ever before. Women possess varying levels of education and skills; they come from a range of socio-economic and cultural backgrounds; they have different threshold conditions for labour force participation; and they engage with digital labour platforms in different ways. This heterogenous population of working age women is matched by an equally diverse universe of labour platforms.

The landscape of digital labour platforms not only spans various service sub-sectors ranging from location-based services, such as transportation and personal care, to online services, including e-

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[1] Labour platforms are those that rely on the internet to digitally mediate the provision of a service that is delivered by a worker using her/his own labour. This study also includes e-commerce and social commerce platforms. Though these are not strictly labour platforms, e-commerce and social commerce platforms provide an opportunity for workers to monetize their own labour by making and/or sell goods through an online platform. This study uses gig work and platform work interchangeably.

education services, micro-tasking, and freelancing, but it also traverses different urban and rural, large and small, geographies. Business models of these platforms vary significantly for a range of factors, including the type of services they provide, the economic agents they engage with, revenue structures, and the regulations they are subject to. Mapping this diverse world of labour platforms and their nexus with women's work is a key contribution of this project.

As this study attempts to assess how women engage with the emerging digital work ecosystem, one glaring gap is data availability. An accurate count of how many workers are associated with digital labour platforms is lacking. Most of this platform data is in the private domain and is not available to inform policymaking. The available evidence suggests that globally, platform and gig workers constitute a relatively small share of the labour force, though this number is growing, and there are fewer women than men gig workers (ILO 2021b; ILO 2022). As digitally mediated work through platforms provides greater opportunities to work from home, there is also a risk that women's work and their economic contributions will be invisible in data collection and policymaking. The invisibility of women's economic contributions in offline work has been a major gap, and there is concern that this will be replicated online.

The gendered nature of work on platforms – where women only tend to engage in certain types of work on platforms, is one possible explanation for why there are fewer women than men in platform work. Research also suggests that the intensity of women's work on platforms is lower than that of men (Rodríguez-Modroño et al., 2022). This study examines some of the reasons driving these trends through a combination of existing secondary literature, but more importantly, through in-depth, primary interviews with workers and platforms that allow the researchers to tease out nuances of women's work on digital labour platforms, and how this relates to their employment and empowerment outcomes.

This research finds that while emerging forms of work on labour platforms are creating opportunities for women to generate an income, and may perhaps prompt more women to enter the labour force, it remains unclear whether these opportunities will, in the medium to long-run, lead to better employment or empowerment outcomes. The need to supplement household income was a key reason for entry into gig work. Another big perceived advantage driving women to enter gig work was a preference for flexibility. Most of the respondents interviewed for this study saw platform-mediated gig work as temporary, though prospective pathways to other opportunities remain unclear.

Location-based work is distinctly gendered with women represented largely in gender-normative sectors such as personal care, or education. Online-based work tends to be relatively more gender-neutral, though there are documented cases of different forms of gender-based exploitation that occur online.

Women in location-based gig work cited several challenges ranging from difficulties arising in their commute to the gig, low pricing of their services, and rating systems, to a lack of redressal mechanisms. In contrast, women in home-based service delivery, mostly in micro-tasking and freelancing, noted a preference for this work that was flexible and allowed them to balance domestic responsibilities with income generation. Though further probing also shed light on factors that continue to constrain women's participation in income generation, whether in home-based or location-based work. Factors such as time poverty resulting from a disproportionate burden of domestic work that falls to women, a lack of support to upgrade one's skills and qualifications, and the proportion of time spent searching for opportunities rather than actually performing the work continue to be constraints.

Many of these constraints are deeply rooted in socio-cultural barriers. Some respondents alluded to socio-cultural norms that favour women working from home rather than venturing out. However, this was at odds with claims that some women garnered greater respect in their households because they could supplement household income. New evidence is coming to light to show that while online spaces can provide new ways of working, underlying traditional norms around women and work appear to still be pervasive (Gerber, 2022; Dewan and Sanyal, 2023).

As corporations and brands, platform firms are responding to the growing demands for diversity, equity and inclusion (DEI). However, through interactions with executives working in platform firms, this report finds that except for small-scale and socially oriented firms, platforms do not prioritise women's employment in any particular way. Platforms do not draw explicit links between women's participation and the ways in which they govern women's work through their mechanisms of work allocation, ratings, penalties and grievance redressal. Our research finds that platforms can do much more within the ambit of their business models and operational systems to address pain points of women, in a mutually beneficial way. In India, there is media and policy scrutiny on large labour platforms given the way in which worker collectivizing, and social protection policies are evolving in the country. In a bid to get ahead of this the large platforms have 'foundations' that aim to involve women into the gig workforce through skilling, help with licenses, asset ownership. Since firms already show some inclination to involve women in the workforce, there is scope to think that these policies can be more gender transformative through business-model specific suggestions. Though the incentives to do this might initially be social rather than central to their business, it is possible to aid firms in understanding where women experience their policies and design decisions differently than men in the gig workforce.

Social enterprise platforms in certain cases only want to use female labour in their gig workforce so they already show an inclination to have gender-focused strategy and design. Our research also shows

that financial institutions that offer loans or investors offering private equity do have elements of gender reporting that force firms to report on the share of women employees in their "white collar" workforce, so it is not unimaginable that with the right levers and knowledge sharing, the gender share in the gig workforce starts to become important in investment decisions.

Public policy also plays a potentially large role in urging platforms firms towards a more inclusive approach, to ensure the positive impacts are accessible to women, among other vulnerable groups.. While there is some recognition of gig work, policies regarding labour, social protection and data privacy need to respond to the challenges that women are facing while seeking or performing digitized labour, if platform work is to be a significant avenue to boost workforce participation and economic empowerment for women.

2. *Research questions and methodology*

2.1 Research questions

We sought to answer the following research questions through this study:

(1) What is the nature of engagement between Indian and Sri Lankan women and the platform economy?

(2) What are the enabling and challenging factors women face when interacting with and seeking work through platforms? Is there a gendered aspect to these factors?

(3) To what extent does platform work improve women's participation in the workforce, empower them economically, and change or perpetuate gendered norms of work that exist offline?

Responding to the overall objective of improving the nature of women's engagement with the platform ecosystem, the research was built atop a robust theoretical framework and designed to conduct primary enquiries with employers, i.e., platform firms as well as worker, i.e., platform participants.

2.2 Theoretical framework

For the platform ecosystem to respond to issues faced by women, it must, at the core, recognise the differentiated needs of women and men and take into account the larger context of gender relations within the household, community and society. To empower women in economic terms, platforms would need to, in addition to income opportunities, also provide avenues for women to gain more

control over productive resources like skills, time and capital, as well as enhance their ability to make decisions around these aspects. The potential for platforms to enhance women's economic and socio-cultural empowerment is also important to examine because platform organisations also function as spaces of interaction where gender roles and inequalities may be reinforced or ameliorated.

Figure 1: Template for transcript analysis based on Kabeer's framework

Constraints Empowerment	Social Norms + Institutions	Platform Ecosystem / Rules
Resources: Income Information Knowledge Social networks		
Agency: Mobility Household decision-making		
Achievements: Meeting goals Self-efficacy Social Status		

Because gender issues are deeply embedded in social context, we used the social relations framework developed by Naila Kabeer (Kabeer 2003), which views gender empowerment as a change in power relations, such that women's experiences and outcomes change along the following three broad parameters:

(a) Resources: gaining access to material, human, and social resources that enhance people's ability to exercise choice, including knowledge, attitudes, and preferences;

(b) Agency: increasing participation, voice, negotiation, and influence in decision-making about strategic life choices;

(c) Achievements: the meaningful improvements in well-being and life outcomes that result from an increasing agency, including health, education, earning opportunities, rights, and political participation, among others.

As per Kabeer, society's institutional framework – its rules, norms, beliefs and practices – govern the gendered nature of the division of labour and the distribution of resources, responsibilities, agency and power; therefore, institutions become bearers of gender (Kabeer 2003, p. 51). Avoiding absolute measures or universal indicators, she incorporates institutions in the form of two additional context-specific variables that she calls "structures of constraint", which shape the process and extent of empowerment afforded to women, viz.:

(d) Norms: unwritten but socially-enforced rules, gender roles, expectations, and standards of behaviour; and

(e) Institutions: norms + formal structures, rules, procedures

2.3 Platform Selection Criteria

To understand how the platform economy impacts labour outcomes for a variety of workers, we started by mapping the platform ecosystem from a labour perspective. While various typologies of the platform ecosystem exist, our focus was on sectors with commercial digital platforms that offer services to facilitate the exchange of goods, labour, and information.
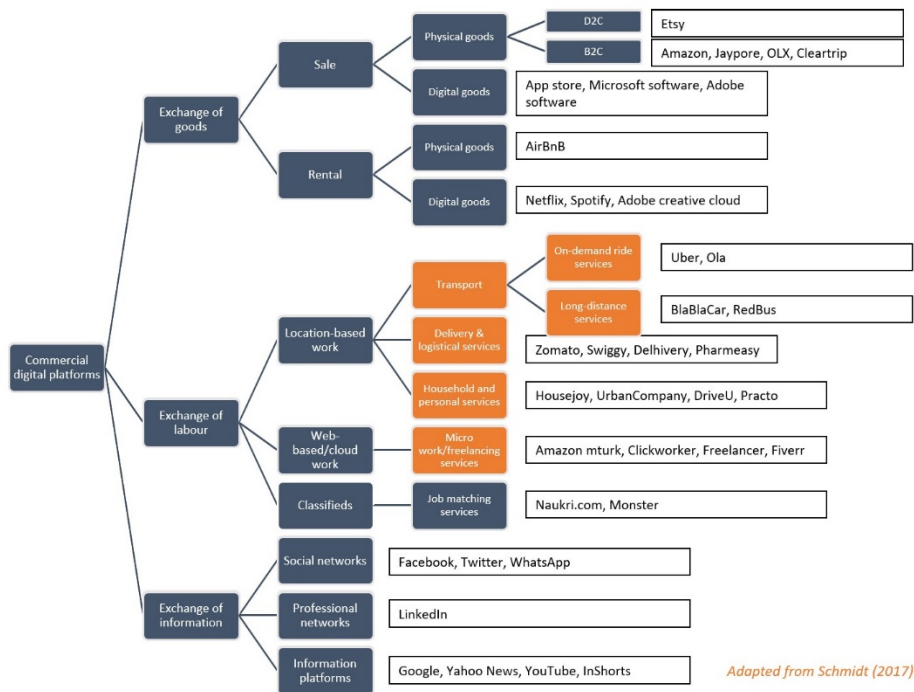

Figure 2: Typology of commercial digital platforms highlighting platforms with high labour value per transaction

While platforms facilitate the exchange of various types of goods and services in the physical and digital world, in this classification, we delineate the sectors where the main component of the

transaction is the labour value of the service provider (i.e., where labor is the main input). These categories are highlighted in orange and include ride hailing services, freelancing and micro tasking platforms, delivery and logistics services, and personal services.

We acknowledge that there is labour associated with all platforms – the labour of developers, marketing teams, content teams, or in cases like AirBnb, the labour of hosts, however they are not highlighted in our typology as the main value add of the exchange is not the labour of the worker, or hosts in the case of Airbnb, but the product on offer – be that an app or a rental home. Hence, these sectors were not included in our analysis.

Once sectors with high labour value were identified, we developed a platform selection criterion that was derived from the research questions. These selection criteria were used to shortlist platforms as well as workers for the primary data collection as a part of the study. The criteria work as a funnel, with platforms that don't fit the criteria getting eliminated at each level.

Table 1: Selection Criteria for platform firms		
Criteria	**Definition/Notes**	**Example**
Platforms with high labour value	Platforms where the main transaction value is the service provider's labour.	Etsy, Uber, Zomato, Swiggy, Housejoy, Fiverr, UpWork etc.
Nature of skills - manual vs. cognitive	Amongst platforms with high labour value, we select platforms across a spectrum of skills required from manual to cognitive skills.	Freelancer.com vs. household services on Urban Company
Share of women workers on the platform	Across the platforms with high labour value and varying skill requirements, what is the proportion of women workers on the shortlisted platforms? The objective of this criteria is to select platforms with varying degrees of women workers, so we have platforms across the spectrum.	Urban Company or Etsy vs. Uber
Geographical spread/distribution	What is the geographical spread of these platforms between rural, urban, semi-urban, and hyperlocal?	Meesho vs. Milkbasket
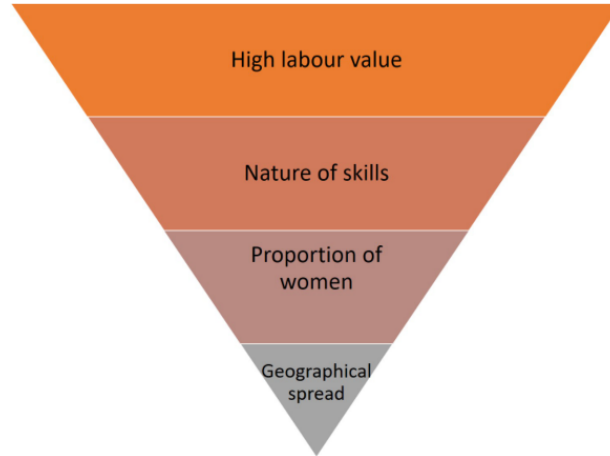
Figure 3: Platform Selection Funnel

2.4 Methodology

Secondary research: The project reviewed existing datasets and literature to understand the nature and extent of women's work engagements with the platform economy (see section 3).
Given the array of emergent digital platforms in markets like India and Sri Lanka, a key contribution of the project is mapping and classifying the platform landscape (See Fig 2). Parallelly, we examined the legal and policy debates around the platform economy (see section 4).

Primary research: Given the nascent state of policy and the lack of credible data, and building on the existing networks and experiences with the project team, the primary research was designed to examine the platform ecosystem from the perspectives of both firms and workers in parallel.

Firms: Building upon the platform ecosystem outlined in section 2.2 (see Figure 2), this study focused on interacting with purposively selected platform firms embedded in sectors that (a) traditionally have high concentration of women workers or; (b) are women-owned companies or where evidence exists to indicate that companies have amassed a large share of women workers, or sellers.

The Indian firms sample consisted of 14 platforms and marketplaces that used different varieties of models. Five edtech platforms were interviewed between 2020-2021 of which four delivered educational services in exam preparation segment, a high investment and competitive category of EdTech. The fifth was a SaaS company that allowed independent tutors to take their classes online, manage students, payments, and coursework through the SaaS platform. Two home services

platforms were interviewed to understand their beauty services verticals that has a concentration of female workers. They both were closest to the Uber archetype in setting up an on-demand services platform.

Two social commerce marketplaces and two marketplace staffing agencies were also interviewed. Social commerce firms gather goods (e.g., by buying or partnering with manufacturers) to incentivise 'independent' resellers to sell products to their networks using existing social media platforms like Facebook, Whatsapp or Telegram. Lastly, an NGO that sells crafts and clothes created by several women's self-help groups created their own online store.

Table 2: Industry break-up of platform firms in India

Type of Platform	Number
B2C Educational Services in Exam Prep	4
Foundation of Platform Firm	1
B2C Home Services	2
Social Commerce Marketplace	2
SaaS Educational Services	1
SaaS Blue-collar Worker Services	1
Marketplace Staffing Agency	2
NGO-run Ecommerce Website	1
Total Firms	14

A total of 11 platforms were interviewed in Sri Lanka. Two mobility platforms were interviewed. The first is one of Sri Lanka's largest mobility platforms, dealing in transportation and logistics, including food delivery, with over 50,000 riders at the time of interview. Though women make up a very small proportion of its workers, this platform is one of the two largest players in the market, and has made many attempts to increase the number of women drivers and has a deep understanding of the sector. The second is a transportation platform for women and children passengers only, with a fully female fleet of drivers.

Two online freelance platforms which deal specifically in cloud-based work were also interviewed. Both were founded by women, aimed at providing flexible earning opportunities primarily, but not exclusively, for women. They operate more like small KPOs rather than algorithmically governed freelancer platforms. An additional two freelancer platforms were interviewed, which algorithmically connect potential freelancers (dealing in location and non-location-based work) to customers; both platforms play a minimal role in mediating the transaction that might result. Three e-commerce platforms were also interviewed, two were relatively smaller with under 50

entrepreneurs selling their ware on the platforms. The third was one of the largest online e-commerce websites in the country with over 10,000 active sellers at the time of interview.

Table 3: Industry break-up of platform firms in Sri Lanka

Type of Platform	Number
Personal services	1
E-commerce marketplace	3
Online freelancing	2
Online and offline freelancing	2
Transport and delivery logistics	2
Social media	1

In both countries, interviews were conducted with founders or C-suite level executives. Interviews were conducted remotely, either through phone calls or over Zoom. Platform operators were interviewed through semi-structured interviews that sought to unpack how platform strategy interacts with women's existing socioeconomic patterns and behaviours, if there are overlaps between firm's ecosystems and the institutions that interact with women's economic empowerment (e.g., NGOs, public sector programs, private sector skilling programs), and finally, the interviews sought to pull apart the personal and professional characteristics of other teams that are involved in strategic decision-making that have a bearing on women economic actors' behaviour on platforms and marketplaces (Surie, forthcoming).

Workers: We interviewed women platform workers, women non-platform workers in platformised sectors, and a small proportion of male platform workers to get a comparative gender perspective. Workers were recruited directly through platforms, posting on social media, availing services through the platform, and snowballing. Except for one focus group discussion and three in-depth interviews in India, all interviews in both countries were conducted remotely, either through Zoom or phone calls. All were recorded after receiving verbal consent from the respondents. Where possible, signed consent forms were also collected electronically.

In India, connecting with location-based workers proved to be a challenge. The team had anticipated that snowballing would be an effective way to find new workers, but this was not as effective. Workers were hesitant to engage with the research as face-to-face interaction and trust building wasn't possible. However, once they did engage with us, they were more than willing to share their insights

openly. As a result, the quality of responses was high and interviews took anywhere between 60-90 mins to complete, as opposed to the 45-60 mins initially planned.

In Sri Lanka, it was particularly hard to schedule interviews with respondents. The reasons for the difficulties in scheduling worker interviews were in itself fairly indicative of the challenges that some of them face (e.g., unlimited, unfettered access to a device; requiring a husband's consent to be interviewed), as well as indirect impacts of the pandemic on day to day life (e.g., rescheduling because the respondent's child requires the device for a class at the same time as the scheduled interview, or because of the respondent having to go for vaccinations, and so on). Additionally, trust was an issue in Sri Lanka as well – several instances were seen of suspicion toward the researchers and reluctance to speak with unknown.

Table 4: Distribution of interviews in India and Sri Lanka

Sector/Type of worker	Sri Lanka*	India
Online tutors	2	4
Creative entrepreneurs	7	2
Micro-entrepreneurs	11	
Micro-workers / online freelancers	8	17
Household and beauty worker	2	7
Transport/Delivery/Logistic workers	4	7
Home-chefs/food entrepreneurs	7	4
Non-platform workers	4	2
Male platform workers	6	2
Women platform consumers	5	
Total	**57**	**45**

* Some respondents were engaged in multiple activities at once (e.g., online freelancing and online tutoring); for the purposes of this table, they have been listed under the category which was focused on or was deemed their primary activity.

Analysis: In order to fine-tune the process of analysis, we tested our theoretical framework on 13 transcripts (6 IDIs and 4 FGDs from India and 1 IDI and 2 FGDs from Sri Lanka) drawn from existing research material from project partner LIRNEasia's older qualitative research work with online freelancers in India, which involved 52 focus group discussions and 18 interviews with men and women aged 16-40 engaged in online freelance work in urban centres in India, Sri Lanka, and Myanmar. We applied Kabeer's framework on this dataset during a transcript analysis workshop involving all partner institutions conducted in June 2020 by using a simple matrix (See Figure 1).

Findings, documented in a blog we wrote in March 2022, highlighted that the social location and identity of women workers greatly impacted the resources they could access and the agency they could exert in accessing and performing work. We learnt that women appreciated the ability of platforms to provide flexible work, allowing them to balance remunerative work with care responsibilities. The analysis raised questions about how platforms incorporated aspects like time poverty and care burdens, which impact women's work profoundly, and how platform work could empower women in ways beyond their patriarchy-influenced expectations. Overall, the exercise confirmed the usefulness of Kabeer's framework for the project.

All transcripts were coded using a collaboratively developed codebook that drew extensively on the gender empowerment framework and from a preliminary indictive reading of the data. Coding was done manually for the India data and using ATLAS.ti software for the Sri Lanka data.

3. *Women's Work in India and Sri Lanka*

When it comes to gender parity in labour force participation, both India and Sri Lanka fare poorly. The labour force participation rate (LFPR) measures the proportion of a country's working-age population aged 15 to 65, that engages actively in the labour market, either by working or looking for work. The female labour force participation rate is the same measure but taken as a proportion of the country's female working-age population.

The male LFPR for India in 2019, before the pandemic, stood at 73 percent. This declined to 70 percent in 2021 during the pandemic. Female LFPR was much lower relative to the male rate standing at 21 percent in 2019, and dropping by two percentage points to 19 percent in 2021. Taking a longer view, between 2000 to 2021, both male and female labour force participation rates saw significant declines. India's female labour force participation rate is also significantly lower than that of Sri Lanka's and the decline in female LFPR between 2000 and 2021 was much more precipitous in India (Figure x and y).

Sri Lanka's male LFPR was 72 percent in 2019, close to that of India's. Over the course of the pandemic, by 2021, this male LFPR declined by four percentage points to 68 percent. Like in India, the female LFPR in Sri Lanka is also much lower than the male rate. It stood at 33 percent in 2019 but faced a smaller decline relative to the male rate, to 31 percent in 2021. The Sri Lankan male and female labour force participation rates also saw significant declines between 2000 and 2021; the declines, however, were less steep than those in India.

Though both the male and female LFPRs dropped in both countries, given that the female LFPR is already so low, and so much lower than the male LFPR, an additional drop is a matter of concern. Women constitute nearly half of the population in India and Sri Lanka, so a low LFPR is not only a loss

of precious productive potential of a significant share of the population, but it also squanders the potential empowerment gains that can come from fair, well-remunerated, employment for women.

In the face of large and growing youth populations in both India and Sri Lanka, the decline in labour force participation is partly attributed to a lack of enough jobs and associated discouragement where youth, frustrated by their inability to find work, drop out of the labour market. Taking a deeper look at the female labour force participation, the low and declining rates can be attributed to several factors. For instance, more girls staying in education longer and delaying their entry into the labour market; the 'middle income effect' where a woman stops working because the household presumably can do without her income; or she leaves the labour market because the low wages and other factors, such as the commute, safety, and conditions of work, do not constitute a worthy trade off to being able to stay home and tend to household responsibilities; migration and the nuclearization of families are also seen as culprits. A lack of demand for women workers, and continuing social disapproval whether it is the family, community, or the employer, are all important determinants of the low and declining female labour force participation rates.

Figure 4: FLFP in India and Sri Lanka
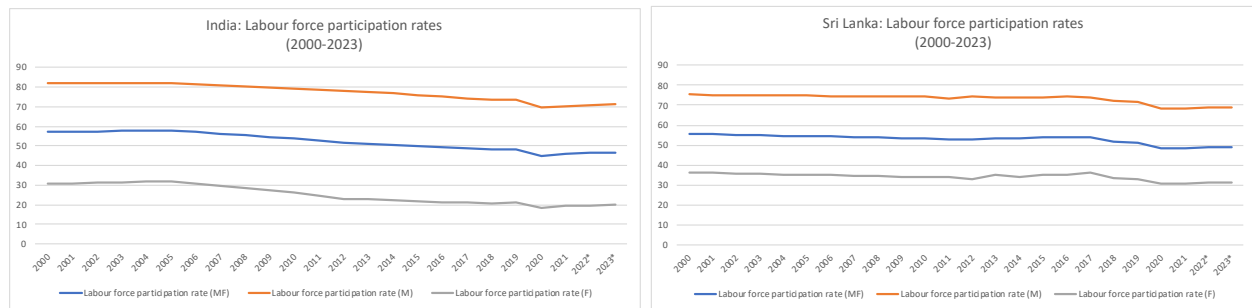
Source: ILOStat, 2022

4. Platform Ecosystem and Work

This project takes the approach of investigating labour platforms through their ecosystems, i.e., the business, cultural, location and labour market factors that influence the growth and evolution of digital labour platforms. This segment lays out the general landscape of labour platforms and the larger context in which firms have started and evolved in India and Sri Lanka. While it does not speak specifically to women's work, it offers a background within which to embed women's digital work given the rapid growth in digitised labour.

4.1 Platform ecosystem in India

In India, the platform model became popular with location-based mobility, food delivery and personal services. The companies involved in this evolution are Uber, Ola cabs, Swiggy, Zomato, Dunzo and Urban Company. These platforms as well as e-commerce marketplaces Flipkart and Amazon have been supported by a high CAGR in venture capital inflow, growing at 49% between 2014-21 compared to China (Inc42 2022). It is estimated that globally there were 142 recognisable platforms in 2010, which jumped to 777 in 2020, generating a revenue of USD 52 billion in 2019.

It is estimated that 3 million Indian workers are currently engaging in location-based platform work but accurate figures on the size of the Indian platform workforce are not available (NITI Aayog 2022). Informal economy jobs mirror the job opportunities and working conditions offered by platform companies in creating a 'gig workforce'; thus, in India, while platforms are new, the employment issues related to platforms are not.

As these companies evolved and popularized the model, rapid platformization entered many sectors of the economy – grocery procurement and delivery, agricultural produce and services, healthcare and care work, education, legal services and so on. Cloud-based work has also been popular in India but is often underreported and under-scoped given its remote, or work from home, nature. Indian workers are an important demographic that provide services to international clients on microtask platforms like Amazon Mechanical Turk. On the five largest labour platforms, which together account for 70% of the global platform labour market, around 67% of the workforce is from Asian countries including India (Gurumurthy, Zainab, and Sanjay 2021; Graham, Hjorth, and Lehdonvirta 2017). This sector has a greater share of international players, though domestic companies have fast adopted the model. The platform model has created changes to the allied, traditional Business Process Outsourcing (BPO) sector where we observe changes towards remote work, algorithmic surveillance, and direct service contracts to technology companies. In other parts of the economy there has been platformization as well, especially in the form of ecommerce marketplaces that impact single-owner producers, or nano or micro producers and service providers. In this sector, Flipkart, Amazon, Meesho play key roles in determining sector dynamics.

Some types of platforms like food and grocery deliveries, e-commerce and online tutoring got a shot in the arm during COVID-19 as lockdowns hampered human mobility. Not only did doorstep delivery of essential goods and services become necessary, but there was also a growth in the consumption of services online and a corresponding increase in workers offering their labour to platforms in lieu of, or parallel to, education or work.

The evolution of the Indian platform ecosystem is characterized by key duopolies in the sectors that platformized first. To illustrate, location-based platform services in the two significant sectors of

mobility and food delivery operate with two significant companies and small companies that have niche services or regional focus. Uber entered the Indian market in 2013 with an exclusive black cab service and soon pivoted to mass mobility products like Uber Go, Uber Auto and Uber Moto (bike taxis) (Mohan 2013) considering significant competition with Ola cabs which was founded in 2010 and started operations in 2014.

These duopolies have played a role in setting working conditions for workers, service fares, and wages, and in establishing or encouraging financial services companies (like Acko Insurance, Avail Finance) that have encouraged Indians to buy assets for platform work. India's vast markets are important to national and international revenues for these companies, thus competition amongst the duopolies have encouraged venture capital investment for these firms, and as a spill over to other firms using variations of the models. These duopolies have also allowed platforms to sell the narrative that partners can move between either with ease, and do move often. This has been a significant way in which they have avoided the claim that drivers and delivery people are full time employees and have kept either from being a dominant player and catching the focus of competition regulators (Competitions Commission of India 2017; Niti Ayog 2022; Surie forthcoming). However, duopolies have left workers with limited choices. For example, Ola and Uber participated in a price war for several years using venture capital investments to keep customer fares low and driver wages high. By mid-2017 the driver-side payments started to drop from Rs. 100,000 to Rs. 40,000 a month causing to start organizing and protesting across the country. Similarly, in food delivery Swiggy and Zomato used venture capital to habituate Indian consumers to food delivery in a market forcing similar dynamics in the wages of food delivery workers.

4.2 Platform ecosystem in Sri Lanka

The platform economy has become a contributor to growth and opportunity in the Sri Lankan economy. The current projection for the Sri Lankan ecommerce market's revenue as calculated by Statistica for 2022 is USD2,682 million, in comparison to the same value in 2018 which was USD971.20 million.

Online-web based platform work is relatively popular, with the Online Labour Observatory placing it as the country with the 11th highest number of freelance workers, i.e. 1.1% of the total number of freelancers worldwide, engaged in work related to clerical and data entry, creative and multimedia, professional services, sales and marketing support, software development and technology and writing and translation (Kässi et al. 2021)[2]. The Observatory also finds that the Sri Lankan online

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[2] It is possible that workers registered in multiple platforms are accounted for in these numbers

labour supply market is dominated by those working in creative and multimedia-related work (ibid). Accordingly, Fiverr.com, Freelancer.com and Upwork.com are the three websites that most Sri Lankan freelancers are aware of and registered on to provide their services (Galpaya et al. 2018). Other smaller and local platforms do exist (e.g., Rematics, Podijobs.lk), but freelancers seek work through multiple platforms and offline networks simultaneously.

Regarding location-based gig work platforms, ridesharing and peer-to-peer (P2P) accommodation are two of the most widely used online platforms in Sri Lanka (CBSL 2019). Marketplaces for accommodation like Airbnb and booking.com and e-commerce platforms like ikman.lk and Daraz have also grown in popularity, but of greater interest to this project have been the variety of platforms that mediate labour.

In terms of scale, Uber, one of the two most prominent ride hailing platforms that operate in Sri Lanka had 110,000 driver partners as of 2021 (Uber 2021). PickMe, the other prominent ride sharing platform had over 50,000 riders in 2021 and over four million customers by August 2022 (Daily FT 2022). Other smaller ridesharing platforms also operate (SLT Muve, YoGo, YouCab, Pink Drives). Pink Drives – a women-driven fleet providing taxi services for women and children – had approximately 35 drivers in 2021. Numbers for other apps are not available, but the numbers of driver app downloads (which only *indicative* of their relative popularity) are as follows:

Table 5: Google Play Store ride sharing driver app downloads (as on 4 October 2022)

Platform / app	Google Play Store downloads
Uber (Driver app)	100M+ (global)
PickMe (Driver app)	500K+
SLT Muve (Driver app)	100K+
YoGo (Driver app)	50K+
YouCab (Driver app)	10K+
Pink Drives (Driver app)	100+

Freelance platforms (not limited to location-based work) such as Work.lk and Onawedak.lk connect freelance workers (plumbers, electricians, data entry workers, gardeners, etc.) to potential customers. Such platforms that allow customers to browse freelancer profiles, list their job on the platforms, and suggest matches for either party, with negotiations taking place offline, are popular. These platforms both had in the ranges of tens of thousands of registered workers (mostly located in the Western Province) in 2021. Interestingly, a cursory comparison of freelancer categories to job posts on Work.lk indicates a mismatch where demand is skewed toward blue-collar jobs (plumbing and masonry jobs being top categories) and supply toward remote categories of work (data entry, typing, bookkeeping

being top categories, etc). The number of freelancers hugely outstrips the number of active job opportunities at a given time in the Sri Lankan context.

Multiple models have emerged in the ed-tech space as well. Teaching platforms such as Third Space Global and Tutopia, both international, recruit teachers from Sri Lanka and offer direct online tutoring. Third Space Global, claims to work with over 800 tutors across Sri Lanka (Daily News 2021), providing educational support to schools with online mathematics tutoring in the UK. Platforms such as Onlinetution.lk, tutor.lk also offer tuition classes, though it is not clear what the mode of delivery is. Other platforms simply provide listings for online tutors (e.g., fat.[find a teacher].lk, mytutor.lk, iskolya.lk), where the payment and transaction (i.e., the class) takes place independent of the platform.

Like in India, the ecommerce sector in Sri Lanka was bloated by the COVID-19 pandemic putting it on an indefinite growth trend (Daily Mirror 2020), but those in the ride sharing economy were adversely impacted. In March 2020, the number of riders dropped by 50-70 percent, landing gig workers working with Uber and PickMe in the territory of severe income uncertainty (Daily Mirror 2020). Despite the ongoing economic crisis, this situation has eased partly due to the government-imposed fuel rationing system and higher demand for taxi rides, at least in urban areas.

A notable trend during 2018-19 marked MSMEs switching their business models to operate via social media sites such as Facebook, Instagram and WhatsApp. During government-imposed curfew during the pandemic such businesses were able to conduct their transactions online with the assistance of a mixture of social media platforms, ride hailing platforms (Uber Parcel/ PickMe Flash) and digital payment systems. This allowed them to attract more customers as well as cater to higher volumes of demand (IPS 2020). Various smaller platforms also exist which cater to specific niche e-commerce markets including local, sustainable artisanal goods (localforecast.lk, olaishop.lk, justgoodness.co, among others).

Figure 5: Sri Lanka e-commerce revenue over time
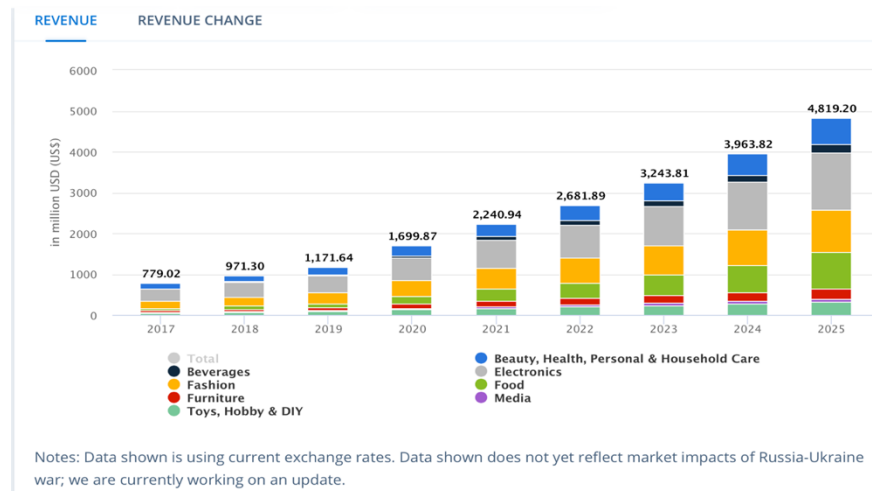
Image source: https://www.statista.com/outlook/dmo/ecommerce/sri-lanka#revenue

5. Policy and regulatory environment

As the platform economy grows and its implications manifest in the wider economy, the policy and regulatory environment within which it functions increasingly becomes a subject of scrutiny. A few among several recurring themes in this discussion are protection for platform workers, how platforms are taxed, the navigation of anti-competitive practices by tech giants, infrastructure development to facilitate platform work, and issues around privacy and data protection. This section offers an overview of the regulatory developments that are impacting platform firms in India and Sri Lanka.

5.1 India: A policy push towards start-ups and digital business

The platform economy's association with technology, innovation, and business and its promise of employment creation have made it attractive to government stakeholders (NITI Aayog 2022). Various ministries at the central and state government have actively partnered with platforms and marketplaces, mainly with the objective of enhancing skills and creating employment. Programs have encouraged the linkage of government skilling and entrepreneurship programs to existing platform companies. For example, UrbanCompany signed a Memorandum of Understanding with the Ministry of Housing and Urban Affairs, Government of India, in 2017 to generate jobs with assured minimum monthly wages for those skilled under the Deen Dayal Antyodaya Yojana-National Urban Livelihoods Mission across the major metros and smaller towns. Housejoy signed a similar memorandum of understanding for a restricted sector (wellness) with the National Skill

Development Council (IANS 2017). These partnerships between a labour platform and various entities of the state have created expectations that a company like Urban Company will skill or up-skill over 30,000 candidates and act as a market connector for them in the future (Ministry of Housing and Urban Affairs, 2017) while being used to deliver a minimum wage (Surie 2020). Similarly, Uber and Ola cabs have entered similar agreements with state and central governments in India (TNN 2018). Attentive to the problems posed by duopolies, especially in reaction to the Flipkart and Amazon duopoly, the Government of India made a novel intervention through the Open Network Digital Commerce network by setting up a framework for public management of marketplaces.

The biggest and most fundamental policy move in the context of platform ecosystems has been that the government has created a legal pathway for gig and platform workers to get social protection from the government without re-classifying platform workers as full-time employees (Surie 2020; Sharma 2020; Dewan 2022). The Code on Social Security recognises platform workers as a unique category deserving of pensions, accident insurances, maternity benefits and creates the legal environment to provide these, these programs can be established by different state governments from time to time. The Code also specifies that Indian platform companies or platforms registered in India must contribute 1-2% of their revenue to the financing of these programs.

The location-based platforms have also used their platforms to extend state-financed universal healthcare insurances like Aayushman Bharat (Financial Express Online 2019) to platform workers. These are possible because of a common impetus of governments and companies to create and promote these interactions. In India, platform companies are key in extending state programs despite not providing standard employment contracts, hence they can be seen as governance actors not merely as economic actors or job creators (Surie, forthcoming).

The government has created specific programs and policies that encourage platform models to be implemented in new sectors of the economy (e.g. Start-up India Program) as well as other kinds of companies using digital technologies. The Startup India program has created mentorship channels, incubators, start-up funds. Altered policies such as the exemption of the Angel Tax to small start-ups using angel funding (Bhalla 2022) intend to encourage investments into nano companies using technology. Parliamentary committees for platform workers, and data protection have been set up to address policy concerns and new laws have been passed to encourage platform growth.

These activities are to be seen in light of macro changes that the Indian government has brought on to encourage a shift towards digital adoption. For example, in 2016, demonetization of currency notes forced digital adoption in payments and bank transfers with companies like PayTM, Razorpay, Instamojo benefiting. The Unified Payments Interface was introduced to the Indian economy in the same year, 2016, to increase adoption of peer to peer and person to merchant transactions. The changes to the Bankruptcy Code further make it easier for companies, startups and established ones

to shut down (H. Singh 2016). India's approach to data localization and protection has been seen as creating an enabling business environment at the cost of citizens' data, and of local businesses (Das 2019; Naren 2022; M. Singh 2022; Ganesan 2022).

These policy changes have created a pro-business environment making India a key emerging market for international platforms and venture capital investments. These policy moves have tended to be more supportive than constraining the platform economy. While global debates have focused on regulating the platform economy by reclassifying platform workers as full-time workers, constraining the expected hours of work and regulating wages, in India the impacts of the new labour codes on platform workers remains to be seen.

5.2 A nascent legislative environment in Sri Lanka

In Sri Lanka in 2020, the Commissioner General of the Labour Department acknowledged that informal platform workers need access to basic employment rights and social security that comes with employment in the formal sector, indicating that the Department was in the process of drafting the legislation needed to necessitate this coverage (Kulatunga 2020). However, as of present, no such legislation has taken effect, and workers are pointing out violations, e.g. Uber workers claim to work outside the hours decreed by Sri Lankan labour laws and restaurants claim to be exploited by the high margins imposed upon them by Uber (Daily FT 2020).

Taxation of local platform companies in Sri Lanka has become a subject of contentious debate. PickMe, the local ride hailing platform app, claims to pay billions of Sri Lankan rupees in value added tax, significantly reducing its competitiveness in relation to its international counterpart Uber that is not liable to local systems of taxation (Kulamannage 2019). A revision of existing tax structures along with the negotiation of international agreements for taxing cross border platform transactions that fall within the country's jurisdiction might help in paving a way forward towards a productive space within which local platform companies would not be at an unfair disadvantage. France has set a precedent in this regard by employing a 3% digital services tax on revenue generated by its citizens within online platforms (Kulamannage 2019).

Infrastructure development plays no small part in ensuring that the gig economy is allowed to function at its optimum. This refers not just to physical capital. i.e. digital and telecommunications related 'hard' infrastructure (Slaughter 2021) but also includes softer aspects like capacity building of essential digital skills, reskilling, etc. Considerable variations in computer literacy rate by province – in 2021, the Western Province was said to be highly computer literate at 45.9%, and Sabaragamuwa province had the lowest computer literacy rate of 34.1% (Department of Census and Statistics Ministry of Finance, Economic Stabilization and National Policies 2021) – and difference by sex, age group,

educational attainment and language literacy result in uneven opportunities in accessing platform work. Policy attention on skill development to address such disparities is essential to level the playing field across demographics (de Silva 2020). Legal protection for consumers and retailers in the online space, incentives focused on digital entrepreneurs and a cohesive industry approach towards e-commerce are gap areas that need attention (Rafiq 2017).

Another hurdle to the platform economy of Sri Lanka is privacy and data protection concerns. Intrusive and excessive surveillance by platforms lead to a general distrust in workers, even resulting in exit from platform work (Sannon et al. 2022). Data protection legislation is necessary to ensure individual rights of workers and consumers and address regulation of the collection and handling of data by platforms, with clear definitions on the limits prescribed by them.[3] The Personal Data Protection Act No.9, enforced on the 9th of March 2022 is a positive development in this respect as it binds entities that are 'controllers or processors that are domiciled in, incorporated in or offer goods or services to persons in Sri Lanka' to protect user data, with penalties for non-compliance (Parliament of the Democratic Republic of Sri Lanka 2022).

The online labour platforms present a lucrative opportunity that is very wide in scope. As Sri Lanka tries to recover from the current economic crisis, gig work is a significant way to attract foreign currency inflows, as global demand for platform labour is high.[4] However, Sri Lanka's policy and regulatory environment must protect workers from potential exploitation by platforms.

6. Platform models and governance of labour

The section focuses on the deliberate and non-intentional ways in which platform business models across online web-based platforms, location-based platforms, ecommerce, and hybrid platforms create economic roles for women.

6.1 Women's work and platform business models

Women occupy different economic profiles on platforms. Depending on the model, platforms offer different ways by which women's labour value, goods and time-use are monetized and translated into

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[3] http://www.mdiit.gov.lk/index.php/en/component/jdownloads/send/2-policies/77-sri-lanka-digital-economy-strategy?option=com_jdownloads
[4] https://www.themorning.lk/gig-economy/

earnings. On location-based on demand platforms, women are beauty workers, care workers, fitness coaches, taxi drivers. For cloud-work platforms, women again occupy a worker identity in varied kinds of work like tele-calling work, marketing, customer support, or financial project management. On Software as a Service (SaaS) platforms, work resembles that of an own account worker using a software to deliver services, and on ecommerce platforms they occupy the role of a seller.

As economic actors, women may have direct or indirect relationships to platform firms. Owing to the technological nature of platforms (and marketplaces), platform models vary in terms of how they are built with a specific kind of economic actor in mind. Defining their economic actors early helps determine the architecture of the platform. It also helps platforms determine their value creation logic and make choices on how to govern the marketplace (Tura, Kutvonen, and Ritala 2017). These platform models vary in terms of their payment systems, behavioural expectations, penalties and incentives. The scope for platform firms to build in special incentives for women to access work, earn better and grow depends primarily on their model of choice.

In India and Sri Lanka, we observe four kinds of models in the platform ecosystem. Whereas the first two are structured as marketplaces that offer structured information to help match consumers/workers with services/customers/employers. Marketplaces perform simple or complex matching but often restrict their services just to matching, given this scope, there are few suggestions or specific actions to address gender concerns. Marketplaces like this do so, so that their services (matching buyers with sellers for example) can be scaled to the most sets of buyers, sellers, so that the service is useful to diverse markets. However, women do have concentrated opportunities in some on-demand platforms, depending on the nature of work. Social commerce platforms have the most scope to target women's participation and economic empowerment.

(i) The **marketplace model** allows companies to list goods or workers, supply to businesses or individual customers and manage profiles and reputation of service providers. In some sectors, marketplaces function as online job boards (similar to a LinkedIn), where workers create their profiles with information around skills and experience. These workers are listed by platforms who charge a fee from employers to access workers' profiles. Platforms largely perform matching functions, providing information on goods and services, who provides them and at what costs to potential clients or customers. In addition, they shape information through features such as filtering and ratings.

(ii) **Hybrid forms** of this resemble business process outsourcing companies, staffing agencies and placement agencies that have worked operated in India and Sri Lanka before platforms entered these markets. The platform with its technological interfaces and functioning reorganizes what the agency looks like, how it functions but mostly retains

the role that the company who has built the platform plays. Listing or job search platforms do not have a simple historical counterpart other than the classifieds. In the Indian sample, two marketplace staffing agencies were interviewed. One explained what job role they offered to gig workers:

"There's only one type of job on our platform, right? That is tele-calling. So we don't expect anyone to come in with any particular skillset or knowledge of calling but the general expectation is that you should know English and you should know your mother tongue, right? So we either try to give you jobs in English or your mother tongue, though English is critical... you can't just know your mother tongue." – In-depth Interview, professional in staffing platform

All workers on the platform are tele-callers that work on behalf of businesses that liaise with the platform to increase their customer outreach, sales, or customer feedback. The other marketplace staffing agency interviewed described their main value proposition in the following terms:

"[We focus] on the skills side... on the mid-skills piece where we have built a talent pool of people who [have] expertise in some mid-skill role like sales, marketing and support. We don't just provide these people. Once companies give us their requirement, we manage these people, get the work done and deliver work for our enterprises and [we] charge only for results." – In-depth interview, professional in staffing platform

(iii) **On-demand platforms** resembling the 'Uber model', are the next most common typology. Platforms under this business model provide services to customers with very short turnaround times. Specific types of work on on-demand platforms, like domestic work and beauty services, open opportunities for women. However, these platforms also exert much greater control on prices and task allocation to workers through algorithms. The next segment that presents findings from worker interviews will elaborate on how these characteristics of this model impacts the income-earning potential and agency of women in particular.

In the Indian sample, both companies interviewed offered beauty services. A professional working in one of the Indian companies describes the main service:

"So these professionals that we have onboarded and 'partners', as we call them, before [company name] there was no guaranteed income that these guys had a source of and there was no, you can say, constant source of income for them... It consists of your salon services, your spa services and men's grooming services. So men's grooming itself is a completely male category. Spa and MFM are 2 separate verticals where we don't offer cross-gender services and hence spa is completely a female partner category and MFM, 'Massage for Men' is a completely a male partner category." – In-depth interview, professional in beauty services platform

(iv) **Social commerce models** tap into social groups in order to source goods and sell products. Owing to the dependence on social networks and community connections, not unlike the direct selling model pioneered by companied like Amway in the pre-digital context, social commerce platform firms often involve women as key economic actors in different roles.

Two ecommerce marketplaces in India used a **social commerce model** which encouraged women to become resellers of goods. In these, the marketplace was responsible for sourcing, pricing, cataloguing, payments, logistics and delivery of the goods, but the selling was done through women's social networks using existing social media apps like WhatsApp, Facebook or Instagram. In this, women and men work towards commissions on each transaction, their work entailed sharing posts with their friends, families or communities. One category manager in a social commerce firm explains the model well by saying:

"[company name] is a social commerce app which basically means that it definitely enables e-commerce but it is done in a different way than Flipkart and Amazon in that the buying that is happening in a lot more social groups. We have a lot of women entrepreneurs who are using our platform and then they have their own social groups on either WhatsApp or Facebook or Instagram where they have their own client base, and they share the products from [company name] and they sell them adding some margin on the product and that's where the majority of their earnings come from. How does it help? Women have their own smaller groups who will be their neighbours, their friends, they'll be recommended people who will be joining these groups. So there is a lot more trust factor that is going on. So people trust when they are buying from somebody known and in general when we shop there is a lot more social angle to it, right?" – In-depth Interview, category manager in a social commerce platform

6.2 Earnings on Platforms

Earnings vary as platforms charge workers to participate on the platform or marketplace and each platform model exerts different kinds of control over pricing. Pricing is a key governance tool for platforms that have to manage two or multi-sided market dynamics. Choosing to incentivize customers and workers or sellers from time to time is a mechanism used to control and overpower demand and supply on the marketplace (Choudary 2018; Surie 2020).

Here, we start to locate where platform power exists over workers and customers. For women, platform power comes atop and is intertwined with patriarchal forms of social control that impact their lived realities in terms of the resources they control, agency over time use, physical mobility and

financial decisions and their skills in negotiating the world of business and technology. Their positioning in the platform ecosystem as participants rather than employees places considerable onus and demands new skills in navigating the world of platform work in order to earn an income.

Platforms can have multi-sided revenue streams from consumers, workers and third-party associates. For customers, revenue generation comes in the form of a service fee that is calculated based on tasks, time taken, or a combination of both. These fees may be fixed depending on certain kinds of tasks, timeslots, or may vary. For example, platforms which provide cleaning services for a bathroom where the cleaning for sink, toilet, floor, wall, and roof are divide tasks into minute constituent parts, with each part associated with a fee bracket. In the freemium model (which is prevalent in sectors such as edtech) customers can avail services for free till a predetermined ceiling, surpassing which they are required to pay additional fees. For example, companies provide access to free textbook or exam material.

For workers, resellers commission is the most common among pricing models that platforms use. This fee is calculated as a percentage of the total sale value and varies based on platform type and services offered, with most companies charging a commission between 10-30%. Other worker-facing revenue strategies include subscription plans which allow workers to regularly avail of platforms' services or membership benefits in order to improve earnings through the platform – like beauty workers who have to buy subscription packages associated with certain number of tasks. Platforms may also charge workers and other business users service fees (fixed or variable) for onboarding, lead generation, advertising or leasing fixed assets (such as vehicles in the ride-hailing sector).

For example, on-demand platforms exert strong control on price-setting and charge commissions per task and workers work towards buying and fulfilling subscriptions or incentive packages. However, for resellers on social commerce platforms, the pricing works differently. In social commerce marketplaces, the company decides costs of goods, delivery costs, and yet allow recoupons or discounts leaving no room for the worker or seller to add a margin to these costs and influence the price-setting. At the same time, sellers pay a commission as their earnings to the company. A social commerce professional explained,

"…a lot of women [resellers] tend to position themselves as they have their own boutiques. So [company name] is predominantly over indexed on ethnic wear like kurtis, sarees, suits, and dress materials. There is a product that is available at the listed price but the whole business is that women will add some sort of margin to that product which is sort of their commission. Understanding how much margin to put and that is something that we have some initial bit of training material in the video but we have realized that it is something that women learn…. Initially they'll put very high or put very low and with more and more sales, they will realize that this is the sweet spot…that the customer wouldn't pay so much, say more than [INR] 500 for a saree or more than [INR] 150 for a

face cream. So they sort of ...do that math and that is sort of a learning process? But these are the crucial factors for their success on the platforms." – In-depth interview, professional in a social commerce platform

In on-demand platforms, workers must invest their own capital to participate in the platform (buying cars, credits, materials). Edtech platforms operate by offering a combination of content creation, pre-recorded lectures, live classes and personalized coaching. In these cases, the platform worker is an educator who may don any (or all) of these hats at once and get paid for each task in a different arrangement. In the case of platforms that operate almost purely as listings for online or home tutors, the platform workers get paid in the form of a subscription fee (8 classes/month or 3 month-course, for example). Payment structures vary, and are typically linked to the number of students an educator is teaching, and the length of the course(s) they are enrolled in. In the SaaS model, educators are free to decide their engagement with the students. They can for example offer a full course, or live classes, or just assignment help - in these cases, the educator can set the course fee but the platform has different ways of pricing the educator using their software, a wide range of payment options emerge for the educator. Sometimes, educators set their own price for the courses they offer, and pay a cut to the companies based on the total revenue generated by them.

"So [there are] 3 levels. One is the educators using 'freemium', our ClassPlus Lite App, which is our free App and has the most basic features which you require for teaching online. The second one is non-store users? The ones who only take live classes and do not upload courses. The third one is store users who also have batches, take live classes but alongside, they create and sell courses on the platform. These are the 3 hierarchies, so to speak." -In-depth interview, professional, edtech platform

Interactions with managers and professionals working in platform firms clearly indicate that platforms structure their recurring or one time relationship with a worker or reseller in very specific ways. They control the income of workers through various pricing models, which also determine the kind of agency that workers have in setting prices. This act of negotiation can be particularly challenging for women who may have not been socialized into nor have the actual experience of analyzing markets, negotiating with corporate employers and so on. The above evidence demonstrates that as resellers, women have to learn to set prices through experience, but in a rapidly digitizing and decentralized world of work, it is not clear where they might find the guidance they need. On-demand platforms present a different problem; here, while setting prices is harder, women need resources in the form of working capital to participate. This becomes a form of exclusion for many women.

Section 7 will further elaborate the perspective of women workers, but it is clear that the business models of platforms, especially their pricing structures, have a direct impact on the income potential for workers, including women. Though platform pricing models also impact how time is used, the

next segment outlines how platforms govern women's labour regarding work allocations and incentive structures.

6.3 Work expectations and allocations

Platform companies offer the sense of an open labour market for people to join at will, at their own desire but it is also true that each company has a keen sense, and protocol for what skill, experience, and competencies are required to do the job. In some platforms, these factors are part of the onboarding process like in beauty work where beauticians' skills are tested at physical centres at the time of joining. Alternately the assessment of competencies can be part of a longer process after joining the platform where ratings and other measures of success either validate or invalidate a candidate from a platform. Time is also a commitment that platforms tie together with commissions, fees, earnings that bind workers to so-called flexible platforms. We find that platforms employing women build in expectations of feminine behaviour comprising docility, patience and subservience while consigning them to part-time workers because they cannot offer full-time commitments. In this sense, digital labour platforms do not quite deliver on the advantages of flexibility of time that they are supposed to offer to women workers to draw them into the workforce.

We asked firms who their 'star performers' of the ideal type of worker who fulfilled everything the platform needed and found some sectoral variations. In the Home Services segment, companies expect some prior level of skill training from workers in their individual domains (carpentry, beauty work, electrical work, for example). Companies recruit people trained from Industrial Training Institutes (ITIs), or with prior offline work experience, like beauticians having worked in beauty salons. Workers engaged by firms are provided with additional training before they are allowed to start working through the app. Aside from domain knowledge, platforms expect workers to undergo soft skills training.

For home services platforms in India the key metrics upon which workers were rated are their ability to get to a task on time, the rate of acceptance and fulfilment of tasks assigned to them, and their customer rating. In Sri Lanka, a freelancing platform allowed home services professionals to choose their own fee structure but listed them on a centralized website or smartphone app connecting freelancers to customers. We found that the rules of engagement for earning and penalties for not following platform rules were far stronger on the Indian home services app than in the Sri Lankan freelancer platform.

A professional working in a Home Services platform stressed harder on the soft skills and customer-fulfilment competencies than on hard skills when describing their idea of an all-star performer. The

testimony below shows the many layers of expectations platforms face on beauty workers who seek to do well on the platform.

I guess, the most important thing that a partner must ensure to do well is that you just go by the statement, 'customer is your god'. You just understand what exactly your customer wants and you deliver on those expectations. Like if a customer wants an extra 10-minute massage, just give it to them and they'll be happy. I guess that's all what it takes. It takes a partner to understand what exactly a customer needs and to build up that understanding... [this] is where the soft skill aspects comes into the picture. So hard skills is one thing that can be trained on but soft skills and the customer facing behaviour is something which needs to be really, really deep rooted within a partner. – In-depth Interview, professional working in a home services platform

This nature of customer satisfaction is higher in platform work that requires physical or online interactions with clients and gets heightened when the service being offered is shaped wholly by the platform. In many leading Indian edtech platforms, companies develop their own course content, educators are trained in the pedagogical methods of the company and can only then teach via the platform. Engagements are typically long, a few months to a year, with fixed schedules and educators are expected to be present for each session, with some room for flexibility in moving around the schedule. Companies are primarily responsible for marketing and bringing onboard students, training educators and providing technical support to educators. In the case of companies that just provide software for any educator to host their courses, educators are responsible for all aspects of course marketing, development, day-to-day operations and management.

In highly competitive sectors with newer entrants, like ed-tech in India, the nature of being an "all-star" worker were more stringent and tailored to the educational services being sold. If the company's intentions were to increase subscribers, then educators who were able to bring on new subscribers would be valued more and provided incentives. In other companies that were in the stage of stabilizing their services, educators were measured on their ability to retain students' attention and keep them coming back to class during a course. Subject matter experts rated them on their classes' content, and students' parents were asked to rate educators on their teaching methods. Edtech platforms create a high-pressure environment using rating systems, contiguous training and benchmarking.

Okay how are they evaluated? To answer your previous question again, all the classes are recorded. We have another team who is doing all the QCs [quality check], right? We have a demo check itself there. If they can convert, only then, right? Some even do window shopping and we have different benchmarks there and if they don't clear then we put them onto another round of training, so 3 rounds of training is what we give them if we need to reskill them and otherwise we are left with no choice but to exit them out of the system. Again, the class

recordings are also seen and we see the quality and then we go ahead. — In-depth interview with an Edtech professional

Working hours are not directly structured by e-commerce platforms, however sellers are expected to invest time in product and business development nevertheless. In Sri Lanka, a large ecommerce marketplace expected sellers to invest their time on an on-going basis to keep up to date on marketplace offers and the continuous upskilling of marketplace tools.

For all worker-category platforms we interviewed, where women are a significant part of the workforce, platform executives seemed to be looking for soft skills and a host of intangible competencies like "mindset", "comfort", "confidence", "professional" etc. In highly feminised sectors like beauty work, additional expectations to exhibit 'feminine traits' like politeness, deference and obedience are embedded into the expectations of on-demand platforms offering direct customer services. Somewhat paradoxically, platforms such as this beauty work app, consider those workers who can combine these feminized traits with drive and ambition as ideal candidates and those who will succeed economically.

"[Customer handling] is something that is very hard to train or inculcate within a 10-day training. So I would say partners who inherently have this tendency, who are inherently very, very soft spoken, polite and know how to tackle a customer, handle a customer and know how to deliver a job usually do very, very well on our platform….. and partners who actually have a hunger for money while keeping the customer satisfaction in mind are the ones who actually end up delivering the best services while maintaining the best utilization hence who end up earning really, really well." — In-depth Interview, professional working in a home services platform

Edtech is also a highly feminized sector and the interviews highlight how platforms idealize teachers who are "usually smiling, they don't snap at you, understand where as a child you are coming from and display a lot of patience, perseverance and also have good communication skills". They seek women who naturally display traits like patience, strong human connections and bonding with students.

Coming to all-stars, how well you connect with the student is very very important for us. For the kids, that matters. It is not the concepts. It is how well you connect, and how happy is the child interacting with you. We are not looking at teachers here. We are looking at facilitators. Build that connect and do that, you know? That's the most important thing and that's the reason why we thought okay women have more patience, they do this good connect, they are mothers already. So this was the kind of thought process that we had but then we see the recordings. — In-depth interview with an Edtech professional

Further, platforms used customer or demand-side ratings to quantify these intangible competencies. In such ways, platforms exert power over women workers, locking them into behaviour that aligns with patriarchal expectations. At the same time, just like in the offline world, women are penalised by most platform firms for not giving their "full time commitment" by being seen as part time workers.

What are the reasons that platform firms' view of women workers as part-time workers? This at least in part directly attributable to the employment-policy firms using platform business models have, which is to create an 'operator' or white-collar workforce that runs the platform, and the gig workforce which works 'flexibly'. Most labour platforms say that their workers choose their own working hours, term on the platform, which enables them to work full time or part time. Firm owners and professionals explained in detail how they set up markets for all workers to have equal chances to do well. Yet, they explained that most women workers they encountered were college-going, or women who were returning to the workforce after a short or long break after childbirth. In both use cases, women wanted work at various points in the day, outside 9-5 business hours. In on-demand platforms, this time requirement was not easy to provide since consumer requirements are within the same time frame. For click work, hybrid platforms it was easier to structure work around non-business hours. In either case, owners and operators had an image of a woman as a part-time worker first, with exceptional instances of women working full time or during set business hours.

The image of a part-time worker is at odds with how platforms and marketplaces think of "all-star" performers, or the ideal type of worker or seller they want to engage with. "All-star" performers are highly rated, returning, well-reputed workers, sellers or users that fulfil a platform or marketplace's desired rules and outcomes. For established businesses, the terms of being an all-star performer are more stable as compared to companies in competitive markets like home services and edtech, as our interviews highlight, where women workers are under constant scrutiny and evaluation, that too with gendered expectations built into performance metrics.

6.4 Sensitivity to gendered aspects of work

We have seen how platforms govern many aspects like skill levels, time spent and remuneration through specific business models and tools, but to what extent do platform companies deliberately factor in gender in their interactions with platform participants, whether workers or sellers?

Platforms can broadly be divided into those which have some specific mandate for enabling women's work and entrepreneurship (e.g., Meesho, ReMatics, Podijobs.lk, etc.), versus those that are 'designed for everyone'. The former category are often founded by women, and their design and management

could be seen to reflect the primary identity of the founder(s) (e.g., primary or secondary income earner; with care responsibilities or without, etc.) in some way. Some exceptions can be seen, for instance where investors with a mandate for social impact have influenced design and operations to attempt to make work opportunities more accessible to women. These platforms (especially the smaller ones, but also the ones that operated more like small firms themselves) tend to be more cognizant of, and responsive to the requirements and constraints of the triple burden. For example, two online freelance platforms run by women with a conscious mandate to provide flexible work options for women were interviewed. Both indicated a certain amount of flexibility is given (and expected) when unpredicted disruptions to freelancers' workflow (e.g., due to care work, etc.) arise; for example, by quick re-assignment of work to another freelancer, or re-negotiating with clients for extensions. Here the importance of personal/human relationships (versus algorithmic relationships), both between the platform and the clients and between the platform and the freelancer, are key to renegotiating and quick re-assignment to a suitable freelancer to ensure the work gets completed in a satisfactory manner. The platform acts as a kind of 'buffer' between the client and freelancer to ensure both parties' needs are met. One of these platforms also noted that where individual constraints of a freelancer are known (e.g., that they come from an abusive marriage, or they especially need the income, or that they can only work via email rather than phone calls to avoid raising the attention of a spouse), such details are taken into account in how the work is assigned, and the modalities of work, to enable their freelancers to work to the best of their ability. In these platforms, women workers and entrepreneurs have room to grow in size and move to higher roles, due to the relatively lower level of automation than say an algorithmically managed work platform. As the number of projects and freelancers expand, platforms need more people to manage workflows, assign and monitor workers, and interface with the client. Two such online freelance work platforms hired freelance project managers to manage other freelancers working on jobs and projects for the platform.

Platform firms which aren't specifically designed with women in mind are set up to work for all. They are designed for the greatest number of entrants (scale) rather than to retain workers, with no specific strategy to expand the number of women on theses platforms. The approach is, for instance to provide as many categories as possible to increase the number of registrations on the platform for job seekers and customers. This is especially the case for some platforms in their infancy.

Platforms tend to assume that women who do take up work opportunities have some kind of care responsibility (usually motherhood) and therefore value the opportunity to work flexibly. As a result, the earnings from platform enabled work are seen as tangential, and firms are not designing for robust, primary incomes for women. The findings showed a great variation in the types of women taking up platform-enabled work, such as widowed or divorced chief wage-earning women, students wanting to earn something of their own, young and single urban women following a passion, etc.

Patterns of gender segregation in service work continue in sectors that are platformised - whether as marketplaces or ed-tech platforms, or software as a service (SaaS) offerings. These are often reinforced through platform firms' working assumptions. Besides the assumption of part-time work, other assumptions about women (digital) workers and entrepreneurs include their lack of access to capital and digital skills, the mobility constraints they face, their possession of positive qualities such as diligence, good work ethic, strong social networks, and the preference to work with other women for safety reasons. In the absence of any formal gender analysis of system data, some smaller freelance platforms that connect workers and clients for various location and non-location-based work, tended to slot women into feminized sectors such as food-related work, data entry and beauty work.

While companies in highly feminized sectors are often forced to make some design allowances to accommodate the realities of women's working lives (in terms of incorporating security features or flexible work timings, for example), companies outside these sectors rarely have incentives to use their technology for behavioural change concerning gendered issues. One of Sri Lanka's major ride-sharing platforms (through impact investment) has tried to design better for women drivers, however, the social stigma which prevents women from taking up driving jobs is a larger societal issue that the platform cannot overcome. In the Indian case, a small managed marketplaces in staffing sectors interviewed in the study reported having in their workforce many college-going women or women returning to work after a maternity break of two-four years. These companies interact with workers at the recruitment stage, during onboarding, and through their work week to week on the platform. One platform said they started creating "work certificates," documents serving as proof of work, so that women could show their families, who did not consider the time they spent at home on a laptop to be "true" work. This interaction between platform and worker allowed the company to offer these certificates in a bid to show work experience, and as an indication that a person was engaged in paid work. The platform felt it was worth doing this to retain workers who they had already trained for the service they offered and trained on the platform system the company had put in place. This indicates how differently platform companies can operate given what research has shown about large, scaled platforms like Uber and Ola cabs, who resist making such claims given the regulatory pressure they face to offer formal employment to drivers.

Competencies related to confidence, desire, or readiness to acquire new knowledge and develop as workers or entrepreneurs are brought up by firms as problematic areas in their broad assessment with women platform participants. In one case, a large e-commerce platform indicated that its most successful sellers are those that constantly keep up to date with new seller tools and promotions; another noted the need for entrepreneurs to have digital marketing knowledge, tools and skills (e.g., to style and take high-quality photos of a product) to be successful. Women are therefore

systematically disadvantaged, given their on-average lower levels of digital skills, economic resources and time poverty.

Tracking gender outcomes is sometimes problematic. In the case of some platforms which were concentrating on establishing scale, gender trends among workers were not tracked at all, perhaps reflective of a larger lacuna in capturing gender disaggregated statistics. In our semi-structured interviews, we asked platform operators if they knew the gender breakdown of the workers on their platform, if this information was collected while recruiting a worker, or if workers had to declare this information when signing up on the app. During the interviews, many respondents emphasised that their responses were anecdotal or based on few interactions with workers, and that they did not always have hard numbers to back up what they were saying.

Gender-disaggregated data was not a priority for most firms. Platform operators stated that they often did not keep a gender disaggregated track of this information but had a general sense of the gender composition and breakdown because of their team's interactions with their workforce. Assessing the total number of women workers companies engage was the first challenge. Being unable to do this made it difficult to analyse gendered breakdowns of workers to understand who the platforms are creating job opportunities for, and if they in any way exacerbate the gender gaps that exist in their workforces.

Some of the newer, smaller freelancer platforms starting off in Sri Lanka for example, indicated that while they have the ability to analyze their data by gender, they haven't really spent time or resources doing so (up to the point of interview in 2020/21); it did not appear to be a priority for them at the time. In other cases, it may not be possible to track gender outcomes since the transactions don't necessarily happen on the platform. This can be seen in both the marketplace model as well as the social commerce model, where the platform only serves to connect workers/sellers to customers, while the transaction may be coordinated through WhatsApp conversations and/or groups or offline, and payments may take place in cash or through bank transfers. Furthermore, if the worker is not required to specify their gender upon registration, tracking is not possible.

The lack of sensitivity to women's issues is exacerbated by the occupational segregation within platforms, with female staff more often found in sales, marketing, customer support roles, and rarely represented in technical roles of design, product management and operations that are. more likely to influence working conditions, earnings and grievance redressal of platform participants. Among smaller platforms (especially the Sri Lankan ones) this is even more pronounced, with particularly low representation of women in management teams, unless the platform is one which was founded by women with a specific mandate to enable women's work and entrepreneurship.

7. *Women's work and platforms*

Among those we interviewed, women were found to be engaged across many kinds of platform-mediated work, broadly in three categories:

      i)   Cloud-based digital work
      ii)   Location-based digital work
      iii)   Digital micro-entrepreneurship

We find that platforms build upon existing modes of women's engagements with the labour market. How women engage with platform work depends on the resources available to them, like education, skills training, ownership, quality of internet connection, and digital skills and literacy. This in turn, determines the type of work they engage in, the income-earning opportunities and the career trajectories available to them through platforms. Combining these factors creates a diverse landscape of women's work on platforms.

In this section, we look at the different types of platform work women engage in and the factors that determine this; how platform work fits into women's employment trajectories and aspirations; what motivates them to take up platform work; and how women report aspects of platform design that impact their experience on the platform.

7.1 Who is engaged in what kind of platform work?

Women engage with digital platforms in various ways to seek work opportunities, in conjunction with more conventional methods like personal networks and social media. We classify platform engagement into three categories: seeking, performing, and getting remunerated. Workers may use platforms for one or more of these functions, in varying combinations. For example, a beauty worker may acquire customers and get paid via a platform like UrbanCompany in India but perform the service on location. An online microworker on a platform like Clickworker, on the other hand, performs all three activities on the platform, from finding a gig, doing the work and getting paid for it. A digital entrepreneur may find customers via social media but offers services/products physically and receives payment through other digital payment channels, like UPI interfaces or bank transfers. We find that workers choose platforms carefully depending on their specific needs.

While some workers find and engage in work opportunities through purpose-built platforms such as Upwork, Daraz.lk, UberEats, PickMe, Urban Company, White Hat Junior etc. that exist to offer these services, others use generic platforms like social media to find and coordinate work. Most often this includes Facebook, WhatsApp and Instagram; some women also use platforms like YouTube and TikTok for marketing, to reach wider audiences and increase following. In Sri Lanka, many purpose-built platforms, other than for the big e-commerce ones, don't have a large enough customer base, whereas social media offers a low cost and simpler way of reaching a larger market; this works well enough, since almost everyone who is online is also on social media (Zainudeen 2022).

Table 6: Women's engagement with platforms in India and Sri Lanka

CLOUD-BASED WORK			
	Seeking Work	**Performing Work**	**Remuneration**
Freelance	SL: Freelance platforms; social media; personal networks	SL/IN: Off platform	SL/IN: On platform; off platform directly from the client
	IN: Freelance platforms		
Microwork	SL: Not part of the sample		
	IN: Microwork platforms	IN: On platform	IN: On platform
Online teaching	SL/IN: Ed-tech platforms; personal networks Ed-tech platforms; personal networks	SL: Job listing platforms; social media; platforms like Zoom and Google Meet	SL: Directly from client
		IN: Ed-tech platforms; platforms like Zoom and Google Meet	IN: On platform; directly from the client
LOCATION-BASED WORK			
	Seeking Work	**Performing Work**	**Remuneration**
Beauty work and personal services	SL: Social media; personal networks	SL/IN: On location	SL: Directly from the client
	IN: Home and personal services platforms; personal networks		IN: On platform; Directly from the client
Delivery and transport logistics	SL: Transport and delivery platforms; social media (Telegram)	SL/IN: On location	SL: On platform; directly from the client (cash); bank transfers to pay intermediaries
	IN: Transport and delivery platforms		IN: On platform

Others (photography, voice-over artist)	SL/IN: Social media; personal networks	SL/IN: On location	SL/IN: Directly from the client
DIGITAL MICRO-ENTREPRENEURSHIP			
	Seeking Work	**Performing Work**	**Remuneration**
Micro-sellers/traders	SL/IN: E-commerce platforms; social media; personal networks	SL/IN: Home-based; delivery platforms for the delivery of goods	SL/IN: On platform; directly from the client
Home-based food businesses	SL/IN: Social media; personal networks	SL/IN: Home-based; delivery platforms for the delivery of goods	SL: On platform; directly from the client
			IN: Directly from the client
Creative entrepreneurs	SL/IN: E-commerce platforms; social media; personal networks	SL/IN: Home-based; delivery platforms for the delivery of goods	SL/IN: On platform; directly from the client

Note: Direct payments tend to be via cash or bank transfer in Sri Lanka, whereas in India digital payments through interfaces like the UPI are far more common

In Sri Lanka, personal networks play an important role in both cloud-based and location-based work. Respondents engaged in online freelancing and teaching report using personal networks and social media to secure new clients and work. Beauty workers in the sample rely on personal networks and social media to acquire new clients, while transport workers worker use a combination of purpose-built platforms, often more than one simultaneously, and social media to seek work. The lower use of platforms to secure work in Sri Lanka may be attributed to the lack of scale that any purpose-built work platforms might be able to achieve due to the limited market size in the country. It is also possible that the areas of work where women are present are not platformised yet.

Social media offers access to a large number of potential customers, and personal networks are leveraged to counter safety concerns and provide a basis for trust. As a result, purpose-built, sector-specific platforms like beauty work or domestic service platforms may fail to reach a critical mass of customers and workers to make it worth either party's while to register and use, when there are easier alternatives available. The quote below from a platform founder in Sri Lanka highlights this point.

"I mean that's probably why platforms like Instagram work really great. You can directly message client's ...you can always like reply and message customers, it's very easy to communicate. But through a platform it's not easy to communicate. Now I let's say I go to a platform or website and I want to chat with the X personal trainer. I have to log in ..[or] I have to register. Maybe it's like 3 to 4 steps with Google sign up but then again its effort. And the trainer is not going to reply to you then and there, unless its configured that way. Because it's a third-party platform for the service provider right? If the market is too big and as a trainer I was continuously getting messages through the platform I would always check the messages there, but you are only talking about maximum 3 to 4 messages a day and people are not going to reply immediately to that. They might do it on Insta because people are always on Insta." — **Founder of a former fitness class finder platform, Sri Lanka.**

In contrast, in India, the reliance on platforms to secure work is more widespread. Cloud-based workers, especially freelancers and micro-workers, find work through purpose-built platforms. Online freelancer often engages with repeat clients off the platform, but they use the platform to seek new clients. Online teachers associated with various ed-tech platforms also rely on the platform, whereas teachers who have their own entrepreneurial set ups online use personal networks and social media to acquire new students.

Based on our sample, we find that women engaged in cloud-based work typically come from better-resourced settings and have easier access to education, skills and digital technology, thus making it easier for them to engage in cognitive cloud-based work. In fact, we find that digitally savvy young women entered the workforce through microwork during the first year of the pandemic. Many of them were college students or recent graduates who found themselves with additional free time due to the lockdown. Stay-at-home-mothers also took up cloud-based platform work during the pandemic to counter additional financial burden the pandemic may have imposed on the family, and also because the opportunities for work-from-home increased with the pandemic, alongside the normalisation of this mode of work.

Location-based beauty workers in India were largely dependent on the platform for work but maintained an offline network of clients to safeguard against precarity of work on the platform. This precarity stemmed from the algorithmic management of job allocation which left workers unsure about when and how many jobs they may get at any given point in time; recent fluctuations in the frequency of platform jobs made them wary of being able to sustain solely on platform-allocated jobs. This safety net gave some workers the agency to choose when to engage with the platform and to what degree. Transport and delivery workers exclusively relied on purpose-built platforms like ridesharing or food delivery apps to secure work. Relative to cloud-based workers, location-based workers have lower access to resources and engage in more manual jobs.

Personal networks matter quite a bit in the case of digital micro-entrepreneurs in both countries owing to the specificity of services and products they offer – social media is therefore a natural extension of their personal network, allowing them to grow it beyond people they know offline. In Sri Lanka, digital micro-entrepreneurs highlighted the differences in the ease of use and audiences between Facebook and Instagram; the latter being easier to use and giving access to audiences with higher purchasing power and propensity to buy than the former.

"I like Instagram, I feel the Instagram crowd is a buying crowd compared to FB. There are many fake profiles on FB, I personally feel Instagram is a better platform…I have tried, but I didn't like the way it was moving on FB. It's a personal choice I feel it won't apply to all, but I was more comfortable in using IG platform that was easier." — Creative Entrepreneur, 26, Female, Sri Lanka.

Differences between the Sri Lankan and Indian contexts plays out even in online freelance work, a sector predominated by global platforms. Sri Lankan women workers indicate high competition and constant underbidding to secure work as a disincentive to use platforms as it makes platform work financially unviable. While respondents in India cite the same concerns with freelance platforms, interestingly, this did not reduce their dependence on the platform. Rather, they report spending more time searching and bidding for gigs on the platforms.

Digital workers often jump platforms or use multiple platforms simultaneously to secure work. We find that most workers in Sri Lanka simultaneously leverage various purpose-built platforms, personal networks and social media in search of work. In India, while freelancers and microtaskers report using multiple platforms, online teachers and location-based workers restrict themselves to using a primary platform. However, this is not the case with male platform workers in India engaged in location-based work, who also report using multiple platforms and jumping between platforms given the low entry barriers. The reasons for this vary from the flexibility and desire to navigate platform rules like high commission structures and minimum time commitment requirements.

This tendency to jump between platforms is a key factor leading to the informalization and invisibalisation of women platform workers as it weakens the employer-employee relationship, raising questions about who the employer is, what rights the worker has, how they access social security and who is responsible for its provision. These questions are relevant even when the worker uses one primary platform, as with beauty workers in India, as they are not considered employees of that platform.

7.2 Platform work and women's employment trajectories

While many women respondents entered platform work after having worked offline jobs in similar sectors, over a fifth of the respondents in India started their career through platform-based work. These new entrants are mostly young and unmarried women, students, or recent graduates, with advanced degrees. The closure of education institutions and hostels during COVID-19 accelerated the entry into platforms, specifically enabling students to explore the opportunity to earn without compromising their education.

Ten respondents in our India sample were first-time entrants into the labour market; six engaged in cloud-based work like microwork, three were freelancing, and one was teaching online. These three types of cloud-based platform work have varied entry requirements. While microworkers require basic digital literacy and the ability to communicate in English, freelancers and online educators build on existing skills like content writing and design or on previous teaching experience to explore

platform work. In other words, for those with education, skills and access to digital resources, cloud-based platforms provide an easy entry.

For college-going students and recent graduates, platform work serves as a side hustle to earn addition income for personal expenses. Most are engaged in microwork with relatively small earning (INR 2,000 – 10,000) and consider it to be a stepping stone, not a long term career option.

"...I started (platform work) in 2020 ... (at) the start of the pandemic ... when I was at my home... I had nothing to do so I was just surfing the internet and.. found these kind of websites ... I was so keen on working on something …..." – Microworker, 22, Female, India

"...it's just that because I didn't look for a job for some time because of the pandemic and I didn't want to give up my freelancing job I didn't think that I would get the financial benefit that I get from freelancing if I look for a job that is in my field like if I were to join as a research assistant or like a junior researcher my salary would be low, but right now I am looking for a job because that would be like my primary job and this is supposed to be like my part time job but pandemic changed everything." – Online freelancer, 25, Female, Sri Lanka

The second group comprises of individuals who take up platform work due to lack of good quality jobs offline that match their level of education or aspiration. They engage in both online freelancing and microwork and consider platform work as their primary occupation. Their earnings are significantly higher, and they are able to make bigger financial contributions to the household.

"So I was looking for job actually not a kind of freelancing job I was looking for full time job, but I couldn't find because those time I was, you know, not well to go out and work so I started freelancing in the year 2017 but I couldn't get any job…." – Online Freelancer, 27, Female, India

The last group comprises of educated women who have been out of the labour force primarily due to care work. Some of them recently joined the workforce due to the negative impact of the COVID-19 pandemic on household income. We also find highly educated women with well-paying corporate jobs who dropped out of the workforce after the COVID-19 lockdowns led to an increase in childcare responsibilities. These women joined online teaching platforms during the platform that were recruiting well-educated women to teach math and coding because of the increase in demand. Even though they did not have subject related expertise, the platform focused on soft skills and provided extensive subject related training. These women saw online teaching as a stop gap solution to keep busy and earn incomes while looking after their children but intended to go back to offline corporate jobs once schools reopened.

"Because in lockdown our, actually, our own business was, like, my husband's business also faced a setback. Closing the shops, closing the shops where would the customers come from? So like those things... I mean, financial setback was the main reason. Like, because due to you... If there was no lockdown maybe, I was connected with computers all over the time since these 14 - 15 years, I used to blog, I used to this that. But

never, I thought, like, earning from it. Now from this 1.5 years back if I look, I really felt that if I am giving something time to, I must get from it. So I searched Reddit and all these platforms like. Then from link to link, link to link, I got knowledge of what platforms are there, how do they pay, and probably that's the best part."
– Microworker, 37, Female, India

We find a few first-time entrants in location-based platform work in the transport and delivery logistics sector. These women were introduced to delivery platforms through male family members and were comfortable riding a bike before joining the platform. The delivery workers we interviewed were in the southern states of Tamil Nadu and Karnataka in India; it was extremely difficult to find women delivery workers in north Indian states. While patriarchal limitations on mobility and work impact women across South Asia, some regional differences exist. In North India, patriarchy is patrilineal and patrilocal. Marriages are village exogamous and caste hypergamous, which means women must move away from their natal homes post marriage. Higher group status is strongly associated with female modesty, through practices like veiling and prohibition of activities in the public sphere, including labour. In south India, patriarchy is patrilineal, patrilocal and endogamous for caste and village. The restrictions on mobility and outside work are relatively fewer (Gidwani and Ramamurthy 2018)

Women engaged in other types of location-based work, like personal care and beauty work, were engaged in offline jobs in similar sectors before joining the platform. Various factors contributed to the decision to shift from offline work to platform-based work; these include higher remuneration (at least in the initial years), flexibility and the ability to decide the division of time between care work and remunerative work. In Sri Lanka, beauty workers maintained both offline and online networks for work. As noted earlier, women engaged in location-based platform work usually come from weaker socio-economic backgrounds and lack access to resources in terms of education, skills training, and asset ownership. Most of the location-based workers in our sample have not studied beyond high school.

Different platform types offer distinct pathways in terms of career progression. Among new entrants, microworkers don't see platform-based work as a substitute for offline work, though some mentioned continuing with it alongside offline work as a way to earn extra money. They want to continue their education and find appropriate offline jobs. For them, platform work is not seen as a stable job and is not reliable enough to enable them to make future financial commitments. As compared to microworkers, freelancers are more likely to take on platform work that dovetail with future career plans, even if those entail offline work.

"Stability. I think stability could be a reason but so far, I, I mean like ya freelancing is like unpredictable you can like go without jobs at anytime, like when your contracts end." - Online freelancer, 25, Female, Sri Lanka.

The profiles of workers who want to continue cloud-based platform work in the future are diverse, including fitness tutors, homemakers, and individuals who were unable to find offline work. Often, for women with care-work responsibilities, cloud-based platform work is the only viable avenue for

income. Online teachers in male-dominated fields, like fitness, also express a sense of safety in online platform work.

"5 years down the line also (i would opt for the) same...because this is the only option with me to work online. Maybe if it is like I would join some company, for full time, that's also possibility,...there are US companies which offer online home work... full time also. If I get a good opportunity, I would change to that, but if not, I would be... doing ..these things only..." — Microworker, 37, Female, India

For location-based workers, working conditions on the platform may be better than working conditions in offline work, but the lack of growth prospects and algorithmic management of job allocation make the work uncertain and precarious. Beauty workers counter this precarity by maintaining an offline network of clients in addition to jobs allocated by the platform. This allows them to have a fallback mechanism and maintain some control over earning if the quantum of jobs from the platform drops. Many don't see platforms as a long-term career option but lack the resources and family support to upskill in order to get better jobs.

7.3 Women's motivations for platform work

Given their disproportionate care burden, flexibility in terms of usage of both time and space have been fundamental to women's ability to engage in remunerative work. Flexibility unequivocally appeals to the women in our sample too, but for varying reasons across age, marital status, class and sector of work. Compared with offline non-platform work, nearly all respondents characterise the flexibility that platform work offers in terms of freedom. Because multitasking is the norm, a 9-5 routine that ties them down is seen as a "waste of time".

"... as opposed to leaving [my children] from nine to five, for hours long on end, I still think I feel this is better than going away from them." - Online freelancer/tutor/creative entrepreneur, 31, Female, Sri Lanka.

"See, it, of course, it is very flexible for me, it works for me right now because earlier, I was in a joint family setup wherein my daughter was taken care of, you know, by my mother-in-law. But a few years ago... the brothers decided to kind of go their separate ways. So this work does give me the flexibility of being at home taking care of my daughter and yet, you know, working. It's not monetarily, it's probably not as satisfying as what I was earning earlier. But then it's just, you know, it's okay. I'm good with it, because the timings are very flexible, I'm working from home. So yeah you win some, you lose some." — Online Teacher, 37, Female, India

"that flexibility is important for a girl especially because we need to look after everything it is a lot of thing(s), right now am not married, but later I have to look after everything so there is a lot of thing one has to think about so there has to be flexibility" — Online Teacher, 25, Female, India

Women value the freedom to decide how to use time across various tasks, regardless of whether these tasks are remunerative. Male platform workers value flexibility too. As one male respondent

illustrated, the ability to re-organise schedules to "attend to guests", run parallel businesses and so on is useful. The freedom of choosing work locations, especially for online work, is also valuable and was especially so during COVID-19 when households chose to relocate to places where they had social networks to sustain them. Location-based workers did not have the same advantage because platform firms that aggregate on-location services do not yet have robust networks in non-metropolitan cities.

While unmarried women did not refer to care responsibilities, except to acknowledge it as a concern for the future, married women referred to flexibility as a coping strategy to manage household responsibilities. Platform work allowed women to manage household chores and look after the needs of children, especially non-daily care like illnesses and exams. Women perceived family as a priority and a source of emotional sustenance that platform opportunities like online freelance work allowed them to tap into. The physical and emotional labour as well as safety risks involved in negotiating public transport and public space also makes home-based platformised work attractive for women. Family is often in support of women taking up this kind of work for these reasons.

"[My family is] really supportive primarily because it prevents me from going to a 9-5 job where I just have to do just field research and all that. So they always encourage me to stick to this job because it is easier and even if I get married like I can still do it at home. So because of all those perks they continue to encourage me and they have even like discouraged me from facing some interviews to 9-5 jobs because of that" - Online freelancer, 25, Female, Sri Lanka.

The data shows that flexibility is experienced variably across sectors and even across platforms within the same sector. The ability to multi-task and control time-use on cloud-based platform work, especially microwork where skill levels needed for entry are also very low, makes it particularly attractive to young first-time entrants into the labour market, whether college-going students or young homemakers, as outlined in section 6.2. Here, flexibility is exercised as the freedom to work during any particular time of day and decide how much to work in a week. Location-based jobs, like beauty work, that can only be performed during a certain time of day and platforms that require a minimum commitment from the worker (e.g. online tutor) do not offer this flexibility. Within sectors too, the flexibility available varies. In beauty work, some companies require workers to physically report to offices where they lease out kits, while other models expect workers to own their own kits, the costs of which are deducted out of their remuneration. Similarly, in several sectors, while how much work to take on and when is up to the worker, flexibility ceases once a project, or an order is taken on. Not only do these different models impact flexibility, but they also present a complex set of trade-offs that women workers must negotiate.

"though it's great that am working from home but, the only problem is I have to devote a lot of time studying also and you know earlier when I was doing my offline job I knew I had a meeting even when I was working from home if I had a meeting for two hours right, with that it was easy I could continue doing other things as well my housework anything, but here it is a video, I have to be on video mode and it is very difficult to do anything even if

my daughter comes and asks me a question, it is a very difficult to answer it's a video call, I have to mute myself, close the video, and do something but if you do a normal call, we are talking even along with it I do something else its ok right, I can concentrate on two things but over there I cannot so it gets a little difficult sometimes, if am unwell, I just have to message my senior that am unwell, here I have to make calls, cancel slot, speak to the parents and you know and what not." – Online Tutor, 38, Female, India

Platform work allows workers to ride out periods without steady offline employment, like during COVID or even to cover up missed work days. It also allows workers to hedge risks while starting in new sectors or profiles of work. Because platform work is not characterised as a job, especially in online work, there is no risk of losing a job. Women believe they can pick up where they left off after tiding over crises or attending to other responsibilities, which is very attractive.

"I am more, you can say, independent now. I am not, like there are no policies or procedures to follow, OK, you have to come to office at 9, or 9:15, if you come late, your whole salary will be deducted. So, that kind of, you have that independence, you work when you want to work." – Online Freelancer, 34, Female, India

Similar to other situations of informality, like the prevalence of oral rental contracts between renters and landlords in informal housing, the lack of formal contracts allows for some amount of freedom and flexibility that workers feel empowered to negotiate at their own terms. The use of 'care and control' frameworks (Hulse et al 2011), where exploitation is perceived as caring or advantageous is prevalent where economic relationships are characterised by informality and unequal power. Flexibility comes at the cost of steady work and regular income in a labour market where decent jobs are scarce. Women prioritise care and accept sub-par work as trade-offs. This is obviously easier when household incomes are stable and higher, and much harder for women from lower-income and socially disadvantaged backgrounds.

"But I also ended the contract like within like two months. In a nice way because I didn't want also like a bad review, but I knew that he could give me that, so I didn't want to end it right away. So I ended it 2 months later saying that I like had some other personal requirements and I am going out of Upwork ." - Online freelancer, 25, Female, Sri Lanka

Beyond easing carework, women leverage flexibility to enhance agency and achieve their goals. Re-organising their time allows women to invest in training and skill upgrades and take control over the pace and direction of their career. Outside the traditional rubric of career progression and income, women see intrinsic value in the agency to make independent choices. Younger women in our sample also value the flexibility because they can take time out for self-care and leisure (*ghoomna, doston se milna*/roam around, meet friends). At the same time, women recognise the need to set boundaries in situations where flexibility over time threatens work-life balance.

"I previously used to work quite late in the night and I kind of decided not to do that because I actually had an health issue after I did that, you know over work myself a bit. So I had to kind of take a break from all of that and

I decided that I need to kind of prioritize" - Online freelancer, Online tutor, (Creative entrepreneurs), 31, Female, Sri Lanka

"flexibility is important ….. I don't feel like doing some work, in office I have to do, whether I want to do it or not, it is giving me a comfortable zone whether I want to do it or I don't want to do it, I want to do something extra for extra money I can even do that"- Online Freelancer, 29, Female, India

"I like working online because that means I can take out time for my children and household responsibilities while working and earning at the same time. If I feel like it, I will accept booking; if I don't feel like accepting them, then I will refuse that booking" — Platform Beauty Worker, 32, Female, India

8. *Platform design and women's work*

A variety of factors drive women to take up platform work, including the need for more flexibility and autonomy over their time to be able to manage household responsibilities and other non-remunerative work. The financial burden experienced by many as a result of the COVID-19 pandemic also provided an additional push towards platform work.

Section 6 discussed how platforms made clear choices about their structural and operational models based on the economic actors they are catering to, their business objectives and the technologies they deploy. In the previous section (7), we discussed the types of work women engage with on platforms, their employment trajectories and motivations to take up platform work.

The experiences of women, the nature of their interactions on platforms and the outcomes of platform-mediated work on women's empowerment are influenced, on one hand, by platform models, design and rules, and on the other, by the social realities of women who seek to work in a society and economy where patriarchal norms are prevalent. In this section, we examine how platform design and policies address women's employment needs. Overall, we find that though platforms interact with and are influenced by existing norms and institutions, they are themselves composed of infrastructure networks, rules, policies and protocols which constrain and enable women's empowerment in several ways.

8.1 Work allocation, remuneration, and penalties

Different platform models control work allocation differently, having varying impacts on women's agency over their time, their earning potential and the level of precarity they experience.

Freelance platforms function as a marketplace where a worker can bid for projects or market their skills to potential clients. Being able to secure a gig depends on how much time the worker spends

looking for projects, how many people are bidding for the project and how competitive the bid is. The client makes the final decision on which freelancer to hire. However, other factors like the amount of competition and prices bid by other freelancers impact a freelancer's ability to secure gigs. Freelancers in Sri Lanka cited these as the main reasons for not using platforms. New entrants to freelance work feel the pressure to bid lower or even do a few projects free of cost to get reviews on their profile, which paves the way for them to secure gigs in the future.

Another factor that impacts the worker's agency over their time is the time of day they can dedicate to searching for gigs. Most high-paying jobs come from Europe and the US and are posted in the evening or at night. Many prefer these jobs because of the higher remuneration and smooth client interactions, but household responsibilities and care work limit women's ability to be active on platforms at night.

In contrast to freelance work, the microwork ecosystem is very systematised – breaking a task down into many small parts and distributing it to a geographical disaggregated workforce requires a well-oiled, smooth machinery. However, respondents report that these platforms are not user friendly, and many get guidance from their personal network or social media platforms like Reddit in the early stages of starting microwork. In fact, the role of social networks is integral in linking women to platform work and further, in hand holding them through the experience, so that they can maximise their income.

A lot of time is spent by respondents at all hours of the day searching for 'hits' (a single task on most microwork platform is called a hit). One 27-year-old microworker in India said "Everyone is busy, refreshing their pages." The process of qualifying for a hit is mechanized and there is no human interaction. Once a hit is published, workers must qualify and finish the hit within a stipulated time and with a certain level of accuracy. Algorithms on microwork platforms reward those with consistent and accurate hits. This is a deterrent for caregiving women for whom microwork can be an important supplementary source of income.

Microwork platforms also exert more control on workers compared to freelance platforms. For example, workers are automatically logged out from a popular microworking platform after 8 hours and must maintain a certain level of accuracy in their work; if the accuracy falls below a certain point, they are automatically blocked from that hit. These conditions can be discouraging for caregiving women, students etc. for whom microwork can be an important supplementary source of income.

In edtech, new entrants reported having to spend a lot of time waiting to be assigned trial classes. Most edutech platforms assign students to teachers for trial classes, and the teacher is responsible for conversion of these leads. The teachers cannot market or promote themselves, neither do they have control over who gets assigned to them for trial classes – they can only select the age group to teach at the time of signing up on the platform. However, getting trial classes in the beginning takes time – multiple teachers mentioned being confused about why they weren't getting classes for the first few months. Teachers on these platforms choose certain slabs based on the minimum number of hours

they can commit to a platform in a month and get paid a fixed amount irrespective of the number of classes they get. But they must be available and on their computers for this duration, thus limiting their ability to do other tasks. If teachers consistently fail to meet this minimum requirement, they are automatically bumped down to a lower slab.

"Thing is there's a lot of micro-management that is, that I've learned during this tenure that I've been on [edtech platform name], like, earlier, you could just, you know, get up and take a vacation. So right now, I have to plan months in advance, and even then….I have to be prepared to take a salary hit, which was not there earlier. I have to think twice before taking even a day off because I know that that might impact my payout. So, yes, that has been the major impact it has had on my life. And of course, mobility, I am, I do feel that I am stuck at home, and, but then I get, that's the making of my own decisions. I could have probably opted for lesser hours but I was probably greedy for more money so I opted for 240 hours, but that's making of my own decisions. But yes, you are kind of homebound. You have to think twice before heading out." – **Online Teacher, 37, Female, India**

"I selected the highest [slab], 240 hours in a month… So I was doing 60 hours a week, seven days a week working, but then the only thing is that you do not get classes back to back… And if I kind of go below 240, they will give me, you know, for three instances, the salary does not get deducted but if it goes beyond three instances, then I come in the 200 bracket." – Online Teacher, 38, Female, India

In location-based platform work, job allocation is handled by the platform with little to no transparency on how it works. Workers can determine their radius of work, but there is no guarantee they will only get work within that radius. In fact, some beauty workers we interviewed say that they have started getting jobs at faraway locations frequently since the pandemic. Beauty workers also report a reduction in jobs through the platform since the pandemic, further impacting their income. However, as the platform still requires them to complete a minimum number of jobs per month to continue on the platform, they are compelled to take jobs outside their radius, spend more time and money traveling, and accept jobs that might not be financially remunerative. The platform also imposes penalties on workers for rejecting or canceling jobs, not being active on the platform for a certain period of time, or for a drop in ratings. Penalties can range from mandatory re-training, monetary fines or temporarily blocking a workers' account. While there is the perception of platform work brings more flexible compared to offline beauty work, platform rules are designed such that flexibility becomes more of an illusion and women do not experience it in their day-to-day work on the platform.

"If we have important personal work and need to reschedule an appointment, we are charged a penalty. We have to inform four hours before the time of service. If we do not, the penalty is charged according to the value of the service." – Platform Beauty Worker, 25, Female, India

Microentrepreneurs rely on their personal networks and social media to reach potential clients. While there is no job allocation mechanism here, the ability to be discovered by new clients is essential for their business. Changes in a social media platform's search and discovery algorithm have a significant impact on their business. For example, Instagram's recent changes in the algorithm to promote more

creator content and advertisements means that microentrepreneurs must change how they promote themselves. Learning and adapting to these changes takes time away from their core business.

"And I think for new people, to be able to you know, find their audience... it's a struggle.. if I start a brand new page today, I would be very surprised even if I get 50 people following me, in like 6 months, because it's much harder now because your work doesn't get promoted. Reels are the only thing that get promoted, videos are the only things that get promoted but before that... I remember being in a time where...[Insta] was like a photo sharing platform. Now it's changing to a video sharing platform, but video is not everyone's cup of tea, videos take a lot more investment with time, energy, money and editing process ... so that fight bit has been of a challenge... It is definitely disheartening when... your work doesn't ... reach your following, and it only reaches 10 percent of the people... I think I have about 1000 people on my list and, I only get about 100 people viewing my work..." — Creative Microentrepreneur, 29, Female, India

8.2 Ratings

Platforms use rating systems by customers to control access to work. They have a significant impact on freelancers and location-based beauty workers. Many freelancers report that it took up to six months to get their first gig when they set up a new profile on the platform. In some cases, respondents either bought special packages from the platform that allowed them to bid for more projects or did projects for free in the beginning to get a review and rating on their profile. Once they establish their credibility on the platform through ratings, they get a steady stream of work through new and repeat clients. Once a worker has a well-established relationship with the client, they may even take their work off the platform so as to avoid paying platform fees. None of the freelancers in our sample report being rated unfairly by clients.

"It was real difficult to land on a first job. And you needed to get your first review so that you can go ahead, because otherwise like no one is going to like believe you because you're not a native, you're not a native English speaker." — Online freelancer, 25, Female, Sri Lanka

For beauty workers, ratings determine their future on the platform. If a worker is consistently rated below a certain level, they are sent for retraining and a new profile is set up for them. Workers feel pressured to maintain a good rating as customers prefer to get services from workers with a higher rating. However, there is no transparency on how aggregate ratings are calculated and the different factors that contribute to their overall profile rating. The issue of conflict resolution with respect to ratings also comes up repeatedly among beauty workers. Platforms are strongly biased towards customers, which implies that workers do not have a recourse mechanism if they have been unfairly or incorrectly rated. Workers report that in the recent past, platforms have changed their support policies such that workers have to raise a ticket on the app and someone from the platform gets in touch with them; they cannot call the support centre to report an issue. This extends the conflict resolution time and workers may choose to use that time for other activities.

"Irrespective of what we do, whether we do good work or bad work, everything comes down to ratings for us. The customer also wants service providers with good ratings. Many times, customers have said that we made a booking, but the service provider we were matched with did not have good reviews, so we cancelled the booking. A bad rating does not mean the person does bad work. It could be anything — I could have spilled some water in the customer's bathroom accidentally, and they will give a bad rating for that and that will have an impact on the jobs we get." — Platform Beauty Worker, 33, Female, India

"I have been on the platform for 6 years and my rating was 4.97, only three points less than 5. But when the second wave of the pandemic happened and new service providers joined the platform, the platform reduced the rating for the older service providers on their own, because otherwise no client would accept them. Old clients like to stick to the same service provider. They reduced my rating to 4.61 and changed the design so I couldn't see my own rating on my phone, but showed it to the client. So when I went to a client's house for service, I checked my rating on their phone." — Platform Beauty Worker, 32, Female, India

8.3 Support structures and safety concerns

Women's workforce participation is closely connected to the broader risks they face in terms of sexual harassment and violence. Women and their families perceive location-based work as particularly unsafe. Doubts over the safety of homes they would need to visit or uncertainty about whether the person booking the service is male or female acts as a disincentive for beauty workers, for instance, to join platforms. This perceived risk can outweigh the potential economic benefits. Mobility is also a real issue. Online beauty workers require their own mode of transport or must use public transport to be able to work on a platform; whereas, in offline beauty work, a fixed place of work and a fixed commute routine between work and home can provide a sense of security to both the worker and their family members.

"Yes well, they didn't like at first and even now sometimes they don't like...because of the late hours and time schedules. Especially now in this situation (reference to the ongoing fiscal crisis0, you know, waiting in the petrol queue and all that. They are scared a little. And they think a lot. And they are always worried. Especially when I come home late. But now that I have done for a long time, they are okay and settled" — Transport/Delivery/Logistic workers, 27, Female, Sri Lanka

However, our interviews reveal how platform beauty workers learn how to navigate difficult situations or identify suspicious clients over time. As women get familiar with routes in their area, they also get comfortable with the commutes involved. They learn to use the emergency button on the app if they find themselves in an unsafe situation or exit jobs when they find work conditions suspicious. However, similar to the experience with faulty customer ratings, platform workers in India report difficulties in accessing platform executives to resolve disagreements with a client, issues with payment and commissions etc. which can also result in uncomfortable and unsafe situations. Here too, on many platforms, the call centre system has been replaced with the complaint system that the app can respond to when convenient, leaving workers with the impression that customers are the only priority and solving workers' concerns is not.

In Sri Lanka, location-based workers reported deploying safety mechanisms independent of the platforms. Although large ride-hailing platforms do have a safety/SOS button, one female driver said she hid a second phone on her and shared her GPS location with a relative as precaution. The same driver also mentioned a community-driven safety mechanism in the Telegram 'panel' that she belongs to which primarily is made up of male taxi drivers, who look out for the few females that are on the panel. In contrast, some indicate that being on an app provides an important layer of safety as compared to taking direct taxi hires.

"In our panel there are only 2 females working in the panels, the males in these panels have always advised us to drive safely and at any point if there is some sort of an uneasiness to drop a message because each and every one is connected in the panels that they'd come for assistance. Let's say if I go to Kandy there are at least three people in Kandy for help or assistance, I have to only let them know I am let's say in Kadugannawa then they'll watch out. There advise is always be safe and they are very helpful in the panels." – **Transport/delivery/logistics worker, 45, Female, Sri Lanka**

"I have a car at home, so I joined up the car using the app, because through an app unwanted things may not happen as compared to if just take on hires…. its scary to go on hires when anyone calls for it." – **Transport/Delivery/Logistic workers, 36 , Female , Sri Lanka**

Online harassment is also not uncommon, but whereas edtech platforms seem to have stronger responses, microwork platforms offer little or no support.

Teachers on edtech platforms have no certainty when she is turning on her video camera for a trail class who the person at the other end is or how they will behave. However, women report that platform responds immediately to their complaints. In microwork, the work is extremely mechanised and any risk involved in engaging in the work in borne by the worker alone. Many microworkers are exposed to sensitive or violent content while doing data labeling work; all our respondents report getting desensitised to such content over a period of time. Long-term emotional or mental health effects of being exposed to such content was not a part of our analysis, but previous research has highlighted the harmful impact of microwork on the workers' health.

"..sometimes there are people who are not students and join in… so for that we have SOS wherein someone would quickly join in and I leave the session because I … am not comfortable with that person…I get a call [from the platform] and they do take my complaint… so generally I don't keep my camera on until I see the student …" – **Online Teacher, 38, Female, India**

"… we were told that when we joined the class…we should ideally wait for the student to turn on camera, and only then shall, should we turn on camera because we never know who's on the other end, right? So, there was a thirteen, fourteen-year-old boy who had joined in and he turned on his camera, I turned on mine after that thinking that …I can…probably teach him or whatever. And he started taking his clothes off. So that is when I, you know, quickly clicked on the SOS button. And then they did what they did at their end, I didn't even find out because he was a thirteen-year-old boy…at that point in time…I was obviously disgusted by it, but then I realized

that he is a boy, needed more help then probably I did... some sort of counseling...you know...but I have heard worse... you have all kinds of crazies out there." — Online Teacher, 37, Female, India

Freelancers do not report safety concerns, but they do face issues around payments and client responsiveness occasionally. Many women report falling for 'fake gigs' when they start out with freelance work to get traction and review — a fake gig is a gig posted by a user who asks the worker to pay money upfront to get work and reviews. Platforms are responsiveness to this concern when reported and block the account of the user posting fake gigs; however, new accounts keep cropping up and it is through experience that freelance workers learn to discern legitimate versus fake gigs. A few workers reported facing discrimination based on their geographical location and language.

"And I think [working via the platform rather than directly with a client] is a safer way to work because there is payment protection and everything." — Online freelancer, 25, Female, Sri Lanka

"When I first joined Upwork it was really difficult to find a job, one of the reasons was that I am from a bilingual-like I have a bilingual background and not a English native speaker per say that is like their opinion so, there were lot of job postings where it specified native speakers only where we couldn't apply, where bilingual, people couldn't apply so that was one of the problems. Also like in the beginning I had lots of clients asking me if I could speak English really well if I could write, like I think that they questioned me more because I came from Sri Lanka or a third world country." — Online freelancer, 25, Female, Sri Lanka

8.4 Perceptions and gendered aspects of platform work

Platforms exert power over women's time use, earning potential and career trajectory. Platform workers are independent contractors, not employees of the platform. Many platforms use terms like 'partner' to distinguish a platform worker from an employee. Platform models that emphasize this contractual relationship shape women's expectations especially in the case of online work but it is also true that location-based workers expect platforms to behave like a regular employer. Platformised beauty workers often use terms like 'our company' when referring to the platform. Even though they acknowledge that they are not an employee of the platform, the terms they use when referring to the platform or the relationship between them (the worker) and the platform belies that knowledge.

"The platform calls us partner; we have to wear a uniform with their logo. But we have no benefits of being a partner. We are employees and they treat us as employees." — Platform Beauty Worker, 25, Female, India

Freelance and microworkers, on the other hand, do not expect the platform to behave like an employer. They do not expect any additional benefits or social security, nor do they consider the platform responsible in any way for the fluctuation in earnings. They see the decision to engage in cloud-based work as a personal choice, and consider the uncertainties associated with it as a consequence of that choice. It is possible that the flexibility afforded from the nature of the work is the trade-off, or the 'perk' of the job that they perceive. Similar thoughts were echoed by transport and delivery workers in Sri Lanka.

"When I first joined Upwork it was really difficult to find a job, one of the reasons was that I am from a bilingual... background and not an English native speaker per say... that is like their opinion so, there were lot of job postings where it specified native speakers only where we couldn't apply... Also like in the beginning I had lots of clients asking me if I could speak English really well... if I could write... I think that they questioned me more because I came from Sri Lanka or a third-world country." – **Online freelancer, 25, Female, Sri Lanka**

"Yes [other benefits] may not be available in this job role but we do have monthly promotions. If you work hard you get these promotions. They give us allowances through these promotions. And these are valid through the year. Where as in an office those extra things only comes once a year right? Here at least we can get those bonus's every month even if we work very hard." – **Transport/Delivery/Logistic workers, 27, Female, Sri Lanka**

These differences are partly due to the heightened impact of gender while delivering location-based services, in terms of mobility restrictions, customer service and soft skills expectations as well as platform rules related to work allocation, penalties and ratings.

The gendered division of work seen in offline work persists in platform work as well. In location-based work, it is extremely difficult to find women engaged in transport and delivery logistics because of societal norms that consider this work inappropriate for women. In other forms of location-based work, you find women concentrated in beauty and personal services and domestic work. In some situations, platform work leads to further gender segregation – domestic and cleaning work is primarily a woman's domain offline; however, platforms have introduced a category of 'deep cleaning' with a largely male workforce because the work involves the use of machinery for cleaning.

We find similar results in cloud-based work. Most freelancers report that women are concentrated in content writing, editing, design, data entry and virtual assistant type of role. In contrast, they find it harder to get technical gigs even if they are highly qualified in that area. Microworkers report that they 'feel' there are more men than women engaged in microwork because of discussions on social media platforms and groups, though there is no way to corroborate this as the worker in completely anonymised. Teachers on a popular international education technology platform report that they have a 100% female workforce. Edtech is also a female-dominated sector, mirroring offline education.

"The owner wanted that females who are from various cities where they are not able to ... go out and work because of their household problems or (because) the area is such... but they are educated enough to teach... so he wanted those teachers to get the platform to teach, females especially..." – **Online Teacher, 38, Female, India**

Here too, there is a difference in the level of entrepreneurship. A respondent working on an education technology platform that provides teachers with the infrastructure to become entrepreneurs and set up their own brand and teaching institute reports that most of the entrepreneurial setups are by men, while women tend to work for brands or individual entrepreneurs.

"Most women teachers are not able to build their own brand. Tthey work under some other organisation. It is due to time flexibility, kind of responsibility, that is what I feel... I read in some telegram groups of [platform name],

all the brands all over the country maximum number of institutes are built by male teachers or owner of the brand. Because women are not coming out to build their own brand, they are working for or under someone." — Online Teacher, 25, Female, India

9. *Empowerment impacts of platforms*

Women require diverse resources to find and sustain work on digital platforms, including:
- skills, education
- ownership of assets like digital devices or personal vehicles
- access to the Internet,
- access to finance
- social networks
- knowledge, often tacit and acquitted via networks, about how to navigate platform models

Different platform models require unique resource combinations. For instance, resellers on online marketplaces require business capital, the know-how to run a business and a social network where they can market their products. On-demand platforms need specific skills and assets. Online work may need a computer and access to the Internet while location-based work may need transportation, in addition to skills.

Therefore, despite the idea that digitised work opportunities may have a wider footprint and be accessible to many more women, in practice platform work, similar to the offline labour market, is not easily accessible to from low-income households, those with poor skills and education and those who come from disadvantages communities that cannot link them with robust social networks.

Besides resources, women's agency is an essential factor, manifested in the kind of support within the women's households for them to engage in remunerative work, especially in how carework is distributed within the households and the extent to which their physical mobility is controlled. Platform work allows women some control over the quantity and timings of their work, and women unequivocally value this flexibility. In that sense, platforms are an important avenue for women's economic empowerment.

However, flexibility is often not a real choice because work allocation, rating and penalty systems often push women to take on large amounts of work, work in locations further from where they can easily travel, spend large amounts of time looking for work and so on. Platform pricing models are tough, as ratings and penalties are unpredictable and non-transparent. Therefore, platform work is precarious and remuneration unpredictable. Except for well-paid and skilled freelancers, we find that women do not regard platforms as viable long-term work options and certainly not an avenue for career progression.

In what ways does platform work empower women? Referring to Kabeer's framework, we find mixed results for impacts on women's resources. Unlike employer-employee relationships that offer remuneration for a defined work profile, relationships between platforms and workers take diverse forms. Besides the standard remuneration model in exchange for labour, women performing online education or engaging in marketplaces may be paying subscription fees to platforms for connections to clients or customers.

Price setting is also a function of platform models, and there is not much room for individual negotiation. While platforms can influence the ability of workers to get better remuneration from clients, large-scale platform firms are focused on customer satisfaction and are often engaged in underpricing their rival firms. In India, many platformised sectors exhibit duopolies, which result in less choices for customers and platform workers alike.

While these impacts are not designed to be gendered, social conditioning reduces women's ability to demand better remuneration, be entrepreneurial in their approach or switch platform firms rapidly to leverage the best conditions of payment. Women seek stability, are risk averse and often satisfied with bringing a supplementary income to the household.

In terms of building skills and networks too, results are mixed and dependent on the type of platform model. Whereas microwork that comprises repetitive and numerous gigs does result in dramatic skill improvement, location-based work and freelancing build soft skills and domain knowledge through training and hands-on experience. Beauty workers and freelancers also report building customer bases online, which results in assured work and opportunities to maximise income by bypassing platforms.

In terms of agency, platform work presents a paradox. While on the one hand, for women constrained by patriarchal norms of mobility and carework, platforms offer an avenue for remunerative work. Conversely, online platform work discourages women from working outside the home, preventing them from building robust professional networks and long-term careers and making it harder for them to break out of the norms constraining them. Yet, platform work opportunities help women gain confidence, improve their social status at work and within the home and, at least for creative entrepreneurs, resellers and freelancers, also help them set more ambitious work goals for their future.

10.   *Recommendations*

The 'ecosystems' approach in this project brings together an understanding of platform models, women's experiences and regulatory circumstances to suggest how different stakeholders can work towards increased participation and empowerment of women via platform work.

10.1.   Recommendations for platforms

In general, platform firms have made definitive efforts towards gender inclusion as part of their DEI efforts. Several of these initiatives, like instituting paternity leave, introducing period leave and ensuring women are represented on Boards are undoubtedly progressive policies that address key problem areas for women's participation in work. It is also obvious that platform forms cannot address larger societal problems that emanate from a deeply patriarchal social structure.

However, this report's findings indicate that platforms could address women's concerns through addressing some facets of their own business and operational models as well as in the ways that they interact with government authorities.

- Review algorithms and machine learning practices to eliminate any existing biases that might disadvantage women. Bring the voices of multiple stakeholders, especially women workers, to the table in doing so can go a long way in making algorithms more supportive and build trust by helping workers understand the logic behind them. For example, where microwork algorithms reward consistency, changing measurement metrics can create a level playing field for flexible workers, most of whom are women.
- Such participatory mechanisms can help balance the current bias of platforms towards customers and establish a fairer system that meets customer needs without disadvantaging women workers.
- New entrants, especially in freelance work, feel the pressure to bid lower or even do a few projects free of cost to get reviews on their profile, which paves the way for them to secure gigs in the future. A related problem is that of new entrants falling for 'fake gigs' when they start out with freelance work to get traction and review. Because the learning curve for women is hampered by time poverty, platforms can help level the playing field by setting a minimum floor for bids to ensure rates don't go so low to make it unviable for workers in the long run. By ensuring bids remain above a certain minimum, platforms can help create a level playing field for different types of freelancers. Platforms can also institute better mechanisms to screen the posted gigs and share training materials that help new entrants avoid these issues.
- Similarly, tight response times for freelance work can disadvantage women whose caregiving responsibilities limits their work windows. Platforms can lengthen response windows that allow time for women to respond to gigs and offer them a chance to compete for high-value foreign gigs that are usually posted when it is night time in India and Sri Lanka.
- Invest in awareness raising, recruitment, and training of women for occupations mediated through platforms that are traditionally male dominated, for instance, taxi services, delivery and other logistics services, or STEM related professions.
- Many women workers do not have well-developed personal social networks to access the guidance needed to navigate platforms. Platforms can do more to popularize the information

needed via social media so that those with weak social networks, women included, are also able to participate in a robust manner

- Pro-actively institute policies that support women's engagement; for instance, remove the minimum hour requirements, and address safety concerns of women and their households through interactions, meetings and communication materials.
- Facilitate access to finance such as low-cost loans and loan guarantees to enable women to purchase input resources ranging from vehicles to computers and other technology.
- Take steps to make the skills imparted by platforms recognizable through certifications, incorporation of standardized skills modules etc. so that women can benefit from them in the long-term.
- Institute well-functioning grievance redressal mechanisms and processes, especially those that can respond quickly to women facing unsafe circumstances.
- Provide assistance to workers in seeking out and accessing social protection schemes, assistance, and insurance.
- Work toward data sharing agreements with government authorities so that platform data may be used to support informed, evidence-based policy making.

10.2.   Recommendations for policymakers

Public policy can intervene in two ways: first, by addressing the societal and infrastructural issues that make workforce participation so difficult for women; and second, by incrementally improving policies that directly impact the relationship between platforms and workers in regulatory areas like labour, taxation and data privacy.

Gender-inclusive policy
- Facilitate the collection of systematic data about platform work through the national statistics system and define clear procedures for the categorization and measurement of this workforce, in a gender disaggregated manner.
- Address time poverty for women by easing the burden of domestic and care responsibilities through providing childcare and other such entitlements. These should be enshrined in policy, and implemented in practice.
- Adopt measures to ensure safe commuting and working conditions for women. These include measures ranging from adequate lighting on streets, to ensuring improved last mile connectivity in public transport, etc.
- Promote equitable access to technology, education and training, and subsequent access to a wider range of occupations than just those that are gender-normative through public campaigns to ensure that girls have equal time and access to technology in school, institutions

of higher education and training, as well as at home. Consider different incentives such as subsidies that draw and support women and girls in non-normative fields such as Science, Technology, Engineering and Mathematics where they are underrepresented.

Platform regulation
- Institute regulations that require platforms to institute safety-related education and protocols for women as well as redressal mechanisms in instances where women experience any form of exploitation or violence.
- Craft data-sharing agreements with platforms in order to inform public policy. There is a pressing need to collect more data from platforms, including gender-disaggregated data, on the incidence, characteristics, and experience of women engaging in digitally meditated work through platforms.
- Data sharing can also help strengthen social security access to platform workers. In this, pay particular attention to women-headed households and women in invisiblised work like home-based work and domestic work.
- Consider how to tax platforms such that the revenue generated can be used toward public provision of social security. This would entail resolving concerns around how to tax local versus international platforms.
- Ensure easy and secure online transactions to ensure smooth financial flows between workers, platforms and customers. This is especially true for Sri Lanka.
- Review data privacy laws to ensure the identity protection, safety and security of platform workers and customers

10.3.   Recommendations for workers

- Build awareness about rights and grievance redressal processes.
- Organize with other women workers to engage in collectivization and dialogue with platforms when needed. Participate in online forums and make efforts to connect with peers to stay informed, build networks etc.
- Seek assistance to access available government social protection schemes, insurance, and assistance. This includes seeking out opportunities for skills upgrading and reskilling.

10.4.   Recommendations for civil society and researchers

- Emerging unions and collectives in the gig and platform work domain must recognized be sensitive to the needs of women co-workers and advocate with platform firms for training and inclusion in non-traditional work roles, childcare facilities, grievance redressal and other support mechanisms

- They must support the formation of women's collectives through collaborations and solidarities
- The research fraternity must advocate for and contribute to improved gender disaggregated data about platform work and continue to produce credible research on the ever-evolving impacts of technology on women's employment and economic empowerment.

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