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Understanding the Development Implications of Online Outsourcing: *A Study of Digital Labour Platforms in Pakistan*

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Abstract

Online outsourcing involves outsourcing of tasks from clients to workers all over the world via digital platforms like Upwork, Freelancer and Fiverr. Millions of workers in developing countries are already involved, and governments and donor agencies are starting online outsourcing initiatives that try to offer access to these digital livelihoods to marginalised groups such as unemployed youth and women. However, little is yet known about these initiatives and, to address that gap, the research reported here undertook case study analysis of online outsourcing projects in Pakistan.

Supported by the sustainable livelihoods framework, the analysis showed a context of politico-economic vulnerability to push unemployed individuals into this field. Those involved then divided into four groups: sinkers, strugglers, survivors and swimmers. Many do not succeed but some – more entrepreneurial individuals pulled by the motivation of earnings potential – do, and are able to generate reasonable earnings; for example, enough to fund educational studies. Contrary to an image of de-institutionalised work, this form of digital labour involves a substantial institutional ecosystem. This means not just the online platforms but formal interventions from NGOs and other development agencies, and the creation of less formal social relations of support. These are needed in order to overcome barriers including technical infrastructure, knowledge and skills, and financial systems.

A. Introduction

Online outsourcing involves outsourcing of tasks from clients to workers all over the world via digital platforms such as Upwork, Freelancer and Fiverr. In total, more than 60 million workers in low- and middle-income countries are registered on these platforms, with estimates that around 10% - more than six million – are active (Heeks, 2017). It is predicted that, by 2020, the online outsourcing sector overall will be worth US\$15-25bn (Kuek et al., 2015).

The scale of employment in developing countries is clearly significant, with up to a million active workers in each of India and the Philippines and tens of thousands in other countries such as South Africa and Kenya (*ibid.*; Wood et al., 2016; Heeks, 2017). As a result, donor agencies such as the World Bank and national policy makers in developing countries, for instance, the Philippines, Malaysia and Pakistan have all seen potential for online outsourcing to create livelihoods for marginalised groups: women, youth and those on lowest incomes. online outsourcing initiatives involving government- and donor agency-funded training programmes for economic empowerment of these groups are therefore already underway.

However, the novelty of this model for economic growth has created significant knowledge gaps which mean online outsourcing is likely to underperform in terms of its development potential. Knowledge gaps include issues of incentives and motivations, infrastructural requirements, financial and non-financial impacts, and impact on longer-term career trajectories (Kuek et al., 2015). This paper provides an initial attempt – based on fieldwork undertaken in 2016 in Pakistan – to address these gaps. Specifically, using the sustainable livelihoods framework (DFID, 1999) as a sensitising lens, it addresses three questions:

- What drives those in marginalised groups to engage in online outsourcing?
- What is the infrastructural and institutional ecosystem required, particularly to address barriers to online outsourcing for marginalised groups?
- What are the short- and longer-term impacts of online outsourcing for those involved?

Our aim is to provide a three-fold contribution: reducing the knowledge gap through our findings; demonstrating one approach to the conceptualisation of online outsourcing to marginalised groups; and offering some nascent guidance to practitioners and policy-makers in developing countries who wish to make more effective use of online outsourcing as a development tool.

Following a review of literature on online outsourcing, the paper outlines the conceptual framework that was used to shape fieldwork, details of which are discussed in the methodology section. Following presentation of the findings, some conclusions are drawn.

B. Literature Review

At the time of writing there are hundreds of examples of online outsourcing platforms (see Table 1 for examples of major platforms) that incorporate a wide range of tasks including data entry and transcription; data analytics; web, mobile apps, and software development; legal and accounting services; engineering and architecture services; translation; administrative support; customer service; and sales and marketing.

Platform name	Headquarters	Founded	Type
Upwork (merger of oDesk and Elance)	California, US	2015	Double auction
oDesk	California, US	2002	Double auction
Elance	California, US	1999	Double auction
Freelancer.com	Australia	2009	Double auction
Guru.com	Pennsylvania, US	1998	Double auction
Peopleperhour	UK	2005	Double auction
Fiverr	Israel	2009	One side (seller) posted
Rev.com	California, US	2010	Online labor agency
MobileWorks	California, US	2011	Online labor agency
CloudFactory	Kathmandu, Nepal	2010	Online labor agency
Crowdsourc	Missouri, US	2012	Online labor agency
CrowdFlower	California, US	2007	Online labor agency
iWriter	Indiana, US	2011	Online labor agency

Table 1. Major online outsourcing platforms (source: Wood et al., 2016)

The information systems and business literature on online outsourcing has – necessarily because of the global nature of the platforms – encompassed work undertaken in developing countries. However, it has not taken a development orientation. Instead, one set has tended to focus on organisational- or sectoral-level issues. These may be overviews: for example, understanding online outsourcing as a new “human cloud” type of business model (Kaganer et al., 2013). Or they may look specifically at the client-end of the value chain: for example, identifying online outsourcing as reducing the barriers to offshoring and thus enabling a wider range of client organisations (e.g. smaller enterprises) to become involved (Hanley & Ott, 2012). Another set has focused more on the “mechanics” of online outsourcing platforms looking, for example, at the IT-enabled work monitoring systems (Liang et al., 2016) or use of feedback and profile information (Assemi & Schlagwein, 2016) that underpin the functions of the platforms.

There is also literature looking at the worker-end of the value chain. Some of this has been quite negative in its view of online outsourcing, seeing it as a “digital sweatshop” (Zittrain, 2009). Bergvall-Kåreborn & Howcroft (2014) and Ettlinger (2016) note the lack of typical employment benefits from this new form of employment with an absence of holiday pay, sick leave, health insurance, minimum wage, retirement benefits and compensation in the event of injury. Workers are driven to accept these terms because of a background of economic austerity and uncertainty. But such outcomes are enabled by the institutional context. This can be explained in terms of a de-institutionalisation of work: an absence of legislative oversight for a work process that is invisible, mobile and transcends national

borders; and an absence of collective bargaining, collective wage agreements and unionisation in relation to labour (Bergvall-Kåreborn & Howcroft 2014). Or it can be explained in terms of the particular institutional rationalities imposed by digital platforms: decentralisation, precarisation, informalisation (Ettlinger 2016). In either case, there has been a concern to re-institutionalise; particularly helping to develop labour-oriented institutions. Actions include:

- creation of platforms that seek to mitigate information asymmetries between clients and workers; providing reputational information on clients to match the reputational information on workers that main platforms provide (Irani & Silberman, 2014), and
- creation of labour unions for online outsourcing workers (Zuckerman et al., 2015).

Because of the novelty of online outsourcing, critical research is often based on secondary sources, and primary research has given a somewhat more nuanced view with a picture emerging of differentiation. Study of skill and employment impacts of online outsourcing working found, for example, that this work enables workers “to renew existing skills through practice, to discover and utilise latent skills and to develop specialist skills” and to improve their employability (Barnes et al., 2015:28). However, this only happened for those workers who could overcome skill and other barriers to entry, and who could employ “continuous marketing, good client management skills and self-promotion” and who operationalised “characteristics of self-efficacy, motivation, self-reliance and adaptability” (*ibid.*: 28).

Research on financial impact of online outsourcing shows that most workers use this to supplement other sources of income. However, there are significant numbers who use it as a main source of income (Berg, 2016). Here also there is a differentiation, but geographic. First, those in developing countries are more likely to use online outsourcing as a main source of income: half of Indian workers on Amazon Mechanical Turk stated this (*ibid.*). Second, payments differ. Online outsourcing workers in the global North tend to earn more in absolute terms but workers in the global South earn more in relative terms, i.e. relative to average wages in their country (Barnes et al., 2015; Beerepoot & Lambregts, 2015).

This promise of relatively-good wages and livelihoods has propelled significant interest in online outsourcing in developing countries, with particular aspirations that it could provide livelihoods to groups often excluded from the economic mainstream such as women and young people (it is estimated that two-thirds of young people in developing countries are either unemployed or trapped in low-quality, low-skill jobs (Kuek et al., 2015)). As a result, a number of online outsourcing initiatives have been implemented. Examples include:

- The NaijaCloud initiative in Nigeria, sponsored by the World Bank and supported by the national government, which provided awareness workshops on online outsourcing.
- The Youth Employment Programme (<https://www.kpyep.com/>) of Pakistan’s Khyber Pakhtunkhwa (KPK) provincial government which has aimed to train 40,000 young people to use Upwork and similar platforms.
- Malaysia’s eRezeki initiative (<https://erezeki.my/>) which has trained hundreds of freelancers and uses a “walled garden” approach with US crowdsourcing platform Massolutions: a managed portal for online outsourcing work such that the work process is controlled by government.

Yet, as noted in the Introduction, this increase in activity has not yet been matched by growth in research. There is some work (e.g. Beerepoot & Lambregts, 2015; Berg, 2016) that takes a global perspective including workers in developing countries; and a little looking specifically at developing countries (e.g. Heeks, 2017; Wood et al., 2018). However, we are not aware of research looking specifically at online outsourcing in developing countries that aims directly to assist those in marginalised groups. It is this which motivates the current study.

C. Conceptual Framework

Work in online outsourcing represents a livelihood. Reflecting earlier work analysing outsourcing of IT-based work to marginalised groups (Heeks & Arun, 2010), we therefore decided that our conceptualisation of this activity would be shaped by the sustainable livelihood framework (DFID, 1999). The SLF (see summary overview in Figure 1) sees livelihoods as existing within a context of vulnerabilities which can drive or undermine livelihood strategies. It is therefore particularly to this context that we will look in order to answer our first question about drivers to online outsourcing.

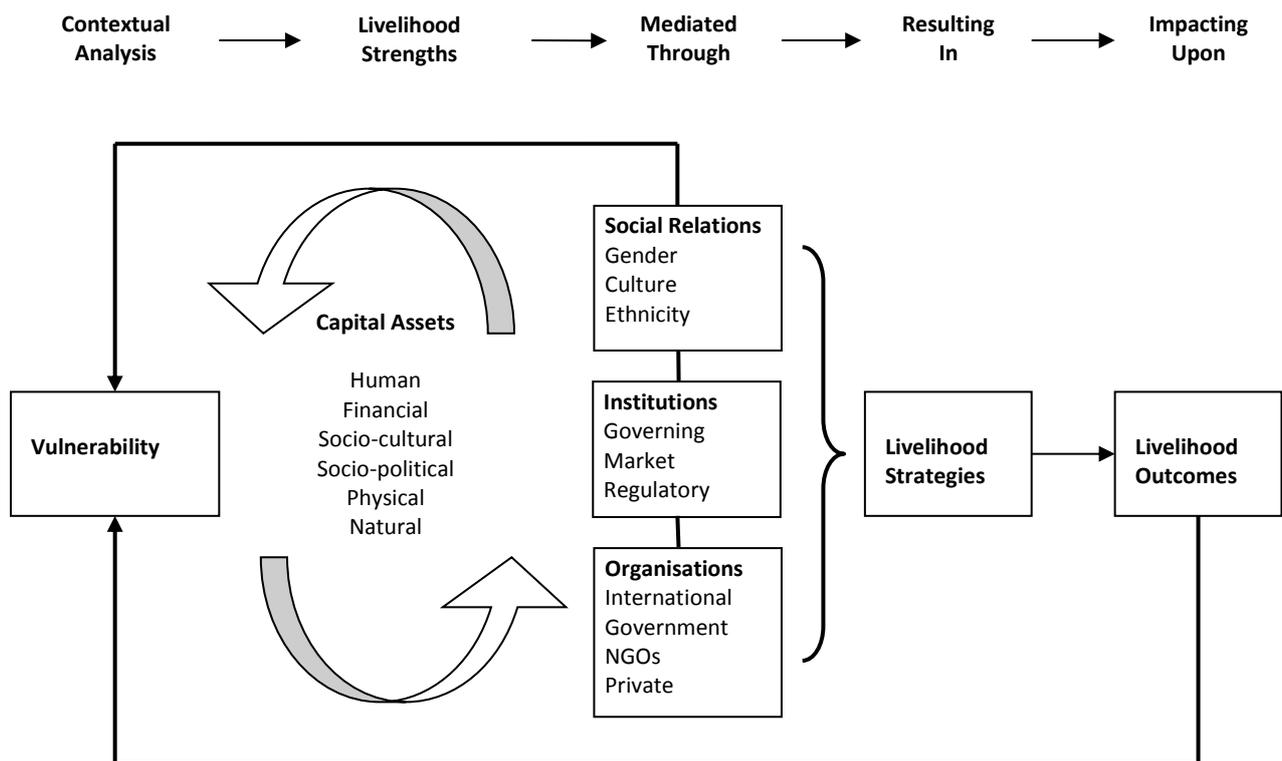


Figure 1. Livelihoods frame of analysis (source: Duncombe, 2006)

To create a strategy, individuals draw on a set of capital assets. Here, and following the earlier Heeks and Arun (2010) study, we considered the four that were particularly relevant:

- Human capital: “the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives” (DFID, 1999:7).

- Social capital: “the social resources upon which people draw in pursuit of their livelihood objectives” (*ibid.*:9).
- Physical capital: “the basic infrastructure and producer goods needed to support livelihoods” (*ibid.*:13).
- Financial capital: “the financial resources that people use to achieve their livelihood objectives” (*ibid.*:15).

These assets are deployed within a broader environment of relations, institutions and organisations – both formal and informal – which, for example, shape access to those assets and also the options for their integration which form different livelihood strategies. In answering our second question, we will therefore understand barriers and ecosystem in terms of the capital assets and the access to livelihood assets that the institutional and organisational environment provides.

Finally, we can understand the impact of a livelihood in terms of the lower reverse arrow in the diagram, measuring that impact in terms of improvements – or otherwise – to the stock of assets that individuals can call upon (see Heeks & Arun, 2010). We will use this approach to answer our third question.

D. Methodology

We report on a field study undertaken in 2016 involving interviews with stakeholders at two World Bank-funded online outsourcing training organisations in Pakistan: the Karakoram Area Development Organization (KADO) and Empower Pakistan (EP). These organisations have designed and implemented training and support schemes aiming to enable women and unemployed youth in Pakistan to engage in online outsourcing.

We followed a qualitative exploratory field study method (Palvia et al., 2007) to investigate the context and impact of online outsourcing livelihoods, with fieldwork based particularly in the Northern Pakistan region of Gilgit-Baltistan. A semi-structured interview format based on sustainable livelihoods categories and concepts provided the structure to guide the interviews. The questions acted as an interview guide and allowed the interviewer flexibility to probe into unanticipated areas of interest to the interviewees based on the conversation. Interviews were recorded, translated, transcribed, and coded in computerised qualitative data management software (NVivo 10) using a template analysis approach (King, 2012).

The sample was derived from online outsourcing freelancers who had received training from KADO- and EP-implemented online outsourcing schemes in Pakistan. Table 2 below includes details of the sample data from the two training organisations. Altogether 29 interviews were undertaken of 30-60 minutes duration.

Organisation	Respondent Designation	Location of Interviewees	Interview mode	No of Respondents
World Bank	Project Lead	Washington – USA	Skype	1
EP	CEO	Islamabad – Pakistan	Face-to-face	1
	Project Manager	Islamabad – Pakistan	Face-to-face	1
	Ex-Trainees and Freelancers	Lahore – Pakistan	Skype	3
KADO	Project Manager	Hunza – Gilgit Baltistan Pakistan	Face-to-face	1
	Trainer and Freelancer	Hunza – Gilgit Baltistan Pakistan	Face-to-face	3
	Project Coordinator	Gilgit – Gilgit Baltistan Pakistan	Face-to-face	1
	Ex-Trainees	Hunza – Gilgit Baltistan Pakistan	Face-to-face	5
	Ex-Trainee and Medical Transcribers	Karachi – Pakistan	Skype	1
	Trainees and Bloggers	Ghizer – Gilgit Baltistan Pakistan	Face-to-face	9
	Ex-Trainees and Freelancers	Gilgit – Gilgit Baltistan Pakistan	Face-to-face	3
Total Number of Respondents				29

Table 2. Field study sample

E. Findings

In the sections to follow we present the results and analysis of our field data grouped in relation to our initial questions.

E1. Contextual Drivers to Online Outsourcing

The starting point for any livelihood analysis is an understanding of the vulnerability context. As indicated, the KADO element of the field study was undertaken in Gilgit-Baltistan (GB; see Figure 2 below), the northernmost administrative territory of Pakistan. Geographically, the region is a home of world highest mountain ranges including Karakoram, Himalayas and Hindu Kush. The project coordinator related the geographic condition to lack of industries and commented:

“.....the problem here is that our job market is very poor. We do not have industries here” (Project Coordinator, KADO)

Alongside physical vulnerabilities to climate-related disasters, the area has been subject to a negatively-reinforcing politico-economic vulnerability context that limits conventional employment routes. One foundation is that GB is kind of a disputed region. It is a part of Pakistan that has neither received the status of a province to be eligible for an independent provincial government, legislation and budget; nor has it been integrated with any of the existing provinces of Pakistan because of the possible effect on resolving the Kashmir dispute. The result is a “no man’s land” position that severely restricts both private and public sector investment and thus restricts infrastructural development and employment opportunities:

“The problem is that we live in Gilgit-Baltistan; which is itself a conflicted area. ... That is why the government is not doing much investment for prosperity here”
Project Manager KADO)



Figure 2. Gilgit-Baltistan geographical location

The EP initiative, meanwhile, targeted educated youth of middle and lower socio-economic status in Punjab province, which is a highly populated province of Pakistan; but also provided online outsourcing training to educated youth of Khyber Pakhtunkhwa (KPK) province, which is the most terrorism-affected province of Pakistan and lies next to Gilgit-Baltistan. Lack of investment, lack of opportunities and high unemployment create a fertile environment for growth of radical Islamic extremism which, in turn, serves to further discourage investment and employment.

“The reason is it’s the front line of extremism ... The next biggest issue is unemployment. Both of these issues are interrelated because when there is unemployment, the chances of frustrated youth to be involved in terrorist activities would be higher.” (Project Manager, EP)

The absence of alternative livelihoods is a core driver to involvement in online outsourcing.

“Everyone wants to get the government job but it is not available... Maybe the condition gets better in the future but currently, there is nothing better here than freelancing and working and earning at home.” (Ex-trainee, KADO)

The ability to work at home is an especial driver for women, *“who have to stay at home... who can’t work in offices for various cultural and other reasons.”* (Project Lead, World Bank).

But alongside this generic socio-economic push are specific pulls into online outsourcing. For some of those involved, there is the attraction of a livelihood that offers more freedom than traditional jobs:

“You are your own boss. You don’t have any boss. You can work of your choice at any time you like.” (Trainer and Freelancer, KADO)

Another important pull has been the presence of attractive role models who demonstrate not just the viability but the significant benefits of an online outsourcing livelihood. Sometimes these role models are friends, but they can also be presented at formal events. One trainee shared his inspiration:

“..RA (a famous blogger in the region) tells once about his freelancing experience in a presentation. He opened his account and showed it to us. At that time, his earning was twelve to fifteen lakh Pakistani rupees per month (c.US\$12,000-15,000).”
(Trainee, KADO)

E2. Enablers and Barriers: The Online Outsourcing Ecosystem

Related to its relatively remote, troubled and under-invested context – and notwithstanding a strong emphasis on education in the region – Gilgit-Baltistan has important resource constraints that are barriers to engagement of marginalised groups with online outsourcing.

There are three recurring barriers that respondents mentioned. First, the state of technological infrastructure:

“We don’t have high speed Internet and full time electricity in this area. So we don’t have basic things for freelancing.” (Trainer, KADO)

“Sometimes it happens that there is some Internet work of web research for which client demands to check your Internet speed and asked to send its screenshot. So, it happened that when I sent them the screenshot of the low Internet speed; they did not give work.” (Project Coordinator, KADO)

Second, a lack of knowledge and skills; members of marginalised groups lacked an understanding of what online outsourcing was and how to link it in to online outsourcing jobs. And they lacked relevant skills: not just technical skills but broader interpersonal and business skills:

“The one-week freelancing training is sufficient for the people in cities who are experts and highly qualified with MCS, MBA, MBBS Degrees. However here, we have to engage the trainees with us for six months so that they can learn how to communicate with the clients.” (Project Manager, KADO)

Third, problems with finance and getting payments from overseas, though that has recently improved for some:

“...when you transfer the money locally, so there are no deductions. I have a Soneri Bank account, so when I received my freelancing payments recently, there was no charges that deducted.” (Trainer, KADO)

As noted in these quotes, external interventions and innovations – by government agencies, by NGOs, by private providers – are seen as vital to address these barriers. Therefore, sufficient technological, human and financial infrastructure – and the institutions to deliver that infrastructure – are an essential part of the online outsourcing ecosystem.

More challenging to address are cultural barriers. Gender barriers were one: the project managers who said male freelancers were “more serious” further explained the additional workload or domestic house chore expectations on women:

“...when the guests come, so being a girl, I have to serve, of course. Boys do not need to do this. They just sit on one side and work.” (Trainer, KADO)

“They have the responsibilities of many domestic chores. They have to cook after attending a freelancing class and also look after the family as it is in our culture.” (Trainer, KADO)

Another was the cultural expectations of what constitutes a livelihood, which reflected negatively on freelancing. Many trainees and freelancing shared their personal experiences:

“They say that this person is not doing a job but staying at home.” (Trainee, KADO)

“My parents are uneducated. So, they won’t understand freelancing. They just want that their son to go to the office, use a big car and work on some important government position, and people can praise them how successful is their son.” (Trainee, KADO)

“My younger brother is a translator of Chinese language. So he has been doing a proper job for the last seven years. The parents are very happy with him. He is three years younger to me but they have got him married first and in that way, they have given him the family responsibility. I am single right now...People around me don’t think me right. They say that this person wakes up at 10 o’clock in the morning He keeps awake the whole night ...Overall, in the family, my image is so bad that I do not do a proper job.” (Trainee, KADO)

E3. De-institutionalisation and Re-institutionalisation

The image – and criticism – of online outsourcing is that it represent hypercapitalism: a stripping away of the institutions that put a brake on the worst excesses of competition, leaving atomised, isolated workers in a race to the bottom in which clients have all the power. The reality, though, is rather different with at least three institutional forces impacting on online outsourcing to marginalised groups in Pakistan.

First, there are the digital platforms themselves. It is of course they, more than clients, that hold the power in this marketplace but the constrained institutionalised relation between clients and freelancers – particularly the lack of human connection and trust – sometimes led to problems

“I think the system of Freelancer and Upwork is very tough. ... I cannot work on that level. We can work over there, but we don't get the work there. ... I made an account on Upwork but we have some difficulties there. We had some problem in creating a profile there. I cannot do work in English correctly. Sometimes, they cancel the jobs. We do not understand what they are talking about. Sometimes, they give us poor rating. That is also a dead block.” (Trainee, KADO)

“It happened with me that I worked with some fake people. I anyhow completed their work, and they got their work, but I did not get any payments” (Trainer, KADO)

However, in a number of ways the digital platforms are seen as recently improving the institutional context for online outsourcing to the relative benefit of freelancers; particularly trying to reduce the moral hazard that arises due to the asymmetry of power and lack of trust between clients and freelancers, and the lack of social costs for “bad behaviour” by clients:

“The freelancing marketplaces are improving their processes. They are blocking accounts for any violation of their terms and conditions. They have introduced different matrix-like job success rather than relying on customers' reviews.” (Project Manager, EP)

“Now Upwork holds advanced payment from the clients and transfers it to the freelancer once the job has completed successfully, which has reduced the fraud and exploitation. Upwork has also introduced easier payment methods.” (Trainer, KADO)

“Upwork has changed its policy of minimum work wage. Previously, they had allowed working for US\$1 per hour. Later they fixed it to minimum US\$3 per hour.” (Project Coordinator, KADO)

Second, there has been the intervention of development agencies, government and NGOs. As described, local NGOs – supported and funded by the World Bank – have been providing training in a wide variety of skills, guidance, and access to ICTs, etc. Government bodies in Pakistan are also launching freelancing schemes. At the least, this re-institutionalisation of online outsourcing is helping to overcome asset deficits that would otherwise exclude marginalised workers from online outsourcing. But in some cases, the re-institutionalisation goes further: for example the neighbouring government of KPK province is planning to use a “walled garden” approach. This creates a protected area of the online platform into which tasks specifically suitable for the Pakistan freelancers are channelled, sheltering them from the full force of competition.

Third, among the freelancers themselves, there are a range of institutions formed; again to address barriers to online outsourcing. These may be individual and social to address knowledge deficits about online outsourcing:

“I completed my first online outsourcing project with the help of one or two of my friends.” (Trainee, KADO)

“I have recently guided my cousin about freelancing.” (Trainee, KADO)

And they range up to more formal and economic formations used to help balance workloads, and also to assist more-junior freelancers.

“People are working in groups here. Some of the freelancers are getting local small projects and they are working on it for \$300 to \$400 together.” (Trainer, KADO)

This does not mean that competition and asymmetries of power between clients and freelancers is not an issue, but these institutions do introduce some compensations and protections. Without these it is likely that few, if any, of the freelancers in this relatively remote and resource-constrained area of Pakistan would create successful online outsourcing livelihoods.

E4. The Impact of Online Outsourcing

All of those who go through the formal training programmes develop their human capital in various ways. As noted above they develop ICT-related capabilities: *“the technical skills for freelancing such as e-marketing, blogging, search engine optimisation, graphic and web-designing”* (Project Manager, KADO) but also broader skills including communication in English and:

“They even teach us how to write cover letters. Also, they taught about proposal writing, means they told us everything about how to deal with the clients. I am getting a new skill, which I have not learnt before. There is growth on personal level as well. I won’t be able to talk to you had I not been doing a job. I had very less confidence.” (Trainee, EP)

However, in terms of the conversion of this human capital into financial capital via a freelancing livelihood, the trainees appear to divide into four trajectories: sinking, struggling, surviving and swimming.

Sinking: the majority fall into the first camp: the manager on one of the programmes estimated that nearly 60% of trainees did not take up freelancing livelihoods.

Struggling: of those that do, a number struggle to find work because of the highly competitive nature of the work, and the Catch-22 that it is hard to get work without a profile of work experience, and you cannot get such a profile unless you get work:

“There is a friend of mine ... When he did not get any order for six months so his family members were also irritated. They said to him to leave this freelancing and work in a factory. He went to the factory as a data entry operator” (Trainee, EP)

"I tried on freelancer.com but did not get a job. Its reason was suppose I bid for a project, second bidder can see my bid, so he bids a little lower than my bid. Then the third bidder can see both bids of ours." (Trainer, KADO)

A number of respondents also echoed concerns in the literature about the lack of wider employment benefits and protections that platform employment would bring (noting that care must be taken in choice of comparison point: those employed in government jobs in Pakistan have a number of rights and privileges; those employed in informal sector jobs do not). This was mainly framed in terms of illness:

"When a person is healthy, he can do this work. If he gets ill, so he will be unable to work and there would be no chances for any money." (Trainee, KADO)

Surviving: of those that do find work, some are just subsisting at a low level of activity; again largely due to the high level of competition:

"The competition is so tough. There are many freelancers from Pakistan, India and Philippines. As the Philippines work on very low rates so you need to lower your rates because of them." (Trainer, KADO)

"I applied for around three to four hundred jobs, and then I got one job. It is not an easy task. On Upwork, there are millions of freelancers, and then all apply for a job. We have to compete with them." (Trainee, KADO)

Swimming: others have been able to build up their experience, reputation and contacts to create – if not a full livelihood – then reasonable earnings, bearing in mind monthly per capita income in Pakistan in 2016 was US\$125 (World Bank, 2017):

"I am earning twenty five thousand to thirty thousand per month (\$250 to \$300). From the next month, my earning would also be increased and when I will become here Level 2 seller and would get more orders in freelancing projects. The one which I did in the morning, it was of \$30 and I did it in three hours. The next one was of \$10 and I did it in an hour. Now, one of \$60 and two of \$90 are left to deliver." (Trainee, EP)

"If you can check online, please see the profile of our graphics and web trainer, Aslam. He started from \$1 per hour. Now, he is working on \$27 per hour." (Trainer, KADO)

These amounts are sufficient for reinvestment in other forms of capital. Some are seeking to invest in physical capital, for example, saving to buy a home. Others are studying and invest their earnings in development of their own human capital:

"My brother and two other cousins, who are studying Masters, meet their expenses through earning online by designing logos and websites. They also send money to their homes and are supporting their families." (Trainee, KADO)

"My one semester fee is twenty thousand PKR (US\$200) that I earn through freelancing in 15 to 20 days." (Trainee, KADO)

There is a chronology here. Those struggling and surviving are typically in the early days of freelancing, and they either give up or work their way up to better work and better rates of pay. There seemed to be some differentiation that was interpreted in terms of personality type or characteristics, echoing the findings of Barnes et al. (2015) reported earlier:

“Not everybody can be a freelancer and it takes some characteristics and some drives to do the kinds of jobs there would be through technology or leveraging the tech sector for people who are entrepreneurially freelancing.” (Project Lead, World Bank)

For those that do persevere, progression often relates to the changing profile of work they undertake: where data entry jobs pay at most US\$4 per hour, web / graphics / programming work can attract rates of US\$30 per hour. Of course in some respects it is early days for all freelancers – few of them have been working for more than a year or so. A number see it as a short-term livelihood e.g. to pay college fees:

“People do not make this as a career. You cannot go with this for the long term.”
(Trainee, KADO)

But at least one or two were recognising the longer-term potential:

“I have left everything else and choose to do this only because I know that its future is expanding further, in software development, designing. Even I think that I bring people from my family, friends, relatives, siblings in this and convince them to work in this very field.” (Trainee, KADO)

However, whether that long-term potential means continuing with freelancing work is unclear. Some were trying to trade the reputation and client contacts they had made via the platforms into direct, off-platform working which would pay more and potentially be less volatile:

“I have been working with different clients and we have communicated now and then so it happens that once your profile is built on Upwork so you can work outside it as well as clients and companies know you now. Even leaving from there, you can work directly with those companies or you can become their online employee.” (Trainer, KADO)

But it remains to be seen what the longer-term career trajectories will be in practice.

F. Conclusions

The answer to the first question – “What drives those in marginalised groups to engage in online outsourcing?” – lies particularly in the context of significant vulnerability: physical, political, economic. It means the main driving force is necessity of earning a living and absence of other livelihood strategies. For a sub-set, this “push” driving force is set alongside a “pull” of opportunity: the perception that online outsourcing offers an entrepreneurial work- and life-style.

In addressing the second question – “What is the infrastructural and institutional ecosystem required, particularly to address barriers to online outsourcing for marginalised groups?” – we found there were a number of important barriers relating to capital assets and institutions. Physical and human capitals were especially lacking and there were also institutional barriers, for example around payment systems, gender roles, and cultural constructions of what constituted meaningful work.

The cultural barriers are deep-rooted and addressing them lies beyond the scope of main online outsourcing stakeholders. Overcoming asset-based barriers is more straightforward but still requires the creation of a broad-based ecosystem: an infrastructure of electricity, telecommunications and ICT; and a whole set of institutions that help to level the playing field – raising individuals and locations up from their asset-deficit status to a situation where they are able to participate in online outsourcing. The range of institutions involved was substantial and slightly confounds the negative portrayals of online outsourcing in one fraction of the literature. We saw instances in which digital platforms were not just siding with clients and capital but made concessions and improvements that benefited the workers (though of course done in order to maximise activity on the platform). And we saw examples of re-institutionalisation in this rather de-institutionalised form of work: both formal interventions by donors, governments and NGOs that were mainly beneficial to the freelancers; and less-formal institution-formation by workers themselves, creating social networks of assistance.

Finally, we saw in answering the third question – “What are the short- and longer-term impacts of online outsourcing for those involved?” – that there were universal gains in human capital. This was entirely expected given we focused on those who had been trained. There was a differentiated financial impact: many trainees “failed to launch” while others struggled to make anything much more than “pin money”. But a significant number were able to generate earnings with some – perhaps those with particular characteristics of enterprise, self-efficacy, communication – building themselves up to earn a reasonable living from online outsourcing enabling them, for example, to invest in their own education. We did not elicit much evidence around impacts on social and physical capital and, similarly, the relative novelty of online outsourcing makes it difficult to assess longer-term impacts such as those on career trajectories.

In practical terms, our research shows online outsourcing interventions can be successful in assisting those from marginalised groups into forms of digital employment. These interventions were also shown to be necessary: the barriers to entry into online outsourcing are too high for most individuals in resource-constrained environments. Of course, we did not make a cost-benefit assessment, so cannot comment on whether these investments might have greater impact if used in other ways. One concern could be the high drop-out rate though a glass half-full perspective would focus on the large numbers who do move into online outsourcing work. It remains to be seen whether the psychological or other differences between those who succeed in online outsourcing and those who do not might have a practical importance.

In conceptual terms, we have shown the sustainable livelihoods framework to be viable and useful in structuring evidence and ideas relating to online outsourcing on digital platforms, and that it can be used to shape further research on this topic.

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