



How is the Digital Transformation Affecting Informal Businesses in the Global South?

Early Findings from a Rapid Survey in 16 Countries

Signals from the UNDP Accelerator Labs

Eduardo Gustale¹ and Alberto Cottica, UNDP Accelerator Labs

Introduction and main results

The informal sector is by far the world's largest employer. The International Labour Organization estimates that 60% of jobs are informal [1]. The Accelerator Lab Network of the United Nations Development Program (UNDP) has detected signals that informal businesses are embracing digital tools across the Global South. This is likely to have far-reaching implications in contexts where informal businesses account for a large part of economic activity [2]–[4]. On top of the usual (and generally thought to be beneficial) implications in terms of efficiency and access to customers and suppliers, which are common to formal as well as informal businesses, the digitalization of informal businesses offers a new angle on informality itself. The use of digital tools increases their visibility and legibility to the rest of society. For example, you could think of estimating the number of informal businesses in a city or region by counting the number of vendors on Facebook Marketplace for that city or region. From the same data, you could infer the activities they are involved in, and even reach out to them. This could open new ways for development policies to support and include the owners of informal businesses, similarly with how, in the wake of the COVID-19 pandemic, hundreds of millions of people received income support, many of them, for the first time, through digital channels [5].

In this document, we report on the results of a survey on the use of digital tools by informal businesses in the Global South carried out by the UNDP Accelerator Lab Network. It was designed and deployed in 2022, when the COVID-19 pandemic was accelerating the take-up of digital tools by some businesses and their customers.

Our main results are:

1. Most businesses, even the fully informal ones, use digital tools. Facebook and WhatsApp are by far the most widespread tools.

¹ Corresponding author, at eduardo.gustale@undp.org.

2. Two thirds of respondents report that the use of digital tools helped them find new customers. Even though many businesses adopted digital tools recently, as a response to the measures to contain the spread of COVID-19, most respondents do not intend to abandon them as the measures are rolled back.
3. A broader recourse to digital tools correlates to higher degrees of formalization of the business. We have not investigated which one causes the other.
4. Female business owners use more digital tools, but, in their case, the correlation between the use of digital tools and the degree of formalization of the business is weaker than it is for male business owners.

The main contribution of this work is in producing a global first glance of the phenomenon at hand. Its principal limitation is the use of a non-random sample. We offer our work as an entry point into a complex and fascinating issue. We see the main contribution of our work as producing a fast and, though by no means exhaustive, first glance at the phenomenon at hand, all the while maintaining a global perspective. Given non-random sampling and non-uniform representation of the 19 countries (see below), we recommend interpreting our results conservatively.

Questionnaire and data

We designed our questionnaire so that it could be quickly and easily completed by owners of informal businesses themselves. It is short and simple, and translated into the seven main languages in use in the different locales to which it was administered. We defined digital tools as “software, websites or online resources that can make business related tasks easier to complete.” Our research questions were as follows.

1. How are informal businesses using digital tools and platforms? What parts of the value chain have gone digital?
2. Was the COVID-19 pandemic the main, or even the only, reason for embracing digital tools? Are businesses planning to go back to business-as-usual once the pandemic is reined in?
3. What were the effects of using digital tools on business operations and results? Do business owners have any concerns about using digital tools?

During the spring of 2022, we uploaded the questionnaire onto a digital platform for surveys.² We then reached out through UNDP’s network of informal or small businesses in 19 countries, inviting them to complete the questionnaire and spread awareness about it. This implies that respondents are not a random sample of the target populations; this choice was made for speed and cost-effectiveness. We obviously claim no representativity, though we believe that some of our results are strong enough to be considered, to a first approximation, valid as a big picture.

1,013 questionnaires from 16 countries, covering all UNDP regions, were completed and included in our analysis. In the remaining 3 countries we received fewer than 25 completed questionnaires per country and decided to exclude those countries from the analysis. At the country level, the number of respondents ranges from 25 (Ecuador) to 306 (Peru). At the region level, from 54 (Eastern Europe and Central Asia) to 596 (Latin America and the Caribbeans). Respondents are roughly equally divided by gender (554 females; 448 males; 11 did not report their gender). The share of female respondents in each country varies from under 20% (Bangladesh) to over 80% (El Salvador). In general, female

² <https://www.kobotoolbox.org/>

respondents are prevalent in Latin American and Caribbean countries; male respondents are prevalent in all other regions (Table 1.). This dataset is available an open access license [6].

Most respondents reported that their business had only one (353) or two (386) employees, with only 46 reporting over ten employees. The distribution by size is roughly consistent across the different countries.

The most widely reported business categories are “selling food and drinks” (180) and “commercial shops” (130). As expected, the breakdown of respondents by category varies across countries, reflecting the process whereby the different UNDP country offices built their networks of informal businesses. Manufacturing is the main category in Morocco and Uzbekistan; handcrafts in Peru; personal services in Syria; farming and fisheries in Haiti.

Uptake of digital tools and degree of formalization

Instead of modeling formality as a binary variable (a business is either formal or informal), we decided to model it as vector. We asked respondents which of the following statements applied to their business:

- My business is registered: it has a government-issued company number.
- My business has a bank account or a non-bank account like mobile money.
- My business is a member of a business association.

We next built a simple indicator of the level of formality of a business, as the number of those statements that, for that business, are true. The indicator’s values range from 0 (completely informal) to 3 (fully formalized. Figure 1).

Figure 1. Modeling informality as a vector of characteristics



Only 63 respondents report their businesses as fully formalized. Of the rest, 277 are completely informal, with the remaining ones at levels of formality 1 and 2. This indicator varies across countries. Completely informal businesses are over 80% in Syria, and under 10% in Bangladesh, Ecuador, and Morocco (Table 1).

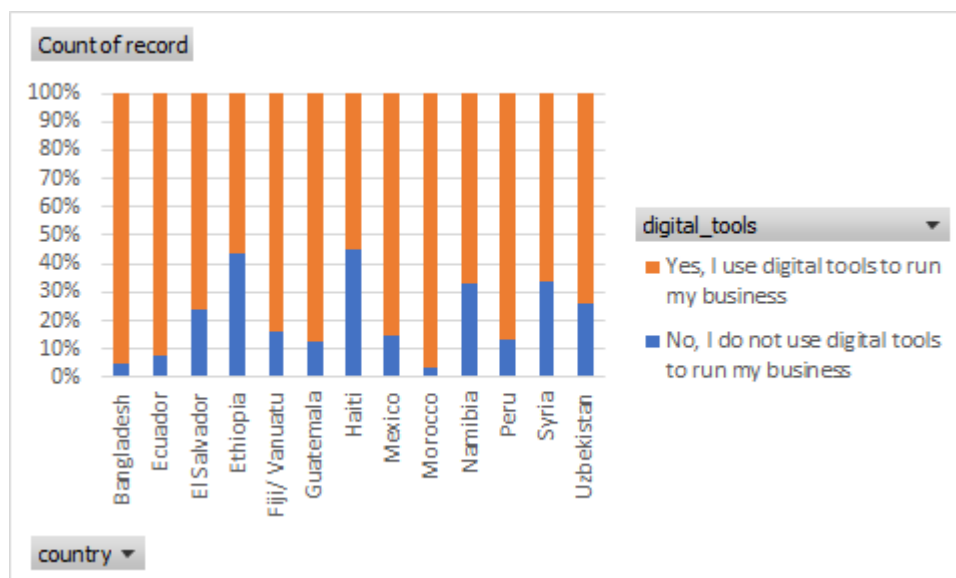
602 out of the 994 businesses that answered these questions are unregistered.

Table 1. Formalization levels of respondents by country

Formalization level	0	1	2	3	No answer
Bangladesh	7	54	26	4	10
Ecuador	2	6	11	6	
El Salvador	54	29	14	3	2
Ethiopia	9	28	22	3	
Fiji/ Vanuatu	11	15	32	3	
Guatemala	21	22	12	2	
Haiti	16	33		1	1
Mexico	14	23	14	3	1
Morocco	1	7	8	9	4
Namibia	17	16	25	2	
Peru	71	78	147	9	1
Syria	42	6	2		
Uzbekistan	12	10	14	18	
Grand Total	277	327	327	63	19

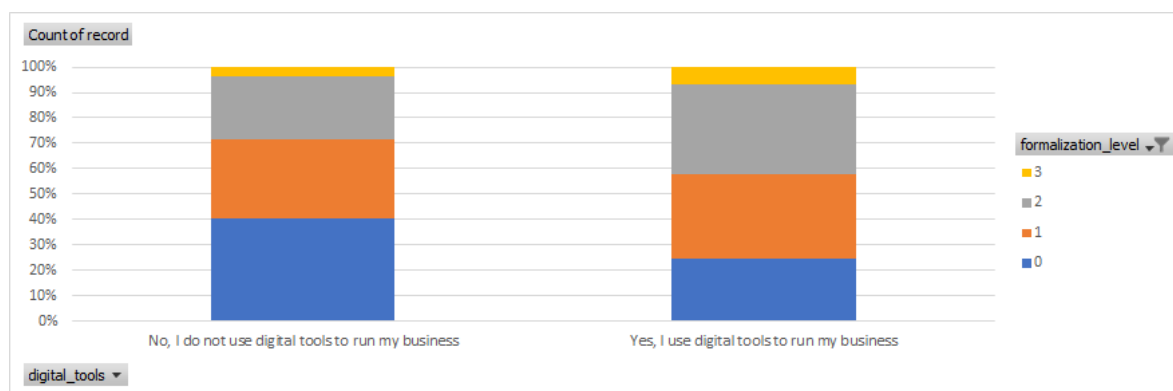
814 respondents report using digital tools to run their business, while 199 report not using any. The share of respondents using digital tools varies significantly across countries. Ethiopia and Haiti have the lowest degree of take-up, while Bangladesh and Morocco are close to 100%. In all countries, most respondents report using digital tools (Figure 1). In all countries, by far the most used tools are Facebook and WhatsApp, both of which support businesses via e-commerce functionalities like Facebook Marketplace and WhatsApp for Business. Helped by the COVID-19 pandemic, Facebook Marketplace achieved one billion users in 2021 [7]. Meta enjoys a dominant position among informal businesses in the global South: out of 814 respondents who reported using digital tools of any kind, 690 use Facebook and 701 use WhatsApp.

Figure 2. Share of respondents using digital tools, by country



The uptake of digital tools correlates positively with the degree of formalization. However, the correlation is not as strong as one might expect (Figure 3). Our data support the conclusion that, for micro-businesses in the global South, digitalization is more widespread than formalization. In fact, 464 respondents out of the 994 who answered the formalization question report using digital tools, while not having registered their business.

Figure 3. Degree of formalization and uptake of digital tools



The role of gender

Being female correlates positively with the uptake of digital tools and negatively with the degree of formalization. 85% of female respondents report using digital tools, versus 75% of male ones. Conversely, 33% of female respondents report that their business is completely informal, versus 21% of male ones. Furthermore, the lower degree of formalization of female-led businesses persists, even when one controls for other variables, such as size of business, country, or age of the business. Our data suggest that women face barriers to formalization beyond digitalization.

The impact on informal businesses of adopting digital tools

The uptake of digital tools is thought to enhance productivity in businesses. We did not try to directly measure productivity, but our questionnaire did include a question on whether, and how, the use of

digital tools had helped respondents run their business in the year before the survey. 80% of respondents report that digital tools have been of at least some help. Around 65% report that they have helped in finding new customers, which shows these businesses use digital tools mainly for marketing purposes. Half of the respondents report that digital tools have directly helped them increase their sales.

In this situation, it is not surprising that businesses plan to continue to use digital tools in the future. The findings of an earlier consultation with the Accelerator Labs about the drivers of digitalization pointed to how the COVID-19 pandemic forced the hand of many informal businesses, which could no longer rely on their in-person modes of operation and had to adopt new, digital-intensive ways of working [8]. It was thought that informal businesses would go back to "business as usual" as the lockdowns ended and the normal circulation of people was reinstated. Respondents in this survey confirm the first finding, but not the second. Over half of the 810 individuals who answered this question confirmed that the lockdowns were a determining factor in their uptake of digital tools. Nevertheless, over 95% of respondents stated that, with the end of the lockdowns, they continued using the tools.

Despite a positive perception of digitalization by informal businesses, problems remain. Almost 20% of respondents report not using any digital tools in their businesses. Our survey includes a question about their reasons for it. We collected 299 responses (it was possible to give more than one reason); of these over one third point to digital literacy issues; another third to expensive and/or bad Internet access services.

About 10% of respondents report negative experiences with digital tools. Those who do relate those bad experiences mainly to scams or fraud. For example, in Bangladesh, a business owner wrote that a competitor has put in false orders and several respondents mentioned fake customers approaching their Facebook profiles. Adopting digital tools can help informal businesses become more productive, but it also brings along additional complexity.

Conclusions

The use of digital tools has become relevant for small, informal businesses. Our survey suggests that these digital tools are contributing to efficiency and productivity gains. Their adoption was accelerated by the COVID-19 pandemic, but the end of the pandemic restrictions has not led to their abandonment. There is a disproportionate reliance on Facebook and WhatsApp, which implies potential risks for data protection, privacy, and anti-competitive behavior.

However, not everyone is reaping the benefits of the digitalization of small businesses. Digital literacy is reported as the main reason for not taking up digital tools. Finally, female-led businesses are more likely to use digital tools, but less likely to be formalized. This is an intriguing finding, and we hope to explore it further.

Acknowledgements

We wish to acknowledge all the Accelerator Labs colleagues who contributed to designing the survey and collected the data: Kenda Alzaim; Pierre Antoine; Marissa Asen; Jeremy Boy; Luis Cervantes; Paola Costantino; Okelo Fekadu; Ana Grijalva; Adhamjon Kuchkarov; Bas Leurs; Yrika Mariz; Netsanet Mekuria; Dean Mohseen; Klariksa Moodley; Lorena Moscovich; Berna Mugena; Mariana Olcese; Najoua Soudi; Amadou Sow; Victor Tablas; and Ramiz Uddin.

Table 2. Breakdown of respondents by country and gender.

region	country	unreported	female	male	Total
Africa	Ethiopia		25	37	62
	Namibia	1	28	31	60
Asia-Pacific	Bangladesh		18	83	101
	Fiji/ Vanuatu		26	35	61
Arab States	Morocco		12	17	29
	Syria	2	28	20	50
Eastern Europe and Central Asia	Uzbekistan	1	10	43	54
Latin America and the Caribbean	Ecuador		17	8	25
	El Salvador	2	84	16	102
	Guatemala		46	11	57
	Haiti	1	19	31	51
	Mexico	1	39	15	55
	Peru	3	202	101	306
Total		11	554	448	1,013

References

- [1] Internationales Arbeitsamt, Ed., *Women and men in the informal economy: a statistical picture*, Third edition. Geneva: International Labour Office, 2018.
- [2] O. Gajigo and M. Hallward-Driemeier, "Why do some Firms abandon Formality for Informality? Evidence from African Countries," African Development Bank, 164, 2012. Accessed: Jan. 12, 2023. [Online]. Available: <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Working%20Paper%20159%20-%20Why%20do%20some%20Firms%20abandon%20Formality%20for%20Informality%20-%20Evidence%20from%20African%20Countries.pdf>
- [3] A. Ng'weno and D. Porteous, "Let's be real: The informal sector and the gig economy are the future, and the present, of work in Africa," Center for Global Development, Oct. 2018.
- [4] F. Ohnsorge and S. Yu, *The Long Shadow of Informality: Challenges and Policies*. The World Bank, 2022. doi: 10.1596/978-1-4648-1753-3.
- [5] L. Klapper, K. Beegle, and J. Hess, "The Impact of COVID-19 on Digital Financial Inclusion," World Bank, Washington DC, Jun. 2021. [Online]. Available: <https://openknowledge.worldbank.org/entities/publication/0ca454ee-bdba-5a18-9700-310467955565>
- [6] E. Gustale, "Survey on the digitalization of informal businesses in the Global South." Zenodo, Jan. 09, 2023. doi: 10.5281/ZENODO.7515228.
- [7] K. Bell, "Facebook Marketplace has 1 billion users," *Engadget*, Apr. 28, 2021. <https://www.engadget.com/facebook-q-1-2021-earnings-marketplace-1-billion-232537001.html> (accessed Mar. 17, 2023).
- [8] T. Akinyemi, "Digitalizing Informal Business: What Systems Mapping Reveals about Drivers and Effects," *UNDP Accelerator Labs Blog*, Mar. 07, 2022. <https://www.undp.org/acceleratorlabs/blog/digitalizing-informal-business-what-systems-mapping-reveals-about-drivers-and-effects> (accessed Mar. 17, 2023).

