



AMERICAN PAKISTAN FOUNDATION

How Pakistani Women Use Technology Solutions to Overcome Barriers to Entrepreneurship

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Authors	3
Acknowledgments	4
Summary	5
Introduction	6
Methodology	7
Desk Research	7
Interview Design	7
Field Work	8
Data Analysis	8
Limitations	8
Findings	9
Digital Access	9
Business Skills	13
Financial Inclusion	16
Transportation and Mobility Issues	20
Family and Societal Constraints	21
The Burden of Household Labor	23
Recommendations	24
Short to medium-term recommendations	24
Increase access to smartphones and mobile internet	25
Leverage fintech solutions to facilitate financial inclusion of women entrepreneurs	25
Create direct linkages between social media platforms and women entrepreneurs	26
Long-term recommendations	26
Gender sensitization of regulations and business ecosystem	27
Society-wide promotion of gender-positive norms and attitudes	27
Conclusion	28

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Summary

In collaboration with the South Asia Initiative at the Atlantic Council and the American Pakistan Foundation, the Johns Hopkins SAIS Team studied how technology can help women in Pakistan to overcome or circumvent barriers to entrepreneurship. Pakistani women face several challenges that prevent them from engaging in entrepreneurship, including low digital access, lack of business skills, financial exclusion, transport and mobility restrictions, family and societal constraints, and the burden of household labor. The study showed that Pakistani women are using technology to jumpstart their entrepreneurial ventures, promote their businesses, and facilitate financial transactions. To boost and support women's engagement in entrepreneurship, stakeholders should, in the short-term, increase access to smartphones and the internet, leverage financial technology (fintech) products to facilitate financial inclusion of women entrepreneurs, and create direct linkages between social media platforms and women entrepreneurs. In the long-term, stakeholders, especially the Pakistani government, should promote and implement gender sensitization of regulations and business ecosystem, as well as promote society-wide adoption and acceptance of gender-positive norms and attitudes.

Introduction

Pakistan ranks 145th out of 146 countries on the Global Gender Gap Index 2022, an index designed to measure gender equity. Pakistan also ranks just as low on the Economic Participation and Opportunity Sub-Index, a sub-index that focuses on workforce participation levels, salaries, and access to high-skilled employment.¹ At 21 percent, women’s labor force participation in the nation is well below the 35 percent average for lower-middle-income countries.² In fact, Pakistan has one of the lowest rates of women’s labor force participation in the world, ranking 185th out of 199 countries.³ In Pakistan, women work primarily in the home or, in rural contexts, on the farm. Low labor force participation is a drag on economic development, as it represents a major loss of potential productivity. It also has important implications for women’s empowerment, since working women are more likely to participate in household decision-making than non-working women.

A crucial solution to women’s lack of workforce participation is entrepreneurship. This is because “female entrepreneurship has great potential for poverty reduction in the developing world, helping women support themselves and their families”.⁴ However, like women elsewhere, Pakistani women face substantive barriers when pursuing entrepreneurship. Preliminary research by the Team uncovered three key barriers — financial inclusion, digital access, and access to business skills. Field research uncovered three further barriers — transport and mobility issues, family and

¹ World Economic Forum. (n.d.). *Global Gender Gap Report 2022*. World Economic Forum. Retrieved March 10, 2023, from https://www3.weforum.org/docs/WEF_GGGR_2022.pdf

² World Bank Group. (n.d.). *World Development Indicators: Labor Force Structure*. World Development Indicators | The World Bank. Retrieved March 10, 2023, from <http://wdi.worldbank.org/table/2.2>

³ Statistics Times. (2021, November 4). *Demographics of Pakistan*. Statistics Times. Retrieved March 10, 2023, from <https://statisticstimes.com/demographics/country/pakistan-demographics.php>

⁴ Bharij, H. (2022, December 16). *The potential of female entrepreneurship*. The Borgen Project. Retrieved April 9, 2023, from <https://borgenproject.org/potential-of-female-entrepreneurship/>

societal constraints, and the burden of household labor.⁵ The Team sought to examine technology solutions that support Pakistani women in overcoming and circumventing these barriers. The makes policy recommendations to leverage these solutions fully and fill existing gaps.

Methodology

Both qualitative and quantitative data have been used to answer the research question. The study gathered data through desk research, consisting of a literature review and preliminary data analysis, and in-person field work. The field work included structured in-depth interviews (IDIs) and key informant interviews (KIIs).

Desk Research

The Team conducted a literature review to qualitatively understand main barriers to women's entrepreneurship in Pakistan. The Team also sorted out macro-economic, digital literacy, and financial inclusion data based on three datasets: Pakistan Demographic and Health Survey 2017-18 (PDHS), the Mobile Gender Gap Report 2022 by the GSM Association (GSMA), and the Global Financial Inclusion Database 2021 by the World Bank (Findex).

Interview Design

The Team engaged with two types of stakeholders in the field – research subjects, i.e., women entrepreneurs, and key informants, i.e., non-government organizations (NGOs), academics, and journalists who are experts in the field of women's employment and entrepreneurship in Pakistan. The interviews with women entrepreneurs were intended to discuss their own personal experiences vis-a-vis barriers to entrepreneurship and their use of technology to overcome them. The

⁵ International Finance Corporation. (n.d.) *Gender-Smart Business Solutions: Pakistan Business Council Helps Boost Women's Employment*. Retrieved April 9, 2023, from https://www.ifc.org/wps/connect/a2a41470-6ee9-4579-888c-712a2cfe07f4/IFC+Case+study_Final+Output_PBC_6-13-19.pdf

interviews with key informants were intended to provide overarching information about Pakistan's socio-economic and political contexts, and add nuance to the background information gathered via desk research.

Field Work

The Team visited two cities in Pakistan — Karachi and Islamabad, and interviewed 10 women entrepreneurs in each city. Of these, 7 women in Karachi had formal business and 3 had informal businesses. In Islamabad, 3 women had formal businesses and 7 had informal ones. This is not meant to indicate that more women entrepreneurs in Karachi tend to formalize their businesses. The Team was simply able to connect with more informal business-owners in Islamabad, than in Karachi. The study defines formal businesses as legally-registered businesses while informal businesses are not legally registered. Furthermore, 6 key informant interviews (KIIs) were conducted — with one academic, one journalist and personnel from four non-governmental organizations (NGOs). The data from interviews with entrepreneurs was triangulated with these experts' inputs.

Data Analysis

The Team conducted descriptive analysis of financial inclusion, digital access, business skills, transportation and mobility issues, family and societal constraints, and the burden of household labor with data retrieved from interviews. Then, members of the Team coded the transcripts and identified the keywords and sentiments of different stakeholders. It helped the Team to quantify the implied and underlying information from the interviews.

Limitations

The field research was constrained by contextual and logistical limitations. From the contextual perspective, the research was limited to Islamabad and Karachi, thus coming with a high urban

bias. Additionally, 15 out of the 20 women entrepreneurs interviewed were from the upper-income brackets who could afford personal transportation and spoke English. Furthermore, three team members who do not speak Urdu could not participate in five interviews with women entrepreneurs who only spoke Urdu.

From the logistical perspective, traveling and navigating Karachi and Islamabad as foreign nationals presented its unique challenges. The Indian member encountered additional security requirements and scrutiny, resulting in several delays.

Findings

The Team found the following barriers which women entrepreneurship in Pakistan typically face.

Digital Access

Digital access refers to “the ability to fully participate in a digital society. It includes access to tools and technologies, such as internet and computers, that allow for full participation”.⁶

SUMMARY OF FINDINGS: DIGITAL ACCESS

<i>Digital access is crucial for entrepreneurship and its importance is expected to grow with time</i>	but	<i>there is a huge gender gap in digital access, and it is compounded for poorer, less educated, rural women</i>
<i>Running a business from the safety of home helps women circumvent often-rigid restrictions on mobility</i>	but	<i>it can become a barrier to scaling up the entrepreneurial venture</i>

Box 1: Summary of Findings – Digital Access

Source: Field Work

⁶ Urban Institute. (2022, May 18). Digital Access: Boosting Upward Mobility (Urban Institute). Digital Access | Boosting Upward Mobility (Urban Institute). Retrieved April 9, 2023, from <https://upward-mobility.urban.org/digital-access>

Digital access is crucial for entrepreneurial success today. Digital platforms such as social media and e-commerce can enable women entrepreneurs to reach new customers and maintain links with existing ones, build their brands, and expand their networks. Productivity tools used for tasks such as communicating with vendors and employees, bookkeeping, inventory management, etc., are overwhelmingly digital as well — for instance, Microsoft Excel, WhatsApp, and other specialized softwares. This reality is confirmed by the Team’s field research. 100 percent of women entrepreneurs surveyed agreed that internet access was a necessity to their entrepreneurial ventures. Seventy percent use technology to advertise their business, and 90 percent use it in the day-to-day running of their business. The most common digital tool used in day-to-day running of the business is mobile apps — 80 percent of respondents use mobile apps on a regular basis. Messaging apps (specifically, WhatsApp), used by 65 percent, are dominant, followed by other social media apps (i.e., Facebook, Instagram, Twitter, or TikTok) at 60 percent. Other mobile apps that entrepreneurs report using regularly are fintech-based (i.e., JazzCash, EasyPaisa, or SadaPay), and YouTube.

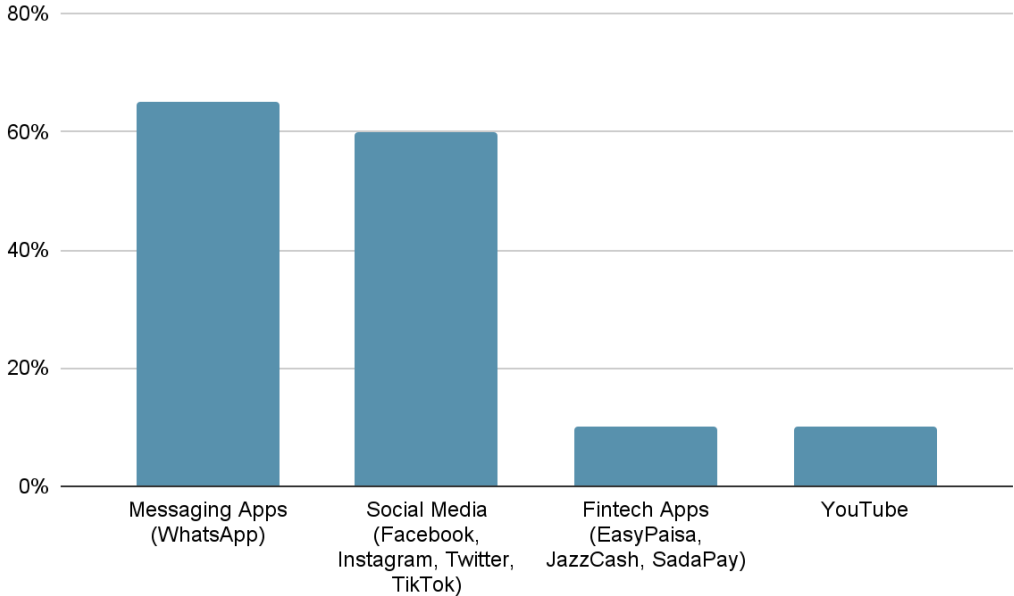


Figure 1: Penetration Levels of Apps Used By Pakistani Women Entrepreneurs
Source: Field Work

The importance of digital access in the labor force is only expected to grow with time, as Pakistan's economy seems headed towards a digital transformation. The information technology sector has grown significantly in recent years, and is well-positioned for further growth. New ventures in digital sectors such as mobile internet, cloud computing, big data, fintech, Internet of Things, etc., hold the potential to create significant economic value for Pakistan. Over half of the country's population is in the early stage of the labor force (aged 15 to 29 years old).⁷ However, unemployment is an acute problem in Pakistan, especially for the youth.⁸ Thus, the country stands to benefit heavily if it can enable a digitally connected and technically savvy workforce to leverage the employment and entrepreneurship opportunities generated by this digital transformation.

However, there is a gendered and income-based digital divide in the popular access and usage of internet and mobile devices. According to GSMA, "the unconnected are disproportionately poorer, less educated, female, persons with disabilities, and rural, with 234 million fewer women than men using mobile internet in low- and middle-income countries".⁹ Indeed, Pakistan has one of the largest mobile gender gaps in the world, with women 38 percent less likely to utilize, and thus benefit from, mobile internet.¹⁰ As the employment marketplace becomes increasingly digital, the digital gender gap morphs into an employment skill divide.¹¹

⁷ UNDP. (2017). Pakistan National Human Development Report: Unleashing the Potential of A Young Pakistan. Retrieved April 9, 2023, from <https://hdr.undp.org/system/files/documents/pk-nhdrpdf.pdf>

⁸ The Nation. (2023, February 19). Unemployment: A Menace to the local economy. The Nation. Retrieved April 9, 2023, from <https://www.nation.com.pk/20-Feb-2023/unemployment-a-menace-to-the-local-economy>

⁹ GSMA. (2022, June 17). Digital Inclusion: Driving Mobile internet adoption and use. Mobile for Development. Retrieved March 15, 2023, from <https://www.gsma.com/mobilefordevelopment/resources/digital-inclusion-driving-mobile-internet-adoption-and-use/>

¹⁰ Majid, M. (2022, August 26). Improving digital skills among rural women: An interview with telenor pakistan. GSMA - Mobile for Development. Retrieved March 10, 2023, from <https://www.gsma.com/mobilefordevelopment/blog/improving-digital-skills-among-rural-women-an-interview-with-telenor-pakistan/>

¹¹ Skilling women for the digital era: Centre for Economic Research in Pakistan (CERP). Centre for Economic Research in Pakistan (CERP). (2021, July 29). Retrieved March 10, 2023, from <https://www.cerp.org.pk/evidencematters/article/skilling-women-for-the-digital-era>

The study has also found another advantage of digital access for women entrepreneurs. The ability to leverage social media marketing to start and grow a business from the safety of the home enables women entrepreneurs to overcome the often-rigid constraints which curtail Pakistani women's ability to freely move. Having an online business enables women to achieve economic independence and become entrepreneurs in spite of practices that restrict the movement of unaccompanied women outside their homes. Often, customers come to the business owner's residence to purchase or collect the goods and services, and this instills a sense of security in family members. Such businesses also allow women to minimize risks of harassment where they can opt to not open the door or engage with unknown customers.

However, though digital access presents tremendous opportunities for Pakistani women, it also presents some challenges. First, in online businesses where pickup of goods or rendering of services takes place at home, women have to share their home addresses with their customers. This requires a certain level of vetting to make sure the customer is serious and to mitigate the risk of one's personal home address being shared in public forums. Additionally, family members might discourage a woman from eventually expanding the business and setting up a storefront, once the precedent of running a home-based business is set. Women entrepreneurs also must take additional precautions, and often de-link their personal profiles from their business ones, to avoid potential harassment online.

Business Skills

SUMMARY OF FINDINGS: BUSINESS SKILLS

Women entrepreneurs usually lack education, experience, and access to networks, compared to male peers **but** *social media and other internet platforms are leveling the field by providing easy on-ramps*

Women entrepreneurs find it difficult to formally register their businesses and this hinders eventual growth **and** *this is an opportunity for policy intervention, as there is no widespread technological solution at the moment*

Box 2: Summary of Findings – Business Skills

Source: Field Work

The World Bank defines technical skills as “acquired knowledge, expertise, and interactions needed to perform a specific task, including the mastery of required materials, tools, or technologies”.¹² Lack of technical business skills represents another barrier for women entrepreneurs in Pakistan. Women entrepreneurs commonly start businesses with less education and work experience and poorer levels of management skills than male entrepreneurs, hindering the growth and success rate of their businesses.¹³ Moreover, professional networks for guidance, referral and information, which can provide invaluable help in early stages of entrepreneurship, are harder for women to access than men. Information technology (IT) and business skills education has been found to be effective in equipping women entrepreneurs to succeed in the marketplace — a study by the International Labour Organization found that entrepreneurship training programs that focused on developing IT and business skills had a positive impact on the

¹² World Bank Group. (2021, July 21). Skills Development. The World Bank. Retrieved March 10, 2023, from <https://www.worldbank.org/en/topic/skillsdevelopment>

¹³ World Bank Group. (n.d.). Training, Skills & Information: Gender Toolkit. The World Bank. Retrieved March 10, 2023, from <https://digitalforwomen.worldbank.org/training-skills-information>

success of women entrepreneurs in Pakistan.¹⁴ According to a World Bank toolkit on barriers to female entrepreneurship, approaches to addressing skill gaps for women entrepreneurs have traditionally centered around single interventions, such as business training workshops, whereas research shows that a holistic approach, that bundles skill enhancements with financial training and providing access to the banking system, works much better, especially for poor women.¹⁵

The Team hypothesized that Pakistani women entrepreneurs could use online education and other online resources to upskill business and financial capabilities, especially with the explosion of online learning materials and courses after the Covid-19 pandemic. However, the primary learning sources reported by women entrepreneurs turned out to be self-teaching, help from family, and formal education. Only 20 percent of interviewed entrepreneurs stated that they had learned skills from online courses. Among the interviewees, 30 percent were unaware of the existence of online business courses. While 88 percent of those with awareness perceive those courses to be accessible to them, they concur that financial constraints, low digital access, limits on time due to household responsibilities, and lack of guidance restrict these online resources from being broadly accessible for Pakistani women.

Technology presents a solution not in the form of online business courses, but social media — as a platform that enables entrepreneurship without having the business skills traditionally required to start a business. Pakistani women entrepreneurs are thus able to leverage social media and the

¹⁴ International Labour Organization (ILO). (2014). Effectiveness Of Entrepreneurship Development Interventions for Women Entrepreneurs: An ILO-WED Issue Brief. Retrieved March 10, 2023 from https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---ifp_seed/documents/publication/wcms_329356.pdf

¹⁵ World Bank Group. (n.d.). Training, Skills & Information: Gender Toolkit. The World Bank. Retrieved March 10, 2023, from <https://digitalforwomen.worldbank.org/training-skills-information>

internet to circumvent the business skill barriers they encounter. The field research finds that 100 percent of the women interviewed use technology in some form to advertise or promote their business, even though word of mouth still remains significant as an approach for business development (see Figure 2). Pakistani women entrepreneurs are using their social media skills to realize their goals of running their own business. Since many women are already familiar with social media platforms through personal use, the learning curve was minimized when they decided to use the platforms to launch their business. This makes social media a powerful ecosystem, which is more easily accessible to women. However, the ability to monetize the widest-reaching social media platforms remains linked to digital access — which is a function not only of gender, but income and education level as well, as described in the previous section.

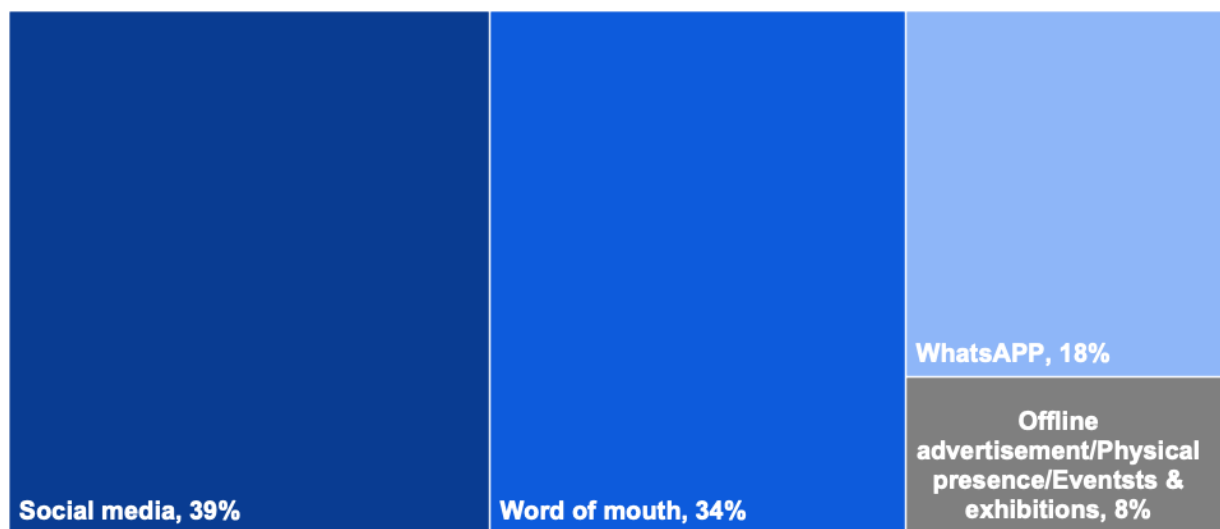


Figure 2: Findings on Channels Used by Pakistani Women to Promote Their Businesses
Source: Field Work

Another business skill challenge several women entrepreneurs face is difficulty in formalizing their business. Several surveyed entrepreneurs described how confusing and lengthy the process of formally registering a business is, and stated that creating informal businesses was more accessible for them. This has the potential to hinder future growth. For instance, one entrepreneur

recounted losing out on a partnership opportunity with a big brand, because her business was not legally registered.

Financial Inclusion

SUMMARY OF FINDINGS: FINANCIAL INCLUSION

<p><i>Financial inclusion is highly correlated with entrepreneurship among women</i></p>	but	<p><i>ownership of bank accounts and mobile money wallets remains strongly gendered</i></p>
<p><i>Access to capital overcomes financial barriers and helps businesses to survive and grow</i></p>	but	<p><i>women remain 68% less likely than men to borrow from a formal financial institution for business purposes</i></p>

Box 3: Summary of Findings – Financial Inclusion

Source: Field Work

Financial inclusion, defined as “affordable access to financial service and products,” can provide women entrepreneurs with the necessary resources to start, sustain, and expand their businesses.¹⁶ However, there exists a negative relationship between being a woman and level of financial inclusion. This is due to legal discrimination, as well as gender norms pervading the behavior of bank employees. For instance, one study revealed gender-based disparities in banking discourse where less than 13 percent of written discourse on banking websites is addressed to women.¹⁷ Possessing a bank account increases a woman’s decision-making power and authority within the household and strengthens her involvement in economic activities.¹⁸

¹⁶ World Bank Group. (2022, March 29). *Financial Inclusion*. The World Bank. Retrieved March 10, 2023, from <https://www.worldbank.org/en/topic/financialinclusion/overview#3>

¹⁷ Sahar, A. Q., and W. Shehzad. “Gender Representation In E-Discourse Of Banks In Pakistan: A Corpus-Based Study” *Pakistan Journal of Gender Studies* 17 (2018, September): 1-17. <https://doi.org/10.46568/pjgs.v17i1.7>.

¹⁸ World Bank Group. (2014, February 26). *Expanding Women’s Access to Financial Services*. Retrieved April 9, 2023, from <https://www.worldbank.org/en/results/2013/04/01/banking-on-women-extending-womens-access-to-financial-services>

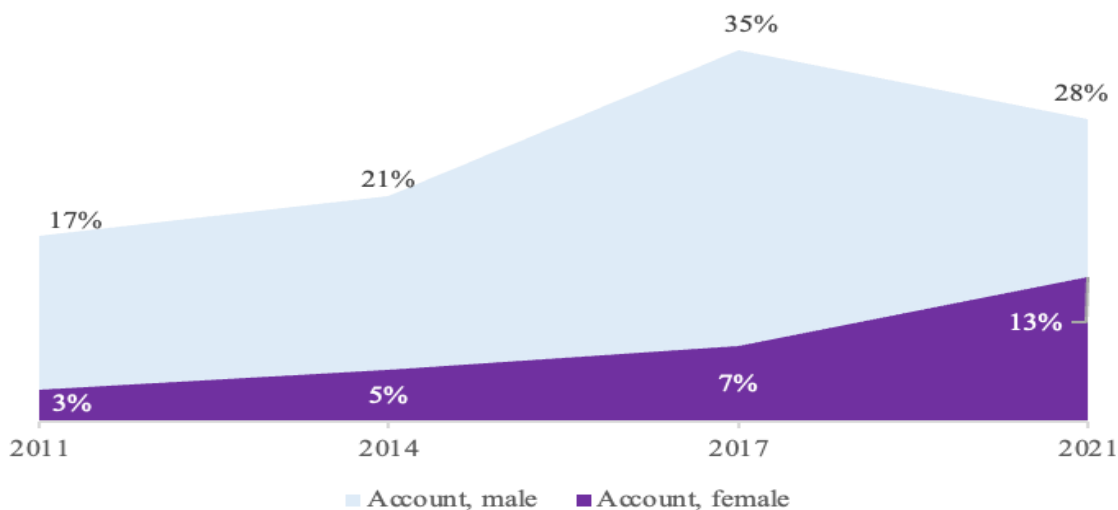


Figure 3: Pakistan Gender Gap in Financial Account Ownership (% age 15+)

Source: Global Findex database¹⁹

Pakistan has made progress in promoting financial inclusion for women in the past decade, but there is still a long way to go. According to the Global Findex database, in 2021, 13 percent of women in Pakistan reported having a financial account, compared to 28 percent of men, which is also significantly lower than the world average of 76 percent and the South Asian average of 68 percent. This gap has narrowed slightly from 2011, when only 3 percent of women had an account. The study found that although female entrepreneurs may not necessarily own heavy assets such as land and houses, the vast majority of them have institutional financial accounts, in contrast to most women in Pakistan (see Figure 3). This suggests a strong correlation between financial inclusion and entrepreneurship for women.

The emergence of fintech, especially mobile banking and mobile money wallets, is providing a new avenue for financial inclusion, however results are inconclusive. A study by the World Bank

¹⁹ World Bank Group. (2023, March 10). Global Findex Data. World Bank. Retrieved April 9, 2023, from <https://www.worldbank.org/en/publication/globalfindex/Data>

found that mobile banking services have helped increase financial inclusion among women in Pakistan, who are often excluded from traditional banking services due to cultural norms and other barriers. On the other hand, according to the Karandaaz Financial Inclusion Survey (KFIS), the Covid-19 pandemic catalyzed the adoption of mobile money wallets, but exacerbated gender inequality; in 2022, only 6.1 percent of women had electronic wallets, while 30 percent of men had used the service.²⁰ According to the field research, all the 20 women entrepreneurs are aware of electronic payment systems, and 75 percent of them own both an online bank account and a mobile payment account, e.g., EasyPaisa, JazzCash, or SadaPay, indicating a strong correlation between entrepreneurship and usage of mobile money wallets.

Apart from ownership issues, gender disparities are also pronounced when it comes to commercial borrowing and lending activities. Furthermore, even though there is no significant gender gap in overall borrowing behavior in Pakistan, women are 68 percent less likely than men to borrow for business purposes.²¹

²⁰ Karandaaz Pakistan. 2023. "Pakistan's Gender Gap in Adoption and Usage of Mobile Money Wallets." Karandaaz Pakistan. March 2, 2023. https://karandaaz.com.pk/blog/pakistans-gender-gap-adoption-usage-mobile-money-wallets/?utm_source=twitter&utm_medium=linkpreview&utm_campaign=blog&utm_term=post&utm_content=.

²¹ World Bank Group. (2023, March 10). Global Findex Data. World Bank. Retrieved April 9, 2023, from <https://www.worldbank.org/en/publication/globalfindex/Data>

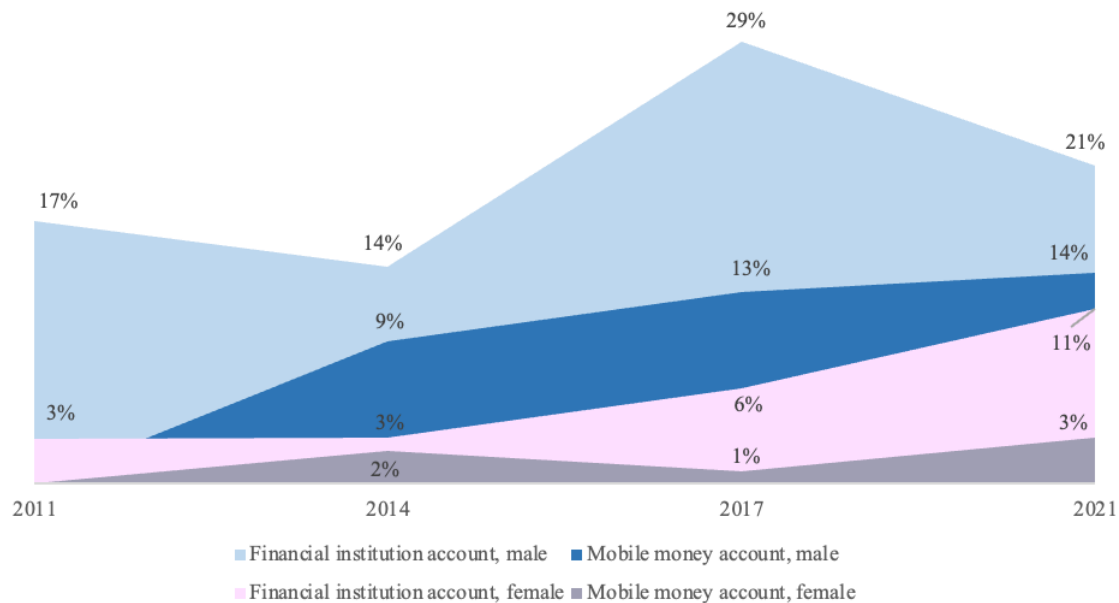


Figure 4: Gender Gap in Financial Institution Accounts and Mobile Money Accounts
Source: Global Findex database

The surveyed women entrepreneurs, too, faced financial barriers, in the form of lack of access to capital. Nearly half of the women surveyed faced financial barriers in their entrepreneurial beginnings. This figure is even more striking since the vast majority of the entrepreneurs surveyed were of middle-class or upper-class extraction. If these women, with all the privileges attendant to their socio-economic background, faced financial barriers, it is not difficult to imagine that these barriers are more pronounced for women at lower income levels. In spite of these financial barriers, among the twenty women entrepreneurs interviewed, 95 percent continued to be financed solely by self, family, or friends, with no borrowing from formal financial institutions. Only one interviewed woman entrepreneur had once taken a loan for her business, while the rest have been held back by concerns over high interest rates, high risk, complicated banking system, and distrust of banking institutions (see Table 2).

Reasons	% Response
Have other forms of capital source	44%
High interest rate & have other forms of capital source	13%
High risk/fear of being in debt	13%
Culture of lack of trust in banks & scared of being unable to repay	13%
Culture of lack of trust in banks & scared of being unable to repay & high interest rate	6%
Scared of navigating complicated financial system	6%
High interest rate	6%

Table 2: Reasons Why Pakistani Women Entrepreneurs Do Not Take Bank Loans
Source: Field Work

Transportation and Mobility Issues

**SUMMARY OF FINDINGS:
TRANSPORT AND MOBILITY ISSUES**

Running a business from the safety of home helps women circumvent often-rigid restrictions on mobility **but** *it can become a barrier to scaling up the entrepreneurial venture, in the long run*

Box 4: Summary of Findings – Transport and Mobility Issues
Source: Field Work

Mobility is a significant challenge for women entrepreneurs in Pakistan. Limited mobility, due to cultural and societal norms, safety concerns, and inadequate infrastructure, can severely constrain women's ability to access markets, resources, and customers. These mobility issues, including restricted access to transportation and lack of safe and reliable public transportation, often render women entrepreneurs unable to attend business meetings, networking events, and training programs, which are essential for business growth.

Gendered stereotypes also compound the mobility issues faced by women in Pakistan. Women entrepreneurs often face social stigma and harassment when they travel outside their homes or attend meetings with male colleagues. In a 2017 study, 70 percent of Pakistani men expressed that they would discourage female family members from using public transport services.²² Such experiences can deter women entrepreneurs from pursuing their ventures or engaging in entrepreneurial activities.

Field research indicates that 30 percent of women entrepreneurs identify that the ability to run businesses online is a solution (or, at least, a circumvention) to the issue of restricted mobility. However, as discussed earlier, this circumvention can become a barrier to scaling up the business at a later stage.

²² Sajjad, Fizzah, Ghulam Abbas Anjum, Erica Field, and Kate Vyborny. 2017. "Overcoming Barriers to Women's Mobility: Improving Women's Access to Public Transport in Pakistan." March 2017. https://www.cerp.org.pk/updata/files/files/52_20210105124256.pdf.

Family and Societal Constraints

SUMMARY OF FINDINGS: FAMILY AND SOCIETAL CONSTRAINTS

Normative gender roles take away women's ability to pursue a career or an entrepreneurial venture **but** *widespread usage of social media is a powerful lever, breaking regional barriers and fomenting social change*

Box 5: Summary of Findings – Family and Societal Constraints

Source: Field Work

Normative gender roles have a strong influence on the familial and societal expectations placed on women. Even as adults, women are expected to receive permission from male heads of households before leaving the house or interacting with the opposite sex. Household headship, independence, pursuit of a full career, and contribution to the household income are perceived as male characteristics. In the majority of cases, women do not even play a role in deciding whether or not to pursue a career. A woman's probability of participating in the labor force is strongly correlated to the degree of control that she retains over the decision to seek employment.²³ Furthermore, Pakistani society is patrilocal, i.e., married women live with their husband's families.²⁴ Once married, women are expected to adjust to the rules and norms set by their in-laws.

Twenty percent of surveyed women entrepreneurs believe that the major technological lever addressing this issue is the ability of widespread social media usage to break societal barriers and foment change. In addition, a few identify other ways in which technology solutions are addressing these constraints – one respondent believed that the anonymity afforded by running a business

²³ Asian Development Bank. Policy Brief on Female Labor Force Participation in Pakistan. (2016). Retrieved March 9, 2023 from <https://www.adb.org/sites/default/files/publication/209661/female-labor-force-participation-pakistan.pdf>

²⁴ Khalil, Umair, and Sulagna Mookerjee. Patrilocal Residence and Women's Social Status: Evidence from South Asia. (2018, March). Economic Development and Cultural Change 67(2). DOI: [10.1086/697584](https://doi.org/10.1086/697584)

online circumvents societal aversion to women’s presence in public spaces, while another one felt empowered by the ability to avoid women-unfriendly spaces.

Societal constraints also means that women entrepreneurs recounted the significant barriers they faced when dealing with vendors on account of being a woman. To this difficulty, one of the woman entrepreneurs stated:

“To begin with, the paint guy would not take me seriously. The owners of the building were all men; they would not take me seriously. They would give me material which was zero quality, thinking that I would not know. In Pakistan, people feel that if you're a woman they can fool you very easily.”

The Burden of Household Labor

SUMMARY OF FINDINGS: BURDEN OF HOUSEHOLD LABOR

Burden of house and childcare work is almost exclusively borne by women in Pakistani society

but

running a business online provides women the flexibility to balance household and work responsibilities

Box 6: Summary of Findings – Burden of Household Labor

Source: Field Work

Men in Pakistan spend almost no time on house and care work, whether employed or not. On the other hand, women spend on average 5.3 hours a day on this kind of work, and this number decreases only slightly if they are employed.²⁵ The burden of housework and childcare responsibilities inhibit women’s ability to work outside the home. The majority of women who are

²⁵ World Bank Blogs. (2021). In Pakistan, women’s representation in the workforce remains low. Retrieved from <https://blogs.worldbank.org/endpovertyinsouthasia/pakistan-womens-representation-workforce-remains-low>

not in the labor force attribute their absence to housework.²⁶ Even among women who work, the continued pressure of household tasks does not abate. This limits women’s employment opportunities to ones with flexible work hours or the option to work from home, negatively impacting their upward mobility and income.

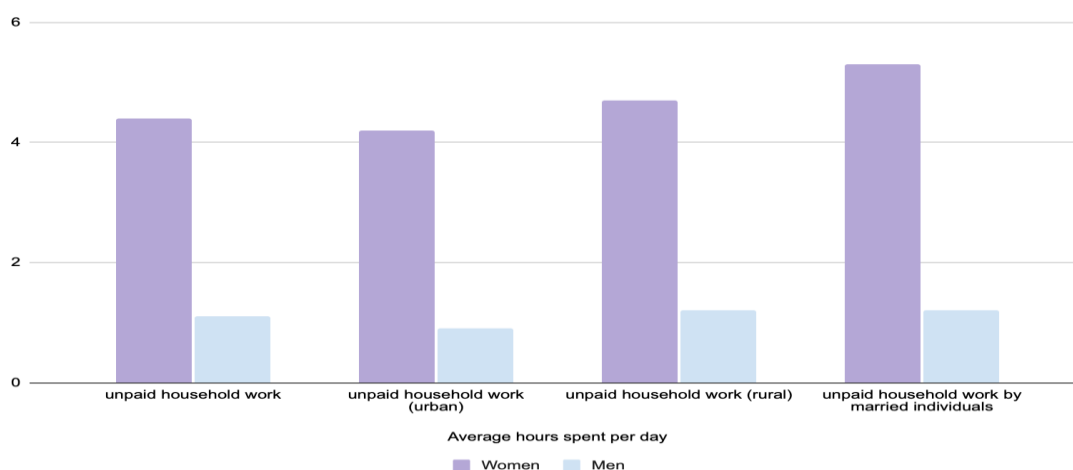


Figure 5: Gender Gap on the Burden of Household Labor, Pakistan (2018-2019)
 Source: Pakistan Bureau of Statistics²⁷

Currently, technology solutions do not offer much of a solution for women to circumvent this particular barrier, other than the flexibility that running a business online provides. Women who work from home are able to maintain focus on the household work they are expected to do, while continuing to participate in the labor force. However, the limitation of time imposed by this burden of household labor creates a barrier to scaling up the business, or engaging in IT or business skills training.

²⁶ World Bank Group. (2018). Female Labor Force Participation in Pakistan: What Do We Know? Retrieved from <https://documents1.worldbank.org/curated/en/444061529681884900/pdf/Female-labor-force-participation-in-Pakistan-what-do-we-know.pdf>

²⁷ Pakistan Bureau of Statistics. (2020, June). Pakistan Bureau of Statistics. Retrieved April 23, 2023, from https://www.pbs.gov.pk/sites/default/files/pslm/publications/pslm2018-19/pslm_report_2018-19_national_provincial.pdf

Recommendations

The Team advises stakeholders, both the Pakistani government and non-government actors, to take the below actions in order to support and encourage women in entrepreneurship.

Short to medium-term recommendations

In order to improve participation of women in entrepreneurship ventures, stakeholders should focus on three technology-based avenues in the short to medium term. These recommendations are meant to address the systemic barriers – lack of digital access, lack of financial inclusion, and lack of business skills.

Increase access to smartphones and mobile internet

As described in the Digital Inclusion section above, in Pakistan, women are less likely to own a smartphone, and less likely to have access to the internet. This greatly curtails women’s ability to start and develop their own businesses. The World Wide Web Foundation has a Women’s Rights Online program that aims to close the gender digital divide and empower women and girls to access and use the internet for social, economic, and political empowerment. This program has been implemented in India and was most impactful in Kenya, Nigeria, and Ghana.²⁸

Leverage fintech solutions to facilitate financial inclusion of women entrepreneurs

Making it easier for women to register for mobile wallets and promoting the adoption of mobile wallets can sustain women’s entrepreneurship in Pakistan. Additionally, the State Bank of Pakistan should explore ways to make access to institutional finance possible based on women’s mobile wallet usage and historical statement balances and alter rules to allow fintech companies to do so. The role of mobile money and its potential for expanding financial inclusion was explored as early as 2009 in a study by the World Bank on the Philippines and the use of mobile money by the

²⁸ World Wide Web Foundation. (2020). Women’s Rights Online: Closing the digital gender gap for a more equal world. Web Foundation.<http://webfoundation.org/docs/2020/10/Womens-Rights-Online-Report-1.pdf>

unbanked.²⁹ Bangladesh, too, stands out as a peer economy that has made significant progress in promoting financial inclusion for women. Its various policies and initiatives to increase access to financial services include mobile banking and microfinance.³⁰

Create direct linkages between social media platforms and women entrepreneurs

The research revealed that most women entrepreneurs are not aware of business skill development and startup incubation, like the World Bank's We-Fi program, which "builds the capacity of Entrepreneur Support Organizations (ESOs) to enhance their ability to support women entrepreneurs with investment readiness"³¹. Government programs, such as the National Incubation Centers which aspires to stimulate information technology-based businesses, are also not well-known³². However, high penetration of social media indicates that these platforms are ideal channels for outreach and awareness generation. Direct linkages between social media platforms and women entrepreneurs can bring the needed business skills where the women already are. Providing these business skills to women entrepreneurs via social media lowers the barriers to entry and creates easy on-ramps. One aspect of this linkage would aim to encourage women from lower classes to diversify their presence on social media, encouraging them to take up platforms with wider reach and greater monetization potential. Indonesia has implemented policies to support the growth of small and medium-sized enterprises (SMEs), including the use of social media. The

²⁹ Pickens, M. (2009). Window on the unbanked : Mobile Money in the Philippines. Handle Proxy. Retrieved April 23, 2023, from <http://hdl.handle.net/10986/9488>

³⁰ Asian Development Bank. (2016). Promoting Financial Inclusion Through Innovative Policies. Mandaluyong City, Philippines: Asian Development Bank. Retrieved from <https://www.adb.org/publications/promoting-financial-inclusion-through-innovative-policies>

³¹ We-Fi. (2021, June 27). Enabling women entrepreneurs in Pakistan through training and legal reform. Women Entrepreneurs Finance Initiative. Retrieved April 23, 2023, from <https://we-fi.org/enabling-women-entrepreneurs-in-pakistan-through-training-and-legal-reform/>

³² *Incubation Centres launched all over the country to nurture it based businesses*. Daily Times. (2018, April 7). Retrieved April 23, 2023, from <https://dailytimes.com.pk/225223/incubation-centres-launched-all-over-the-country-to-nurture-it-based-businesses/>

country has launched the Creative Economy Agency, which includes programs to support the growth of creative industries, including through social media marketing³³.

Long-term recommendations

In addition to the above recommendations, the Team has identified long-term foundational changes. The Team recognizes that enabling Pakistani women to overcome barriers to entrepreneurship requires deep change that will take years to achieve. In addition, the short to medium-term technology-based recommendations do not provide an answer to the societal barriers women face, i.e., mobility issues, family and societal constraints, and burden of household labor. In fact, in the long run, technology solutions, which encourage women to run online businesses from home, could potentially entrench the regressive societal attitudes by making it difficult for them to expand their business out of the home once the precedent is set. Given this reality, in the long-run, the focus needs to be on policy interventions which confront societal barriers. These long-term recommendations include:

Gender sensitization of regulations and business ecosystem

Women's responsiveness to encouragement of entrepreneurship will partly be shaped by the business ecosystem's ability to consciously meet their needs. As such, gender-aware approaches must be part and parcel of the regulatory business environment and the business apparatus. This need is illustrated by an anecdote recounted by one of the expert interviewees:

“We have a customs check post at our border with India. And up until a few years ago, there was no female toilet there. So if a woman entrepreneur goes there for a couple of hours to clear her goods, there is only a male toilet. There was no female toilet. They didn't even realize that there's a need for that. But now, when more and more women started entering the entrepreneurial workforce, they realized it, and they made a female toilet. So, this kind of change is new to our environment”.

³³ Asian Development Bank. (2018). \$500 Million ADB Loan to Expand Financial Inclusion in Indonesia. Retrieved from <https://www.adb.org/news/500-million-adb-loan-expand-financial-inclusion-indonesia>

Sri Lanka has implemented policies to promote gender sensitization of regulations and the business ecosystem via the Women Entrepreneurs' Summit and the Women's Chamber of Industry and Commerce.³⁴

Society-wide promotion of gender-positive norms and attitudes

Women entrepreneurs, whether running a formal or informal business, a small or medium business, educated or not, have faced problems of not being taken seriously in their business dealings. Thus, the government and other stakeholders must undertake campaigns to instill gender-positive norms and attitudes at all levels of society. Since 2015, the Indian government has been running a scheme called “Beti Bachao, Beti Padhao” (*Save the daughter, educate the daughter*) implemented through advocacy campaigns, grassroots community mobilization³⁵. It also includes financial incentives to households which provide their daughters secondary and tertiary education.

36

Conclusion

Pakistan is far behind the curve on women's labor force participation, even compared to other lower-middle-income countries. Entrepreneurship is identified as a crucial solution to bring women into the labor force.

Pakistani women entrepreneurs have made great strides to carve a space for themselves in the entrepreneurship space. Despite the myriad barriers they face, Pakistani women entrepreneurs have leveraged technology solutions to address barriers related to digital access, business skills,

³⁴ Asian Development Bank. (2019, March 7). Promoting Women's Entrepreneurship in Sri Lanka. Retrieved from <https://www.adb.org/news/videos/promoting-women-s-entrepreneurship-sri-lanka>

³⁵ PMINDIA. (n.d.). *Beti Bachao, Beti Padhao: Caring for the Girl Child*. PMINDIA. Retrieved April 23, 2023, from https://www.pmindia.gov.in/en/government_tr_rec/beti-bachao-beti-padhao-caring-for-the-girl-child/

³⁶ Pradhan, D. (2023, April 11). *What is Sukanya Samridhhi Yojana? – guide*. Forbes. Retrieved April 23, 2023, from <https://www.forbes.com/advisor/in/savings/sukanya-samridhhi-yojana-guide/>

financial inclusion and others. These women have great potential to transform the future of Pakistan for the better. Stakeholders, including the Pakistani government, should support these women by implementing the recommendations outlined in this paper. This will help unlock the great potential women entrepreneurship currently holds for the country's future.

Appendix I: Informed Consent to Participate in a Research Study

How can technology solutions support Pakistani women to overcome barriers to entrepreneurship?

Estelle Thomas, Student Investigator
Fatimata Ndiaye, Student Investigator
Ishani Srivastava, Student Investigator
Yiran Zha, Student Investigator

Introduction

You are invited to be in a research study. Research studies are designed to gain knowledge that may help other people in the future. You may or may not receive any benefit from being part of the study. Your participation is voluntary. Please take your time to make your decision, and ask your research investigator or research staff to explain any words or information that you do not understand.

Why Is This Study Being Done?

The purpose of this study is to explore the evolving landscape of entrepreneurship for Pakistani women and understand how they use technology to help support their businesses.

How Many People Will Take Part In The Study?

About 10 women will take part in this study. A total of 20 subjects are the most that would be able to enter the study.

What Is Involved In This Research Study?

Participation in this research will require responding to a variety of questions which include biographical and business-related questions. Student Investigators will ask you questions and record your answers.

How Long Will You Be in The Study?

You will be in the study for about 45 minutes.

You can decide to stop participating at any time. If you decide to stop participating in the study, we encourage you to talk to the study investigator or study staff as soon as possible.

The study investigator may stop you from taking part in this study at any time if he/she believes it is in your best interest; if you do not follow the study rules; or if the study is stopped.

What Are the Risks of The Study?

There are no known risks to those who take part in this study.

Are There Benefits to Taking Part in The Study?

If you agree to take part in this study, there may not be a direct benefit to you. We hope the information learned from this study will benefit other people in the future.

What About Confidentiality?

We will do our best to make sure that your personal information is kept confidential. However, we cannot guarantee absolute confidentiality. Federal law says we must keep your study records private. If we publish the information we learn from this study, you will not be identified by name or in any other way.

What Are the Costs of Taking Part In This Study?

There are no costs to you for taking part in this study. All the study costs, including any study tests, supplies and procedures related directly to the study, will be paid for by the study.

Will You Be Paid For Participating?

You will receive no payment or other compensation for taking part in this study.

Who Is Sponsoring This Study?

This study is being sponsored by Johns Hopkins University. The sponsor is providing money or other support to help conduct this study. The researchers do not, however, hold a direct financial interest in the sponsor or the topic being studied.

What Are Your Rights as A Research Study Participant?

Taking part in this study is voluntary. You may choose not to take part, or you may leave the study at any time. Refusing to participate or leaving the study will not result in any penalty or loss of benefits to which you are entitled. If you decide to stop participating in the study, we encourage you to talk to the investigators.

Whom Do You Call If You Have Questions Or Problems?

For questions about the study or in the event of a research-related injury, contact the study's Principal Investigator, Elor Nkereuwem at enkereu1@jh.edu. You should also reach out to the investigator if you have a concern or complaint about the research.

You will be given a signed and dated copy of this consent form.

SIGNATURES

You agree to take part in this study and confirm that you are 18 years of age or older. You have had a chance to ask questions about being in this study and have had those questions answered. By signing this consent form you are not giving up any legal rights to which you are entitled.

Subject Name (Printed)

Subject Signature

Date

Person Obtaining Consent (Printed)

Person Obtaining Consent Signature

Date

Appendix II: Questionnaire for Women Entrepreneurs

Survey Questions:

I. Demographics

- What is your age?
- What is your family status?
 - Are you married?
 - Do you have kids? If so, how many?
- Employment
 - Do you have formal employment?
 - What is your employment history?
- Education
 - What is your education level?

II. Women Empowerment Indicators

- Ownership
 - Do you own a house and land?
 - Do you have a bank account?
 - Do you own a mobile phone, a laptop, or a desktop?
 - Do you have access to the internet?

III. General Perspective

- Why did you start your business?
- How would you describe your business? (i.e. home production and self-employment, small enterprise, business owner and storefront, franchise and investor...)
- How long have you been running your business?
- How many employees, if any, do you have?
- Is your business formal (legally registered or is your business informal (not legally registered)?
- What were the challenges you faced during the start-up phase of your business?
- How well is your business operating currently (booming, normally (doing well enough to survive, struggling)?
- Have you ever thought of giving up your business at one point?
- How do your family members (husband/children/parents/etc.) feel about the business you are running?
- What is your perspective of the general landscape of entrepreneurship opportunities for Pakistani women?

IV. Entrepreneurship and Business Skills

- How do you promote your business?
- Do you use technology to advertise your service/product?
- How did you receive your business skill education?
 - Were you self-taught? Family business? Mobile apps?
 - What are/were your levels of accessibility to higher education?
- Are you aware of online business courses? If so, how easily accessible do you think they are?
- What systems are in place to support, mentor and educate women in entrepreneurial ventures?

V. Technology

- How much time do you spend on the Internet each day/week? What is the portion for leisure/work?
- What role does digital access play in your opinion in Pakistani women's entrepreneurship?
 - Is it a necessity?
 - Is it a barrier?
- Are there new opportunities or barriers brought on by technology?
- What tools do you use for the everyday running of your business?
- Do you use your cell phone to run your business?
- Are there any apps you use to run your business?

VI. Financial

- What was the funding source that allowed you to start your business?
- Do you experience financial exclusion, barriers, difficulties?
 - How has financial exclusion impacted their entrepreneurial beginnings?
 - How have they worked to circumvent these?
- Do you have a traditional bank account?
- Have you ever taken a loan for your business?
 - Why?
 - Why not?
- Are you aware of any electronic payment systems?
- Do you have an electronic bank account or payment system account?

Appendix III: Questionnaire for NGO/Academic

1. Introduction

- a. Please describe your experience of working on issues of women's employment and/or entrepreneurship in Pakistan

2. Demographics of female entrepreneurs in Pakistan

- a. Describe the relative mix of female-owned businesses in Pakistan, i.e., is the market dominated by small, informal businesses or large, formal businesses?
- b. Describe the demographics of various kinds of female entrepreneurs, e.g.:
 - i. Education level (segregated by business type)
 - ii. Age group (segregated by business type)
 - iii. Family status (married/unmarried, do they have kids/no kids)
 - iv. Employment status (i.e., do they typically have formal employment or not, outside of their entrepreneurial venture?)
 - v. Any other relevant factors

3. Barriers faced by women entrepreneurs

- a. Describe the kinds of barriers faced by women in attempting to become entrepreneurs, e.g.:
 - i. Lack of financial inclusion (e.g., legal barriers in opening bank account)
 - ii. Lack of access to higher education (such as management courses) which can develop business skills
 - iii. Lack of access to general knowledge, current affairs and news
 - iv. Social and familial pressure to remain unemployed and/or focus on household responsibilities
 - v. Social and familial concerns about safety if they move outside the house
 - vi. Any other important barriers
- b. Describe the kinds of barriers faced by women who become entrepreneurs, e.g.:
 - i. Difficulty in dealing with suppliers/vendors/customers
 - ii. Pressure of household work
 - iii. Other barriers

4. Technology solutions

- a. Do you know if any technology solutions which are helping women overcome these barriers:
 - i. Barriers of financial inclusion [*make sure to ask specifically for the technology solutions we are focusing on, i.e., fintech solutions*]
 - ii. Barriers of access to general knowledge/current affairs [*specifically, the widespread availability of internet and smartphones*]
 - iii. Barriers of access to business skills [*specifically, availability of online and remote learning courses*]
 - iv. Any other technology solutions that are addressing the barriers identified above
- b. Do you know if any other/policy (which do not currently exist in the market/do not have widespread adoption) could help women overcome these barriers?

- c. Can you think of any policy measures which could encourage the development and adoption of these new/potential technology solutions?