Terms of Reference for a Short-Term Consultant (ToR) Research Analysist (RA) Technology Adoption and in Developing Countries The World Bank

1. Summary

The World Bank's Finance, Competitiveness and Innovation Global Practice is looking for a Research Analysist (RA) to work on "Firm-adoption of Technology Survey project" starting over summer 2023, until June 2024. The objective of the project is to improve the measurement and our understanding of technology adoption by firms. The findings of the project aim at supporting the design and implementation of operational programs to support the adoption of technologies in developing countries.

2. Background

Technology is at the center of the policy and media debate about the present and future of economic development. While the rapid diffusion of new disruptive technologies is becoming a common phenomenon, adoption, especially on those countries further from the technological frontier, is poorly understood. Without understanding the real extent of technology adoption and the main sources that constrain or unable adoption, it is difficult to design the policies that could lead to new opportunities for developing countries. A deeper understanding of the meaning of these new technologies towards developing countries requires appropriate tools and methodologies to measure their diffusion. In addition, it is critical to identify the potential of the ecosystems in which firms are part of to support the generation of more and better firms.

3. The project

The World Bank is seeking to fill this gap in our understanding of the process of technological adoption by developing new tools to measure the extent of technological adoption by firms The project has been developed in three stages. In the first stage, the Firm-level Adoption of Technology (FAT) survey was developed and piloted, jointly with leading academics and industry specialists. In the second stage, the survey has been implemented in several countries (e.g., Senegal, Brazil, India, Ghana, Kenya, Bangladesh, Vietnam, Poland, and Korea). The project is currently expanding data collection to many other countries (e.g., Cambodia, Ethiopia, Georgia, Croatia). In the third stage, data collected by the project are being used across several academic papers and policy reports, in close collaboration between the World Bank team and leading academics.

Some preliminary findings about this project are available in the book: Bridging the Technological Divide: Technology Adoption by Firms in Developing Countries

4. Main tasks and responsibilities

The consultant will work on data analysis under the guidance of the TTLs of the Project. It is expected from the consultant to perform the following activities with the respective deliverables:

- 1. Prepare literature review requested by the team.
- 2. Support the team on the preparation of the questionnaires.
- 3. Support the piloting phase and editing of the questionnaires
- 4. Support and supervise survey implementation.
- 5. Cleaning datasets and manage the project databases.
- 6. Perform empirical analysis.

- 7. Prepare charts and tables.
- 8. Prepare drafts and reports for the project, including country technology adoption notes.
- 9. Prepare presentations.
- 10. Other activities that supervisors consider, within the scope of the consultancy.

5. Requirements

The consultant should present the following minimum requirements:

- Degree in Economics or related field with focus on innovation and technology adoption. Recent graduates, including those with Mater's degree, that are planning to apply a PhD program in the next 2 years are preferable.
- Strong analytical and quantitative skills with good knowledge in applied statistics and management of large data base.
- Experience in working with firm-level data and micro surveys.
- Excellent command of STATA and other statistical software, Microsoft Excel, Word, PowerPoint, is essential.
- Communication and Team Skills: High level of personal and professional integrity. Self-starter. Strong ability to function well in a multi-cultural environment and working in teams.
- Ability to write and speak fluently in English.
- Results-oriented personality with proven problem-solving skills, and strong communication skills.

6. Contract time frame and supervision

The Research Analysist will work as a short-term consultant over the period between July 2023-June 2023, with the possibility of extension for another year, based on performance and business need. Depending on skills and availability, the selected candidate can be offered to start in January 2023. The consultant will report to Xavier Cirera (Senior Economist, World Bank), Marcio Cruz (Principal Economist. IFC), and Diego Comin (Dartmouth College).

7. Application process

Please send your resume, transcripts, and a writing sample to Rachel Fano (<u>rfano@worldbank.org</u>), copying Kyung Min Lee (<u>klee12@worldbank.org</u>). **Please use the title "RA Application Technology Project" in the subject** of your message.

Deadline: Please send your application by November 21, 2022.