DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

# REGIONAL

## FOSTERING AI ADOPTION TO ACCELERATE MSME PRODUCTIVITY IN LAC

## (RG-T5051)

## PROJECT DOCUMENT

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| REGIONAL<br>**FOSTERING AI ADOPTION TO ACCELERATE MSME PRODUCTIVITY IN LAC**<br>**RG-T5051** | | |
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| **PROJECT SUMMARY** | | |
| Operation Type: | Technical Cooperation | |
| Sector: | SCIENCE AND TECHNOLOGY | |
| Subsector: | TECHNOLOGY DIFFUSION | |
| TC Taxonomy: | Research and Dissemination | |
| Project Number under the Operational Support Taxonomy: | N/A | |
| Technical Responsible Unit: | PTI/CTI-Competitiveness, Technology, and Innovation Division | |
| Unit with Disbursement Responsibility (UDR): | PTI/CTI-Competitiveness, Technology, and Innovation Division | |
| Executing Agency: | Inter-American Development Bank | |
| **PROJECT OBJECTIVE** | | |
| This Technical Cooperation aims to generate applied knowledge on artificial intelligence adoption among MSMEs in Latin America and the Caribbean and strengthen the institutional capacities of public institutions responsible for designing evidence-based digital transformation policies, by leveraging and strengthening Chequeo Digital as the IDB's regional platform for measuring firms' digital maturity and generating comparable regional evidence. | | |
| **FINANCIAL INFORMATION** | | |
| **Financing Type** | **Fund** | **Amount in US$** |
| TCN - Nonreimbursable | P3B - OC SDP Pillar 3 - Productive Development and Innovation through the Private Sector | 100,000 |
| | **Total IDB Financing** | **100,000** |
| | **Counterpart Financing** | **0** |
| | **Total Project Budget** | **100,000** |
| Donors: | N/A | |
| Disbursement Period: | 24 months | |
| Execution Period: | 24 months | |
| **ADDITIONAL FINANCIAL INFORMATION** | | |
| N/A | | |

## I. JUSTIFICATION AND OBJECTIVE

1.1 **Diagnostic.** Productivity and competitiveness among firms in Latin America and the Caribbean (LAC) continue to lag those of more advanced economies, reflecting persistent gaps in technological capabilities, innovation adoption, and the strategic use of data (IDB, 2022; ECLAC, 2023). These gaps are particularly pronounced among Micro, Small and Medium-sized Enterprises (MSMEs), which account for the majority of employment and productive units in the region but face greater constraints in effectively adopting advanced digital technologies.

1.2 In this context, Digital Checkup[1] has become a key regional instrument for closing information gaps by enabling the characterization of the digital maturity levels of MSMEs, generating comparable data across countries, and supporting the design and monitoring of digital transformation policies. The tool has demonstrated its value as an entry point to public support programs, for the evaluation of such programs, and as a platform for generating evidence based on large-scale business data.

1.3 However, the technological landscape is evolving rapidly. Recent advances in Artificial Intelligence (AI)—particularly in advanced analytics, machine learning, and recommendation systems—are transforming the way businesses and governments process information, make decisions, and design public interventions (Agrawal, Gans, and Goldfarb, 2019; OECD, 2023[2]). International evidence suggests that, under the right conditions, AI can generate substantial improvements in productivity, operational efficiency, and innovation, both at the firm level and in the formulation of public policies (Brynjolfsson, Rock, and Syverson, 2021[3]).

1.4 However, in LAC, AI adoption among MSMEs remains incipient and highly heterogeneous. Various studies show that its use is concentrated in larger firms or in economies with more mature digital ecosystems, while MSMEs face barriers related to organizational capabilities, talent availability, access to data, understanding of use cases, and risk perception (OECD/CAF, 2024[4]; McElheran et al., 2024). At the same time, public institutions responsible for promoting digital transformation often lack applied evidence and advanced analytical tools to better target their interventions, prioritize resources, and assess impact.

1.5 In this context, there is a strategic opportunity to leverage the accumulated capital of the Digital Checkup and expand the evidence base available on the adoption and use of AI among MSMEs in the region. The incorporation of AI-specific

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[1] Digital Check Up is an Inter-American Development Bank (IDB) proprietary tool that has been deployed and is hosted in each participating country. To ensure compliance with the IDB's confidentiality and data governance policies, the IDB signs a Non-Disclosure Agreement (NDA) with each participating country before the exchange of information and implementation of the platform.

[2] Agrawal, A., Gans, J., & Goldfarb, A. (2019). The Economics of Artificial Intelligence: An Agenda. University of Chicago Press.

[3] Brynjolfsson, E., Rock, D., & Syverson, C. (2021). *The Productivity J-Curve: How Intangibles Complement General Purpose Technologies*. American Economic Journal: Macroeconomics.

[4] OECD/CAF. (2024). *Latin American Economic Outlook: Digital Transformation and Productivity*.

modules and instruments within the Digital Checkup will enable the generation of comparable information on capabilities, adoption patterns, gaps, and business needs associated with these technologies. This information will contribute to strengthening the understanding of how AI is being used across different segments of firms and to enhancing governments' capacity to design evidence-based digital transformation programs and policies.

1.6 Significant knowledge gaps remain regarding the factors that determine the effective adoption of artificial intelligence among MSMEs, the mechanisms through which it generates value, and the conditions required for its successful implementation. Likewise, there is limited evidence on the costs, risks, and barriers associated with adoption. Recent literature highlights the importance of generating applied evidence to inform the design of results-based public policies and support instruments, while avoiding overly optimistic expectations regarding the impact of these technologies (Aghion and Bunel, 2024; World Bank, 2024).

1.7 In response to these challenges, this Technical Cooperation (TC) seeks to generate evidence on the adoption and use of AI among MSMEs in Latin America and the Caribbean, leveraging the Digital Checkup as the region's primary source of information on firms' digital maturity. To this end, the tool will be strengthened through the incorporation of specific artificial intelligence modules aimed at collecting comparable information on firms' capabilities, use cases, barriers, and needs. The findings will contribute to improving the design of policies and support instruments for digital transformation, while also enhancing the understanding of differences in AI adoption patterns across sectors, firm sizes, and countries in the region.

1.8 **Request**. This Technical Cooperation responds to the strategic interest of the Inter-American Development Bank (IDB) in strengthening the evidence base on artificial intelligence adoption and digital transformation among MSMEs in Latin America and the Caribbean. Building on the Digital Checkup as the Bank's regional platform for measuring firms' digital maturity, the TC will expand its analytical capabilities through the incorporation of AI-specific modules and the generation of comparable regional evidence. This initiative will support the Bank's knowledge agenda and provide analytical inputs to inform future technical assistance and lending operations aimed at fostering productivity, innovation, and digital transformation across the region.

1.9 **Objective.** This Technical Cooperation aims to generate applied knowledge on artificial intelligence adoption among MSMEs in Latin America and the Caribbean and strengthen the institutional capacities of public institutions responsible for designing evidence-based digital transformation policies, by leveraging and strengthening Chequeo Digital as the IDB's regional platform for measuring firms' digital maturity and generating comparable regional evidence.

1.10 **Complementarity.** This Technical Cooperation builds on the Bank's ongoing support to promote the digital transformation of MSMEs through the development, regional deployment, and continuous improvement of the Digital Checkup. Previous Technical Cooperations (ATN/FI-20529-RG,ATN/OC-18775-RG and ATN/OC-20952-RG), established its methodological foundations, governance arrangements, and regional implementation model, enabling the generation of comparable data on firms' digital maturity across Latin America and the Caribbean. Several lending operations, including 5294/OC-UR and 4942/BL-HO, are using the Digital Checkup as the entry point to their digital transformation programs, supporting beneficiary selection, firm segmentation according to digital maturity, and program monitoring and evaluation. These implementation experiences are being consolidated through a broader Bank knowledge agenda that analyzes MSMEs' digital adoption patterns and distills lessons learned from digital transformation programs across the region. A key remaining knowledge gap is the adoption and use of artificial intelligence (AI) by MSMEs, an area where comparable data across Latin America and the Caribbean remain scarce despite growing demand from counterpart institutions. This TC addresses that gap by incorporating AI into the Digital Checkup, generating evidence to inform future digital transformation policies and operations.

1.11 **Strategic Alignment**. This Technical Cooperation is aligned with the IDBStrategy+ (CA-631): Transforming for Scale and Impact, particularly through its objective of increasing productivity and fostering innovation by promoting the responsible adoption of digital technologies and strengthening institutional capacity for evidence-based policymaking. By generating applied evidence on artificial intelligence adoption among MSMEs and strengthening the Digital Checkup as a regional analytical platform, the TC contributes to improving the quality of evidence available to design, monitor, and evaluate public policies and investment operations that accelerate digital transformation across Latin America and the Caribbean. The operation also supports the strategic priorities of the Competitiveness, Technology and Innovation Division (PTI/CTI) by expanding the analytical value of the Digital Checkup as a regional public good and strengthening the Bank's knowledge base on digital transformation and emerging technologies. Furthermore, the TC is fully aligned with the Ordinary Capital Strategic Development Program (OC SDP) – Pillar 3: Productive Development and Innovation through the Private Sector (P3B), approved under GN-2819-25, by generating knowledge, analytical tools, and evidence that support productivity growth, innovation, and digital transformation among MSMEs. The evidence, analytical tools, and knowledge products generated under this TC will complement ongoing and future technical assistance and lending operations, reinforcing the Bank's role as a regional knowledge partner on artificial intelligence and productive development.

## II. COMPONENTS

2.1 **Single component. Generating evidence on the adoption of artificial intelligence among MSMEs (US$100,000).** This component aims to strengthen the Digital Checkup as a regional instrument for supporting firms' digital transformation and to generate applied evidence on the adoption and use of artificial intelligence among MSMEs in Latin America and the Caribbean.

2.2 To this end, the TC will finance activities aimed at strengthening the sustainability and use of the Digital Checkup as a regional business diagnostic tool. These activities include the incorporation of specific modules on artificial intelligence, enabling the collection of comparable information on MSMEs' capabilities, applications, and barriers related to the adoption of these technologies. In addition, methodological strengthening and knowledge transfer activities will be supported to improve the implementation, use, and uptake of the tool by participating institutions.

2.3 The component will also finance studies and analytical exercises that integrate information derived from Digital Checkup and other relevant sources, with the objective of deepening the understanding of artificial intelligence adoption patterns among MSMEs. This will include analysis by firm size, economic sector, country, and level of digital maturity. Furthermore, international experiences and best practices will be reviewed to help contextualize the findings generated in the region.

2.4 Finally, the TC will support communication and dissemination activities aimed at strengthening the use of evidence in the design of digital transformation policies and programs. These activities will include knowledge products, regional exchange opportunities among countries, and the launch of the regional Digital Checkup platform as a mechanism to facilitate access to and use of the information generated.

2.5 As a result, the TC is expected to contribute to a better understanding of artificial intelligence adoption patterns among MSMEs in the region, a strengthened Digital Checkup with enhanced capabilities to collect AI-related information, and greater availability of evidence to inform the design of digital transformation policies and programs targeting the business sector.

2.6 **Expected Results**. The TC is expected to generate applied and systematized knowledge on patterns of adoption and use of AI among MSMEs in LAC, including differences across business segments according to firm size, economic sector, gender of ownership, country, and level of digital maturity. The TC will contribute to improving the understanding of the capabilities, opportunities, and barriers faced by firms incorporating these technologies into their productive processes.

2.7 In addition, the Digital Checkup is expected to be strengthened through the incorporation of AI diagnostic modules and technical transfer activities that facilitate its use and sustainability as a regional instrument to support business digital transformation.

2.8 The TC will also generate knowledge products and dissemination opportunities aimed at sharing the main findings derived from data analysis and implementation experiences. Among these results, the strengthening of the regional Digital Checkup platform is envisaged as a mechanism to facilitate access to and use of the information generated.

2.9 The results of the TC will serve as inputs to strengthen evidence-based business digital transformation programs and policies, while promoting a better understanding of AI adoption trends across the region.

2.10 **Beneficiaries**. The direct beneficiaries of this Technical Cooperation will be the public institutions in Latin America and the Caribbean responsible for the design and implementation of digital transformation, innovation, and MSME support policies that use the Digital Checkup platform and the knowledge products generated under this operation. These institutions will benefit from strengthened analytical capabilities, improved information on AI adoption among MSMEs, and enhanced tools to support evidence-based policymaking. The final beneficiaries will be MSMEs across Latin America and the Caribbean, which are expected to benefit indirectly from better-informed public policies, digital transformation programs, and support instruments that respond more effectively to their digital capabilities, needs, and opportunities for adoption of AI.

## III. BUDGET

3.1 **Budget.** The indicative budget of the TC will be US$100,000 to be financed by the Ordinary Capital Strategic Development Program (OC SDP), Pillar 3: Productive Development and Innovation through the Private Sector (P3B). The use of these resources is governed by the provisions established in the Ordinary Capital Strategic Development Program (OC SDP), approved under document GN-2819-25.

| **Budget in US$** | | | |
|---|---|---|---|
| **Components** | **Description** | **IDB (OC SDP - P3B)** | **Total** |
| **Component 1: Generating evidence on the adoption of artificial intelligence among MSMEs** | Strengthening the Digital Checkup and generating regional evidence on the adoption and use of artificial intelligence among MSMEs. | 100,000 | 100,000 |
| **Total** | | **100,000** | **100,000** |

## IV. EXECUTION STRUCTURE

4.1 **The IDB as Executing Agency for RD TC**. The Technical Cooperation (TC) will be executed by the Inter-American Development Bank (IDB), in accordance with the Bank's Technical Cooperation Policy (GN-2470-2) and the Procedures for the Processing of Technical Cooperation Operations and Related Matters (OP-619-4), through the Competitiveness, Technology and Innovation Division (PTI/CTI). This TC is an initiative promoted by the Bank to generate regional knowledge on the adoption of artificial intelligence among MSMEs and to strengthen the Digital Checkup as a regional public good.

4.2 Although this operation does not require non-objection letters at this stage, should any country-specific interventions or in-country activities be undertaken during the implementation of the TC, the Team Leader will obtain the corresponding non-objection letters from the official liaison entities prior to carrying out such activities, in accordance with the Bank's applicable procedures.

4.3 **Procurement.** All procurement to be executed under this Technical Cooperation has been included in the Procurement Plan (Annex IV) and will be hired in compliance with the applicable Bank policies and regulations as follows: (a) Hiring of individual consultants, as established in the regulation on Complementary Workforce (AM-650) and (b) Contracting of services provided by consulting firms in accordance with the Corporate Procurement Policy (GN-2303-33) and its Guidelines.

4.4 The Bank will contract the services of firms and individual consultants in accordance with the Bank's applicable procurement policies and procedures. All contracted services will be carried out under the Bank's supervision, and their design will be aligned with the delivery of the outputs described in the terms of reference included in Annex II.

4.5 **Execution and Disbursement Period.** The execution and disbursement period for this TC is 24 months.

4.6 **Monitoring, Reporting, and Supervision**. The Technical Cooperation will be supervised by the Competitiveness, Technology and Innovation Division (PTI/CTI). The Sector Specialist of the Division will serve as the technical focal point and will be responsible for the overall coordination, technical supervision, and monitoring of the operation. In addition, an IT specialist (TTD/TTR) will serve as the focal point for technical implementation of the new AI module. Monitoring of the TC will be carried out on a continuous basis through regular technical meetings, periodic review of consultant deliverables, and follow-up of the implementation schedule and expected outputs. Supervision costs will be covered through the operational resources allocated to the Technical Cooperation. Progress and results will be monitored and reported in accordance with the Bank’s Technical Cooperation Monitoring and Reporting System (TCM), following the applicable reporting requirements and implementation milestones.

## V. POTENTIAL RISKS

5.1 The project faces two main risks. One of them is the difficulty of translating the evidence and analyses generated into public policy decisions and concrete interventions. This risk will be addressed through the systematization of lessons learned and the development of knowledge products targeted at decision-makers. The other risk relates to the heterogeneity in institutional capacities and in the levels of digital adoption among MSMEs, which could limit the effective use of the analytical instruments developed. This risk will be mitigated through a flexible approach, technical support to participating institutions, and the adaptation of the instruments to different national contexts.

5.2 **Intellectual Property.** Any knowledge products generated within the framework of this Technical Cooperation will be the property of the Bank and may be made available to the public under a Creative Commons license. However, at the specific request of the beneficiaries or donors, and in accordance with the provisions of document AM-331, the intellectual property rights to such products may also be licensed through specific contractual agreements to be drafted with the guidance of the Legal Department.

## VI. Exceptions to Bank Policies

6.1 None.

## VII. Environmental and Social Aspects

7.1 This Technical Cooperation is not intended to finance pre-feasibility or feasibility studies of specific investment projects or environmental and social studies associated with them; therefore, this TC does not have applicable requirements of the Bank's Environmental and Social Policy Framework (ESPF).

**REQUIRED ANNEXES:**

- Annex I: Request from Client[5]
- Annex II: Results Matrix
- Annex III: Terms of Reference
- Annex IV: Procurement Plan

[5] Internal request. Please refer to paragraph 1.8 of the TC Document.