

Digital Transformation to Generate New Business Opportunities, Opening to New Markets in the MSMES and Gender Focused Cooperatives, in Response to the Economic Crisis Caused by COVID-19

APEC Small and Medium Enterprises Working Group

February 2025



**Asia-Pacific
Economic Cooperation**



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1. Executive Summary

This project focuses on advancing the digital transformation of MSMEs and cooperatives across APEC member economies, with a strong emphasis on inclusivity, sustainability, and innovation. The broader initiative seeks to address systemic barriers, build capacity, and leverage digital tools to empower MSMEs as key drivers of economic growth and resilience in the Asia-Pacific region.

As part of this effort, a two-day symposium brought together participants from nine APEC economies, including policymakers, industry leaders, and representatives of MSMEs and cooperatives. The event served as a platform to share insights, exchange best practices, and discuss actionable strategies for bridging digital gaps and fostering sustainable business models.

Key findings from the symposium underscored the importance of public-private collaboration in creating inclusive digital ecosystems. Discussions highlighted successful initiatives like “Innovate Your Market,” which demonstrated the impact of targeted support in driving digital adoption among women-led businesses. Additionally, the transformative potential of digital financial services, e-commerce platforms, and sustainability-focused practices was emphasized as critical to enabling MSMEs to access global markets and enhance operational efficiency.

Survey results validated the symposium's success, with 93.3% of respondents reporting an improved understanding of strategies to build MSME capacity for digital adoption. However, the discussions also identified persistent challenges, including high implementation costs, limited digital literacy, and gender-based barriers, as areas requiring further intervention.

The symposium concluded with a series of recommendations aligned with the broader project's goals. These included strengthening financial support mechanisms, expanding digital literacy programs, fostering gender-inclusive initiatives, and promoting sustainability through circular economy practices. Collectively, these efforts aim to drive inclusive, innovative, and sustainable economic growth across APEC economies.

2. Importance of digital transformation for MSMEs and cooperatives with a gender focus.

Micro, small, and medium-sized enterprises (MSMEs) are the backbone of economic growth and innovation in the Asia-Pacific region. Accounting for over 97% of all enterprises and employing more than half of the workforce in APEC economies, MSMEs contribute significantly to GDP, with shares ranging from 40% to 60% in most economies (APEC, 2023c)¹.

The rapid acceleration of digitalization, particularly in the aftermath of the global pandemic, has opened new opportunities for MSMEs to thrive in the digital economy. Key benefits of digital transformation include:

¹ APEC (2020), Overview of the SME Sector in the APEC Region: Key Issues on Market Access and Internationalization, APEC Policy Support Unit, https://www.apec.org/docs/default-source/publications/2020/4/overview-of-the-sme-sector-in-the-apec-region---key-issues-on-market-access-and-internationalization/220_psu_sme-market-access-and-internationalization.pdf.

- Access to international markets via e-commerce platforms.
- Improved operational efficiency through digitally enabled services.
- Reduced trade costs with digital solutions in logistics and trade processes.
- Enhanced marketing and sales strategies using digital tools.
- Simplified transactions through electronic payments.
- Broader financial access facilitated by fintech solutions.
- New avenues for interaction with customers and collaboration with other MSMEs via social networks and platforms.

Despite these opportunities, digital adoption remains relatively low among MSMEs, which limits their ability to fully leverage these benefits. For women-led MSMEs and cooperatives, the challenges are even greater. A study by the Center for Mathematical Modeling of the University of Chile highlights that the APEC region lost approximately USD94 billion in 2020 due to the underrepresentation of women in the digital economy². Barriers include:

- Limited access to education and training in digital skills.
- Restricted access to technology and infrastructure.
- Lack of supportive government policies tailored to women entrepreneurs.

Addressing these barriers requires targeted digital capacity-building programs and inclusive policies that empower MSMEs and cooperatives, particularly those led by women. Promoting digital transformation with a gender focus is essential to bridging digitalization gaps, enhancing resilience, and unlocking the potential of these enterprises to drive inclusive and sustainable economic growth across the APEC region. This project seeks to examine the efforts of APEC economies in fostering digital capacity-building initiatives and facilitating the adoption of digital tools by MSMEs. These initiatives play a pivotal role in equipping MSMEs to thrive in the digital economy and serve as catalysts for regional development and innovation.

2.1 Symposium objectives:

The Symposium was a two-day event that brought together policymakers, industry experts, and private sector representatives from APEC economies to underscore the strategic value of adopting digital tools among MSMEs and cooperatives. The program provided targeted training in digital transformation strategies, creating a comprehensive capacity-building experience. Participants engaged in a variety of sessions, including expert-led presentations, case study analyses, and interactive discussions, all designed to equip attendees with practical insights and actionable knowledge.

² APEC (2022), The Untapped Economic Potential of Including Women in the Digital Economy in the APEC Region, APEC Policy Support Unit, <https://www.apec.org/publications/2022/09/the-untapped-economic-potential-of-including-women-in-the-digital-economy-in-the-apec-region>.

3. Digital Transformation for MSMEs and Cooperatives in the APEC Region

3.1 Overview

- **Current state of digital adoption in the APEC region.**

According to the Visa Economic Empowerment Institute, digital adoption among micro and small enterprises (MSEs) in the APEC region shows promising trends, with high adoption rates of online banking (90%) and digital payments (88%). However, the adoption rate for e-commerce marketplaces remains comparatively lower at 54%³.

The report also highlights that MSE revenues have grown between 8% and 20% in 2023 compared to 2020. Despite this progress, one-fifth of MSEs reported either no revenue growth in 2023 or growth limited to only one of the four years covered in the study.

This uneven growth underscores the need for governments to implement policies and initiatives that ensure the sustainability of digital transformation efforts and support consistent growth for MSEs in the region.

- **Key trends and challenges identified.**

MSMEs in APEC economies are increasingly leveraging digital financial tools such as online banking and digital payments, as highlighted earlier. Additionally, studies reveal that digital transformation has profoundly impacted their business models. A significant majority of MSMEs (88%) have transitioned to online sales channels, while 75% have successfully expanded into new digital markets, showcasing their adaptability and pursuit of new opportunities.

Operationally, 69% of MSMEs reported improved flexibility and scalability, indicating the effectiveness of digital tools in enhancing business efficiency. Furthermore, marketing strategies have evolved, with 94% of MSMEs utilizing social media to boost customer engagement and 56% integrating influencer marketing into their outreach efforts.

These trends emphasize the critical role of digital tools in optimizing business operations, improving market reach, and fostering innovation. However, the widespread adoption of these technologies also highlights the need to address challenges such as accessibility, digital literacy, and infrastructure gaps to ensure equitable growth across all sectors.

³ Visa Economic Empowerment Institute (2023), Digital Transformation of Micro and Small Enterprises in the APEC Region, Visa Economic Empowerment Institute, <https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-whitepaper-apec-micro-and-small-enterprises.pdf>.

3.2 Barriers to Digital Adoption

- **Financial, technological, and cultural barriers.**

The **OECD report titled "The Digital Transformation of SMEs"**⁴ offers a comprehensive overview of the barriers hindering digital adoption by micro, small, and medium-sized enterprises (MSMEs). These challenges are grouped into three primary categories: financial, technological, and cultural barriers.

Financial Barriers:

- **High Initial Costs:** Many MSMEs find it difficult to shoulder the substantial upfront investment required for acquiring digital tools, software, and infrastructure.
- **Limited Access to Finance:** A significant number of smaller firms struggle to secure funding necessary for digital transformation projects, often due to restrictive lending practices or a lack of tailored financial products.

Technological Barriers:

- **Lack of Digital Skills:** There is a pronounced gap in the digital competencies needed among MSME employees, which limits their ability to effectively leverage digital tools.
- **Inadequate Infrastructure:** Many MSMEs, particularly in remote or underserved regions, lack access to reliable high-speed internet and cutting-edge technologies, creating substantial obstacles to digital adoption.

Cultural Barriers:

- **Resistance to Change:** Organizational inertia and a reluctance to alter traditional business practices impede digital transformation.
- **Limited Awareness:** Many MSMEs are unaware of the potential benefits that digital technologies can offer.

These barriers underscore the need for targeted interventions to support MSMEs in overcoming financial constraints, building technological capacity, and fostering a culture of digital innovation.

- **Specific challenges for women led MSMEs.**

The APEC report titled "**Women-Owned Business in Cross-Border E-Commerce: A Diagnostic Toolkit**"⁵ provides a detailed examination of the unique barriers faced by women entrepreneurs in adopting digital technologies within MSMEs. Key challenges include:

- **Online Discrimination and Safety:** Women entrepreneurs often encounter gender-based discrimination on online platforms. Concerns about safety and security in digital environments further discourage full participation, limiting their ability to engage effectively in e-commerce.

⁴ OECD (2021), *The Digital Transformation of SMEs*, OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris, <https://doi.org/10.1787/bdb9256a-en>.

⁵ APEC (2022), *Women-Owned Business in Cross-Border E-Commerce: A Diagnostic Toolkit*, APEC Secretariat, Singapore, <https://www.apec.org/publications/2022/09/women-owned-business-in-cross-border-e-commerce-a-diagnostic-toolkit>.

- **Access to Networks and Visibility:** Women-led businesses frequently lack representation and visibility within digital business ecosystems. This absence restricts their access to critical networks, mentorship opportunities, and market visibility, which are essential for growth and innovation.

Addressing these challenges requires tailored policies and programs that focus on creating safer digital spaces, enhancing visibility for women entrepreneurs, and building inclusive networks to foster equitable participation in the digital economy.

4. Findings from the Symposium

4.1 Symposium Highlights

- **Public-Private Collaboration:** Strong partnerships between the public and private sectors emerged as a cornerstone for advancing MSME digitalization and sustainability. Joint efforts ensure accessibility to resources and tailored support for diverse business needs.
- **Capacity Building:** Building digital and financial literacy among MSMEs is critical to enhancing their trust and capability in leveraging technology for growth. Initiatives like "Innovate Your Market" have demonstrated the transformative impact of education and training.
- **Security Awareness:** The importance of educating MSMEs about digital security practices, including recognizing secure platforms and interactions, was underscored as a key to fostering safe digital adoption.
- **Empowering Women Through Digitalization:** Digital tools and training programs specifically targeting women entrepreneurs significantly contribute to their economic empowerment and participation in sustainable business models.
- **Digitalization for Sustainability:** The integration of digital technologies with sustainable practices enables MSMEs to access premium markets, implement clean technologies, and align with global sustainability goals.

4.2 Barriers and Solutions Identified

- Summary of obstacles and proposed solutions.
 - **Obstacle:** Limited trust and digital literacy among MSMEs, particularly women-led enterprises.
Suggested Solution: Peer-led initiatives like "DigiAmig@s" and regionally focused digitalization programs build trust and capability incrementally.
 - **Obstacle:** Low access to formal financial services for MSMEs.
Suggested Solution: Financial institutions and fintechs introduced tailored products, such as real-time credit tools and blockchain-based crowdfunding, to bridge gaps.
 - **Obstacle:** Challenges in accessing sustainable practices and certifications.

Suggested Solution: PRODUCE's programs provide training, funding, and guidance to help MSMEs implement clean technologies and meet sustainability standards.

- **Obstacle:** Unequal e-commerce readiness and infrastructure gaps across regions.

Suggested Solution: Partnerships between governments and e-commerce platforms ensure broader technology access and consumer rights protections.

5. Symposium Summary Report

5.1 Detailed summary of Day 1: Sessions and key presentations.

5.1.1 "Reducing Digital Gaps and Promoting Capabilities"

Presentation by Ximena González Fernández

Organization: United Nations Development Programme (UNDP)

The first presentation of the event, delivered by Miss Ximena González Fernández from the United Nations Development Programme (UNDP), focused on the critical issue of reducing digital gaps and promoting capabilities, especially in the context of MSMEs in Peru. The session highlighted key challenges and opportunities for the digitalization of traditional markets and the role of women entrepreneurs in driving this transformation.

Traditional Markets as a Sample for Digitalization:

Miss Ximena began by emphasizing the significance of traditional markets in Peru, which stands out as some of the most biodiverse economic ecosystems and are renowned for their rich gastronomic heritage. Despite their importance, these markets remain among the least digitized service providers for basic food baskets, with 76% of basic basket needs still being supplied by traditional markets. Peru has approximately 2,600 "mercados", with 70-80% of businesses within them being led by women. However, it was revealed that 60% of these businesses are "traditional," involving the sale of vegetables, meat, fish, and other groceries.

Technological Barriers for Women Vendors

An interesting point raised during the presentation was the high smartphone ownership in urban areas, with 98% of vendors having access to smartphones. Despite this, a significant challenge remains: 30% of women vendors in traditional food markets distrust technology, particularly digital transactions, highlighting a barrier to adoption.

Post-COVID Digital Trends

Miss Ximena also noted that, following the COVID-19 pandemic, digital wallets have come to represent more than half of digital transactions in Peru. This shift indicates a growing trust in digital financial services, though challenges remain, especially for women-led MSMEs.

UNDP's Global Digital Strategy

The UNDP's global strategy for digital transformation encompasses four key areas:

- **People:** Focus on digital literacy, adoption, cultural norms, and trust.
- **Economy:** Emphasize financial services, responsibility standards, and the innovation ecosystem.
- **Connectivity:** Improve physical infrastructure and access.
- **Government:** Strengthen open government initiatives.

What Does It Mean to Be Digital for MSMEs?

According to the UNDP, digitalization for MSMEs is clearly defined and encompasses the following:

- The use of digital wallets for transactions.
- The adoption of digital business banking applications.
- Leveraging social media to promote products and services.
- Engaging customers through digital communities.

Innovation and Digitalization in Traditional Food Markets of Peru

The "Innovate Your Market" initiative, led by UNDP, is one of the key drivers of digital transformation in traditional Peruvian markets. Over 2,000 traditional entrepreneurs have been digitalized through this initiative, with more than 80 institutions, including the Ministry of Production and municipal governments, participating in the network.

Key highlights include:

- **1,700 merchants** have participated in the digitalization process, with 70% being women.
- **Seven regions** have been reached, including Lima, Callao, Arequipa, Amazonas, Cajamarca, Tumbes, and Ucayali.
- **60 food markets** have been involved in the 2022-2024 period.
- **72% increase in digital trust** among participants, due in part to the efforts of youth volunteers, known as "*Digiamigos*".

The "Digiamigos" Strategy

The "Digiamigos" strategy⁶ has played a key role in improving digital trust and fostering adoption. A total of 858 traders have been digitalized, with 798 visits made by volunteers to provide support. This initiative has contributed to a 72% increase in digital trust among participants.

In conclusion, the presentation emphasized the critical need to continue addressing digital gaps in traditional markets, particularly those led by women. Initiatives like "Innovate Your Market" showcase how targeted support can empower MSMEs in Peru to adopt digital tools, driving business growth, enhancing customer engagement, and improving financial access. The session

⁶ <https://www.undp.org/es/peru/noticias/digiamigs-juventudes-digitales-por-la-innovacion-en-los-mercados-de-abastos>

underscored the importance of promoting digital literacy, building trust in technology, and fostering inclusive digital ecosystems tailored to the unique needs of women-led businesses.

5.1.2 Panel "Market Access, E-Commerce, and Digital Platforms"

The panel focused on the transformative role of e-commerce and digital platforms in enhancing market access, particularly for MSMEs. Two speakers, María Hermida Cruells from Mercado Libre Mexico and Carlos Vidal from MiTienda.pe, shared insights and experiences during the session.

First Presentation:

Presentation by María Hermida Cruells

*Government Relations Manager at Mercado Libre Mexico*⁷ .

Key Highlights:

E-Commerce as a Driver of Digital Inclusion:

- The global growth of internet users from 4.1 billion in 2019 to 5.3 billion in 2022 has consolidated e-commerce as a critical channel for buying and selling goods.
- APEC economies have seen significant e-commerce growth, with Mexico leading at 24.6%, followed by the Philippines; Malaysia; and others.
- Despite growth, e-commerce penetration in economies like Mexico (15.2%) remains below the global average (23.1%), signaling substantial potential for expansion.

Mercado Libre's Ecosystem and Impact:

- Mercado Libre is a leader in e-commerce and fintech in Latin America, empowering 1.8 million families who rely on it as their primary income source.
- The platform connects SMEs and entrepreneurs to millions of buyers, supporting 574,000 SMEs on its marketplace and creating 27 new jobs per hour.
- It also facilitates digital inclusion through fintech services, with USD182 billion in payment volume over the last 12 months.

Democratizing E-Commerce:

The company aims to make e-commerce and financial services accessible, transforming lives across LATAM. Notable initiatives include enabling SMBs to use digital platforms for sales, logistics, and advertising.

⁷ <https://www.mercadolibre.com.mx/>

Second Presentation:

Presentation by Carlos Vidal

*Cofounder of MiTienda.pe*⁸

Key Highlights:

Bridging Technological Barriers for MSMEs:

- Many businesses in Peru face challenges in adopting e-commerce due to complexity, cost, and technological intimidation.
- MiTienda.pe addresses these barriers by offering low-cost, self-managed e-commerce solutions tailored for B2C and B2B operations.

Innovative Solutions:

- MiTienda (B2C): A platform for creating and managing independent online stores with instant implementation.
- MiTiendaB2B: Allows businesses to personalize product portfolios and pricing for clients, streamlining sales processes and integrating with ERP systems.

Government Support:

- MiTienda has received funding from the governments of Peru and Korea, underscoring its relevance as a driver of digital inclusion.
- A successful collaboration with Peru's Ministry of Tourism helped artisans create virtual stores, enabling them to expand their markets to the U.S., Brazil, and Europe.

Q&A Highlights:

Strengthening MSMEs' Integration into the Digital Economy:

- Both speakers emphasized public-private partnerships and joint efforts to build capacity as critical steps for APEC economies.

Consumer Support and MSME Readiness:

- Panelists discussed consumer rights regulations, highlighting the need for MSME training to handle claims effectively while avoiding abuse of consumer rights.
- An example shared was Mexico's "Concilianet,"⁹ a federal government initiative to mediate e-commerce claims, with voluntary platform participation.

Leadership in Digitalization Projects:

MiTienda stressed the importance of institutional leadership in digitalization initiatives, citing the success of the artisan project led by Peru's Ministry of Tourism as an example.

⁸ <https://mitienda.pe/>

⁹ <https://concilianet.profeco.gob.mx/Concilianet/inicio.jsp>

The panel underscored the importance of collaborative efforts, accessible technologies, and institutional leadership in leveraging e-commerce for MSMEs to thrive in the digital economy.

5.1.3 Panel: Digital Financial Services for MSMEs and Cooperatives

First Presentation:

Presentation by Jose Calligari

Sustainability Manager for Promoting MSMEs, Banco de Crédito BCP

Mr. Calligari highlighted the limited access MSMEs have to formal credit in Latin America and Peru, emphasizing digitalization as a key lever to address this challenge.

Key Insights:

- Only **3 out of 10 MSMEs** in Latin America and Peru access formal financial services.
- Digital wallet usage in Peru increased by **200%** in the last year, yet cash remains predominant for transactions.
- Barriers for MSMEs and cooperatives include:
 - **Lack of digital infrastructure** (e.g., limited internet access in rural areas).
 - **Poor digital literacy** and the need for training in financial technologies.
 - **Distrust in digital platforms**, driven by fears of fraud.

BCP Initiatives:

- **Evaluate BCP¹⁰**: Synchronizes MSME tax information with the bank for real-time credit evaluation, improving credit ratings and predicting payment defaults.
- **Juntas Mibanco¹¹**: A digital platform for "rotating savings and credit associations," enabling entrepreneurs to formalize savings and access credit.

Conclusions:

Banks should integrate beyond-banking services, rethink risk models, and customize products to meet MSMEs' needs throughout their financial lifecycle.

Presenter: Rafael Gago

Director Comercial, AUNA Blockchain at Nuam Chile

Rafael Gago focused on leveraging capital markets and innovative digital platforms to enhance MSME financing.

¹⁰ <https://www.viabcp.com/pymes/evaluate-bcp>

¹¹ <https://www.junta.pe/>

Nuam and MSME Financing:

Nuam operates through the integration of the Santiago, Lima, and Colombia stock exchanges, providing regional liquidity.

Ascenso Crowdfunding Platform¹²: Connects MSMEs with small investors, offering diverse financing options:

- **Debt**: Community-backed loans with flexible APRs (8%-19%).
- **Equity**: MSMEs attract new shareholders through preferred or custom-made stocks.
- **Convertible Notes**: Allow investors to become shareholders under specific conditions.

Initiatives to Drive Innovation:

- **ScaleX**: Supports startups and MSMEs in raising funds through the stock market to foster scalability and innovation.
- **AUNA Blockchain Platform**: Streamlines financial processes with secure, transparent solutions for SMEs and institutions.

Q&A Session

Security in Digital Financial Services:

- Both speakers addressed cybersecurity as a priority:
 - BCP's **cybersecurity education program** uses engaging scenarios to teach clients how to recognize and prevent digital fraud.
 - BCP is also developing a **financial maturity test** to help users understand their position in the financial system.

Key Takeaways

- **Collaboration is critical**: Governments, financial institutions, and fintechs must work together to improve infrastructure, digital literacy, and trust in technology.
- **Digital tools unlock potential**: Initiatives like Juntas Mibanco, Ascenso, and ScaleX showcase how innovation can make financial services more accessible and inclusive.
- **Focus on customization**: Financial products should be tailored to the unique needs and maturity cycles of MSMEs and cooperatives to ensure sustained growth and inclusion.

5.2 Detailed summary of Day 2: Discussions, panels, and final conclusions.

5.2.1 Panel: Green Digital Businesses – Sustainability in the Digital Era

The panel on **Green Digital Businesses** provided an in-depth discussion on the intersection of sustainability and digitalization, focusing on the challenges, opportunities, and innovative practices that enable MSMEs to transition toward circular economy models while leveraging digital tools.

Presentation by Antonella Romero

General Director of Business Development at the Peruvian Ministry of Production

Miss Romero highlighted the obstacles MSMEs face in adopting sustainable practices, including:

- Limited access to **market analysis information, certification tools, and technology transfer mechanisms.**
- Gaps in strategic planning and management tool utilization.

Key Insights:

- The growing profile of **sustainable and digital consumers** in Peru reflects a strong demand for eco-friendly and socially responsible products.
- PRODUCE's "**MYPE Sostenible**" initiative fosters the development of sustainable MSMEs through training, technical assistance, and access to financing.
- The "Priority Line MYPE Sostenible" supports MSMEs through a step-by-step pathway that includes self-assessment, capacity-building courses, technical support for certification, and connections with buyers and funding opportunities.

Triple Impact Objectives:

1. Enter premium markets.
2. Adopt corporate social responsibility practices.
3. Reduce CO₂ emissions and promote clean technologies.
4. Optimize production and product distribution to reduce environmental impacts.

Presentation by Jorge Villena

Coordinator of Circular Economy Projects, Technological Institute of Peru (ITP)

Mr. Villena emphasized the role of digital technologies in advancing circular economy models for MSMEs.

¹² <https://a2censo.com/>

- **Digital tools** such as IoT, AI, Blockchain, and Big Data facilitate process improvement, traceability, and market access while driving resource efficiency.
- Examples of MSMEs applying digitalization for circular economy:
 - **POOLFARM (Lima)**: IoT for aquaculture monitoring.
 - **AMA ALPACA (Arequipa)**: Software for eco-design in fashion.
 - **CIRKULA (Lima)**: Platform for surplus food redistribution.

ITP's Role:

- Strengthening technological services for MSMEs in agriculture, textiles, fishing, and leather industries using tools like drones, blockchain, and lifecycle analysis software.

Presentation by Sergio Rodríguez

Team Leader, GIZ Peru

Mr. Rodríguez discussed policy and tools to incentivize MSME participation in circular economy models:

- **Circularity Calculator**: A user-friendly digital tool for MSMEs to assess their progress in adopting circular practices.
- **Key Features**:
 - Self-assessment questionnaire on Circular Economy measures.
 - Dashboard with actionable recommendations for waste reduction, energy efficiency, and resource optimization.
 - Indicators measuring resource efficiency, economic performance, and circularity outcomes.

Policy Highlights:

- Tax mechanisms like electronic invoicing encourage digitalization.
- Digital platforms facilitate access to financing (e.g., FINTECH) and foster systematized performance monitoring.
- Strengthening regulatory frameworks and mobilizing private investment to mainstream circular economy practices.

Key Takeaways:

1. **Integration of Sustainability and Digitalization**: Digital technologies are essential enablers of circular economy practices, providing tools for optimization, traceability, and waste reduction.
2. **Consumer Trends as Drivers**: The demand for ethical and eco-friendly products underscores the need for MSMEs to adopt sustainable and digital strategies.
3. **Institutional Support**: Initiatives like PRODUCE's MYPE Sostenible, ITP's digital technologies, and GIZ's Circularity Calculator are paving

the way for MSMEs to transition toward green, circular business models.

The session concluded with a call for collaboration among government agencies, MSMEs, and technology providers to create sustainable value chains and promote a greener economy in the digital age.

5.2.2 Panel: Technology Adoption and Gender Barriers

The panel brought together experts to discuss the challenges and opportunities faced by women entrepreneurs in adopting technology and overcoming gender barriers in their business ecosystems. The two key presentations offered unique perspectives from Peru and Viet Nam.

Presentation by Mrs. Hue Nguyen

Deputy Director, Division of Information Support and Digital Transformation, Agency for Enterprise Development, Ministry of Planning and Investment, Viet Nam

Key Discussion Points:

Current State of Women-led SMEs in Viet Nam

- SMEs represent 98% of businesses in Viet Nam, contributing approximately 40% of GDP.
- Women-led SMEs account for 20% of the total, with 69% categorized as micro-businesses and 28% as small enterprises.
- Women-owned businesses enhance income levels, reduce poverty, create jobs, and contribute to sustainable development.

Challenges Faced by Women-led SMEs

- Limited access to technology and digital transformation resources.
- Inadequate financial support and lack of information on government programs.
- Skills gaps in management, marketing, and business administration.
- Gender-based violence and family responsibilities add to the barriers.

Policy Interventions and Results

- *Decree 80/2021/NĐ-CP* supports women-led SMEs through subsidies for consulting, digital transformation solutions, and training.
- Programs such as digital transformation training and international collaborations have impacted hundreds of women entrepreneurs.
- Recent efforts prioritize resource allocation for consulting and technology adoption under Circular No. 06/2022/TT-BKHDT.

Presentation by Giovana Roque

Co-Founder, Warmi Ventures, Peru

Key Discussion Points:

Challenges for Women in Tech-based Entrepreneurship

- Lack of access to networks, financial knowledge, technical skills, and mentorship.
- Prevalence of gender stereotypes within the entrepreneurial ecosystem.

Role of Warmi Ventures¹³

- Warmi Ventures supports women and vulnerable populations through pre-incubation, training, and digital tool adoption.
- Services include tailored consulting, workshops on e-commerce and automation, and opportunities to connect with mentors and tech experts.

Impact Metrics

- Supported over 65 teams, 400 young entrepreneurs, and 45 mentors.
- Directly impacted 3,800+ individuals by fostering digitalization and entrepreneurship.

Success Stories

- *LEXIA*: AI-powered legal assistance for navigating complex regulations.
- *Cociname.pe*: A platform matching user with personal chefs.

The session emphasized the transformative power of technology for women entrepreneurs and highlighted the need for breaking down barriers to ensure equal access to digital opportunities.

5.2.3 Presentation: "The Role of Digital Transformation in Cooperatives and Associative Models"

Presentation by Máximo Rodríguez Avalos

Consultant at the National Federation of Savings and Credit Cooperatives of Peru

The presentation explored the transformative potential of digitalization in cooperatives and associative models, emphasizing how technology can enhance the fundamental values of solidarity, participation, and collective benefit that underpin these organizations.

Digital Transformation in the Cooperative Context:

Mr. Rodríguez Avalos highlighted that digital transformation is not merely about adopting technology but about using it to strengthen relationships among members, optimize internal processes, and expand the positive

¹³ <https://webflow-para-emprendedores.webflow.io/>

impact on the communities served. Digital tools should foster transparency, inclusivity, and sustainability.

Benefits for Cooperatives and Associations:

The speaker outlined several advantages of digitalization for cooperative organizations:

- **Strengthening member-organization relationships:** Tools like management portals can provide members with access to financial information, discussion forums, and electronic voting.
- **Fostering inclusive participation:** Technology can bridge gaps in geography or technical skills, ensuring that all members have an opportunity to engage.
- **Promoting sustainability:** Efficient processes enable the reallocation of resources toward collective projects.

Key Tools and Strategies:

The presentation highlighted relevant technologies and approaches to ensure successful digital transformation:

• Tools:

- Mobile applications tailored for services like savings, loans, and inquiries.
- Collaborative platforms for training, idea sharing, and teamwork.
- Blockchain for transparency in benefit distribution and fund traceability.
- Data analytics to understand member needs and anticipate solutions.

• Strategies:

- Conduct participatory diagnostics to identify member needs.
- Prioritize accessibility and simplicity in design.
- Invest in digital literacy programs for members.

Success

Examples of digital transformation in action included:

- **Financial cooperatives:** Implementation of mobile apps for account management, loan requests, and remote voting.
- **Agricultural associations:** Platforms that enable small producers to manage harvest sales collectively and share resources like machinery and transportation.
- **Global collaborative networks:** Tools that connect cooperatives across regions, facilitating knowledge exchange and sharing best practices.

Stories:

Recommendations for Effective Digital Transformation:

The presentation concluded with actionable recommendations:

- Focus on **people-centered technology** that strengthens participation and connections among members.
- Adopt an **inclusive approach** to ensure accessibility, even in areas with limited connectivity.
- Promote **continuous training** to help members not only use digital tools but also understand how these tools reinforce cooperative values.
- Recognize the unique potential of cooperatives to lead digital transformation with a **community-focused perspective**.
- View technology as a means to create a more **inclusive, participatory, and sustainable future**.

The presentation underscored the importance of integrating digital transformation into the cooperative framework while maintaining a strong focus on solidarity, collective benefit, and member inclusion. By embracing these principles, cooperatives can leverage technology to thrive in a competitive and ever-evolving environment.

5.3 Post-Event Survey and Data Analysis

5.3.1 Participation Overview:

Number of Participating Economies: 9

- **Participating Economies:** Brunei Darussalam; Chile; People’s Republic of China; Malaysia; Mexico; Papua New Guinea; Peru; Thailand; The Philippines; and Viet Nam.

Attendance:

- Day 1: 63 participants
- Day 2: 45 participants

Gender Breakdown:

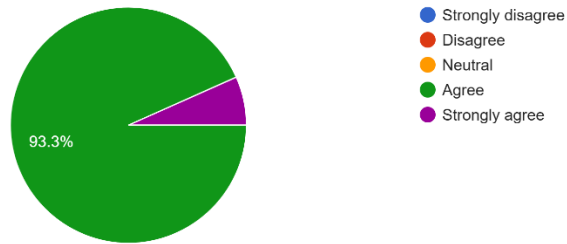
- Female Participants: 55
- Male Participants: 41

5.3.2 Survey Results Analysis

After the symposium, attendees were invited to complete a post-event survey to provide their feedback on the sessions, as well as their personal and demographic information. The survey aimed to gather participants' perspectives on the symposium's content and offer insights to APEC for enhancing future initiatives. Fifteen participants (33.3%) completed the survey, sharing valuable input on key topics and potential areas for improvement.

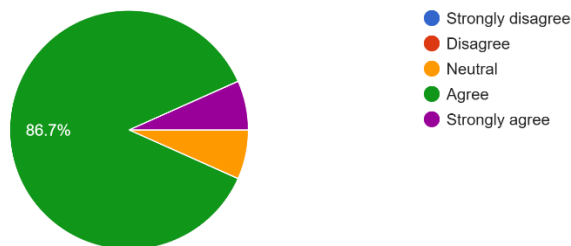
The workshop helped me gain a deeper understanding of how to build the capacity of MSMEs and cooperatives for digital adoption.

15 respuestas



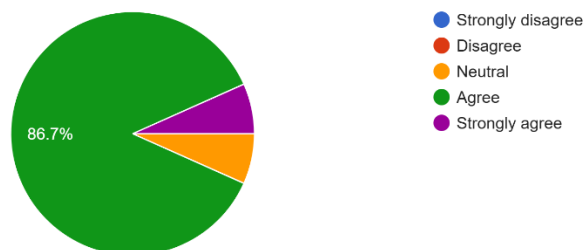
The workshop helped me gain a better understanding of the opportunities for MSMEs and cooperatives to access global markets through digitalization.

15 respuestas



The workshop helped me identify the benefits of digitalizing financial services.

15 respuestas



The survey results indicate a strong consensus among participants regarding the value of the symposium in enhancing their understanding of critical topics related to MSMEs and cooperatives. A significant 93.3% of respondents agreed that the symposium helped them gain a deeper understanding of building MSME and cooperative capacity for digital adoption. Similarly, 86.7% of participants agreed that the sessions provided valuable insights into opportunities for accessing global markets through digitalization and the benefits of digitalized financial services.

Although the majority found the symposium highly informative, a small portion (6.7%) remained neutral on certain aspects, which may suggest a need for more tailored or practical examples to address specific contexts or challenges faced by individual economies. Overall, the responses highlight the symposium's success in addressing core objectives and providing actionable knowledge to participants.

5.3.3 Key Themes from Participant Feedback

Most Useful Insights:

- **Market Access:** Participants appreciated the emphasis on how digitalization facilitates MSME access to international markets.
- **E-Wallets and Marketplaces:** The use of e-wallets and digital platforms was recognized as a practical solution to reduce market limitations and ensure year-round trade opportunities.
- **Youth Engagement:** Engaging younger generations was highlighted as a critical driver for digital transformation.
- **Adaptability in Digitalization:** Participants noted the importance of understanding different organizational perspectives on digitalization to align strategies effectively.
- **Action-Oriented Digital Transformation:** The Symposium's focus on practical steps for digital adoption resonated with participants.

5.3.4 Recommendations for APEC

- **Financial Support for MSMEs:** Addressing the costs of digital transformation is crucial. Participants suggested exploring shared responsibilities among governments, financial institutions, and private entities.
- **Data Protection:** Enhancing trust by addressing data protection concerns was a recurrent theme.
- **Collaboration:** Strengthening public-private partnerships to close the digital divide and ensure comprehensive support for both digital natives and non-natives.
- **Unified Solutions:** Recognizing shared challenges across economies and proposing consolidated, scalable solutions to address these issues.

Concluding Observations

The survey and feedback reflect the Symposium's success in advancing understanding and providing actionable recommendations for MSMEs and cooperatives. However, participants called for more contextualized solutions, financial support mechanisms, and strengthened partnerships to address persistent challenges in digital transformation. These insights offer a roadmap

for future APEC initiatives to drive impactful and inclusive digitalization strategies.

6. Annex Symposium agenda.

DATE: TUESDAY, DECEMBER 3 | 7:00 PM (PERU TIME)

SCHEDULE	ACTIVITY	PARTICIPANTS
18:30 – 19:00	Participant Registration	
19:00 – 19:10	Welcome Remarks	<ul style="list-style-type: none"> • Antonella Romero Jiménez, General Director of Business Development at the Peruvian Ministry of Production.
19:10 – 20:00	<i>Presentation: Reducing Digital Gaps and Promoting Capabilities.</i>	<ul style="list-style-type: none"> • Ximena González Fernández, Representative, United Nations Development Programme.
20:00 – 20:45	<i>Panel: Market Access, E-Commerce, and Digital Platforms</i>	<ul style="list-style-type: none"> • Carlos Vidal, Co-founder of MiTienda.pe. • María Hermida Cruells, Government Relations Manager, Mercado Libre Mexico.
20:45 – 21:00	Break	
21:00 – 21:45	<i>Panel: Digital Financial Services for MSMEs and Cooperatives.</i>	<ul style="list-style-type: none"> • Rafael Gago, Commercial Director, AUNA Blockchain at Nuam Chile. • José Calligari Gazzo, MSME Promotion Manager at BCP.
21:45 – 22:00	Summary of Key Points from Day 1 and Introduction to Day 2 Topics	

DATE: WEDNESDAY, DECEMBER 4 | 7:00 PM (PERU TIME)

SCHEDULE	ACTIVITY	PARTICIPANTS
18:30 – 19:00	Participant Registration	
19:10 – 20:00	Panel: Green Digital Businesses: Sustainability in the Digital Era	<ul style="list-style-type: none"> • Antonella Romero Jiménez, General Director of Business Development at Produce. • Jorge Villena Vergara, Coordinator of the Circular Economy Project at the Peruvian Technological Institute. • Sergio Rodríguez Soria, Team Leader at GIZ Peru.
20:00 – 20:45	Panel: Technology Adoption and Gender Barriers	<ul style="list-style-type: none"> • Hue Nguyen, Deputy Director, Information Support and Digital Transformation Division, Ministry of Planning and Investment, Viet Nam. • Giovana Roque Vargas, Co-founder of Warmi Ventures.
20:45 – 21:00 h	Break	
21:00 – 21:45	Presentation: <i>The Role of Digital Transformation in Cooperatives and Associative Models.</i>	<ul style="list-style-type: none"> • Máximo Rodríguez Avalos, Consultant at the National Federation of Savings and Credit Cooperatives of Peru.
21:45 – 22:00	Summary of Key Discussions and Recommendations for Future Actions.	

7. Speaker Biographies

Ximena González Fernández

United Nations Development Program - UNDP Peru



Specialist in economic development and innovation with a gender focus. Graduate in Business Administration from the Universidad del Pacífico in Peru, specialized in Sustainability from the Universidad ESAN in Peru and Master in International Relations from The New School in New York.

She has more than seven years of experience in the development sector, leading programs and projects with the business sector, civil society, multi-level organizations and the Government. Specialist in innovation and digitalization issues, economic development of MSMEs and sustainable development strategies. She has worked in international organizations such as the Global Reporting Initiative in the Netherlands. Currently, she is the coordinator of the Economic and Financial Inclusion project at the United Nations Development Program - UNDP Peru.

María Rosa Hermida Cruells

Mercado Libre - Mexico



International and Public Policy professional with more than 12 years of experience, specialized in positioning, promoting and implementing public policies as well as lobbying strategies in both the public and private sector, with special focus in Digital Economy. Within the private sector, she has held Government Affairs positions in the automotive sector, at Nissan and General Motors, and more recently at Uber Mexico, where she specialized in regulatory issues in the field of the tech industry. She currently works as Public Policy and Government Affairs Manager at Mercado Libre

Carlos Vidal

MiTienda.pe



Web designer with over 25 years of experience in designing and developing digital solutions. Specialist in digital marketing and e-commerce. Co-founder of MiTienda.pe, a startup twice selected by StartupPeru 6G and 8G+, and a partner of Entel Corporation.

José Carlos Callegari Gazzo

Banco de Crédito del Perú



José Carlos Callegari Gazzo is a distinguished professional with a solid background in strategic management, anthropology, and innovation coaching. He currently serves as the Sustainability Manager at BCP, the largest bank in Peru, where he leads the strategy to support SMEs in Peru.

His career includes key roles in institutions such as Mibanco and Patronato BCP, where he designed and implemented strategic programs that promote innovation and sustainable growth.

In his current role, José Carlos focuses on creating and executing initiatives that strengthen the SME ecosystem, facilitating access to resources and tools that enhance competitiveness, innovation, and sustainability for entrepreneurs and small business owners. His leadership has been instrumental in establishing strategic partnerships and developing projects that generate a positive impact on Peru's business community.

Rafael Gago

AUNA Blockchain



Rafael Gago is the Commercial Director of AUNA Blockchain, a joint initiative by Nuam, the Central Securities Depository (DCV), and GTD. AUNA is the first consortium in Latin America to promote an ecosystem enabling companies to create their own blockchain networks and solutions based on this technology. With prior experience at FinteChile and Fintech Iberoamérica, Rafael has been consistently working on advancing the financial technology industry in the region.

Jorge Villena

Technological Institute of Peru (ITP)



Jorge Villena is a specialist in circular economy and sustainability with more than 8 years of experience leading projects and programs with environmental and social impact. He is an Environmental Engineer from Universidad Científica del Sur and holds a Master's degree in sustainable waste management from Universidad Politécnica de Madrid.

During his career he has worked in corporate sustainability and environmental management, also working as a Circular Economy consultant for different international cooperation projects and programs.

He is currently the coordinator of the Circular Economy project financed by the Spanish Agency for International Development Cooperation (AECID) and implemented by ITP through the Directorate of Strategy, Development and Strengthening of Productive Innovation and Technology Transfer Centers (DEDFO).

Antonella Romero

Peruvian Ministry of Production



Holds a Bachelor's degree in Law and Political Science and an MBA from INCAE Business School in Costa Rica.

Recipient of the "Innovators Under 35" award by the prestigious MIT Technology Review from the Massachusetts Institute of Technology, the Breakthrough Innovation Challenge Award from the UN, and recognized as one of the 100 Global Leaders by Meaningful Business 2020.

With 10 years of experience in innovation, entrepreneurship, and the development of new businesses with MSMEs in both the public and private sectors, she currently serves as the Director General of Business Development at the Ministry of Production.

Sergio Rodriguez

GIZ Peru



Team Leader of the Circular Economy Project (KLW) of German Development Cooperation, implemented by GIZ.

Senior executive and consultant in innovation policies, productive development, and circular economy. He has served as the Executive Director of the Technological Institute of Production, and full-time consultant for the Competitiveness, Technology, and Innovation Division of the Inter-American Development Bank.

Additionally, he has been an external consultant for international organizations such as IFC-World Bank, IDB, GIZ, among others, as well as for domestic entities like the Ministry of Economy and Finance and the National Council for Science and Technology.

He holds a degree in Electronic Engineering from the Pontifical Catholic University of Peru and a master's degree in Electrical Engineering from the University of São Paulo in Brazil.

Nguyen Viet Hue

Deputy Head Agency for Enterprise Development (AED), Ministry of Planning and Investment, Viet Nam



Mrs. Nguyen Viet Hue is currently the Deputy Head of the Information Support and Digital Transformation Division, the Agency for Enterprise Development (AED), Ministry of Planning and Investment.

Until now, Mrs. Nguyen Viet Hue has dedicated 20 years working at different positions and divisions at Ministry of Planning and Investment. From 2018 to 2020, She was the Deputy Head of the State-Owned Enterprise Innovation Division, the Agency for Enterprise Development (AED), Ministry of Planning and Investment. From 2016 to 2018, she served as the Deputy Head of the Small and Medium Enterprise Development Division, the Agency for Enterprise Development (AED), Ministry of Planning and Investment. From 2011 to 2016, she was positioned as the Deputy Head of the General and Policy Division, the Agency for Enterprise Development (AED), Ministry of Planning and Investment. And prior to 2011, she was an official at the General and Policy Division, the Agency for Enterprise Development (AED), Ministry of Planning and Investment.

Giovanna Roque

Warmi Ventures - Peru



Co-founder of Warmi Ventures, an incubator that promotes female entrepreneurship in Peru and Latin America, where we have supported more than 6 generations of entrepreneurs in turning their business ideas into reality, impacting over 3,000 entrepreneurs.

With over 10 years of experience in business consulting, executing trade marketing projects, education, and social entrepreneurship, her expertise lies in qualitative research and the generation of strategic insights.

She is a 2023 Fellow of the Young Leaders of the Americas Initiative (YLAI), organized by the U.S. Department of State, promoting access to opportunities for women entrepreneurs, reducing technological gaps, and fostering empowerment through education and innovation.

Máximo Rodríguez

Member of the Board of Directors of the Association of Microfinance Institutions of Peru (ASOMIF-PERU)



Professional consultant for public and private entities, member of boards of directors and administrative councils in the role of independent director, external advisor to cooperatives and microfinance institutions, with over 40 years of experience. He specializes in managerial advisory and/or consulting, project formulation, and other services in his own legal office, serving savings and credit cooperatives, multiple services cooperatives, specialty services cooperatives, and coffee cooperatives, as well as microfinance institutions. He has been a member of the Board of Directors of the Association of Microfinance Institutions of Peru (ASOMIF-PERU) since 2014.

8. Endnotes

- APEC (2020), Overview of the SME Sector in the APEC Region: Key Issues on Market Access and Internationalization, APEC Policy Support Unit, https://www.apec.org/docs/default-source/publications/2020/4/overview-of-the-sme-sector-in-the-apec-region---key-issues-on-market-access-and-internationalization/220_psu_sme-market-access-and-internalization.pdf.
- APEC (2022), The Untapped Economic Potential of Including Women in the Digital Economy in the APEC Region, APEC Policy Support Unit, <https://www.apec.org/publications/2022/09/the-untapped-economic-potential-of-including-women-in-the-digital-economy-in-the-apec-region>.
- Visa Economic Empowerment Institute (2023), Digital Transformation of Micro and Small Enterprises in the APEC Region, Visa Economic Empowerment Institute, <https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-whitepaper-apec-micro-and-small-enterprises.pdf>.
- OECD (2021), The Digital Transformation of SMEs, OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris, <https://doi.org/10.1787/bdb9256a-en>.
- APEC (2022), Women-Owned Business in Cross-Border E-Commerce: A Diagnostic Toolkit, APEC Secretariat, Singapore, <https://www.apec.org/publications/2022/09/women-owned-business-in-cross-border-e-commerce-a-diagnostic-toolkit>.
- <https://mitienda.pe/>
- <https://concilianet.profeco.gob.mx/Concilianet/inicio.jsp>
- <https://www.viabcp.com/pymes/evaluate-bcp>
- <https://www.junta.pe/>
- <https://a2censo.com/>
- <https://webflow-para-emprendedores.webflow.io/>