ASIAN THINK TANK NETWORK FORUM 2025

The Role of Digital Platforms and Cross-border Trade in Cambodian Firm Performance

Authors:
Dr. Dina CHHORN
Ms. Sivly HOUY
Ms. Keanmuny NHIM

ADBInstitute

ESCAP Economic and Social Commission for Asia and the Pacific

ADB

CDRI

Context

Overview

- Digital platforms are transforming Cambodia's SMEs by expanding trade, encouraging formalization, and boosting productivity, though their benefits remain uneven across geography, gender, and firm size.
- The enterprise structure is dominated by services, with wholesale and retail trade accounting for the majority of businesses, followed by accommodation and food services, and manufacturing.
- Manufacturing, mainly in garments, footwear, and handbags, absorbs the largest share of employment and is concentrated in Phnom Penh and surrounding provinces.
- The enterprise landscape shows a pronounced dualism, with many microenterprises and few medium or large firms, highlighting a persistent "missing middle" that limits scaling and formalization.
- Informality remains widespread, as many enterprises are street-based or home-based, and most operate on self-owned premises, reflecting individualistic and informal business practices.
- Ownership is overwhelmingly domestic, while foreign ownership is concentrated in large, export-oriented firms, revealing a divide between domestic MSMEs and foreign-led formal industries.

Emerging Digital Ecosystem

- Emerging digital ecosystem in Cambodia: The expasion of local platforms (ex: Wing, Bakong) and foreign platforms (ex: Grab, Alibaba) affects digital payments, logistics, and online marketplaces.
- This can potentially enable new business models and cross-border trade.

Barriers to Digital Adoption

- Limited digital skills and infrastructure in rural areas.
- Financial and knowledge barriers for women-owned enterprises.
- High transaction and compliance costs for formalization.

Objective

Main objective:

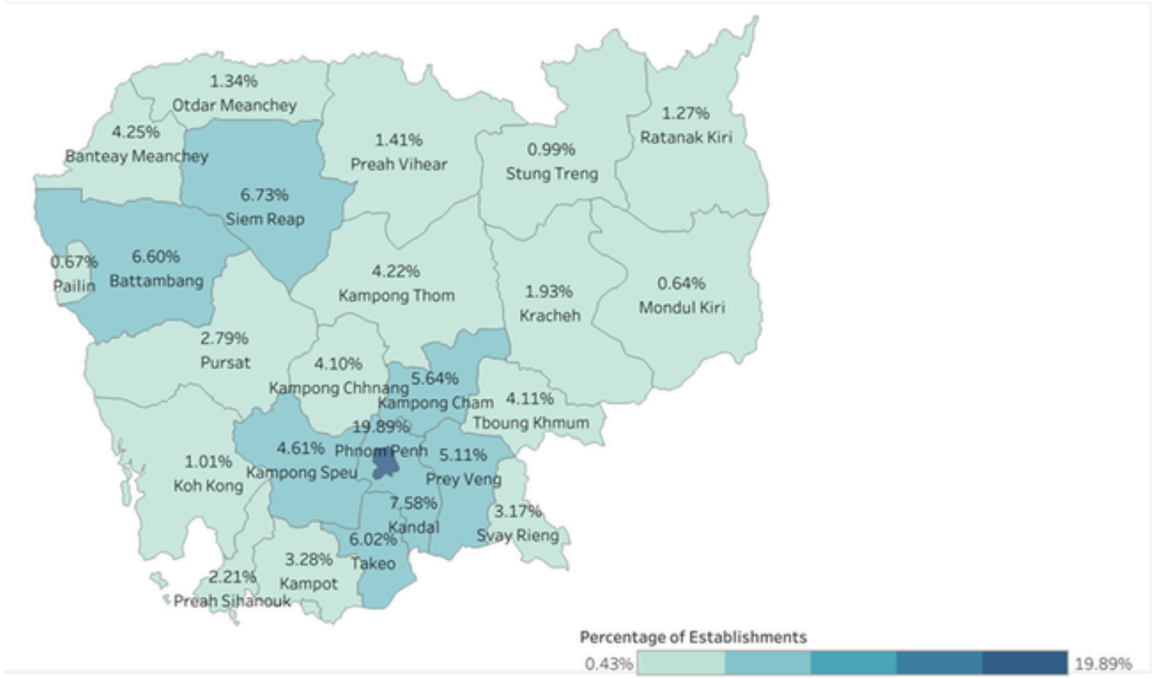
- The study investigates how the adoption of local and foreign digital platforms influences SME performance and cross-border trade, while exploring structural and gender-related barriers to digital adoption.

Research questions:

1. How does digital platform usage affect SME performance in Cambodia?
2. To what extent does platform adoption enable inclusive participation across gender and provincial groups?
3. Does the adoption of digital platforms help Cambodian SMEs improve productivity and, in turn, cross-border trade?
4. What are structural and gender-specific barriers constrain SMEs' adoption of digital technologies?

Key Characteristics of Firms in Cambodia: Insight from 2022 Cambodia Economic Census

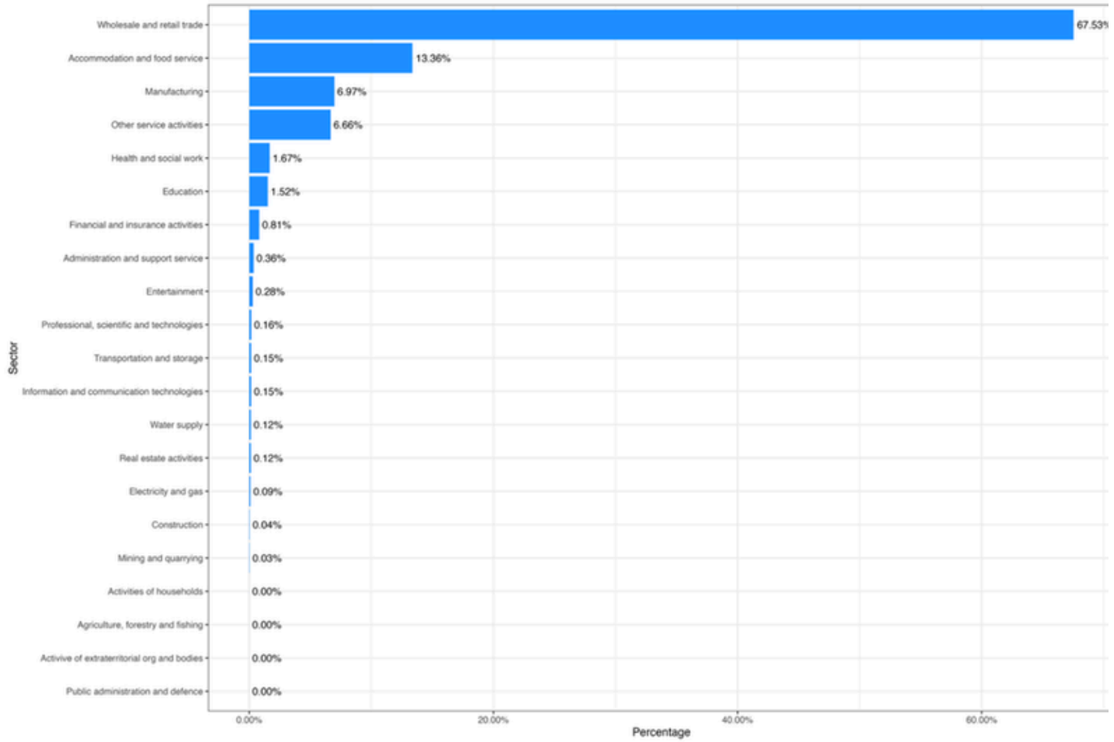
Industrial Concentration and Urban Dominance



Source: Author's elaboration, using the Cambodia Economic Census 2022

Economic activities are highly concentrated in urban areas, particularly Phnom Penh, which hosts 20 percent of all establishments and over 30 percent of the workforce. High concentrations of manufacturing and large establishments were similarly urban-centric, with Phnom Penh and its surrounding provinces leading in industrial density and employment share .

Dominant Economic Sectors

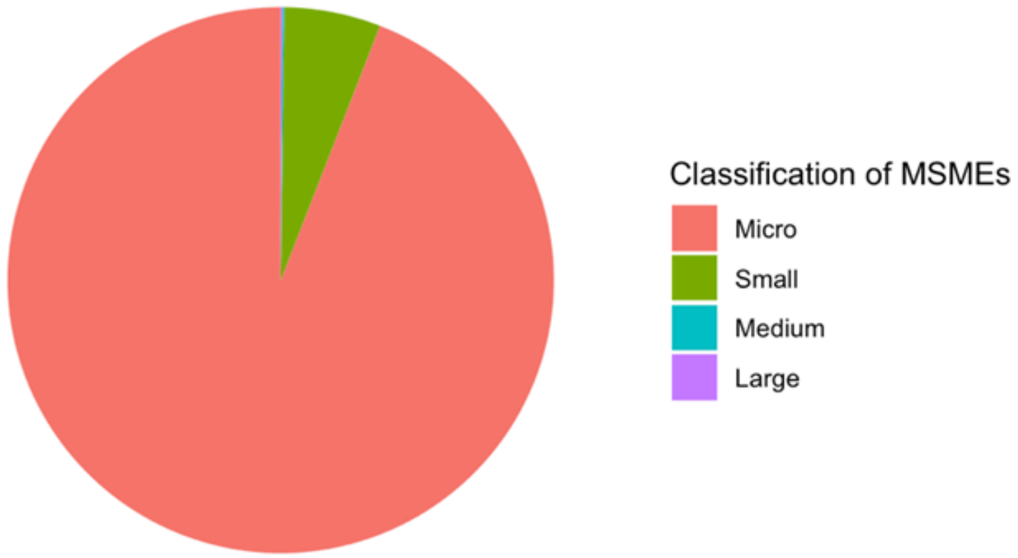


Source: Author's elaboration, using the Cambodia Economic Census 2022

Cambodia's enterprise structure is service-dominated: Wholesale and retail trade, and vehicle repair: 65.6% of all businesses; Accommodation and food services: 14.2%; Manufacturing: 6.6% of enterprises but employs 37.5% of the total workforce, mainly in garments, footwear, and handbags.

Key Characteristics of Firms in Cambodia: Insight from 2022 Cambodia Economic Census

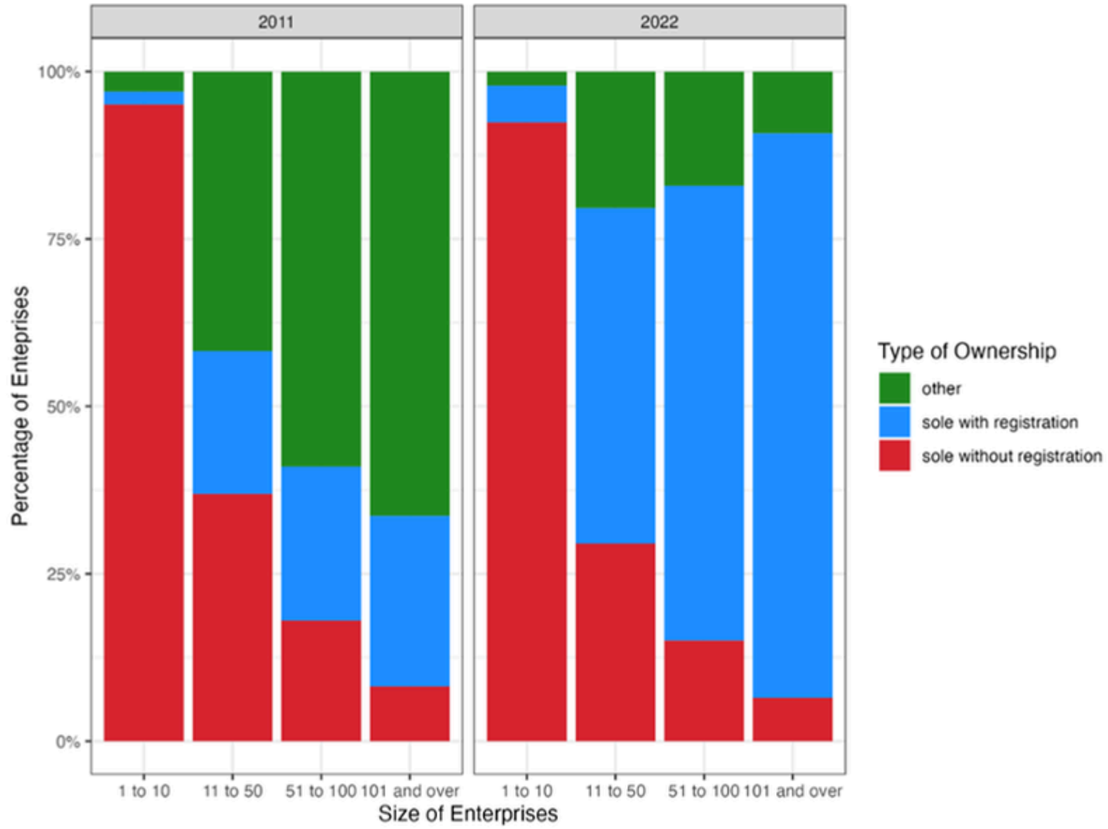
Scale Polarisation and the 'Missing Middle'



Source: Author's elaboration, using the Cambodia Economic Census 2022

The structure of Cambodia's enterprise sector is marked by a pronounced dualism. On one end is a vast majority of microenterprises, and on the other, a very small proportion of medium and large firms. This polarisation signals a 'missing middle,' a structural challenge where small firms seldom scale up and medium-sized enterprises remain underrepresented, reflecting systemic barriers to growth and formalisation.

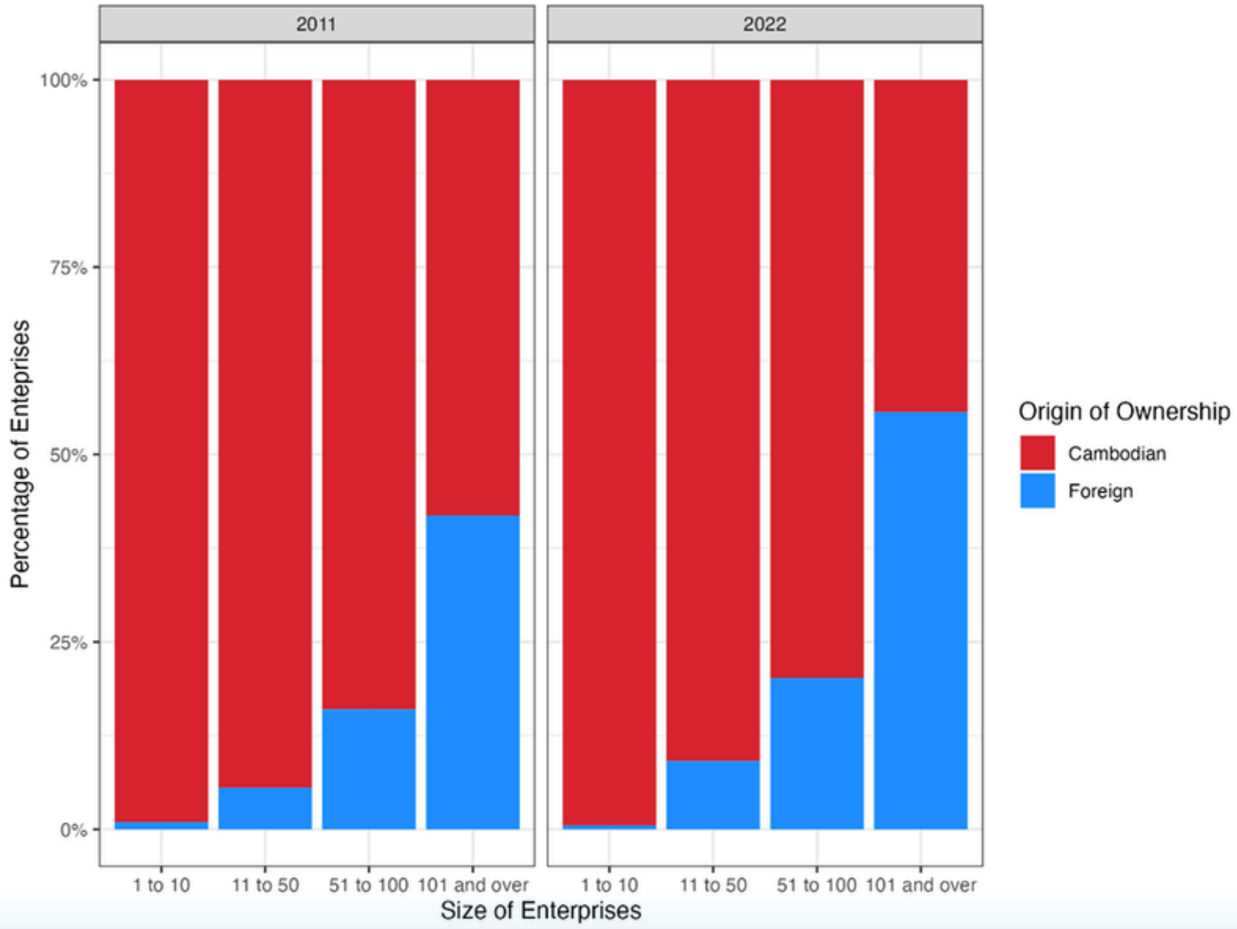
Prevalence of Informality and Sole Proprietorships



Source: Author's elaboration, using the Cambodia Economic Census 2022

Key Characteristics of Firms in Cambodia: Insight from 2022 Cambodia Economic Census

Ownership Structure and Decomposition



Informality and Ownership Patterns

- High informality: many street vendors (10.2%) and home-based enterprises.
- 73% of firms operate on self-owned premises, reinforcing informal, individualistic business models.
- 99.1% of firms are Cambodian-owned; foreign ownership is limited to larger enterprises (over 100 employees), where it exceeds 55%.
- This reflects a dual economy: domestic informal MSMEs versus a foreign-led formal export sector.

Source: Author's elaboration, using the Cambodia Economic Census 2022

Evolution of Local and Foreign E-Commerce Platforms Over Time in Cambodia

Types of digital platforms	Locally owned	Foreign owned
Ad-supported messaging platforms	CoolApp	Messenger, Telegram, WeChat, Viber, Instagram, WhatsApp
App stores		Apple, App Store, Google Play
E-commerce / digital trade	Khmer24, Tinh Tinh, Smile Shop, eMall Cambodia, Cambodia Trade, L 192, Mayura, eCamShopping, Khmum eShop, Nironт Marketplace	Alibaba, Amazon Marketplace, AliExpress, Facebook Marketplace, Taobao, Lazada, MakroClick, AEON online
Fintech	Mobile payment (ACLEDA, Wing, KHQR, Bakong, Chip Mong)	Mobile payment (ABA, Woori), Alipay, Pi Pay, TRUE Money
Social media	Beebush, Snapkyu	Facebook, TikTok, YouTube, WeChat, Instagram, WhatsApp, Telegram, Linkedin, X (Twitter)
Food and grocery delivery	Nham24 (Now Grab), BLOC, Wingmall	Grab, Foodpanda, E-Gets, Wownow
Logistics	Virak Buntham Express, DRSB Express, Cambodia Post, Larryta, Capitol	DHL Express, J&T Express, ZTO Express, KWE Express
Ride-hailing& Transportation	PassApp, Virak Buntham, Larryta, Nham24 (Now Grab), Phnom Penh Soriya, WeGo	Grab, TADA, Move by LM car
Travel booking	BookMeBus	Trip.com, Booking.com, Agoda, Red Bus, CamboTicket
Search advertising		Google
Short-term accommodation	Rent KH	Airbnb, Agoda
Entertainment-services	Sastra Film	Netflix, YouTube, Spotify, Apple Music

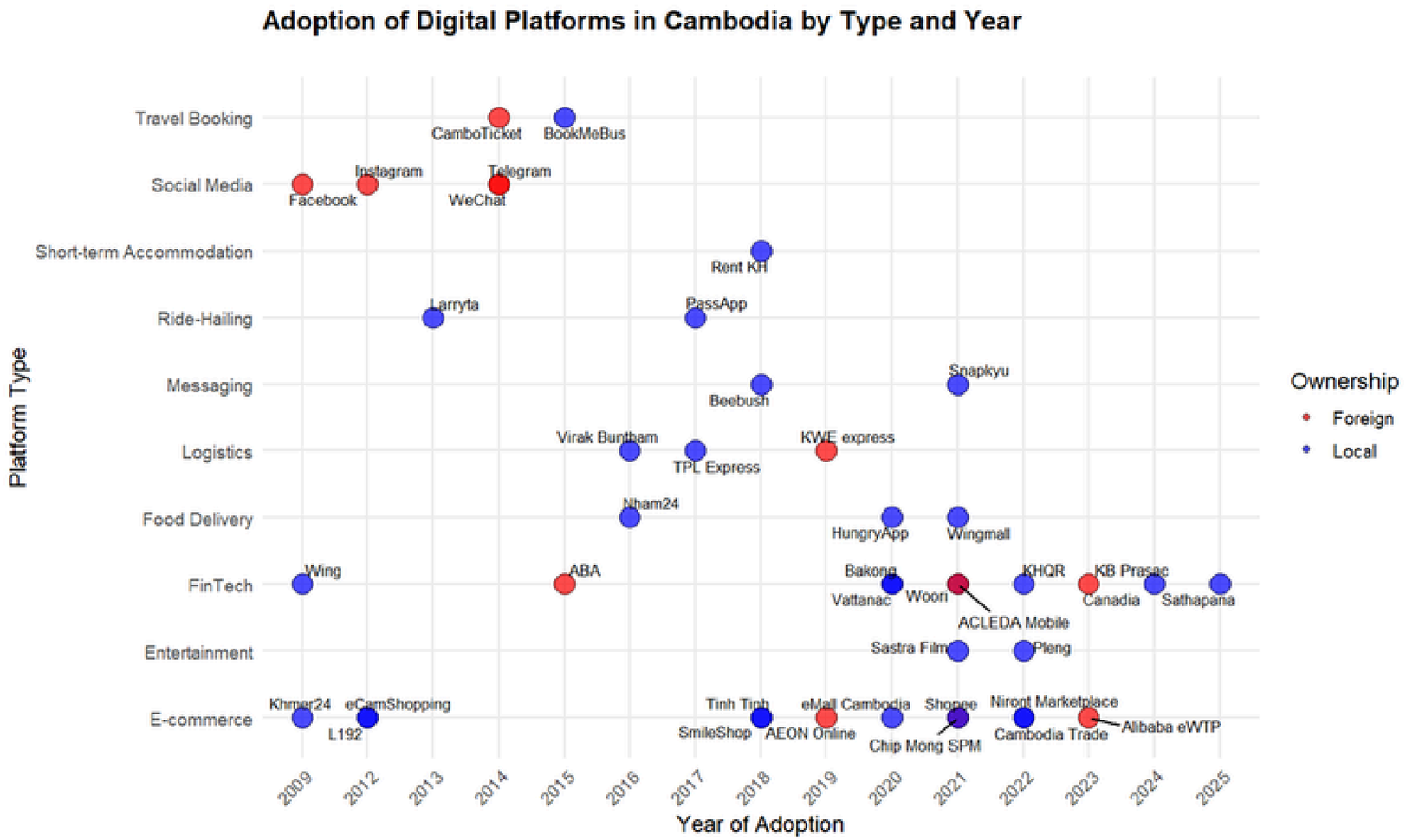
Source: The types of digital platforms listed are based on OECD (2019).

- Digital platforms in Cambodia, both local and foreign, have become key drivers of SME participation in digital trade, expanding market access and enabling cross-border commerce.
- The ecosystem is hybrid and layered: local platforms (e.g., Khmer24, Wing, Nham24, BookMeBus) are agile and context-driven, while foreign super-platforms (e.g., Facebook, Google, Lazada, Grab, TikTok) bring scale, infrastructure, and global standards.
- Local platforms dominate in niche and localized services (payments, food delivery, logistics), offering solutions suited to Cambodian language, culture, and market conditions.
- Foreign platforms lead in social media, e-commerce, travel, and entertainment, setting benchmarks in technology, service quality, and consumer trust.

Evolution of Local and Foreign E-Commerce Platforms Over Time in Cambodia

Platform development evolved in four phases:

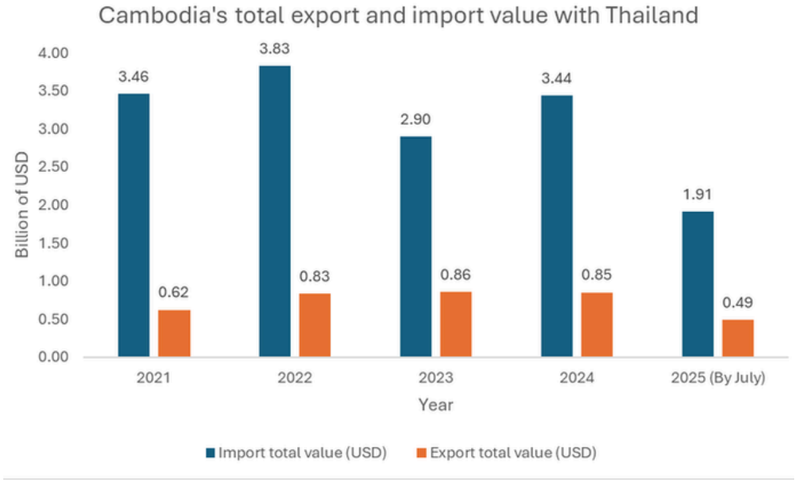
- 2009–2011: local FinTech and e-commerce pioneers (e.g., Wing, Pi Pay).
- 2012–2014: entry of global players (e.g., Foodpanda, Grab, Lazada).
- 2015–2019: rapid expansion across logistics, travel, and entertainment sectors.
- 2020–2022 (COVID-19): digital acceleration nationwide; rise of local adaptive platforms.
- Post-2023: diversification into health tech, digital learning, and creative industries.
- The result is a dual-platform economy—foreign platforms drive scale and global integration, while local platforms enhance inclusivity and innovation—together advancing Cambodia's digital transformation.



Source: Author's observation.

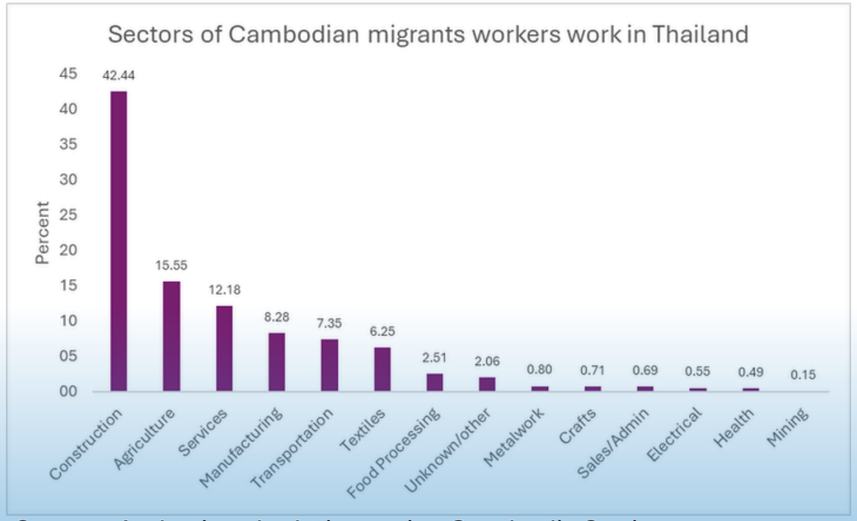
Cambodia in the ASEAN region through Trade, Migrations and Tourism

The total trade value between the Cambodia and Thailand from 2021 to July 2025



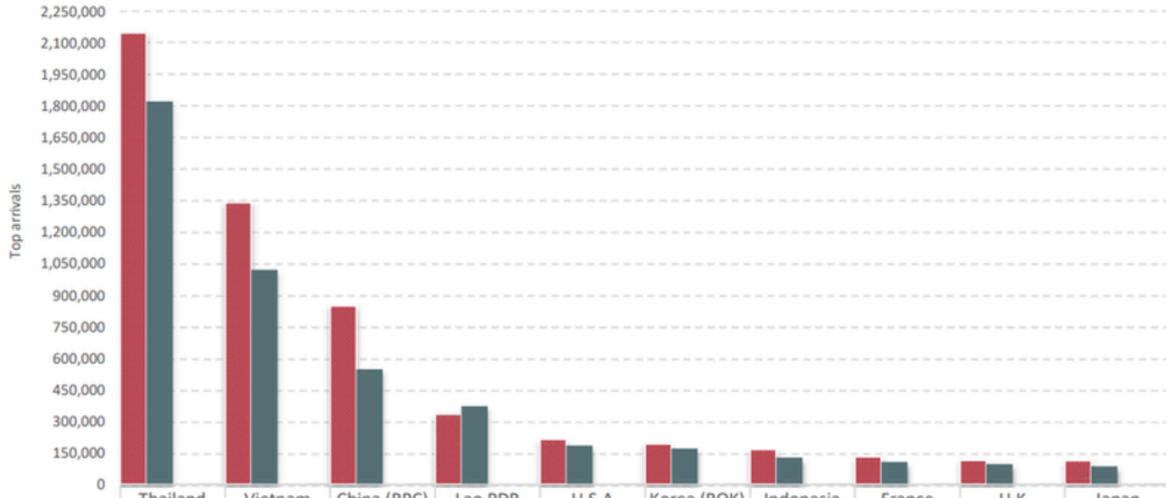
Source: International Merchandise Trade Statistics.

Sectors of Cambodian migrant workers work in Thailand



Source: Author's calculation, using Cambodia Socio Economic Survey 2023

Tourism statistics in December 2024



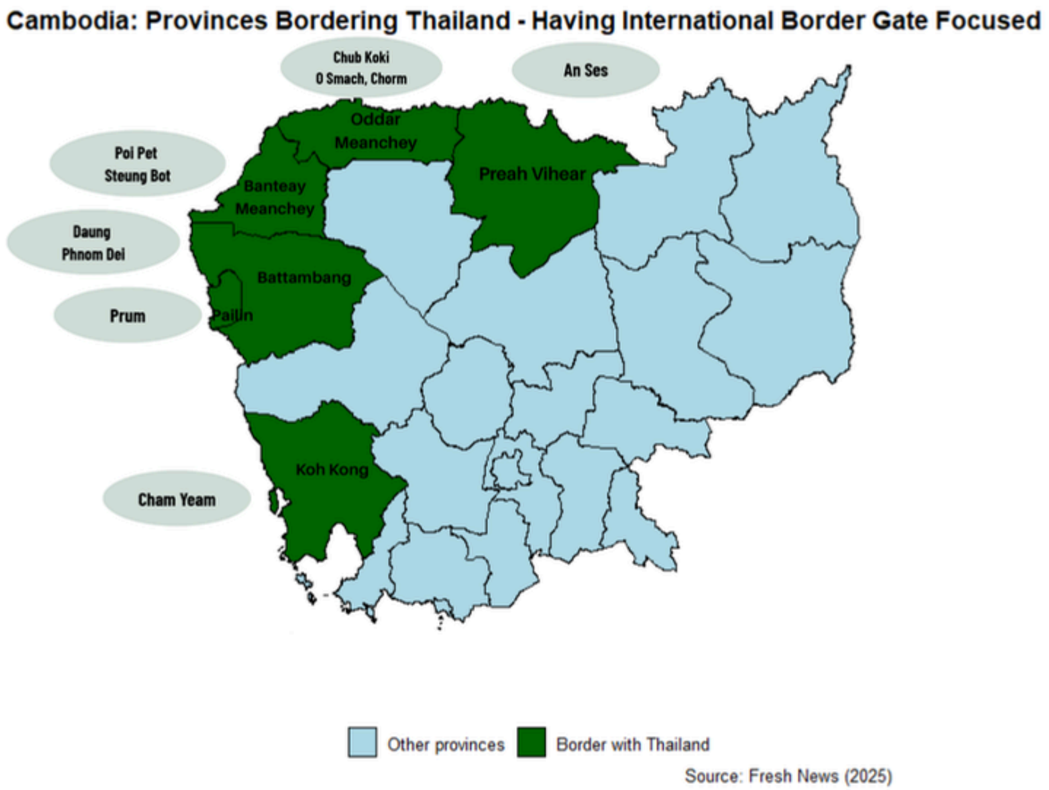
	Thailand	Vietnam	China (RPC)	Lao PDR	U.S.A	Korea (ROK)	Indonesia	France	U.K	Japan
2024	2,146,674	1,340,587	848,952	334,448	214,529	192,305	166,795	131,738	115,148	112,718
2023	1,820,460	1,019,812	547,798	372,285	184,870	170,171	127,178	106,625	96,973	86,411
Share (%)	32.0	20.0	12.7	5.0	3.2	2.9	2.5	2.0	1.7	1.7
Change (%)	17.9	31.5	55.0	-10.2	16.0	13.0	31.2	23.6	18.7	30.4

Source: Tourism Statistics Report in 2024.

- Cambodia's ASEAN integration is driven by trade with Thailand, labour migration, and tourism.
- Cross-border trade with Thailand reached USD 4 billion in 2024, with limited productivity impact due to worker migration.
- About 1.2 million Cambodians (93%) work in Thailand, mainly from Banteay Meanchey and Battambang provinces.
- Tourism recovered to 6.7 million arrivals in 2024, led by visitors from Thailand, Vietnam, and China.

Cambodian SMEs, Digital Platform and Cross-border Trade

Map of the provinces having international border gate with Thailand



Source: Author's elaboration, Fresh News (2025).

- Trade, tourism, and migration flows are closely linked in Cambodia's six provinces with international border gates to Thailand: Banteay Meanchey, Battambang, Koh Kong, Preah Vihear, Oddar Meanchey, and Pailin.
- Across these provinces, SMEs play a central role in cross-border trade, with their participation shaped by location and industry differences.
- The adoption of digital platforms and intellectual property (IP) tools varies significantly across Cambodian provinces along the Thai border.
- Banteay Meanchey records the highest level of digital platform adoption and industrial design registration, largely due to the economic activities centered in Poipet city.
- In contrast, Battambang has the highest share of patent registrations, reflecting the presence of manufacturing enterprises such as rice companies, which require patents for product development.
- Koh Kong stands out with the highest share of trademark registrations, likely linked to its export–import activities.

Data and Methodology

Data Source:

- Cambodia Economic Census 2022 (753,670 establishments)

Empirical Method:

- Linear Probability Model (LPM) with robust standard errors

Dependent Variables:

- Registration Status (Binary): 1 = formally registered firm
- Log Revenue (Continuous): Monthly total revenue (log-transformed)
- Log Labour Productivity (Continuous): Log (revenue ÷ employees)

Independent Variables:

- Digital Platform Adoption (1 = adopted any online business platform)
- Local Platform (Proxy) (1 = non-Phnom Penh, e.g., Khmer24, Wing)
- Foreign Platform (Proxy) (1 = Phnom Penh, e.g., Shopee, Facebook)
- Cross-Border Trade (1 = engages in export/import online or offline)
- Female Ownership (1 = female-owned enterprise)
- Firm Size (Micro, Small, Medium)
- Trade related activities (1= patents, 1= industrial designs and 1= trademarks)

Control Variables:

Firm Age, Firm Tenure, Business Area (m^2), Business Place, Employment Size, Sex of Owner, Province & Industry Fixed Effects

Model specifications:

Model 1: Effect of Digital Platform Adoption on SME Performance

Model 2: Local vs. Foreign Platform Effects by region (Phnom Penh vs non-Phnom Penh)

Model 3: Inclusive Effects by Gender of Business Owner

Model 4: Heterogeneous Effects by Firm Size

Model 5: Effect of Digital Platform on SMEs in Border Provinces

Model 6: Effect of Cross-Border Trade on SME Performance

Model 7: Effect of Trade-related Activities, including patents, industrial designs and tradmarks on SMEs performance

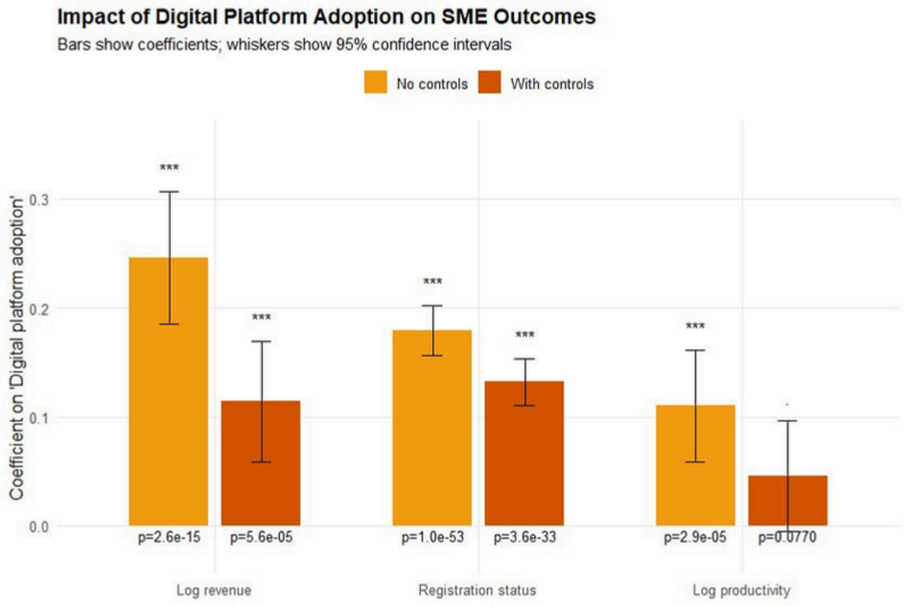
Model 8: Effect of Digital Platforms on SMEs performance X Cross-border trade in Cambodia and in provinces along the border

Key Findings

Digital platforms and SME performance

Adoption of digital platforms leads to:

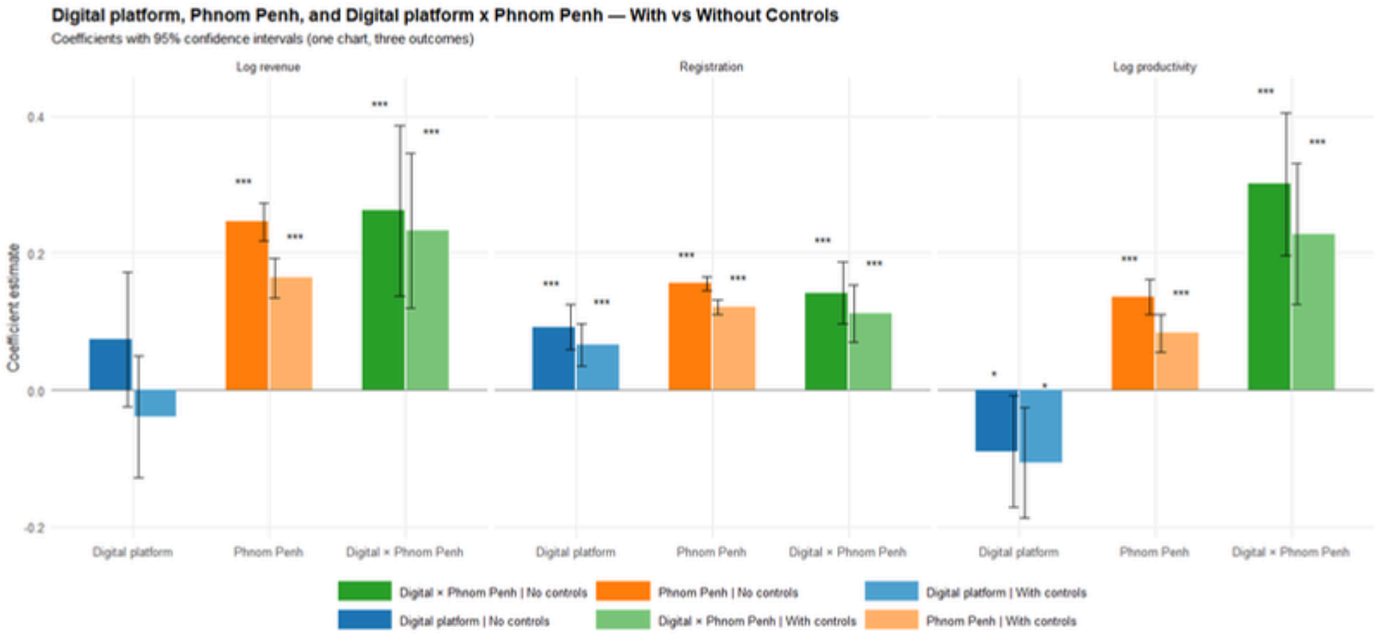
- Improved formal registration
- Higher revenue
- Greater labor productivity



The control variables are provinces, sex of business owners, year of operation, tenure of business, business place, and area of business size.
We included province and industry fixed effects.
**** p<0.01, ** p<0.05, * p<0.1*

Digital platforms on SMEs performance: Phnom Penh vs non-Phnom Penh

- Firms in Phnom Penh gain more from platform use than those in rural provinces, reflecting digital infrastructure gaps and platform concentration.



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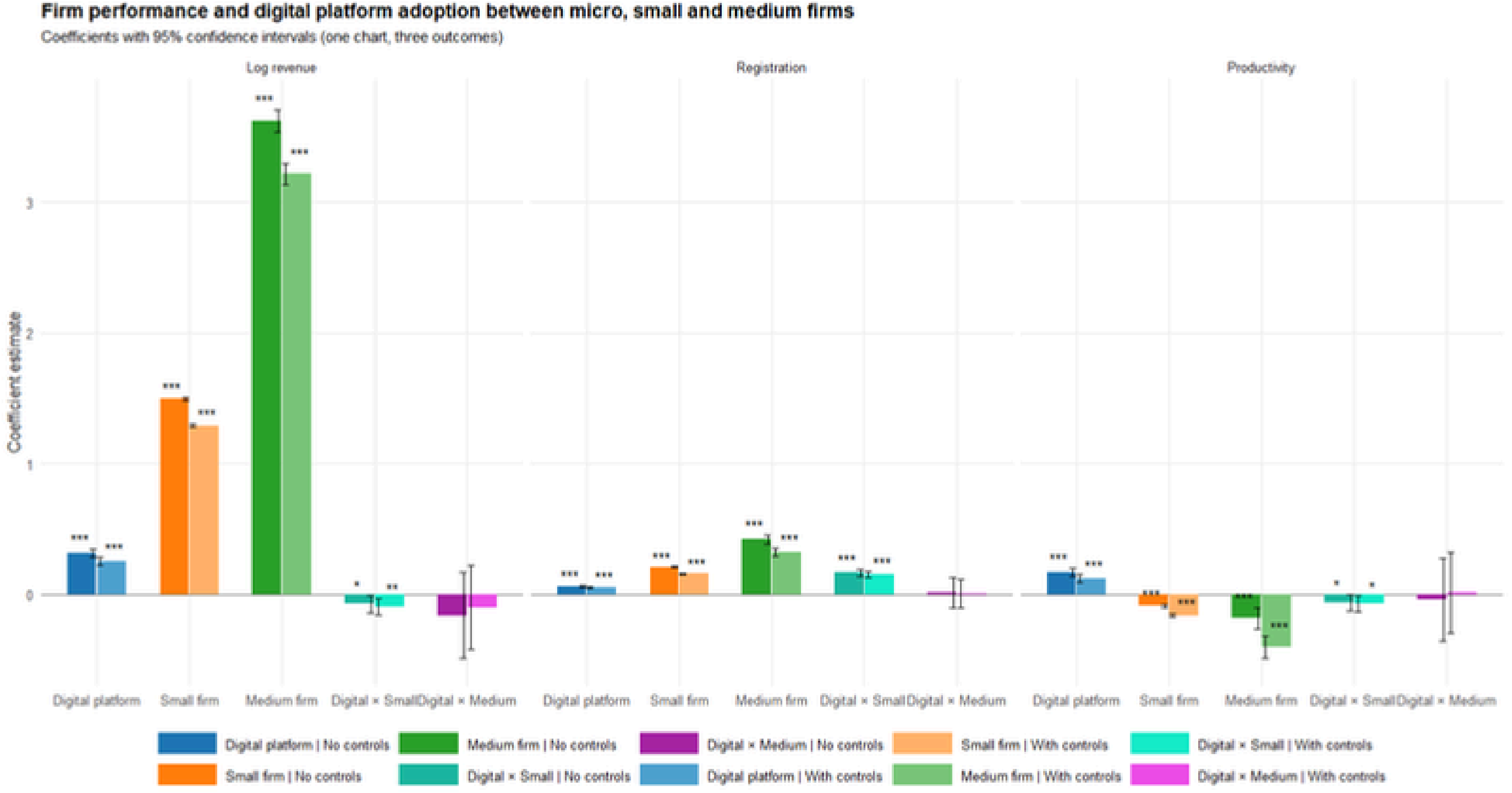
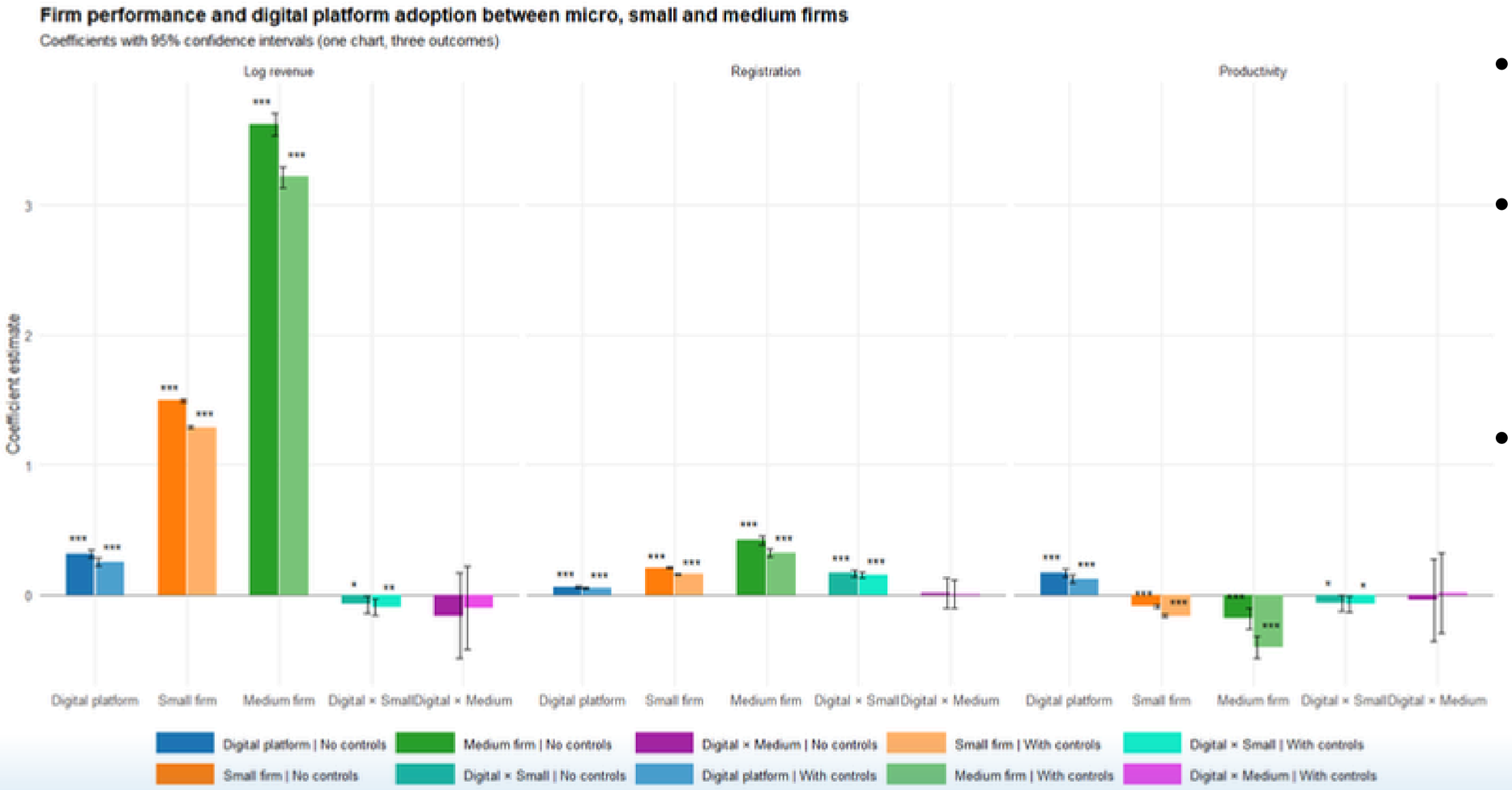

Firm performance and digital platform adoption between micro, small and medium firms
Coefficients with 95% confidence intervals (one chart, three outcomes)
Log revenue
Registration
Productivity
Coefficient estimate
3
2
1
0
Digital platform
Small firm
Medium firm
Digital × Small
Digital × Medium
Digital platform | No controls
Small firm | No controls
Medium firm | No controls
Digital × Small | No controls
Digital × Medium | No controls
Digital platform | With controls
Small firm | With controls
Medium firm | With controls
Digital × Small | With controls
Digital × Medium | With controls

Key Findings

Firm performance and digital platform adoption between micro, small and medium firms



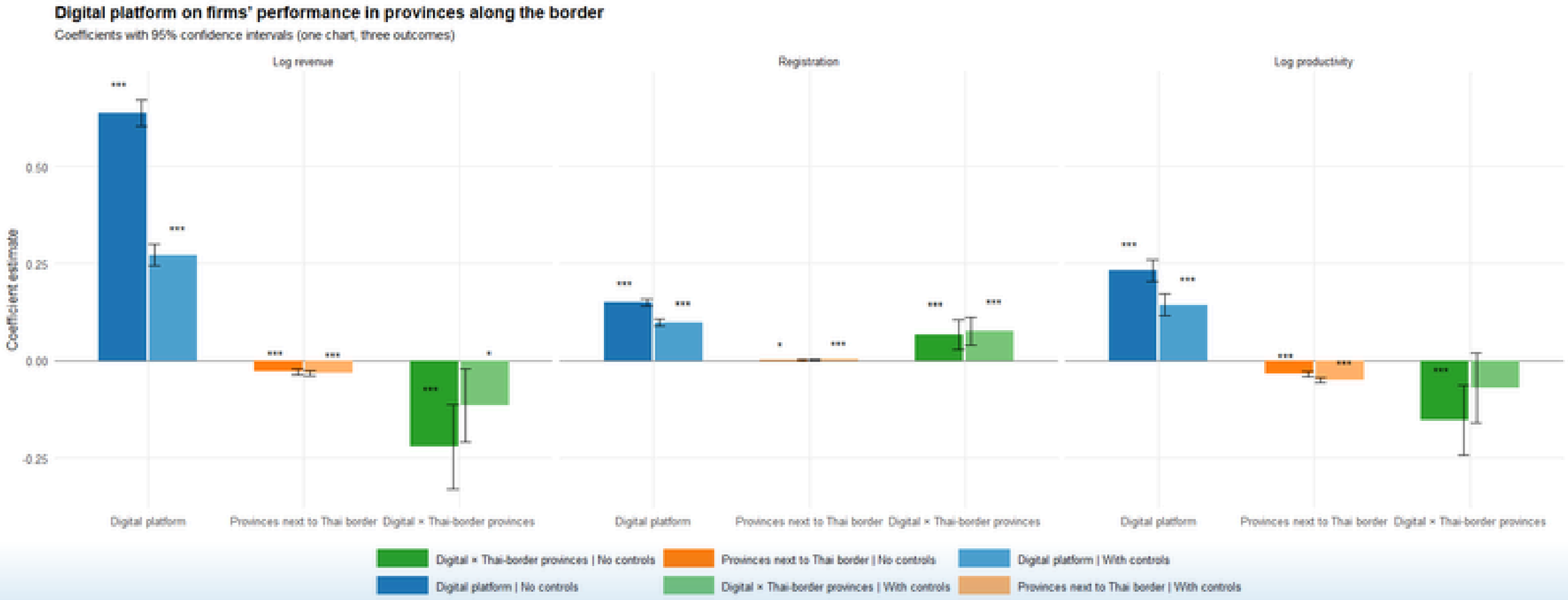
- The benefit of digital platform adoption is not distributed equally for all firm sizes.
- Perhaps the medium firms are already adopted basic digital platforms; the more adoption, the more likely to face diminishing return.
- Among three firm sizes, we find that the micro firms are more likely to enhance firm when adopting digital platforms.

The control variables are provinces, sex of business owners, year of operation, tenure of business, business place, and area of business size.
We included province and industry fixed effects.
**** p<0.01, ** p<0.05, * p<0.1*

Key Findings

Effect of digital platform on SMEs performance in provinces along the border

- Firms that adopted digital platforms and are along the Thai border are less likely to earn revenue than those who not, while the likelihood of registration status increases.

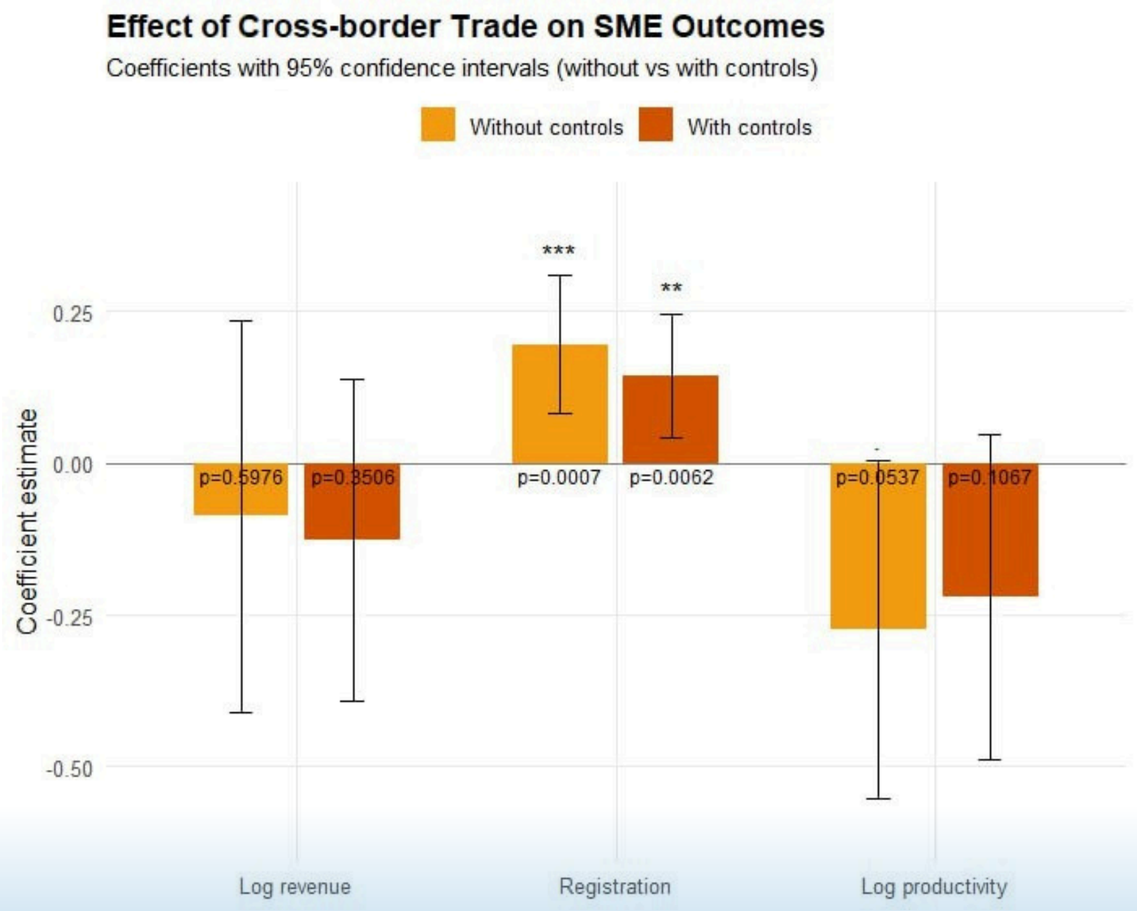


The control variables are firm size, sex of business owners, year of operation, tenure of business, business place, and area of business size.
We included province and industry fixed effects.
**** p<0.01, ** p<0.05, * p<0.1.*

Key Findings

Effect of cross-border trade and SMEs performance in provinces along the border

- This finding suggests that SMEs in Cambodia who do cross-border trade increase the likihood of firms' registration, while there has negative likelihood in revenue and labor productivity.



The control variables are provinces, sex of business owners, year of operation, tenure of business, business place, and area of business size. We included province and industry fixed effects.

In the existing dataset, the questionnaire was asked the firms who adopted digital platforms whether they do cross border trade or not, which limits the data on the firms who do cross border trade without using digital platforms.

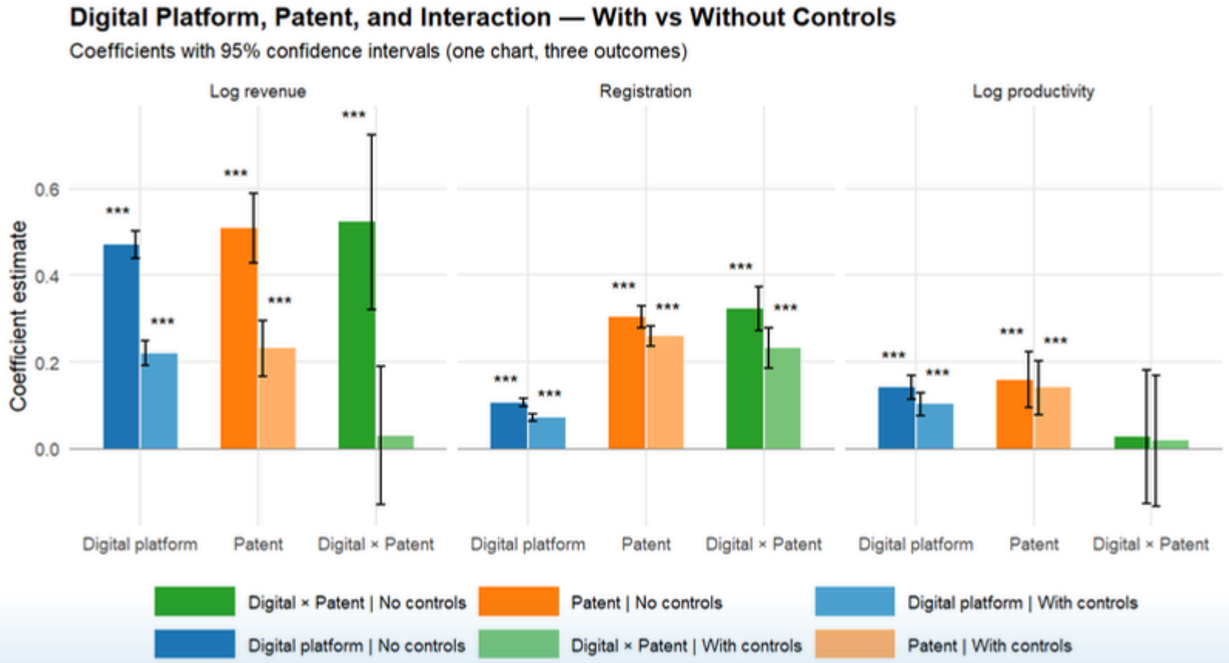
**** p<0.01, ** p<0.05, * p<0.1*

Key Findings

Effect of trade-related activities (patent, industrial design and trademark) on SMEs performance

- Firms that adopt digital platform with patent or industrial design registration experience gains in revenue, formalization, and productivity, while trademark interactions show weaker or insignificant effects.

Interaction of digital platforms and patent on SMEs performance



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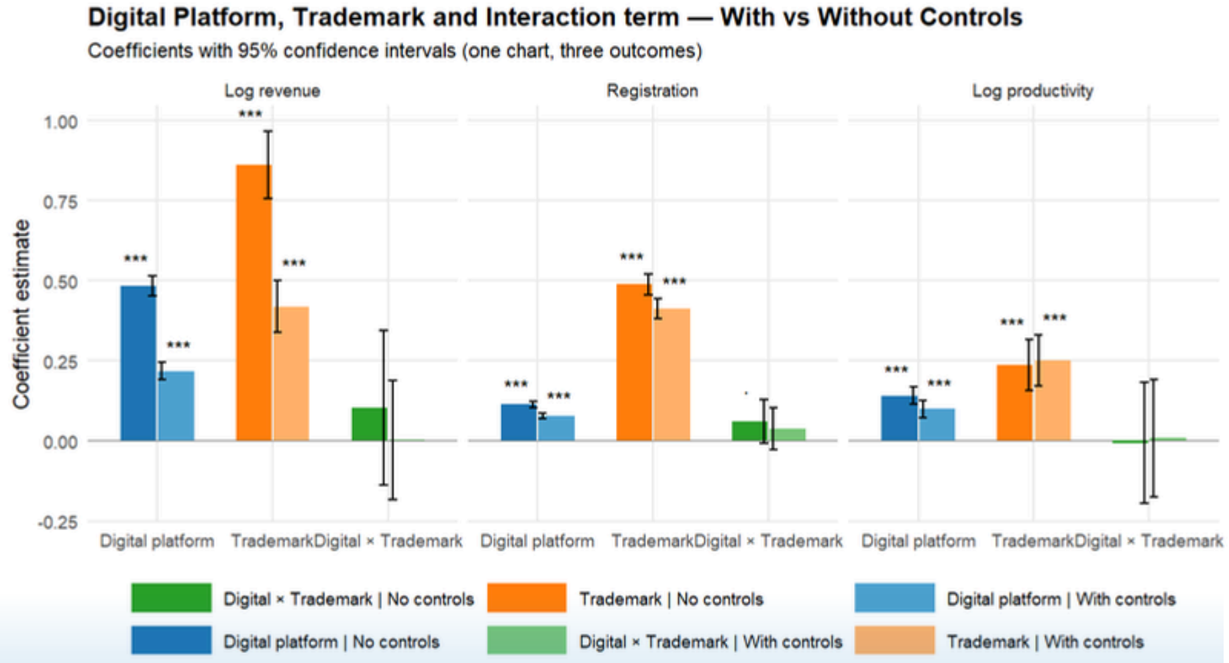
Interaction of digital platforms and trademark on SMEs performance



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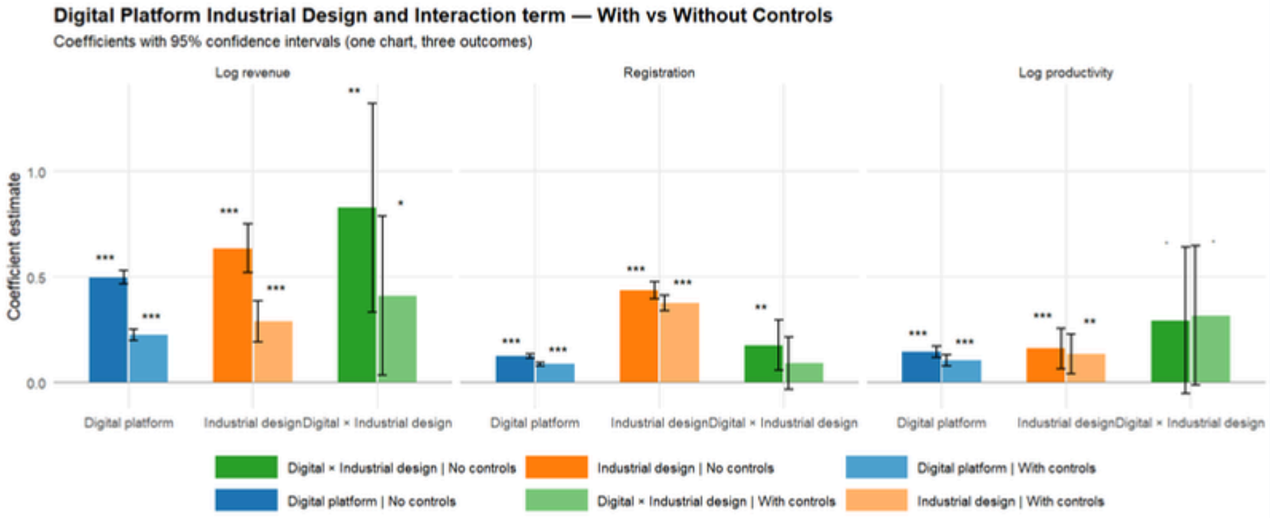
Key Findings

Interaction of digital platforms and industrial design on SMEs performance

- The firms that adopt digital platforms and have an industrial design have a positive relationship with the likelihood of increasing revenue, registration status, and productivity.



The control variables are firm size, sex of business owners, year of operation, tenure of business, business place, and area of business size.
We included province and industry fixed effects.
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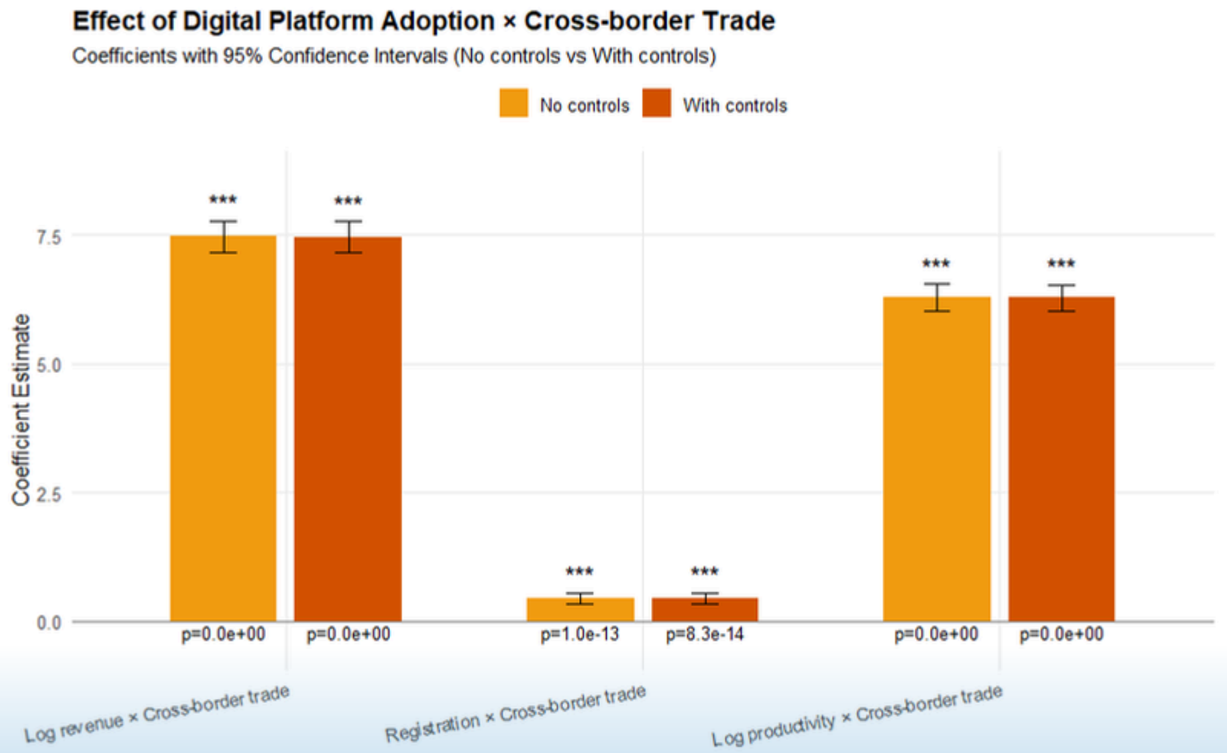
Effect of digital platforms on cross border trade and SMEs performance

- The likelihood of firms who adopt digital platform and do cross border trade are more likely to have better performance than firms do not.



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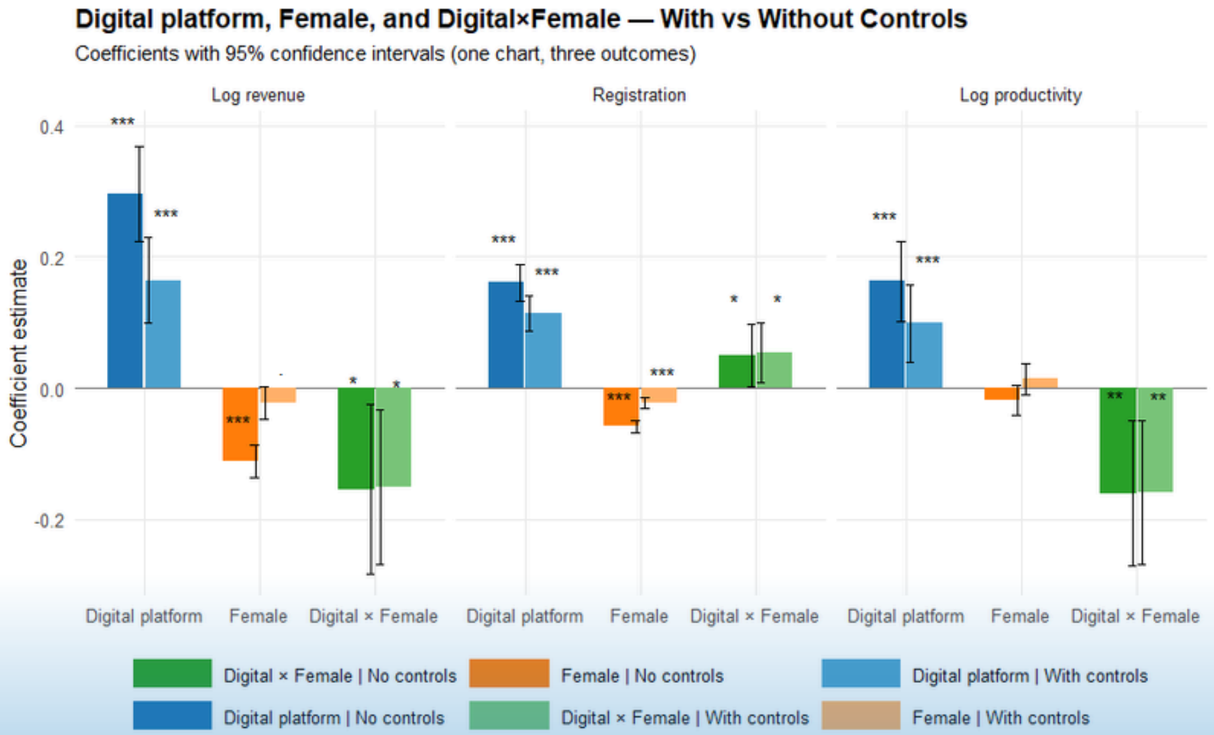
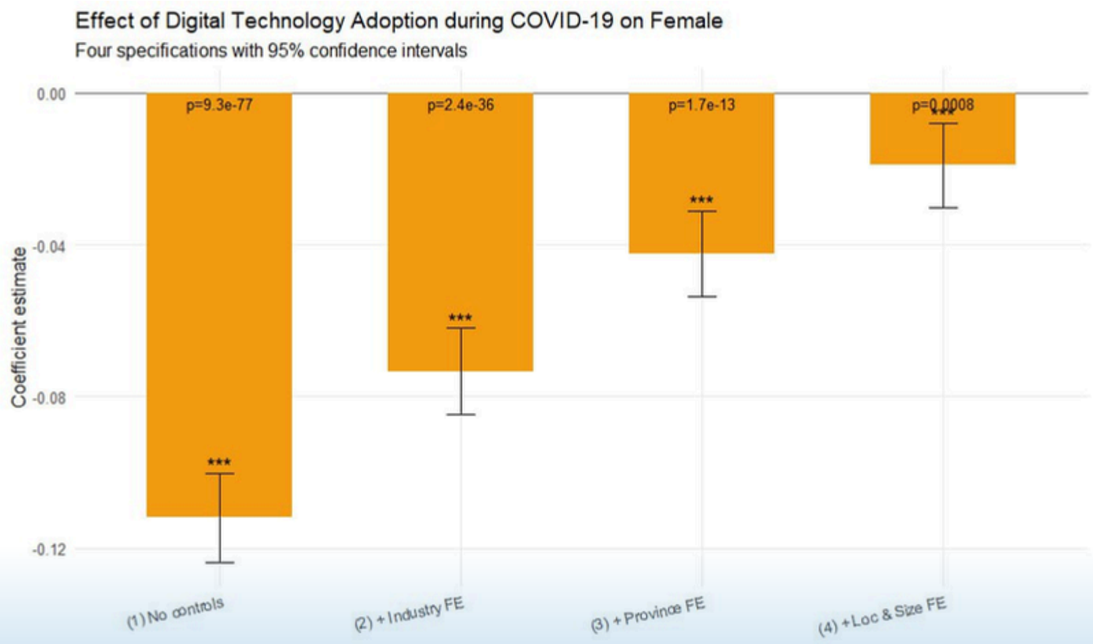
Key Findings

Uneven benefits and remaining gaps

- The effect of digital adoption on female owned firms is positive. However, the female owned firms perform weaker than non-female firms.
- **Structural barriers**: Industry, province, location and firm size.
- **Gender-specific barriers:**
  - Limited information acess
  - Gaps in Skills and Knowledge in SMEs
  - Limited financial access
  - Additional barriers: lack of digital infrastructure, cybersecurity concerns.





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Policy Recommendations & Conclusion

Conclusion

- **Digital platform adoption improves firm outcomes**: SMEs using digital platforms exhibit higher revenue, greater likelihood of formal registration, and increased productivity.
- **Firm size performance:** The micro firm gains the most advantages in digital platform adoption.
- **Location matters:** Firms in Phnom Penh gain more from platform use than those in rural provinces, reflecting digital infrastructure gaps and platform concentration.
- **Leveraging digital platforms for SME cross-border trade growth and the limited impact on border provinces for its early-stage digital adoption:** While the adoption of digital platforms enables Cambodian SMEs to strengthen cross-border trade, better manage trade-related activities, including patents, industrial designs, and trademarks, and improve overall business performance, the impact in border provinces remains limited, likely because firms there are still in the early stages of digital adoption.
- **Gender disparities persist:** Female-owned firms benefit less from digital platform adoption due to limited access to finance, skills, and business networks.
- **Barriers are structural and systemic:** Key constraints include lack of digital skills, limited access to financing, information asymmetry, and gendered limitations in business capabilities.

Policy Recommendations

- **Develop a national digital MSME strategy** with components such as digital ID systems, fintech access, and targeted digital literacy programs.
- **Foster public-private partnerships** to expand digital logistics networks and build consumer trust in online marketplaces.
- **Align national digital trade regulations with ASEAN frameworks** to support cross-border digital participation for Cambodian SMEs.
- **Address gendered and geographic barriers** by providing tailored support to women-led and rural enterprises through targeted funding, mentorship, and platform onboarding assistance.

THANK YOU!

CONTACT:
dina.chhorn@cdri.org.kh
sivly.houy@cdri.org.kh
muny.nhimkean@cdri.org.kh