E-commerce infrastructure development in the CAREC countries

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Background of E-Commerce Development in the CAREC Region

What is current level of E-Commerce Development in the CAREC Region?

Background of E-Commerce Development in the CAREC Region

The CAREC Integrated Trade Agenda (CITA) 2030 emphasizes the critical role of e-commerce in linking CAREC member countries with global value chains and in diversifying economies.

The current COVID-19 crisis has seriously changed an outlook on the future of international trade in traditional goods and services. While numerous studies have measured the benefits of e-commerce, the COVID-19 pandemic has dramatically illustrated its importance.

- CAREC region has not fully benefited from the digital economy including digital trade or e-commerce.

- Individual CAREC countries have different levels of digitalization, some being champions and some having difficulties with access to the internet.

- CAREC presents a strong contrast in e-commerce development. PRC leads the world in online retail and is cited as a role model for the future of e-commerce. E-commerce in most of the other CAREC countries is underdeveloped and way below its potential.

- E-commerce development in the CAREC region is highly heterogeneous in terms of its hardware, the e-commerce infrastructure, and its soft components including regulatory, legal and institutional framework.

- Outdated regulations, varied digital infrastructure, and fragmented governance are examples of roadblocks from realizing E-commerce in the CAREC region's potential.

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Background of E-Commerce Development in the CAREC

- The technical ability to access the Internet is generally high in most CAREC countries. However, there is a gap between people with theoretical access and actually using the Internet, due to barriers such as digital literacy and affordability.

- The number of enterprises engaging in e-commerce is low in CAREC, particularly among small and medium sized enterprises.

- Core data infrastructure including internet exchange points, data centers and cloud computing—which are also important for payments and logistics—are underdeveloped in most CAREC countries.

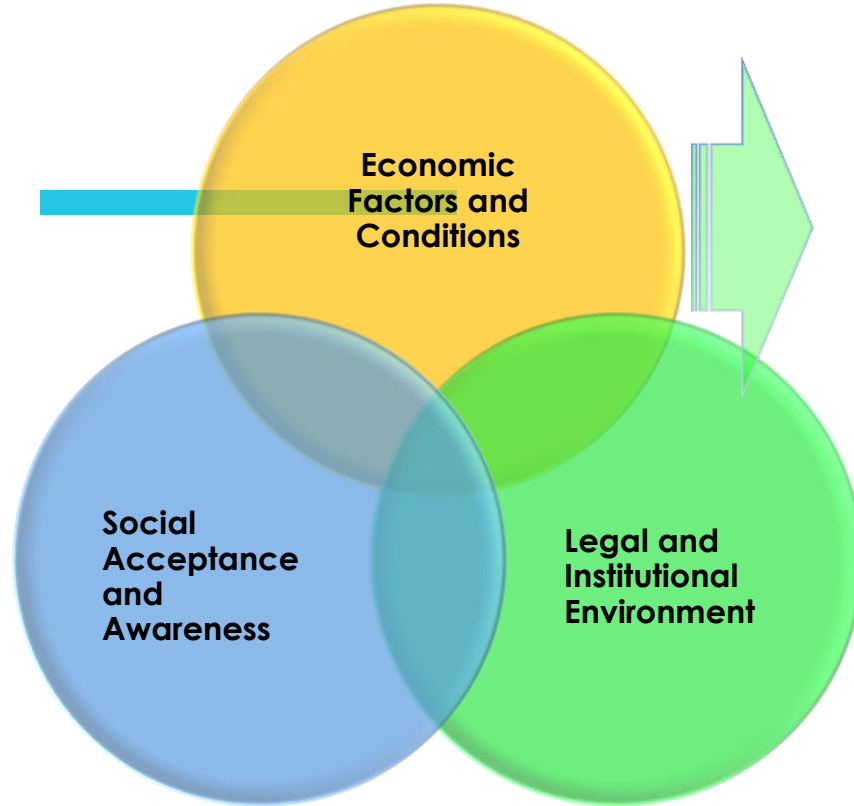| Country	Number of B2C Users (millions)	User Penetration (% of population)
Azerbaijan	3.3	33
PRC	901.7	62
Georgia	1.5	37
Kazakhstan	7.3	39
Kyrgyz Republic	1.7	26
Mongolia	0.9	28
Pakistan	72.3	33
Tajikistan	1.7	17
Turkmenistan	1.0	17
Uzbekistan	9.9	30
CAREC-10[a]	**99.6**	**29**
All CAREC countries	**1,001.3**	**32**
World	**3,470**	**47**

Main Indicators for E-Commerce Development in the CAREC Region

Table 1: UNCTAD B2C E-commerce index, 2020

The Index measures an economy's preparedness to support online shopping (UNCTAD 2021). Overall, CAREC is doing best in Internet access with an average 56% of the population using it. The other three indicators have relatively similar scores and are significantly lower than Internet use.

2020 Rank	Economy	Share of individuals using the Internet (2019 or latest)	Share of individuals with an account (15+, 2017)	Secure Internet servers (normalized, 2019)	UPU postal reliability score (2019 or latest)	2020 Index value)	Index value change (2018-19 data)
47	Georgia	71	61	64	98	73.6	0.5
55	The PRC	61	80	54	85	70.1	1.3
60	Kazakhstan	87	59	63	64	68.2	-0.4
61	Mongolia	76	93	60	31	65.0	7.6
65	Azerbaijan	81	29	49	82	60.0	-1.8
97	Kyrgyz Rep.	80	40	47	11	44.3	8.0
107	Uzbekistan	30	37	50	30	37.0	-8.4
116	Pakistan	24	21	35	50	32.5	-1.2
121	Tajikistan	36	47	36	1	30.0	4.3
143	Afghanistan	18	15	29	7	17.1	-1.1
	Median	66	43	49	40	52	0.1
	Average	56	48	49	46	50	0.9

Dimensions for e-Commerce Development: CAREC Institute's research projects on E-Commerce

Economic Factors and Conditions

Social Acceptance and Awareness

Legal and Institutional Environment

Framework for E-commerce Development in CAREC Countries:
**Focus on Infrastructure Development study covers:**

Mapping of existing e-commerce infrastructure

1) **Internet infrastructure**
2) **Payments**
3) **Logistics**
4) **E-commerce market.**

- Regulative institutions:
  - **Legislations**
  - Measures to make e-commerce affordable & accessible
  - Direct policy support
  - Public-private partnership

- Normative institutions (industry and trade associations)

Regulatory Framework in CAREC study covers:

✓ **Laws on electronic transactions** (e-commerce, e-documents, e-signatures)
✓ **Regulations** (privacy, cybercrime, consumer protection)
✓ **Trade-related agreements**
✓ **International instruments, mechanisms**
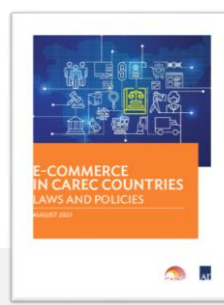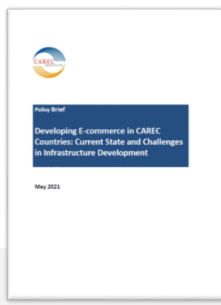
Sources: 1. ADB and ESCAP 2018. Embracing the Economic Revolution in Asia and Pacific. Manila.
2. Policy Brief "Regulatory Framework for e-Commerce Development in CAREC" CAREC Institute, April 2020
3. Developing E-commerce in CAREC Countries: Current State and Challenges in Infrastructure Development, CAREC Institute, May 2021
4. E-commerce in CAREC Countries :Laws And Policies, ADB and CI, August 2021

CAREC Institute

CAREC Institute's research project on E-Commerce

CAREC Institute and ADB jointly implemented series of research project on e-commerce, namely "Regulatory Framework for E-commerce Development in CAREC Countries" in 2019 and "Framework for E-commerce Development in CAREC Countries: Focus on Infrastructure Development" in 2019-2021.

- The 1st e-commerce research project examined the state of legislation and regulation of electronic commerce in the eleven member states of CAREC and recommended ways to modernize and harmonize them. Policy brief, Regulatory Framework for e-Commerce Development in CAREC, https://www.carecinstitute.org/wp-content/uploads/2020/04/2-CI-Policy-Brief-e-Commerce-Framework-in-CAREC-25-Apr-2020.pdf

- The research is covered and reviewed the **legislative and regulatory** environment from all CAREC members relating to
  - electronic transactions,
  - electronic payments,
  - privacy and cybercrime,
  - consumer protection.

CAREC Institute's research project on E-Commerce

- The 2nd e-commerce research project examined the state of e-commerce infrastructure in the CAREC region.
- It examined the state of the e-commerce infrastructure viewed along their logical sequence of:
    - Accessing the internet to engage in online transactions,
    - Making and receiving payments, and
    - Delivery and logistics.
    - E-commerce market
- The different infrastructure components have also not always developed at an equal rate resulting in some countries leading in some areas and lagging in others.

Research Findings: Challenges and Opportunities of E-commerce Development for CAREC Region

Challenges and Opportunities of E-commerce Development for CAREC Region

1. INFRASTRUCTURE: INTERNET, *Access to the Internet is essential for e-commerce*

Key points

- On the supply side, most CAREC countries have an adequate level of infrastructure to support the general public in accessing the Internet and using e-commerce.
- On the demand side, digital literacy is a main barrier to Internet use in CAREC countries with affordability and coverage less pressing concerns for most of the countries.
- Another demand side constraint is that the vast majority of Internet users in CAREC countries do not shop online.
- Business use of e-commerce is relatively low in CAREC among countries that disclose that information. The percentage of companies that buy (B2B) or sell online (B2B and B2C) is relatively low, ten percent or less.
- Cybersecurity is a concern in CAREC. Most of the countries rank low on various measures of cybersecurity which can increase the likelihood of incidents and add to distrust of using e-commerce.
- International Internet bandwidth is low in a number of CAREC countries, hindered by low demand and regulations. However, it is critical to note that having abundant international internet bandwidth does not necessarily reflect best performance since it could reflect a lack of domestic data infrastructure.
- Core data infrastructure such as data centers and access to cloud computing is lacking in most CAREC countries outside PRC.
- There is a notable shortage of information about ICT use among individuals and businesses in CAREC countries.

Challenges and Opportunities of E-commerce Development for CAREC Region

2. INFRASTRUCTURE: PAYMENTS, Payments options such as e-wallets and bank transfers through QR codes also provide convenience to the user while also helping to develop digital payments in countries and can reduce costs for merchants.

Key points: Recent administrative data suggest that bank account and payment card ownership in CAREC has risen sharply since the *2017 FINDEX* household survey. Part of this increase is due to policies encouraging digital payments and the COVID-19 pandemic is further stimulating governments to move rapidly to cashless payments for safety reasons.

• Most CAREC countries have experienced strong growth in cashless payment penetration, infrastructure and volume. Mobile banking and digital wallets are increasing rapidly.

• Some CAREC countries are leading not only in the region but sometimes also the world in respect to advanced digital tools such as contactless payments, e-wallets and QR codes.

• Barriers to wider use of digital payments are due less to payment infrastructure limitations and more to institutional barriers constraining market entry of disruptive fintech companies and deployment of new payment methods.

• Consideration should be given to a regional credit card and e-wallet. Many CAREC countries have issued a national payment card. However, except for PRC''s Union Pay, none are used outside the country

• The digital payments revolution in CAREC is being led by innovative banks and fintech companies who are integrating their platforms with their own online shops.

Challenges and Opportunities of E-commerce Development for CAREC Region

3.INFRASTRUCTURE: LOGISTICS, Fulfilment and delivery are critical parts of the e-commerce process

Key points:

- The majority of CAREC countries have universal postal coverage, a key enabler of e-commerce. At the same time, at least before the COVID-19 crisis, buyers want more diversity in package delivery options. Postal operators need to adapt to more diverse delivery choices, increase efficiency and digitize operations.
- Some CAREC countries aspire to be e-commerce delivery or logistics hubs. This is problematic given the state of cross border trade efficiency and except for Kazakhstan and the Kyrgyz Republic, lack of customs agreements among neighbors. Focus might be better placed on enhancing delivery and logistics within the country so that domestic online shops can scale.
- Fulfilment is inadequate in most CAREC countries. Delivery and warehousing need to be integrated and third party fulfillment providers encouraged. In PRC and Pakistan, e-commerce companies have taken the lead but in most of CAREC online shops lack scale and funding to invest in logistics.
- Despite efforts made by all CAREC countries to streamline trade through submission of electronic documents and single windows, performance in international benchmarks has not shown significant improvements. This is partly due to functionality, quality and participation differences in the implementation of paperless documents and single windows.

Challenges and Opportunities of E-commerce Development for CAREC Region

4. LEGAL AND REGULATORY ENVIRONMENT: Electronic Transactions

Key points:

- Some CAREC members have a single law on e-transactions, often called "law on electronic signature and electronic document." Such a law often makes an e-document legally effective only if it has a secure form of e-signature.

- Other states have two laws, one on e-documents and one on e-signatures. They may give some scope for an e-document to stand on its own, legally, though they usually still need some form of e-signature associated with the document for it to be valid.

Challenges and Opportunities of E-commerce Development for CAREC Region

5. LEGAL AND REGULATORY ENVIRONMENT: Privacy

Key points:

- Most of CAREC members have some form of privacy legislation. The laws tend to reflect the main points of the international standards: personal data should be collected only with the consent the data subject and only for the purpose for which the consent was obtained.

- All CAREC members should have privacy legislation consistent with international best practices.

Challenges and Opportunities of E-commerce Development for CAREC Region

6. LEGAL AND REGULATORY ENVIRONMENT: Cybercrime

Key points:

- Most CAREC members have very consistent provisions on cybercrime. Those that do not, should enact them.

Challenges and Opportunities of E-commerce Development for CAREC Region

6. LEGAL AND REGULATORY ENVIRONMENT: *Consumer Protection*

Key points:

- Many CAREC members have no consumer protection laws under that name, though provisions against fraud or misrepresentation would be relevant to consumers as well as to businesses. The laws in place in the countries that do have them are quite varied, some modern, some out of date or partial.

- CAREC members should adopt consumer protection legislation consistent with the UN and OECD models, with particular attention to the ability of the state to offer reliable enforcement of consumer rights given by the legislation.

Recommendations for E-commerce Development for CAREC Region

Recommendations for E-commerce Development for CAREC Region

Infrastructure

- CAREC countries need for improving **internet infrastructure**—such as, expanding last-mile coverage; launching 5G networks; enhancing digital literacy; promoting enterprise e-commerce use; developing business-oriented infrastructure; and establishing backbone networks, internet exchange points, data centers, and cloud.

- There is a need to widen financial inclusion, enhance **payment system** capacity and speed, increase the availability and use of smartphones, and enable merchant accounts or payment procedures and consider regional payment cards to improve payment systems.

- **Logistics** require the expansion of home delivery coverage, increasing the quality of delivery networks, improving logistics services, addressing cross-border trade constraints and, as much as possible, the adoption of a uniform minimum value.

- In developing the **e-commerce market**, it is important to develop an e-commerce strategy, improve the measurement of e-commerce markets, and support the establishment of e-commerce associations and funding for startups and small business ecosystems.

Recommendations for E-commerce Development for CAREC Region

Laws and Regulation

- To facilitate implementation of recommendations, all CAREC members should collectively decide as a priority to ensure that their laws support electronic commerce, including rules on privacy, cybercrime and consumer protection, both domestically and among themselves.

- • Towards this goal, each state should take the following steps: Establish a dedicated multi-ministry task force with support at the highest levels.
  - Include private-sector representation on some version of this group.
  - Coordinate legal advice across government. Different departments or agencies must end up with consistent opinions on key matters.
  - Ensure that all parts of the government and other players have the right and capacity to communicate electronically.
  - Replicate the national work at the international level, and coordinate the both national and international levels.
  - Work closely with ESCAP technical and legal working groups, if not already doing so. This can be done even before becoming a member of the Framework Agreement.

Thank You for Attention

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