Экосистема электронной коммерции и цифровых платежей в регионе ЦАРЭС

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Последовательность презентации

- Обзор электронной коммерции региона ЦАРЭС с 2019 года

- Определение и измерение операционной совместимости платежей, общее

- Формирование будущего трансграничной системы быстрых платежей, АСЕАН

- Уровень реализации трансграничной безбумажной торговли в странах ЦАРЭС

- Заключение

Регион ЦАРЭС

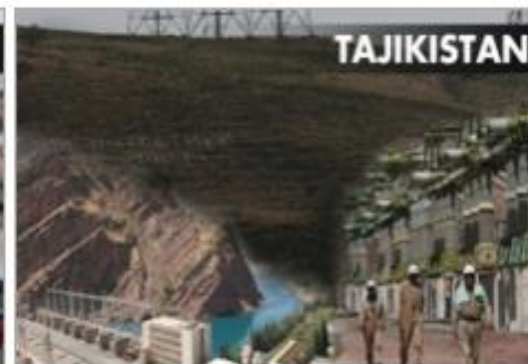Afghanistan Azerbaijan People's Republic of China Georgia Kazakhstan Kyrgyz Republic

Mongolia Pakistan Tajikistan Turkmenistan Uzbekistan

Институт ЦАРЭС является подразделением по поддержке знаний Программы ЦАРЭС, АБР.

Использование электронной коммерции, 2019 г.

Country	Number of Users (million)	User Penetration (% of population)	Average Revenue per User ($)
Afghanistan	n.a.	n.a.	n.a.
Azerbaijan	3.1	31	101.22
PRC	855.1	61	1,008.80
Georgia	1.3	35	78.03
Kazakhstan	7.0	38	129.26
Kyrgyz Republic	1.5	23	33.10
Mongolia	0.8	24	38.12
Pakistan	41.0	19	51.92
Tajikistan	1.4	15	21.60
Turkmenistan	0.9	15	21.50
Uzbekistan	8.5	25	42.32
CAREC-10[a]	65.4	21	60.15
All CAREC countries	920.5	54	941.42
World	3,170.8	41	607.07

CAREC = Central Asia Regional Economic Cooperation, n.a. = not available, PRC = People's Republic of China.

[a] CAREC-10 includes all countries in the CAREC Program except the PRC.

Note: E-commerce is one of six major business-to-commerce digital platforms, the other five being online travel, advertising technology, transportation, e-services, and digital media.

Source: ADB estimates based on Statista. 2020. *Statista Digital Market Outlook.* https://www https://www.statista.com/outlook/digital-markets.

Инфраструктура Интернета

Country	Secure Internet Servers per Million People, 2019	International Internet Bandwidth per Internet User, 2018 (bps)	3G Network Coverage, 2018 (% of population)	4G Network Coverage, 2018 (% of population)
Afghanistan	28	n.a.	30.3	14.9
Azerbaijan	369	52,143	95.0	48.1
PRC	735	27,722	98.0	99.0
Georgia	2,776	140,194	100.0	85.0
Kazakhstan	2,359	55,068	92.7	75.0
Kyrgyz Republic	288	47,864	75.0	50.0
Mongolia	1,690	22,399	95.0	27.3
Pakistan	63	20,854	78.5	54.7
Tajikistan	71	2,256	90.0	80.0
Turkmenistan	20	n.a.	n.a.	67.0
Uzbekistan	453	n.a.	75.0	43.0
CAREC-10[a]	812	n.a.	73.0	55.0
All CAREC countries	805		75.0	59.0
World	10,050	224,803	86.0	69.0

bps = bits per second, CAREC = Central Asia Regional Economic Cooperation, PRC = People's Republic of China, 3G = third generation, 4G = fourth generation

[a] CAREC-10 includes all countries in the CAREC Program except the PRC.

Sources: World Bank, World Development Indicators. https://databank.worldbank.org/source/world-development-indicators (accessed 1 August 2020); Portulans Institute. 2019. The Network Readiness Index 2019: Towards a Future-Ready Society. Washington DC. https://networkreadinessindex.org/wp-content/uploads/2020/03/The-Network-Readiness-Index-2019-New-version-March-2020.pdf; and Global System for Mobile Communications Association. Mobile Connectivity Index 2019. https://www.mobileconnectivityindex.com/ (accessed 1 August 2020).

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Скорость загрузки в Интернете, 2020 г. (Мбит/с)

Country	Mobile Download Speed	Fixed Broadband Download Speed
Afghanistan	5.52	7.38
Azerbaijan	30.99	21.24
PRC	103.67	133.60
Georgia	27.72	26.19
Kazakhstan	21.25	46.31
Kyrgyz Republic	20.06	40.26
Mongolia	19.19	35.63
Pakistan	14.86	8.87
Tajikistan	12.62	27.59
Turkmenistan		3.69
Uzbekistan	11.78	28.52
CAREC-10[a]	18.22	24.57
All CAREC countries	26.77	34.48
World	34.67	78.26

CAREC = Central Asia Regional Economic Cooperation, Mbps = megabits per second, PRC = People's Republic of China.

[a] CAREC-10 includes all countries in the CAREC Program except the PRC.

Source: Speedtest Global Index. https://www.speedtest.net/global-index (accessed 11 June 2020).

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Доступ в Интернет и его использование

Country	Internet Users, 2019 (million)	Internet Penetration, 2019 (% of population)	Households with Internet Access, 2018 (% of households)	Households with a Computer, 2018 (% of households)	Mobile Connections, 2019 (million)
Afghanistan	7.65	20	6	3.43	26.92
Azerbaijan	8.05	80	78	64.10	11.29
PRC	854.50	59	60	55.00	1,610.00
Georgia	2.70	68	70	62.11	5.57
Kazakhstan	14.73	79	88	78.50	25.45
Kyrgyz Republic	3.06	47	21	23.29	9.73
Mongolia	2.20	68	23	36.45	4.42
Pakistan	76.38	35	22	16.15	164.90
Tajikistan	2.42	26	12	14.83	10.04
Turkmenistan	1.56	26	11	10.73	4.79
Uzbekistan	18.34	55	80	38.50	25.14
CAREC-10[a]	137.09	50	41	35.00	288.25
All CAREC countries	991.59	51	43	37.00	1,898.25
World	4,540.00	59	55	47.10	7,950.00

CAREC = Central Asia Regional Economic Cooperation, PRC = People's Republic of China.

[a] CAREC-10 includes all countries in the CAREC Program except the PRC.

Sources: Kemp, Simon. 2020. Digital 2020. Afghanistan. https://datareportal.com/reports/digital-2020-afghanistan; Kemp, Simon. 2020. Digital 2020: Azerbaijan. https://datareportal.com/reports/digital-2020-azerbaijan; Kemp, Simon. 2020. Digital 2020: China.

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Потенциал и использование электронных платежей, 2017 г. (%)

Country	Own a Debit Card	Own a Credit Card	Share of Respondents Who			
			Used a Debit or Credit Card to Make a Purchase	Used the Internet to Pay Bills or Purchase Online	Made or Received Digital Payments	Used Mobile Phone or Internet to Access Account
Afghanistan	2.7	1.1		0.5	10.8	0.9
Azerbaijan	24.6	5.3	7.4	9.4	24.6	2.0
PRC	66.8	20.8	41.9	48.8	67.9	39.8
Georgia	39.9	14.6	18.5	13.5	53.0	9.4
Kazakhstan	39.7	20.0	25.5	24.3	53.9	18.2
Kyrgyz Republic	19.3	3.6	6.7	5.0	36.1	5.8
Mongolia	75.7	3.2	60.8	17.1	85.3	38.4
Pakistan	8.3	1.0		8.0	17.7	7.6
Tajikistan	15.9	5.7	10.8	12.8	43.9	8.3
Turkmenistan	37.9		5.6	2.0	34.3	2.2
Uzbekistan	24.1	0.6	25.0	7.1	34.2	6.7
CAREC-10[a]	28.8	6.1	20.0	10.0	39.4	10.0
All CAREC countries	32.3	7.6	22.5	13.5	42.0	12.7
World	47.7	18.4	32.6	29.0	52.3	24.9

CAREC = Central Asia Regional Economic Cooperation, PRC = People's Republic of China.

[a] CAREC-10 includes all countries in the CAREC Program except the PRC.

Source: World Bank. DataBank. Global Financial Inclusion. https://databank.worldbank.org/reports.aspx?source=global-financial-inclusion (accessed 7 August 2020).

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Индексы эффективности почтовых и логистических операций, 2018 г.

Country	Postal Reliability Score	Mail Delivered at Home (% of population)	LPI Score for Infrastructure Quality	LPI Score for Quality of Logistics Services	LPI Score for Timeliness of Shipments
Afghanistan	6	50	1.81	1.92	2.38
Azerbaijan	86				
PRC	85	99	3.75	3.59	3.84
Georgia	99	100	2.38	2.26	2.95
Kazakhstan	72	94	2.55	2.58	3.53
Kyrgyz Republic	20		2.38	2.36	2.94
Mongolia	47	51	2.10	2.21	3.06
Pakistan	54	95	2.20	2.59	2.66
Tajikistan	1	75	2.17	2.33	2.95
Turkmenistan			2.23	2.31	2.72
Uzbekistan	41	100	2.57	2.59	3.09
CAREC-10 countries	47	81	2.27	2.35	2.92
All CAREC countries	51	83	2.41	2.47	3.01
World	49	80			

CAREC = Central Asia Regional Economic Cooperation, CAREC-10 includes all countries in the CAREC Program except the PRC, LPI = Logistics Performance Index, PRC = People's Republic of China, UNCTAD = United Nations Conference on Trade and Development.

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Обзор законодательства, касающегося электронной коммерции

Legislation	Afghanistan	Azerbaijan	People's Republic of China	Georgia	Kazakhstan	Kyrgyz Republic	Mongolia	Pakistan	Tajikistan	Turkmenistan	Uzbekistan
E-transactions	*	•	•	•	•	•	•	•	•	•	•
E-documents	*	•	•	•	•	•	•	•	•	•	•
E-signatures	*	•	•	•	•	•	•	•	•	•	•
International certificates and foreign signatures	*	•	•	•	•	•	•	•	•	•	•
Privacy	*	•	•	•	•	•	*	*	•	•	•
Cybercrime	•	•	•	•	o	o	o	•	o	o	o
Consumer Protection	•	•	•	o	•	o	•	*	*	•	o

• = specific legislation or modern statutes are available that are generally compliant with international instruments (with minimum provisions applicable to e-commerce transactions).

o = there is no specific legislation but there is general legislation (such as civil or criminal codes) that is applicable to all kinds of transactions and is considered media-neutral legislation or statutes.

* = there is incomplete legislation, outdated provisions, or a law has yet to be enacted.

Source: Author's compilation.

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Всемирный экономический форум, 2022 г.

Определение и измерение операционной совместимости платежей, Официальный документ, апрель 2022 г.

Контекст

- По данным отчета PayPal «Торговля без границ», ожидается, что в 2021 году объем мировой электронной коммерции вырастет на 14,3%, а число новых онлайн-покупателей увеличится на 28%.

- Согласно последнему исследованию «Visa Global Merchant E-commerce», 66% компаний электронной коммерции продают свою продукцию за рубеж, при этом в среднем на трансграничные продажи приходится около трети (31%) их выручки.

- Несмотря на то, что 87% продавцов считают, что их наибольший потенциал роста заключается в расширении международных онлайн-продаж, владельцы малого бизнеса выразили нежелание предпринимать действия по выходу на новые рынки.

- Отсутствие операционно совместимых платежных решений, подходящих для международной торговли, не позволяет продавцам, особенно малым и средним предприятиям (МСП), выходить на международные рынки:
    - По данным опроса, проведенного Visa, только половина продавцов имеет инфраструктуру для обработки платежей, подходящую для трансграничных платежей.
    - Около 40% продавцов считают, что прием и обработка иностранных транзакций является препятствием для реализации их потенциала роста за счет продаж за рубежом через Интернет.
    - Согласно опросу, проведенному PayPal, 18% продавцов по всему миру заявили, что необходимость принимать новые локальные способы оплаты мешает им продавать свои товары и услуги на большем количестве рынков, а 40% онлайн-покупателей говорят, что они, скорее всего, откажутся от покупки, если предпочитаемый ими способ оплаты недоступен.

Определение операционной совместимости платежей

- **Техническая совместимость:** большинство существующих обсуждений по вопросам операционной совместимости платежей фокусируются на технической или системной совместимости. Техническая совместимость измеряет способность выстраивать бесперебойные соединения между различными способами оплаты или закрытыми сетями.

- **Регулятивная совместимость**: возможность подключения платежных систем в пределах юрисдикции или «между разными юрисдикцими регулируются разными нормативными требованиями, чтобы гарантировать, что транзакции проводятся законным образом».

- **Операционная совместимость использования**: возможность участия различных демографических групп в цифровой экономике и осуществлять транзакции в разных географических регионах по низким ценам, что приводит к инклюзивности без какой-либо дискриминации.

Переход Китая к платежной операционной совместимости

As a pioneer in digital payments, e-money has dominated China's mobile payment scene. For a long period of time, Weixin Pay, a payment service built into Tencent's social communication app Weixin, and Alipay, an e-wallet company grown out of Alibaba, have operated as semi-closed loop systems with their own QR code standards. In recent years, the People's Bank of China has pushed for public and private sector collaborations for a more open ecosystem across different payment methods. Weixin Pay is currently cooperating with multiple banks and institutions to promote a more comprehensive payment interconnection. In addition, Weixin Pay and UnionPay Cloud QuickPass, which is owned by one of the largest card networks in China, have created a comprehensive interoperability mechanism with various in-depth payment and service interconnection scenarios. Starting from September 2021, UnionPay Cloud QuickPass app users can scan Weixin Pay QR codes to make offline payments. Weixin Pay users can do the same with UnionPay Cloud QuickPass QR codes. As more payment service providers in China expand their collaborative approach to QR codes, there is expected to be a shift from previously incompatible technical standards between different payment services to a more open and mutually compatible payment services framework, thereby increasing convenience for consumers.
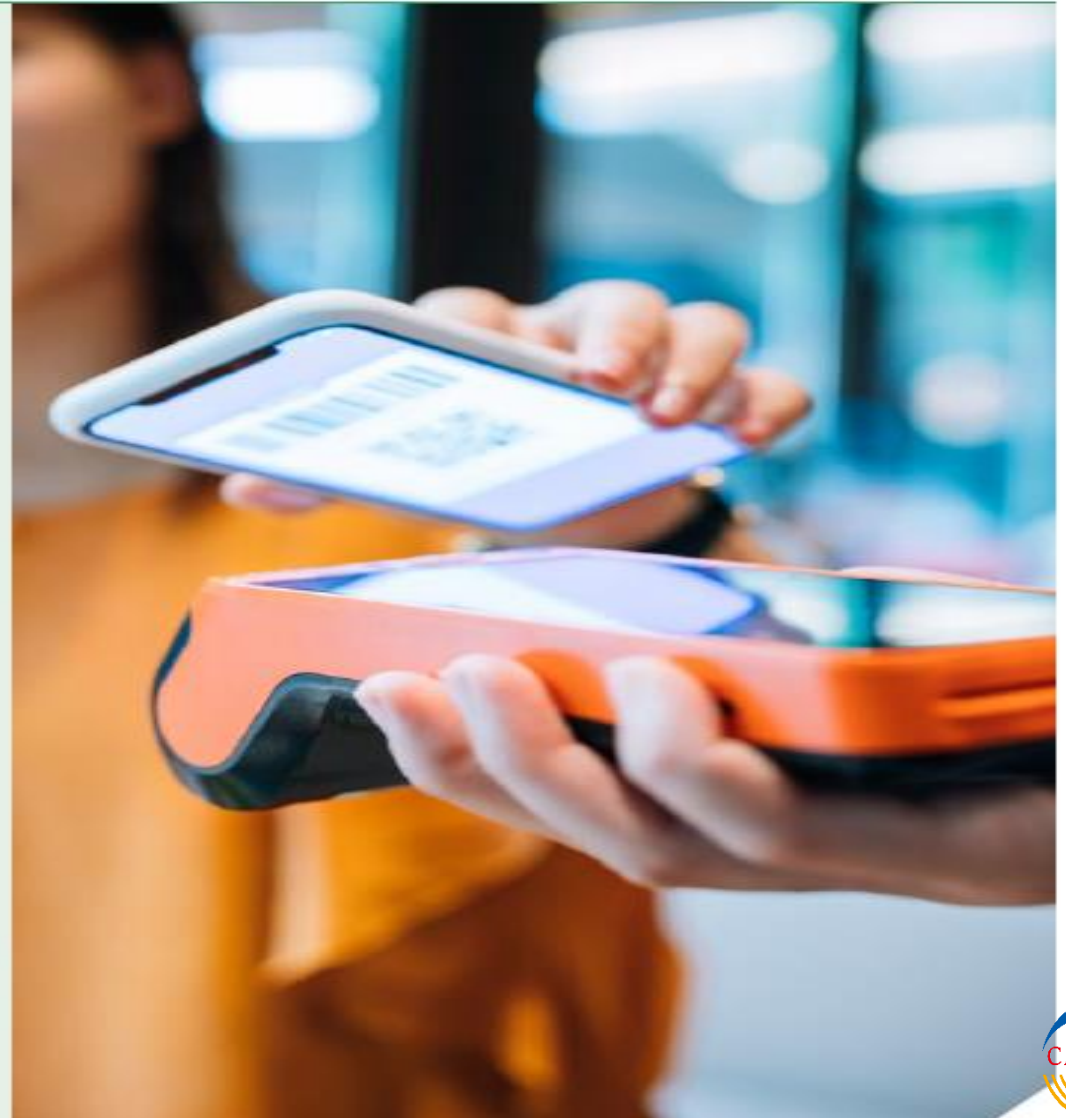
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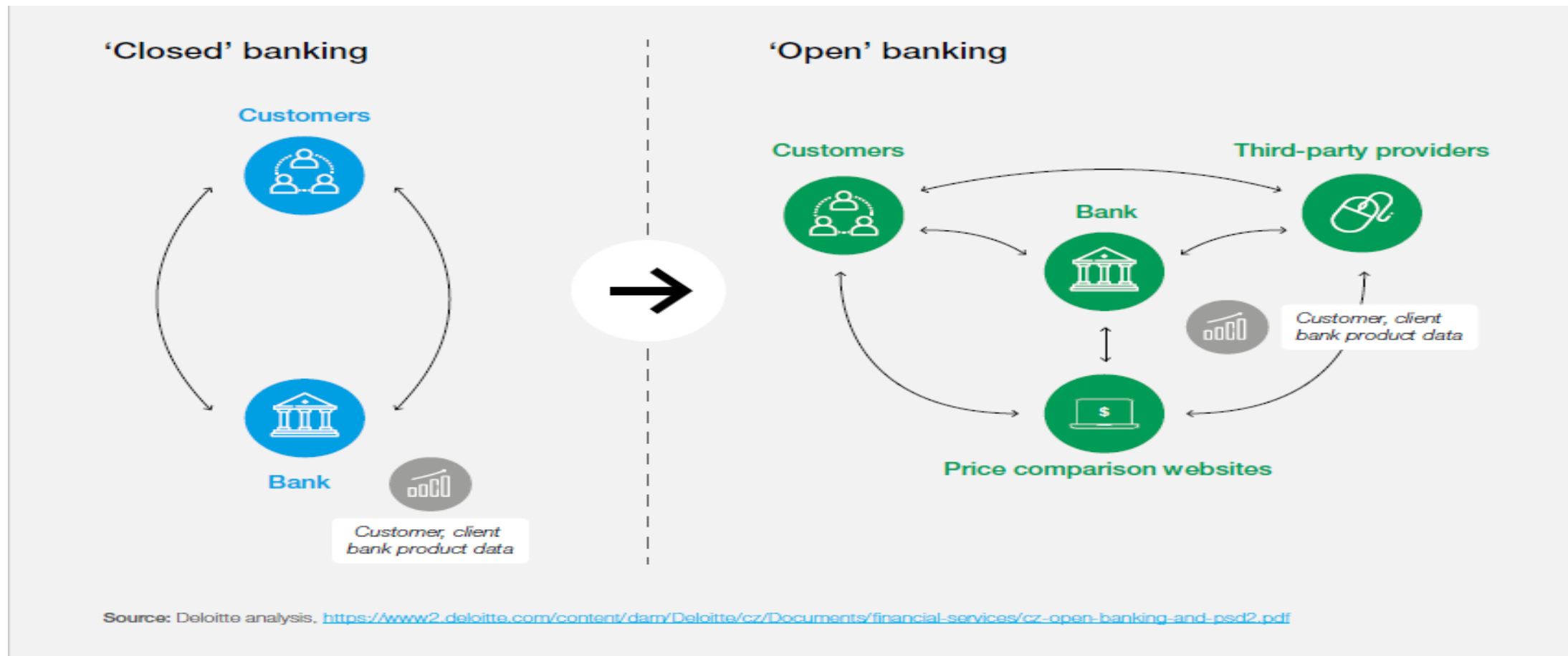
Стандартизация QR-кодов в АСЕАН

QR codes have a strong presence in Association of Southeast Asian Nations (ASEAN) countries. Scan-to-pay transactions within China have grown 15-fold between 2019 and 2022, hitting 9.6 trillion yuan ($1.5 trillion) in the fourth quarter of 2019 alone.[24] Regardless of the current economic downturn, the COVID-19 pandemic has only intensified the QR code market, increasing transaction activity over the first quarter of 2020 by 26% compared to the same period the year prior. As QR codes across ASEAN have become more ubiquitous, the adoption of an interoperability approach is timely.

The ASEAN Bankers Association (ABA) has led an effort to create an interoperable QR code. The main objective is to provide low-cost and convenient cross-border payments across ASEAN to further facilitate retail consumer business transactions through tourism and trade. There is potential to harmonize the use of national QR payment codes through the adoption of standards developed by EMVCo, ISO20022, open loop, and other standards and technologies to enhance interoperability. Thus far, ASEAN countries have adopted a bilateral approach for which national QR payment schemes are "operationally ready" for cross-border payments. These countries include Malaysia, Thailand and Singapore. Other countries will certainly follow. The long-term goal is a hub and spoke approach. This collaboration is part of the ASEAN Payment Connectivity initiative, which promotes financial integration in the region through efficiency, reduced costs and improved user experience for cross-border payments.

In other emerging markets the technology is left open. For example, in Azerbaijan, QR code payment is available via an instant payment system (IPS) and payment channels integrated into the IPS. QR code payments via IPS offer several benefits. In particular, perceived ease of use and high-level security are the two factors that most strongly influence the intention to accept the use of QR code payment services among users.

Для обеспечения технической совместимости

'Closed' banking → 'Open' banking

Source: Deloitte analysis, https://www2.deloitte.com/content/dam/Deloitte/cz/Documents/financial-services/cz-open-banking-and-psd2.pdf

Трансграничные транзакции mBridge

Source: BIS Innovation Hub, *mBridge Cross-Border Transactions*, [Image]. https://www.bis.org/publ/brochure_mbridge.pdf

Всемирный экономический форум, 2023 г.

Shaping the Future of Cross-Border Fast Payment Systems: Revolutionizing Transactions in South-East Asia

BRIEFING PAPER

NOVEMBER 2023

Определение будущего систем трансграничных быстрых платежей: революция транзакций в Юго-Восточной Азии

Аналитический документ, ноябрь, 2023 г.

Рост использования Интернета в странах АСЕАН с 1990 года

Individuals using the Internet (% of population)

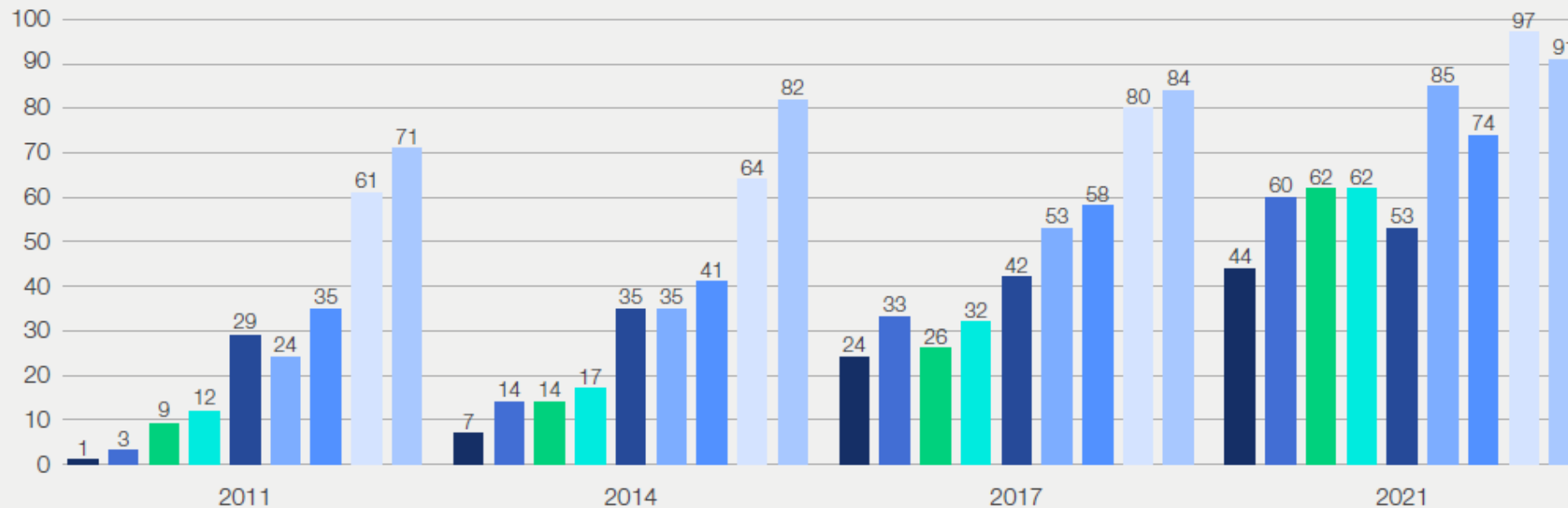**Malaysia, Singapore, Thailand, Viet Nam, Indonesia, Lao PDR, Cambodia, Philippines, Myanmar**

Source: International Telecommunication Union (ITU) World Telecommunication/ICT indicators Database

Владение счетом в финансовом учреждении или у поставщика услуг мобильных денег
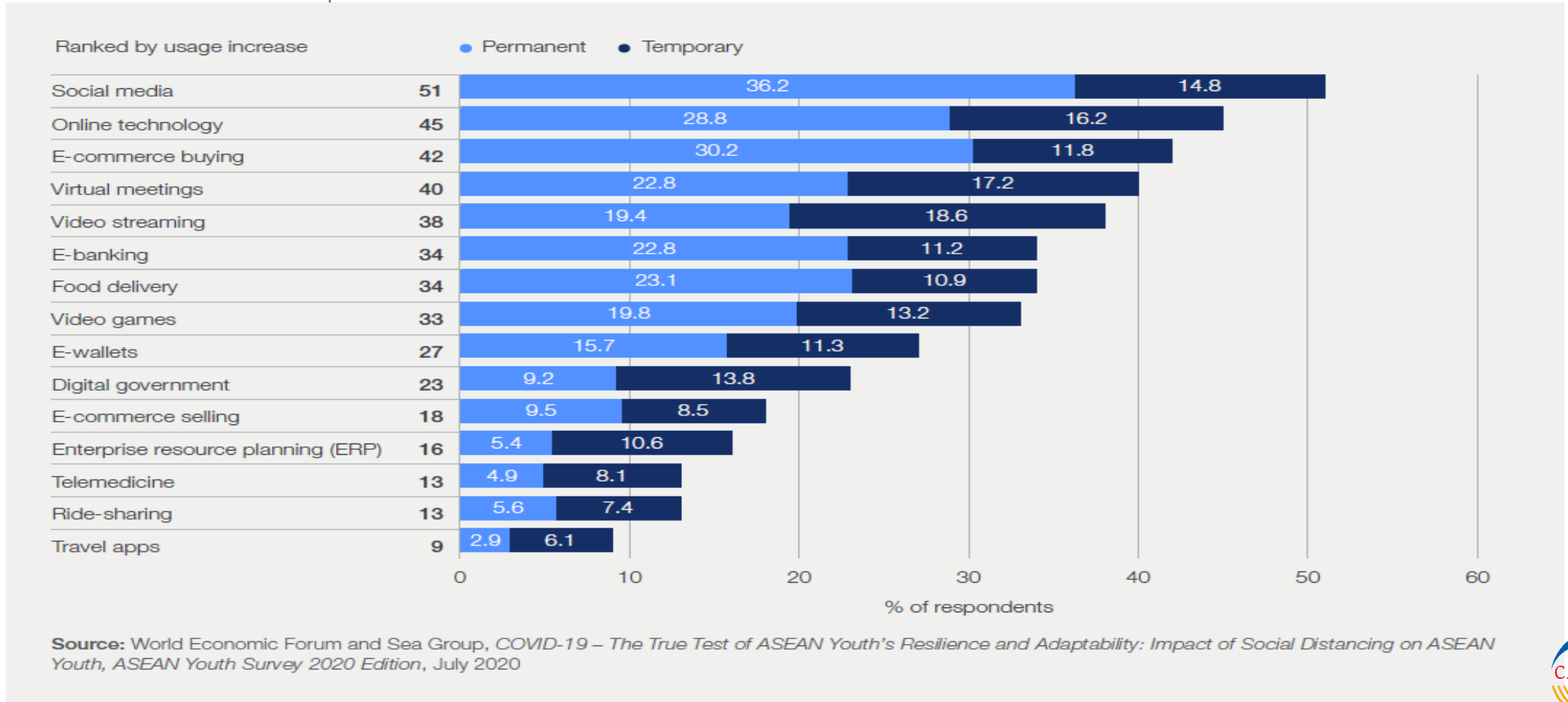

● Myanmar ● Cambodia ● Lao PDR ● Indonesia ● Philippines
● Thailand ● Viet Nam ● Malaysia ● Singapore

Percentage of population aged more than 15 years

Рост использования цифровых инструментов в АСЕАН после пандемии

Ranked by usage increase   ● Permanent   ● Temporary

		Permanent	Temporary
Social media	51	36.2	14.8
Online technology	45	28.8	16.2
E-commerce buying	42	30.2	11.8
Virtual meetings	40	22.8	17.2
Video streaming	38	19.4	18.6
E-banking	34	22.8	11.2
Food delivery	34	23.1	10.9
Video games	33	19.8	13.2
E-wallets	27	15.7	11.3
Digital government	23	9.2	13.8
E-commerce selling	18	9.5	8.5
Enterprise resource planning (ERP)	16	5.4	10.6
Telemedicine	13	4.9	8.1
Ride-sharing	13	5.6	7.4
Travel apps	9	2.9	6.1

% of respondents

Source: World Economic Forum and Sea Group, COVID-19 – The True Test of ASEAN Youth's Resilience and Adaptability: Impact of Social Distancing on ASEAN Youth, ASEAN Youth Survey 2020 Edition, July 2020

Lessons learned from the implementation of the PromptPay–PayNow linkage

The PromptPay–PayNow linkage represents an important milestone, proving the viability of connecting domestic FPS across borders. The project faced complexities, but, through structured collaboration, stakeholders in Thailand and Singapore successfully delivered a world-first linkage that meets customer needs for convenient, accessible and affordable cross-border payments.

The different stakeholders involved in this project provided several lessons learned, which they believe could be valuable to other countries looking to implement similar cross-border linkages between their payment systems. They can be grouped into the following five key overarching categories:

1. Governance: establishing robust governance and project-management structures

The project established clear governance and project-management structures upfront. A steering committee of senior central bank officials provided oversight and direction. Project-management offices in each country facilitated working groups covering business, technical and legal/regulatory issues.[39] Domestic operators, settlement banks and commercial banks from both countries collaborated closely. Strong governance and structured project management enabled alignment across multiple stakeholders.

2. Technical standards: allowing flexibility in technical standards

Allowing flexibility in technical standards ensures adaptability to unforeseen challenges, promotes collaboration and facilitates the integration of evolving technologies to meet dynamic project needs. To streamline cross-border peer-to-peer (P2P) fund transfers, BCS and ITMX (the two countries' systems operators) devised a gateway using ISO 20022 as the message benchmark. The solution facilitates message conversion for cross-border sections while maintaining domestic formats, and addresses the time discrepancy between PromptPay and PayNow. Ensuring flexibility in the implementation of the cross-border linkage was balanced with interoperability needs, which helped to smooth onboarding and minimized disruption across legacy infrastructure.

3. Regulation: bridging operational differences

Different countries have different laws and regulations; such operational differences are common and must be studied and resolved collaboratively. For example, the turnaround times differed between PromptPay and PayNow, which had to be addressed to avoid transaction failures. New, asynchronous messaging flows were implemented. Another example was the disparity in anti-money laundering/combating the financing of terrorism (AML/CFT) screening between the countries: Thailand requires real-time screening to be conducted during the look-up stage, whereas Singapore is open to performing this at the payment stage. Although the domestic systems shared similarities, they had operational differences that needed careful reconciliation, including variations in the message formats and timing. Instead of trying to completely harmonize the approaches, a compromise was reached that considered the differing processes in both countries and respected each country's approach and honoured their respective regulations.

4. Testing: conducting extensive testing and ensuring comparable methodologies

The project allotted significant time for rigorous testing by operators and banks. This revealed unanticipated issues, such as subtly different data-field norms, which caused transactions to fail. While time-consuming, comprehensive testing ensured a smoothly functioning system. As well as providing sufficient testing resources, it was also crucial to ensure from the outset that the testing methodologies used by both parties were comparable.

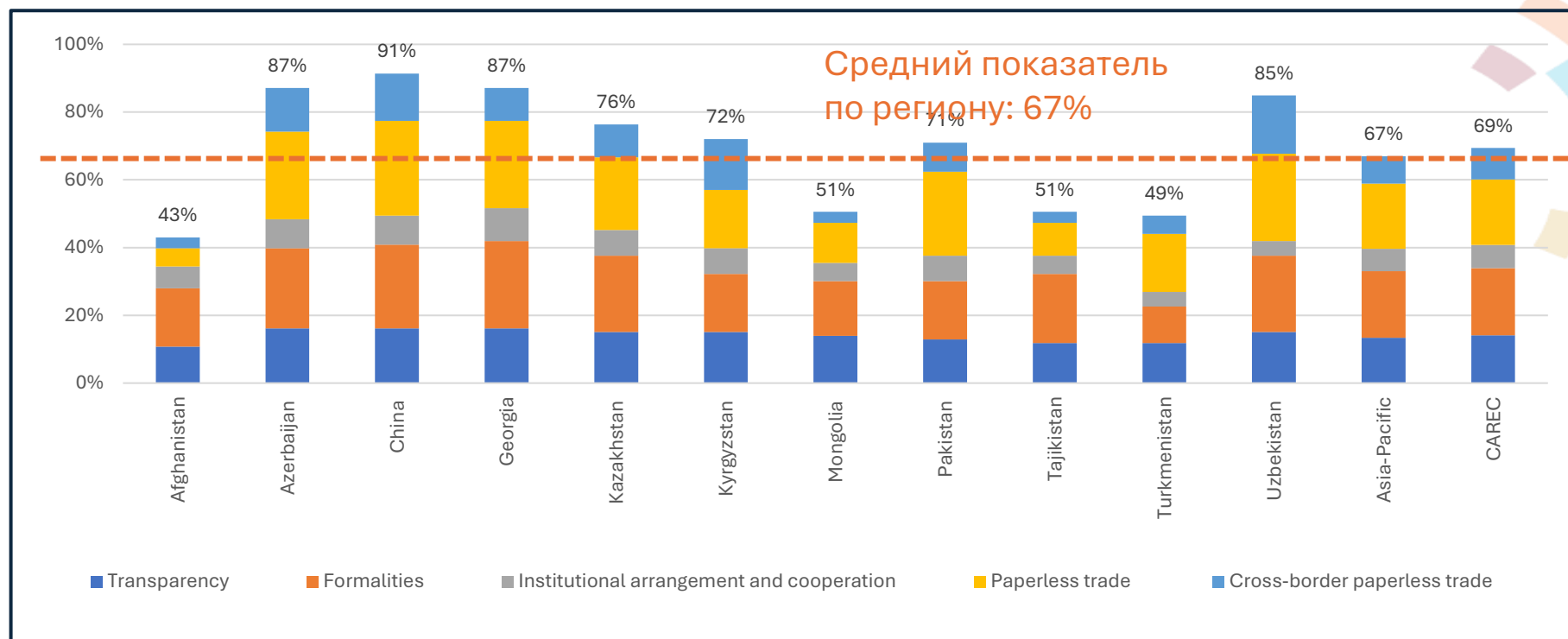## 5. Collaboration: developing legal frameworks collaboratively

Developing mutually acceptable legal agreements between parties in two jurisdictions was complex but essential for risk management and recourse. A novel multiparty structure was devised to handle issues such as governance, liability and dispute resolution. While demanding, this collaborative legal infrastructure provides the bedrock for sustainable operations. The roles of the Bank of Thailand and the Monetary Authority of Singapore were also highlighted as key stakeholders in overseeing the governance of this project. In cases where agreements could not be reached between the participating banks and payment service providers, these issues could be escalated to the central banks for resolution.

Практический пример: связь трансграничных платежей PromptPay – PayNow между Таиландом и Сингапуром

Реализация сильно различается в разных странах ЦАРЭС

» Средний уровень реализации в ЦАРЭС составляет 69%

» Китай, Азербайджан и Грузия лидируют в субрегионе ЦАРЭС

Общая реализация мер по упрощению процедур торговли в странах ЦАРЭС

Средний показатель по региону: 67%

- Transparency
- Formalities
- Institutional arrangement and cooperation
- Paperless trade
- Cross-border paperless trade

Afghanistan 43%, Azerbaijan 87%, China 91%, Georgia 87%, Kazakhstan 76%, Kyrgyzstan 72%, Mongolia 51%, Pakistan 71%, Tajikistan 51%, Turkmenistan 49%, Uzbekistan 85%, Asia-Pacific 67%, CAREC 69%

Источник: Глобальный опрос ООН по упрощению цифровых и устойчивых процедур торговли, 2023 г. www.untfsurvey.org

Реализация улучшена в субрегионе ЦАРЭС

» Средний показатель внедрения в ЦАРЭС: увеличился на 5 процентных пунктов
» Значительный прогресс наблюдался в Узбекистане и Пакистане

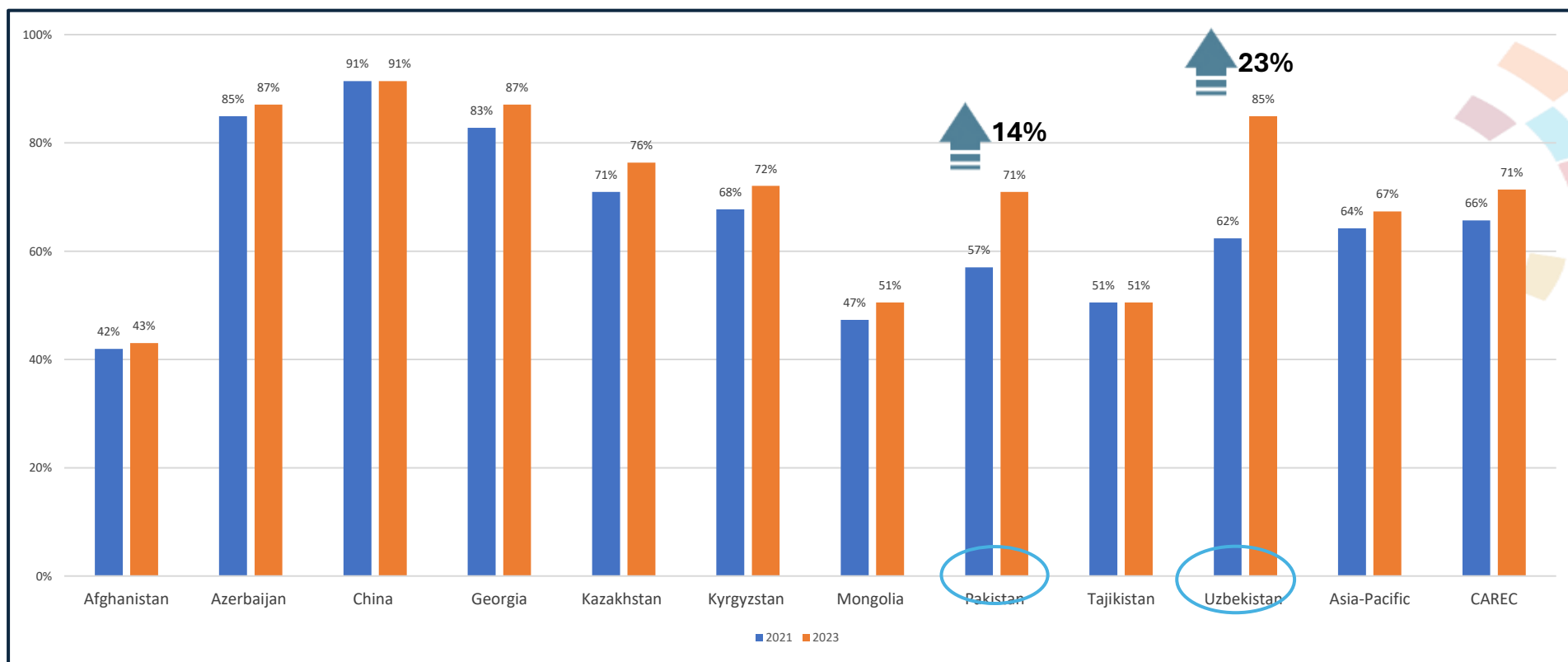**Реализация мер по упрощению процедур торговли странами ЦАРЭС в период с 2021 по 2023 гг.**
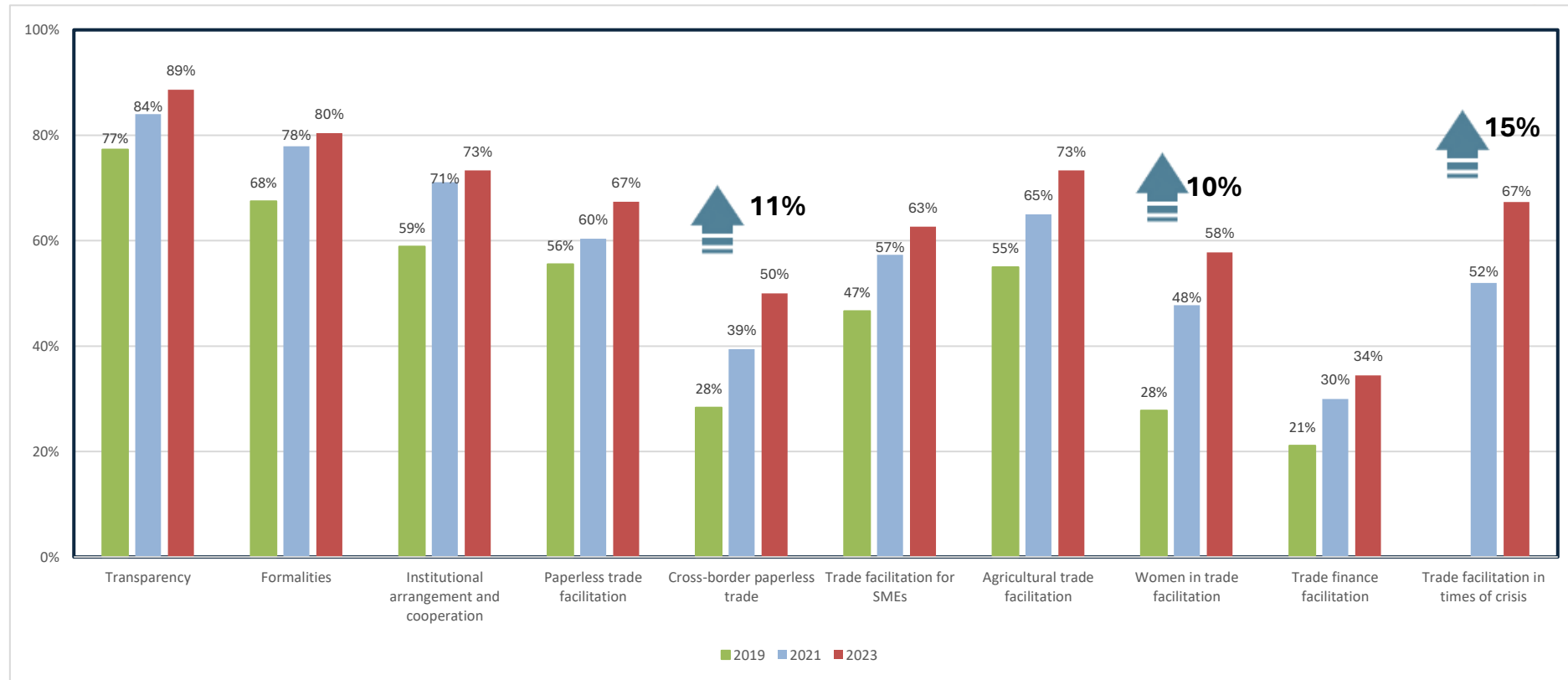

Источник: Глобальный опрос ООН по упрощению цифровых и устойчивых процедур торговли, 2023 г. www.untfsurvey.org

Реализация различается в разных подгруппах

» Меры, связанные с СУПТ ВТО, реализованы хорошо (>70%)

» Реализация мер по трансграничной безбумажной торговле и устойчивому упрощению процедур торговли находится на относительно низком уровне, несмотря на достигнутый прогресс
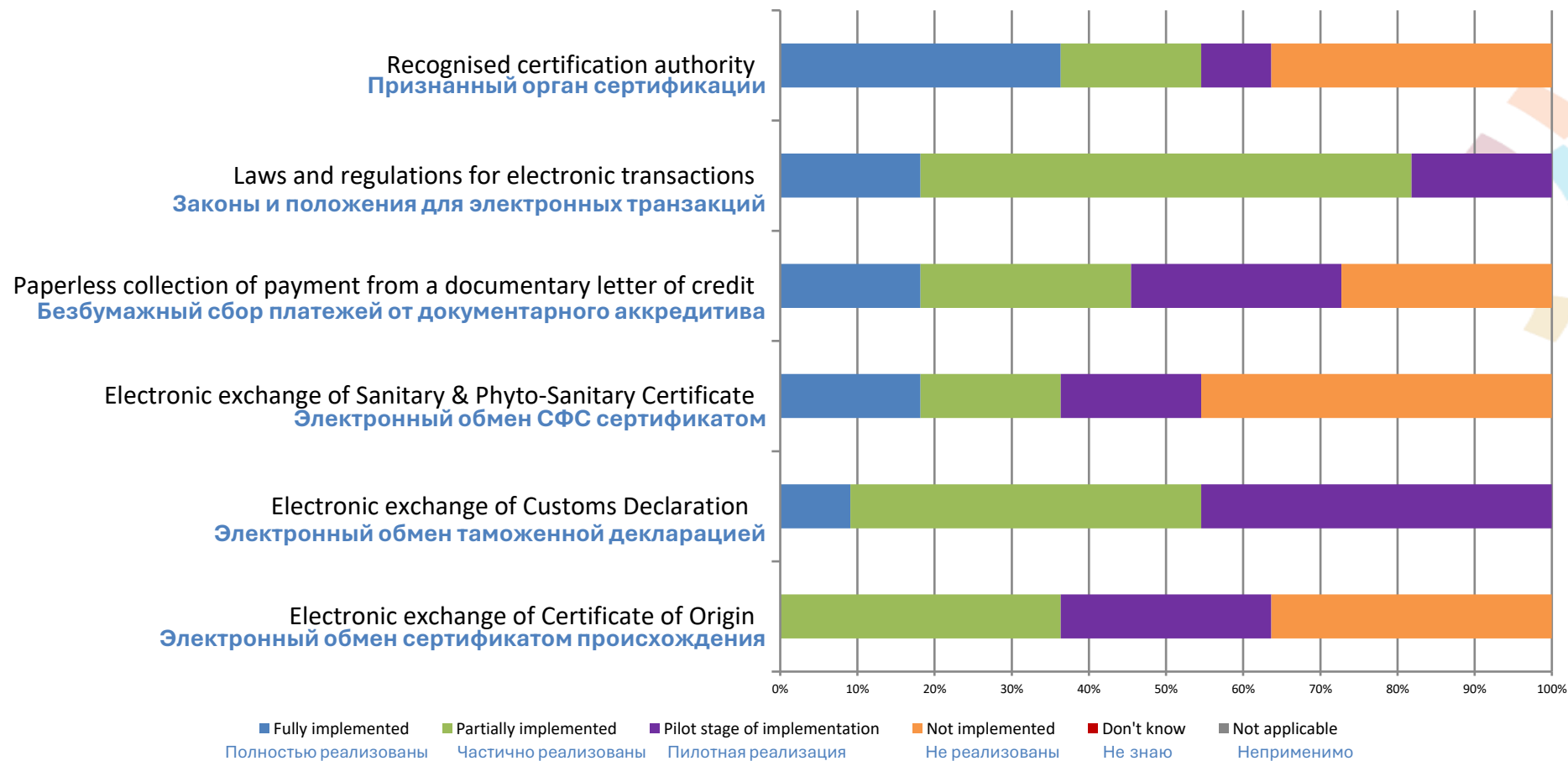
Средний уровень реализации различных подгрупп мер по упрощению процедур торговли странами ЦАРЭС в период с 2019 по 2023 гг.

Источник: Глобальный опрос ООН по упрощению цифровых и устойчивых процедур торговли, 2023 г. www.untfsurvey.org

Реализация мер по трансграничной безбумажной торговле остается низкой

Состояние внедрения «трансграничной безбумажной торговли» в ЦАРЭС

Recognised certification authority
Признанный орган сертификации

Laws and regulations for electronic transactions
Законы и положения для электронных транзакций

Paperless collection of payment from a documentary letter of credit
Безбумажный сбор платежей от документарного аккредитива

Electronic exchange of Sanitary & Phyto-Sanitary Certificate
Электронный обмен СФС сертификатом

Electronic exchange of Customs Declaration
Электронный обмен таможенной декларацией

Electronic exchange of Certificate of Origin
Электронный обмен сертификатом происхождения

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Fully implemented | Partially implemented | Pilot stage of implementation | Not implemented | Don't know | Not applicable

Полностью реализованы | Частично реализованы | Пилотная реализация | Не реализованы | Не знаю | Неприменимо

Источник: Глобальный оопрос ООН по упрощению цифровых и устойчивых процедур торговли, 2023 г. www.untfsurvey.org

Заключение

- Разработать комплексную национальную политику по операционной совместимости.

- Обеспечить основу для внутриведомственного сотрудничества.

- Укрепить сотрудничество государственного и частного секторов.