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Exploring digital trade provisions in Regional Trade Agreements (RTAs) in times of crisis: India and Asia-Pacific countries

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ABSTRACT

The advent of the coronavirus in early 2020 led to the severe shutdown of economic activities across the globe. The virus led to a pandemic affecting the physical facilitation of cross border merchandise trade. International trade is augmented with trade documentation and physical verification. Regional Trade Agreements (RTAs) as WTO plus agreements between countries have provided bilateral trade opportunities for participating countries. Due to the pandemic, several physical processes shifted to digital mode and people were forced to participate, giving a boost to the digital economy across the world. Developing and under-developed countries were left behind due to a lack of clarity on digital trade provisions in the present WTO framework. Though, RTAs provided much scope for interpreting the existing provisions with innovation for the current times. The present study explores the digital trade provisions in the RTAs and how the pandemic will further push inculcating provisions.

1. Introduction

Digital trade or E-commerce is known as the process of transferring products and services in an online mode using technical instruments such as electronic devices and the internet. It includes at least four components, including digital goods and services (video services, software, apps), digital enablers (cybersecurity, payments or insurance products and digital logistics tracking), tangible goods and services, and emerging transformative digital technologies (big data, 3D printing, artificial intelligence (AI), blockchain and internet of things (IoT)). Though digital trade is not new, rapid technological advancements and the current pandemic crisis have propelled it in recent years, as indicated by a growing (Kuhlmann, 2021) number of business sectors converting to e-commerce and greater cross-border e-commerce participation (Cheng, 2020; Elms, 2021). The increasing proliferation of digital goods as well as digitally enabled services is evident in Figs. 1 and 2.

Digital trade encompasses digitally enabled transactions in goods and services which can be either digitally or physically delivered. It is thus not only about more, or new, digitally delivered services, it also includes increased traditional or supply-chain trade/intermediate trade in goods enabled through growing digital connectivity (González and Ferencz, 2018). The Asia-Pacific region is presently the world’s most dynamic digital region, attributed to its thriving internet economy and mobile-first consumer culture. Both exports and imports of ICT goods in the Asia Pacific region has increased by leaps and bounds, particularly in 2020. Other regions such as America, Africa and Europe fare low in ICT goods trade. Intra-regional liberalization of ICT goods trade has also integrated economies in Asia-Pacific, with a growing role of international trade agreements in bringing about this momentum (Anukoonwattaka et al., 2021). However, different nations in the Asia-Pacific have diverse approaches to digital regulation, and the area also has a complicated web of numerous trade agreements with varying scope and ambition, leading to a lack of clarity about the degree of openness in digital trade policy. Governments in Asia were developing and negotiating 'digital only' trade accords by 2020, despite early skepticism, while e-commerce chapters of border free-trade agreements grew in size, depth, and complexity (Elms, 2021). The dividends from the digital age will accrue to countries which have in place the right regulations, impacting their economic and social development (Godoy and Heal, 2016).

As the presence of digital trade grows in the Asia-Pacific region, in digitally tradeable services (Fig. 3), so does the need for legal measures
to support it, and as a result, Regional Trade Agreements (RTAs) are increasingly facilitating digital trade agreements in order to ensure the free flow of digital trade. These agreements have emerged as the major laboratories for new norms and standards in the absence of a broad-based WTO mandate for digital trade (Wu, 2017). Though more recent WTO Trade Facilitation Agreements (TFAs) cover certain provisions of the digital economy and electronic transactions, they do not cover critical facets of digital trade such as data privacy and protection, cross-border data flows, electronic signatures and electronic authentication (Choukroune and Nedumpara, 2021). Therefore, RTAs have served as a means to advance trade rules in this emergent domain. Also, if the WTO is to deliver on governing digital trade, it needs a complete overhaul (Drake-Brockman et al., 2021).

The trade rules required to facilitate digital trade are imperative given the exploratory rise in the cross-border trade of both ICT goods as well as digitally enabled services. It is important here to state that ICT goods correspond to OECD (2011) guidelines, including 94 codes at 6-digit level of HS 2017. Further, digitally enabled services observed are according to the IMF Balance of Payment and International Investment Position Manual, Sixth edition (BPM6, 2009). Services such as Pension services, financial services, charges for the use of intellectual property rights, ICT services (Telecommunications, Computer and Information Services), Other Business Services and audiovisuals & related services are aggregated to reflect trade in digitally enabled services. In Table 1, it is clear that the countries in the Asia-Pacific region are largely involved in exporting digitally enabled services rather than importing the same. However, it was not the case in the year 2005 when the Asia-Pacific countries were importing more than they were exporting to the world. Particularly, the Asia-Pacific countries are involved in cross-border transactions pertaining to the dissemination of Other Business Services. Other Business Services includes research and development services, professional and management consulting services, and Technical, trade-related and other business services. Figs. 4 and 5 presents the major countries exporting and importing digitally enabled services. During 2005–2020, there have been widespread changes in the global economic landscape and this has governed the change in position of countries in the Asia-Pacific as well. In 2005, Japan used to be a lead trader of digitally enabled services followed by India and China. However, in 2020, India has overshot both Japan and China in becoming the leading exporter of digitally enabled services while China and Japan remain the top most importers of digitally enabled services over the course of time. Among the business services, exports of professional and management consulting services were highly exportable digitally enabled services in the Asia-Pacific led by India whereas technical and trade-related services were exported predominantly by Japan. It is this unflinching position of India in being the digital service provider that necessitates the proliferation of RTAs that are conducive for digital trade. Recently, the UK-Singapore Digital Economy Agreement (UKS-DEA) has entered into force, a brief illustration of which is given in Table 3. It is important for agreements like this be signed between Asia-Pacific countries as well.

| Service Type                        | 2005 Export | 2005 Import | 2020 Export | 2020 Import |
|-------------------------------------|-------------|-------------|-------------|-------------|
| Pension Services                    | 4057.77     | 19,078.17   | 88,364      | 75,209      |
| Financial Services                  | 15,896.9    | 11,373.28   | 59,520.18   | 35,315.49   |
| Charges for the use of Intellectual property | 21,828.57   | 34,302.04   | 64,150.88   | 100,662.46  |
| Telecommunications, Computer & Information Services | 31,915.19   | 13,086.81   | 180,047.13  | 91,354.64   |
| Other business services             | 93,263.23   | 104,077.9   | 291,913.53  | 275,718.52  |
| Audiovisuals & related services     | 460.55      | 1562.37     | 2691.35     | 2467.77     |

Source: Author’s own compilation from UNCTAD Stat Database, 2005 and 2020.
2. Literature review

The importance of digital commerce has grown dramatically, both in terms of its contribution to many countries’ economic growth and in expanding number of government-drafted digital trade-related laws. The adoption of applicable legislation is not mandatory for the digital economy to be operationalized, but it is crucial for its long-term growth. A conducive legal framework is critical for establishing confidence and safeguarding transactions online between businesses, governments, and citizens. Though there is no optimal regulatory structure available for the digital economy, studies show that having relevant regulations in specific domain is critical for enhancing confidence of consumers in e-commerce activities. An analysis of the trade reaction to the Covid-19 pandemic by Epps et al. (2020) revealed that better methods and possibilities for coordinating government responses during times of crisis are essential. The study established a practical framework for ensuring that during a crisis, the common advantages of trade agreements are not jeopardized and that trade may aid recovery efforts. Gao (2018) critically examined the divergent approaches of the US and China on digital trade. The analysis revealed that the United States (US) method focuses largely on the “digital” element of digital trade, whereas China chooses to approach the problem from a conventional ‘trade’ standpoint. The major economies such as China and India currently do not have a comprehensive data privacy law. Existing laws, national standards, and government recommendations provide certain data protection, however, there is a need for effective and efficient digital trade legislation to further boost the growth of these economies.

According to Manyika et al. (2016) econometric analysis, data, global trade flows and foreign direct investment significantly improved current level of global GDP by around 10% relative to without any trade flow. Furthermore, in the contemporary digital world, corporations and governments cannot afford to neglect prospects beyond their own borders. González and Jouanjean (2017) examined the definition, measurement, and policy consequences of digital trade, providing a provisional paradigm that can be used to dissect activities and evaluate difficulties. Mitchell and Mishra (2017) explained the General Agreement on Trade in Services (GATS) limitations in liberalizing the digital sector, abolishing the latest obstacles to digital trade including data localization, and addressing ‘new’ regulatory concerns like cross-border data flow, data protection, online consumer protection and cyber security. According to the author, the growing number of PTAs is leading to a potential conflict between PTA and GATS laws and in the long run, this might divide and undermine the multilateral framework for digital trade. As a result, the authors believe that WTO rules should play a key role in promoting a stable and secure set of regulations for cross-border digital trade while counteracting the present wave of digital protectionism. Luke (2019) and Banga et al. (2021) examined the AFCFTA Agreement and explained its potential benefits, which will further boost the confidence, predictability, and the rule of law in trade on the African continent. Burri and Polanco (2020) created a Trade Agreements Provisions on Electronic-Commerce and Data (TAPEd) dataset that included all PTAs and observed that the rapidly emerging framework of digital trade governance is heterogeneous, sparse, and complicated. The author suggested that with the growing importance of the data-driven economy, an appropriate legal design becomes critical to move forward on the path of the digital economy. Elms (2021) examined a range of digital trade issues that would affect Asia’s trade agenda in 2021 and beyond. One of the most important aspects of trade policy, according to the author, will be comprehensive regulatory and policy administration to encourage digital trade. Chander et al. (2021) examined cost-of-compliance surveys and summarizes national enforcement budgets. Results demonstrated that privacy would be costlier for businesses to adopt, however, not prohibitively expensive for authorities to implement.

According to Benz and Rozensteine (2021), RTAs are responsible for building mechanisms to not only strengthen current international transparency obligations but also to extend to new sectors that were not previously covered by World Trade Organization (WTO) provisions. Digital commerce provisions may be traced all the way back to the year 2000, when paperless trading was introduced, ever since, trade agreements have included e-commerce chapters, as observed by Weber (2015). According to Duval and Mengjing (2017) research, over half of the global trade pacts came into effect since 2005 (90 out of 138) and incorporate provisions or measures pertinent to digital trade. Between 2001 and 2016, Wu (2017) found that 69 RTAs have a separate article(s) or chapter of e-commerce. However, without-e-commerce chapter 21 RTAs contains provisions only, concerning digital rights management, paperless trading and general promotion. There are mainly three types of digital commitments- first market access (MA) encompassing a broad range of concerns related to valuation, customs duties, national persons mobility (as service providers), and data accessibility. The Second concerns with Rules and Regulations (R&R) covering a variety of challenges such as personal data protection, intellectual property rights (IPRs), and consumer protection and the third deals with Facilitation (F) including paperless trade, e-signatures and digital authentication (Wu, 2017). The current body of literature on digital trade, as is apparent in the discussion, touches upon one or more elements of digital trade. In many studies, regulations pertaining to data is focussed upon in entertaining the vast and comprehensive topic of digital trade. Further, it is also found that certain digital trade regulations overlap inconsistencies in the GATS agreement. Furthermore, ample studies point toward
regulatory heterogeneity in digital trade among countries revealing the intricate and complicated web of digital trade regulations (Gao, 2018; González and Jouanjean, 2017; Burri and Polanco, 2020). Notwithstanding the distinct economies of US and China, the question remains whether countries similar in various ways behave the same in digital trade regulations. The present paper captures several Asia-Pacific countries pacing the digital trade environment with similar types of trade barriers. In an important way, the present study explores digital trade provisions in a shrewd manner by not only dwelling on regulations relating to e-commerce but also ponders upon other relevant barriers. In the best of our findings, digital trade in Asia-Pacific economies is a less beaten path. The crisis has exposed vulnerabilities at the same moment highlighted potential for digital trade to bounce back the countries on the path of recovery.

3. Trade restrictions in digitally enabled services in selected Asia-Pacific countries

For long, trade and investment has been regarded as the cornerstones of foreign policy. Much of the miraculous turnaround in East Asian countries like Japan and China has been attributed to their policies and reforms surrounding trade and investment. It has emerged true in the case of other developing and emerging countries such as India and Bangladesh. The thrust of the policymakers is now shifted to the proliferation of global value chains, taking cognizance of the quantum jump in intermediate trade rather than final goods trade. The coronavirus pandemic upended the global economy on the one hand while on the other upscaled efforts by national governments to catch up to the imminent industrial revolution 4.0. The industrial revolution 4.0 is believed to be fumed by disruptive technologies and digital revolution precedes the industrial revolution 4.0. The fourth industrial revolution is characterized by an amalgam of technologies that is clearing the lines between physical, digital and biological spheres (Rose, 2016). The pandemic induced lockdown and halt in economic activities led the countries to tether to the digital bandwagon. In that, rules surrounding trade procedures and documentation witnessed an abrupt shift to electronic mode. Electronic certificate of origin, and single window clearance are two developments in this direction. Though the pandemic witnessed a clampdown by countries on several trade barriers in the example of critical goods such as pharmaceuticals, PPE, equipments, and food products, this did not translate equally for other merchandise items or services trade, for instance. Over the course of time, merchandise trade has picked up exponentially in the Asia-Pacific region, while trade in invisibles is giving signs of improvement, though comparatively lower. In the Asia-Pacific region, trade in services is steadily sprawling its tentacles, the highly prominent tradable services, among which is presented in Fig. 6.

Fig. 6 is indicative of the increase/decrease in trade in services between 2008 and 2020 in the Asia Pacific. The increase in trade in services is shown along the vertical axis while as one moves to the right along the X-axis, the decrease in services trade is ostensibly clear. From there, it is clear that trade in services has seen a significant jump in commercial services and other business services while trade in Information and Communication services has only registered a marginal rise vis-à-vis commercial services and business services. Transport services remain on the decreasing spectrum of the services trade. A major contributing factor inhibiting the growth of information and communication technology services is the prohibitions of various forms put in place by countries on trade pertaining to these services. Information and Communication technology services are the backbone of the digital economy and provide the necessary network infrastructure and underpinning the digitization of other types of services (Ferencz and González, 2019). Several impediments to trade in computer services and information technology related services have hampered the Asia-Pacific region to amplify trade in digitally enabled services. Fig. 7 is related to the various bottlenecks imposed by the countries of the Asia-Pacific region in the way of seamless trade of digitally enabled services. The analysis is based on the Digital Services Trade Restrictiveness Index (DSTRI) formulated by OECD. Four indicators are condensed into a single DSTRI index value ranging between 0 and 1. A value closer to 1 signifies totally restricted digital services trade while a value nearing 0 indicates freer digital services trade. Information from public sources on trade regulations feed into developing the index. The key steps in the construction of the index are scoring, weighting and aggregation. The qualitative information in the form of trade regulations is first given a quantitative transformation for the ease of calculation of the composite index. A score of 0 or 1 is assigned depending on the binary alternative tied to the regulation. In the case of a measure leading to the restriction of digital services trade, the score assigned is 1 whereas if the measure enables digital services trade, the score assigned is 0. The weights are assigned for the four policy areas on the basis of a survey of experts. The four indicators making up the composite digital services trade restrictiveness index are listed and explained briefly as follows:

(i) Infrastructure

The infrastructure pertaining to communication services are dealt in this policy area constituting the digital services trade restrictiveness index. The advent of new kind of communication services have fostered the digital trade climate. By giving due recognition to the connectivity related infrastructure in communication services, the DSTRI index encompasses a critical aspect of digital trade. As would be known later, infrastructure related barriers emerge as the strongest in hindering digital trade. This policy area maps the level of the countries in following best practices in interconnections of network services across various operators. Data localization and measures on cross-border data flows are also deeply covered in this policy area. Countries mandates on the storing of data locally, restrictions on the use of communication services also feature in this policy area.

(ii) Electronic Transactions

The policy area of electronic transactions is an important one as in that all the procedural restrictions relating to e-commerce activities are included. Emphasis is being paid to whether the national rules governing cross-border transactions are in tandem with the international rules. Further, national laws must not be in any form discriminatory for foreign businesses to engage in e-commerce and this relates to providing or issuing of licenses. It also gives due importance to whether or not digital signature is equivalent to in-person signature and gives the equal legal approval for the cross-border transactions.

![Fig. 6. Services Trade by type in Asia Pacific, 2008 and 2020. Source: Author’s own compilation.](image-url)
(iii) Payment System

All the regulations restricting in any form the usage of internet banking and/or any deviation in national laws from those set internationally are covered in the Payment system policy area of the digital services trade restrictiveness index. Discrimination in the form of access/usage of a given form of e-payment is also reflected in this policy area. Insurance related restrictions also feature prominently in this policy area.

(iv) Other Barriers

Several other regulations than the earlier discussed ones inhibit digital trade in services. For instance, countries resorting to blocking streaming of certain countries digital services affects digital trade. Rules related to downloading/streaming, online advertising, obligation to transfer technology, etc. largely dictate digital trade and these barriers are duly covered in Other Barriers. Moreover, some regulations demand a commercial or local presence of the foreign business in the country in order to qualify for seamless digital trade and digitally enabled services trade. Lack of proper competitive laws are also reported in this policy area.

It is evident from Fig. 7 that barriers related to infrastructure appear overwhelming in restricting digitally enabled services trade. In almost all of the Asia-Pacific countries considered here, infrastructure bottlenecks have assumed the most space vis-a-vis other restrictive measures. In Southeast Asia, infrastructure ostensibly restrict digital services trade extensively, particularly visible in Thailand. In South Asia, India also witnesses a host of infrastructure related barriers which puts a constraint on the seamless flow of digitally enabled services trade. Apart from infrastructure, electronic transactions also emerge quite significantly in restricting services trade. The role of cybersecurity and data privacy is indispensable in creating a favorable ecosystem for trade in services. Table 2 further presents a synthesis of the barriers imposed by Asia-Pacific countries in the form of laws/regulations pertaining to trading of digital goods and digitally enabled services.

Information and Communication technology services or computer services play an increasingly important role in shaping the economic landscape today. A promising ICT and R&D environment in an economy dictates sustainable economic growth (Nair et al., 2020). The industrial revolution 4.0 hinges on digital revolution and the seamless movement of digitally enabled services will yield benefits to the manufacturing sector. However, countries have not been able to unspool the services sector from tangible and intangible barriers. Fig. 8 presents the scenario of restrictions rampant in the computer services trade of major Asia-Pacific countries. The services restrictiveness index is derived from five policy areas which are explained briefly as follows:

(i) Restrictions on Foreign Ownership

This policy area relates to the extent of foreign equity participation allowed in a particular sector. A 100% foreign equity would mean no restrictions. The type of foreign liaison with the business can also emerge as a restriction. For instance, if only a Joint venture kind of foreign ownership is allowed, it can emerge as a restriction. Other areas covered are limited or controlling download/streaming of cross-border transactions, restrictions on cross-border mergers & acquisitions, and rules regarding the nationality of the board of directors, etc.

(ii) Restrictions to movement of people

The rules restricting the movement of service personnel in cross-border digital trade hampers the trading environment to a larger extent. Measures pertaining to and limiting the duration of stay of the contractual service providers as well as independent service provider are taken up in this policy area. Other kind of limiting conditions is undergoing labor market tests and quotas.

(iii) Regulatory Transparency

This policy area includes the transparency and conditions related to the establishing of a new foreign owned business catering to dissemination of digitally enabled services. For instance, transparency in publishing the new regulations related to digital services trade fall under the purview of this policy area. The costs involved and time taken in registering new company are also included in regulatory transparency.

(iv) Barriers to Competition

Rules catering to the requirement of minimum capital, state-owned
Table 2
Barriers to Digital Trade in Selected Asia-Pacific countries.

| Country | Data Localization | Technology | Internet Services |
|---------|-------------------|------------|------------------|
| India   | 1 Cloud computing empanelment process (2015) | 1 Requirement of Government approval from TRAI for the use of more than 40-bit encryption | 1 2011 Information Technology rules incapable to protect intermediaries from liability for third-party user content |
|         | 2 National Telecom M2M (machine to machine) Roadmap, 2015 | | 2 Equalization levy is an additional cost for foreign advertising companies |
|         | 3 The 2012 National Data Sharing & Accessibility Policy | | 3 Limits to FDI in Business to Consumer (B2C) e-commerce transactions |
| China   | Cloud computing restrictions | Internet Services | Cyber security law and e-payment |
|         | 1 Prohibition of telecom operators to offer virtual private network (VPNs) to consumers | 1 Significant blocking of news, telecommunications | 1 New cybersecurity law, 2016 constrains access to markets for various digitally enabled services, such as cloud computing |
|         | | 2 And other websites | 2 Limited issuance of license to non-bank foreign suppliers of services. |
| Korea   | Data Localization | Facilities Localization | E-payments |
|         | 1 2011 Personal Information Protection Act | 1 Data Protection Standards for Cloud Computing services | 1 Restrictions on storage of credit card numbers by non-korean businesses operating in Korea |
|         | 2 Penalties and fines levied on breaching of data protection standards, IT Network use and Protection Act | 2 Constricting payment gateway services | |
| Indonesia | Data Localization | Internet Services | |
|         | 1 Mandatory creation of local data centers and disaster recovery centres (Article 17, government regulation 82/2012) | 1 Electronic Commerce roadmap inhibit foreign services providers in Indonesia due to compliance costs in areas such as establishing presence locally, local IP numbers, local data storage and a national payment gateway | |
| Israel  | E-commerce | Internet Services | |
|         | 1 Digital signature law inhibits e-commerce transactions and businesses | Facilities Localization | 
|         | | 1 Data Protection Standards for Cloud Computing services | |
|         | | 2 Constricting payment gateway services | |
| Thailand | Cybersecurity | Internet Services | |
|         | 1 National Cyber-security bill | Technology | |
|         | | 1 Computer Crime Act, 2007 | |
| Turkey  | Data Localization | Internet Services | |
|         | 1 Law on the protection of personal data, 2016 | | |
|         | 2 Article 23, Law on payments and security settlement systems, payment services and electronic money institutions | 1 Penalties and fines in relation to non-compliance with disclosing encryption codes with the state authorities | |
|         | | | 1 Rampant blocking of business websites and social media platform on the pretext of compromised intellectual property rights |

Source: Author’s own compilation.

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and rest of the world called for lockdown and travel restrictions. Global economic activity came to an abrupt halt as a result of travel bans and domestic lockdowns on an unprecedented scale. As a result, the global financial markets and trade have been rocked by the pandemic’s impact and exporting goods and services have been come to a halt. To counter this India’s Department of Commerce (DoC) promptly implement systems to enable faceless, contactless, and paperless processes for speedier customs clearance. In addition to this DoC “provide relief to the exporters during the period of COVID-19 outbreak, the validity of Advance Authorizations has been extended by 6 months and Export Obligation Period has been extended by 6 months. Foreign Trade Policy had also been extended up to 31st March 2021” (Annual report 2020–21). On November 12, 2020, 17th ASEAN-India summit was held virtually. In which leaders discussed about the post pandemic economic recovery and adoption of ASEAN-India plan of action (2021–2025).
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Electronic Commerce et cetera incorporated e-payment provisions. However, in comparison to its potential, the number of agreements with e-payment provisions is low, and the terms of each agreement also differ.

Electronic Authentication: The term “electronic authentication” is defined differently in different agreements. Some RTAs have agreed on definitions, while others have given parties the freedom to define electronic authentication in their own terminology. Furthermore, some accords have taken a negative stance, while others have taken a favourable stance on Electronic Authentication of Transactions.

Electronic Signatures: RTAs vary on the provision of electronic signature. RTAs also encourage parties to achieve electronic signature uniformity and common standards internationally accepted norms. The interoperability and mutual recognition of digital signatures will be principally governed by the State’s domestic law based on the non-binding nature of these duties.

Customer Protection: It is a prerequisite to increase consumer confidence in e-commerce. Therefore, RTAs (CPTPP, RCEP, DEPA, etc.,) have integrated the provision about “fraudulent and misleading commercial operations that cause harm to consumers engaging digital trade activities”. However, given the lack of a cross-border restitution mechanism for customer complaints, there is a significant discrepancy in consumer protection laws among RTAs.

Cross-Border Data Flows and Data Localization: Varied RTAs have different standards of security and limitations of cross-border data transmission. The important trading economies (the United States, the European Union, China, and India) are currently governing cross-border data flows in different ways. Their differing approaches to privacy and data governance are the primary reason for this. As indicated by US trade agreements, the United States has imposed few limits on cross-border data flows (Leblong, 2020), whereas, India is taking stringent steps on data localisation

Paperless Trade: It provides considerable economic and trade benefits in the form of lower compliance costs and inventory costs, and indirect savings on the faster flow of products with enhanced port efficiency and relieved congestion and related concerns by cutting clearance time. It also expands SMEs options to engage in cross-border trading, ensures the prompt shipping documentation availability, and reduces data re-keying inaccuracies. Therefore, the provisions pertaining to paperless trade were inserted into the major RTAs such as AANZFTA, CPTPP, DEPA, UK-SDEA, IA-CPA and Korea FTAs etc.

Data Protection and Privacy: RTAs entail contractual responsibilities, enforced through general regulation, sectoral rules, or enforcement of contractual duties. By addressing the complex procedures of data protection, RTAs also allowed additional compliance duration or made the duty optional for members of RTAs. However, RTAs approach vis-à-vis data protection and privacy differs considerably.

The digital trade policy agenda covers a wide range of topics. Some of these concerns are likely to be addressed at the national level by governments in the region. Others will necessitate or entail some form of coordination and collaboration. Fortunately, the Asia-Pacific countries have a variety of options for discussing digital trade and establishing regulations governing crucial areas of the digital economy.

6. Conclusion

With the advent of Covid-19, weaknesses in the trading system and among stakeholders have been revealed. However, ongoing crisis should be viewed as an opportunity to bolster existing reform calls and shift attention to long-term economic and social growth. Given the increasing numbers of RTAs and the growing difficulties in establishing global consensus, RTAs are expected to be the ideal mechanism for broad-based reform in digital trade domain. However, for hassle-free trade, a comprehensive and distinct governance system for digital trade is vital. RTAs are increasingly centered around digital trade, in the wake of the Covid-19 catastrophe. Dismantling the barriers around digital trade in services must appear at the center stage of the policy making.
### Table 4
Digital Trade Provisions in RTAs.

| RTA                                | Participating Countries                                                                 | Provisions                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ASEAN-Australia-New Zealand Free   | ASEAN countries, Australia, and New Zealand                                              | The agreement includes the provisions related to cooperation, electronic authentication, paperless trading, online consumer protection, electronic signatures, personal information security, dispute resolution, national regulatory environment.                                                                                                                                                                                                                                                                                                       |
| Trade Area (AANZFTA)               |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ASEAN Agreement on Electronic      | Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand,  | This agreement comprises six additional elements in addition to the AANZFTA provisions stated above. These are cyber-security, electronic payment information flow across borders, computer facility placement and logistics.                                                                                                                                                                                                                                                                                                           |
| Commerce                           | Vietnam                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Comprehensive and Progressive      | Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore,  | The agreement’s chapter 14 is dedicated to digital trade, which defines keywords including computing facilities, covered person, digital product, electronic authentication, unsolicited commercial electronic message, electronic transmission, trade administration documents, personal information as well as the scope and general provisions. The chapter also highlights the regulatory provisions of Paperless Trading, custom duties, Electronic Authentication, Domestic Electronic Transactions Framework, Electronic Signatures, Personal Information Protection, Online Consumer Protection, Principles of Internet accessibility and usage for e-Commerce, Information flow across borders via electronic means, Non-Discriminatory procedure of digital products, Computing Facilities positioning, Internet Interconnection Charge Sharing, Unsolicited Commercial Electronic Messages, dispute resolution, Source Code and Cybersecurity. |
| Agreement for Trans-Pacific         | Vietnam                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Partnership (CPTPP)                |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Regional Comprehensive Economic    | Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand,  | The agreement’s chapter 12 deals with electronic commerce, encompassing all the provisions mentioned in chapter 14 of CPTPP. However, both chapters vary in some contexts relating to the location of computer facilities, source code, dispute resolution and electronic cross-border information transfer. When compared to the CPTPP’s requirements, the RCEP’s provisions on digital commerce are less stringent and comprehensive as it allows the Parties to determine on the necessity of implementing reasonable public policy in the respective trade agreement. Moreover, the provision does not exclude a party from taking ‘whatever step it deems necessary to preserve its fundamental security interests, without conflicting other Parties.’                                                                                                                                                                                                                                                                 |
| Partnership (RCEP)                 | Vietnam                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Comprehensive Economic             | India and Singapore                                                                       | E-commerce is defined in Chapter 10 of the agreement, which includes definitions of carrier medium, digital products, electronic methods, electronic transmission, and person. The chapter further explains the provisions of electronic services provided and custom duty on digital products.                                                                                                                                                                                                                                                                                                                                                           |
| Cooperation Agreement (CECA)       |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Digital Economy Partnership        | Singapore, Chile and New Zealand                                                          | The agreement facilitates end-to-end digital trade with e-invoicing, paperless trade, digital identities, Fin-tech and E-payments. It enables trusted data flows with personal data protection, open government data, data flows at cross-border, data innovation, and regulatory sandboxes. In addition to it, with Artificial Intelligence, it increases trust in digital systems and expands possibilities for involvement in the digital economy, Online Consumer protection, SMEs Cooperation and Digital Inclusivity.                                                                                                                                                                                                                       |
| Agreement (DEPA)                   |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Singapore-Australia Digital Economy| Australia and Singapore                                                                  | The agreement is an upgraded form of Singapore-Australia free trade agreement. The DEA with 7 underlying MOUs ensures improved protections for source code, avoid putting additional constraints on data transport and storage, cooperation in developing a safe online environment, increased business and consumer trust in digital trade, enhanced transparency, with additional guarantees on e-invoicing and e-payment mechanisms, as well as easier access to publicly available, anonymized government data                                                                                                                                                                                                                      |
| Agreement (SADEA)                  |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| United Kingdom-Singapore Digital   | United Kingdom and Singapore                                                               | The agreement encompasses a wide range of elements related to digital trade including E-payments, paperless trading, open government information, Cryptography, Source Code, SME Collaboration, Online Consumer Protection, Cross-Border Data Flows, Submarine cables, Prohibiting Data localization and Digital Inclusion. The elements covered under this agreement are same as UKSDEA.                                                                                                                                                                                                                       |
| Economy Agreement (UKSDEA)         |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Korea-Singapore Digital Partnership| Korea-Singapore                                                                           | The agreement defines relevant terms and includes the provisions related to Monetary and Exchange Rate Policy Exception, as well as Prudential Exception, Taxation, Customs Duties, Electronic Authentication Non-Discriminatory Treatment of Digital Products, Electronic Signatures, Cross-Border Transfer of Information by Electronic Means, Location of Computing Facilities, Financial Service Computing Facilities for Covered Financial Service Suppliers location, Interactive Computer Services, Domestic Electronic Transactions Framework, Online Consumer Protection, Unsolicited Commercial Electronic Messages, Source Code, Cybersecurity, Personal Information Protection, accessible Government Data and Cryptography-enabled information and communication technology products. |
| Agreement (KSDPA)                  |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Digital trade agreement of US and   | United States and Japan                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Japan                              |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

(continued on next page)
promising and shows convincing outcomes in terms of its involvement in the region faces disparities in the intensity of these barriers to trade in the pandemic by expediting digital revolution. India’s economies to negotiate RTAs taking into concern the digitally-enabled services sector is enormous, yet the economies of Asia-Pacific have promising prospects, if any RTAs could lessen these barriers. It is important for the Asia-Pacific economies to negotiate RTAs taking into concern the digitally-enabled services, so as to leverage on the opportunity provided by the pandemic by expediting digital revolution. India’s services sector is promising and shows convincing outcomes in terms of its involvement in the manufacturing sector’s penetration into the global value chains. Given this trajectory, it is all the more crucial for Asia-Pacific countries like India to amplify negotiations pertaining to digitally enabled services in the RTAs. Same goes with other emerging countries of the region. To better connect the region, reforms in digital trade is vital.

### 7. Policy implications for Asia-Pacific countries

E-commerce and digital trade have risen to prominence as important economic drivers. To keep up the momentum of digital trade, countries’ regulatory frameworks should be constructed in such a way that e-commerce growth is encouraged with effective and efficient regulatory oversight. The implications of contradictory policy frameworks in Asia-Pacific cannot be underestimated. Different policies in Asia-Pacific countries could lead to conflict and stifle the fastest-growing region’s economy. Therefore, a conducive and collaborative policy framework, complementing the regulatory framework of all jurisdictions must be developed. The digital economy is progressively integrating tax and trade together in cross-border contexts in novel and poorly understood ways. The government faces considerable obstacles in maintaining data flow while safeguarding the safety of citizens and businesses. In Asia, a lack of standardized norms presents barriers to intra-regional data transfers and data privacy protection. However, data transfer across borders can make valuable and essential advances to trade. It would be optimal if digital trade laws were synchronized throughout the broadest group of countries, primarily for MSMEs. Stringent data sovereignty regulations pose difficulties in detecting fraudulent activities. Despite the significance of digital retail payments for regional trade, complex operational and governance issues remain across Asia-Pacific countries. This entails developing smart policy responses that are coordinated across the region in order to more equally share digital growth. Fortunately, the Asia-Pacific has a number of possible platforms for such discussions and policy pledges, which will assist to reduce the risks associated with pandemic recovery and provide better confidence over regulatory frameworks in the future. The range of potential issues includes the eight topics of major concern—digital services, cybersecurity and data protection, digital taxation, digital payments, data or digital sovereignty, competition law and antitrust policies, assisting MSMEs in the digital domain and effectively managing the growth of new technologies. Each of these eight topics is critical in developing effective policy infrastructure. The agenda of digital economy will be difficult to develop, but it will be fundamental to Asia-Pacific continued prospects.

#### Notes:

1. The Reserve Bank of India has imposed data localization requirements on financial institutions. See Reserve Bank of India, Storage of Payment System Data, DPSS.CO.OD No.2785/06.08.005/2017–2018 (Apr. 6, 2018). India is also in the process of implementing a comprehensive privacy legislation which mandates data localization of personal data. See Rishab Bailey, The Issues Around Data localization, THE HINDU (February 25, 2020), https://www.thehindu.com/opinion/oped/the-issues-around-data-localization/article30906488.ece

#### Declaration of Competing Interest

There authors report no conflict of interest.
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