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## E-commerce and Digital Connectivity: Unleashing the Potential for Greater India-ASEAN Integration

Shouvik Kishore Majumdar\*, Angana Parashar Sarma\*\*, Srishti Majumdar\*\*\*

### 1. Introduction

Technology is bringing rapid changes across the globe, with digital connectivity and e-commerce platforms emerging as important drivers connecting producers across geographies.<sup>1</sup> India and Association of Southeast Asian Nations (ASEAN) are among the fastest growing e-commerce markets in the world and are developing into potential digital economies of the future with fast adoption of fourth Industrial Revolution (4<sup>th</sup> IR). Some key drivers of this growth include high levels of mobile usage and reduction in prices of smart phones, rising internet penetration and broadband connectivity adaptation, an increasing urban and young population, to name a few<sup>2</sup>.

Several studies have shown that digital connectivity and e-commerce can help small and mid-sized businesses and marginalised groups such as women in developing economies of ASEAN and India to access global markets<sup>3</sup>. E-commerce has a lower cost of entry compared to traditional businesses, requires less staff, and firms can reach their customers directly by cutting down on intermediaries. Small and mid-sized firms are also able to directly acquire a lot of information on their customer purchase behavior<sup>4</sup>. E-commerce helps consumers access and compare a wide range of products and services, purchase from any location and at any time as per their convenience, and get the product delivered to the place of their choice.

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\* Technology Expert and Director, Vantedge Global Solutions and COO, Ganitsoft, New Delhi 110019, e-mail: [shouvik.k.majumdar@gmail.com](mailto:shouvik.k.majumdar@gmail.com) (corresponding author)

\*\* Research Assistant, Indian Council for Research on International Economic Relations (ICRIER), New Delhi 110017, e-mail: [asarma@icrier.res.in](mailto:asarma@icrier.res.in)

\*\*\* MS Computer Science and Teaching Assistant at University of California, Los Angeles (UCLA), Los Angeles, California 90024, e-mail: [srishtimajumdar@gmail.com](mailto:srishtimajumdar@gmail.com)

India is one of the fastest growing digital economies, which has the potential to create over US\$ 1 trillion of economic value and 65 million new jobs by 2025<sup>5</sup>. The digital economy of ASEAN constitutes around 7 per cent of its gross domestic product (GDP), and, with digital integration among all its member countries, it is projected to have an increase in GDP by US\$ 1 trillion by 2025. The SMEs contribute to more than 50 percent of the GDP of ASEAN, while less than 20 percent of them are digitally integrated. Those who are integrated have been able to diversify. The SMEs face competition from global e-commerce giants such as Amazon and Alibaba.

There were close to 481 million internet users and 120 million digital buyers in India and close to 390 million internet users and 87.2 million digital buyers in ASEAN in the year 2018<sup>6</sup>. The e-commerce market in India is estimated to reach a volume of US\$ 165.5 billion by 2025, while the ASEAN market is estimated to reach a volume of US\$ 90 billion by 2025. Within ASEAN, Indonesia's e-commerce market is increasing rapidly and is estimated to reach US\$ 46 billion by 2025 from US\$ 1.7 billion in 2015. While the United States and China are among the largest exporters of e-commerce, India and ASEAN are among the fastest growing markets for e-commerce. All the major sectors in India and ASEAN member countries are expected to be digitised by 2025, and existing studies show that there are significant cross-country investments in digital technology including e-commerce<sup>7</sup>.

Several initiatives have been taken by India and the ASEAN member states to promote digital connectivity and e-commerce at both the national and regional level, and to enhance cross-country trade and collaboration in these areas. ASEAN was the first region in the developing world to adopt a harmonised legal framework for e-commerce with the e-ASEAN initiative in 1999. The ASEAN Economic Community (AEC) Council endorsed the 'ASEAN Digital Integration Framework Action Plan (DIFAP) 2019-2025' in October 2019, where six priority areas to promote digital integration were identified. The key elements of the DIFAP are in line with the AEC Blueprint 2025, ASEAN ICT Master Plan 2020, the Master Plan on ASEAN Connectivity 2025, ASEAN Framework for Personal Data Protection, and the ASEAN Strategic Action Plan for SME Development 2025. The framework was adopted to help the ASEAN region overcome barriers to digital integration such as digital connectivity and affordable access, commerce and trade and, financial ecosystem. India launched the 'Digital India' initiative in 2014 as an umbrella programme to transform India into a digitally empowered society and knowledge economy through nine pillars such as adoption of e-governance, broadband highways, universal access to phones, etc.

Among the joint initiatives of both the economies, the 'ASEAN-India Partnership for Peace, Progress and Shared Prosperity 2016-2020' lays out measures to be undertaken by both sides to deepen ties in areas of mutual interest, including enhancing cooperation in information and communications technology (ICT). The plan of action for implementation focuses on sharing of best practices in policy, regulation and technological development; promote and facilitate joint workshops and training for ICT capacity building, in areas such as software development, e-governance, and e-commerce, etc.; conduct consultations between governments, private sector and industry groups to facilitate investments in ICT, focusing on broadband connectivity and broadband applications in ASEAN, among others.

## 2. Digital Connectivity and E-commerce in India and ASEAN

There is no uniformly accepted global definition of a ‘digital economy’ and ‘e-commerce’. Digital economy refers to an economy based on digital computing technologies and it involves conducting businesses online. E-commerce is the ‘the production, distribution, marketing, sale or delivery of goods and services by electronic means’. India and ASEAN countries use different variants of these definitions. However, the core concepts remain the same.

### 2.1 Status of Digital Connectivity

The ASEAN region and India demonstrate wide divergence in their abilities to adapt to, and leverage on the digital economy, especially in terms of ICT indicators such as internet penetration rate and number of broadband subscriptions (Table 1). While countries such as Singapore and Malaysia had high percentage of individuals using the internet (above 80 per cent), India had recorded low rate of internet penetration (34.45 percent) in 2017. India has the second highest number of active internet users in the world, yet it is low given its large population size. Brunei, in spite of being a least developed country, recorded the highest rate of internet penetration of 94.87 per cent in 2017.

**Table 1: Select ICT Indicators in ASEAN and India**

Country	Percentage of individuals using the internet*		Fixed Telephone Subscriptions per 100 inhabitants		Mobile Cellular Telephone Subscriptions per 100 inhabitants		Fixed Broadband Subscriptions per 100 inhabitants	
	2016	2017	2017	2018	2017	2018	2017	2018
Indonesia	25.45	32.29	4.18	3.1	164.44	119.34	2.35	3.32
Malaysia	78.79	80.14	21.16	20.41	136.12	134.53	8.64	8.55
Philippines	55.5	60.05	3.96	3.87	110.13	126.2	3.23	3.68
Singapore	84.45	84.45	34.89	34.75	146.84	148.82	28.28	27.97
Thailand	47.5	52.89	5.01	4.22	175.6	180.18	11.86	13.24
Brunei	90	94.87	19.74	19.25	128.33	131.93	9.68	11.53
Lao PDR	21.87	25.51	16.19	20.99	53.38	51.86	0.39	0.64
Myanmar	25.07	30.68	1.04	0.97	89.82	113.84	0.21	0.24
Cambodia	32.4	32.45	0.83	0.54	116.01	119.49	0.83	1.02
Vietnam	53	58.14	4.64	4.5	126.87	147.2	11.91	13.6
India	22	34.45	1.74	1.62	87.32	86.94	1.33	1.34

Note: \* - The data on percentage of individuals using the internet has been compiled for the years 2016 and 2017 due to the unavailability of data for four ASEAN countries and India in 2018. Data for the other three indicators has been compiled for the years 2017 and 2018.

Source: Compiled from Country ICT Data (until 2018), ITU,

In terms of smart phone penetration, most of the ASEAN member countries have high penetration rates. In 2018, Thailand had the highest rate of 58 per cent out of its total population, while India had a rate of 26 per cent (KPMG & FICCI, 2019).

The IMD World Digital Competitiveness Ranking measures the capacity and readiness of 63 economies to adopt and explore digital technologies by using three factors; knowledge, technology, and future readiness to enable digital transformation. This index included India and 5 of the ASEAN nations, namely Indonesia, Malaysia, Philippines, Singapore and Thailand in its rankings of 2019. Singapore ranked 2<sup>nd</sup> in the index overall, leading in the ‘technology’ factor with a good rank in terms of training, education and information technology (IT) integration, while Malaysia ranked in the top 30. India, Indonesia and Philippines ranked in the bottom 15, but India and Indonesia feature among the countries that have demonstrated the largest improvement in their rankings from 2018. Thailand had witnessed a fall in its ranking due to declining public investments in education and lessened use of data and analytics (Table 2).

**Table 2: Ranking of Select ASEAN Member Countries and India in Digital Competitiveness Index**

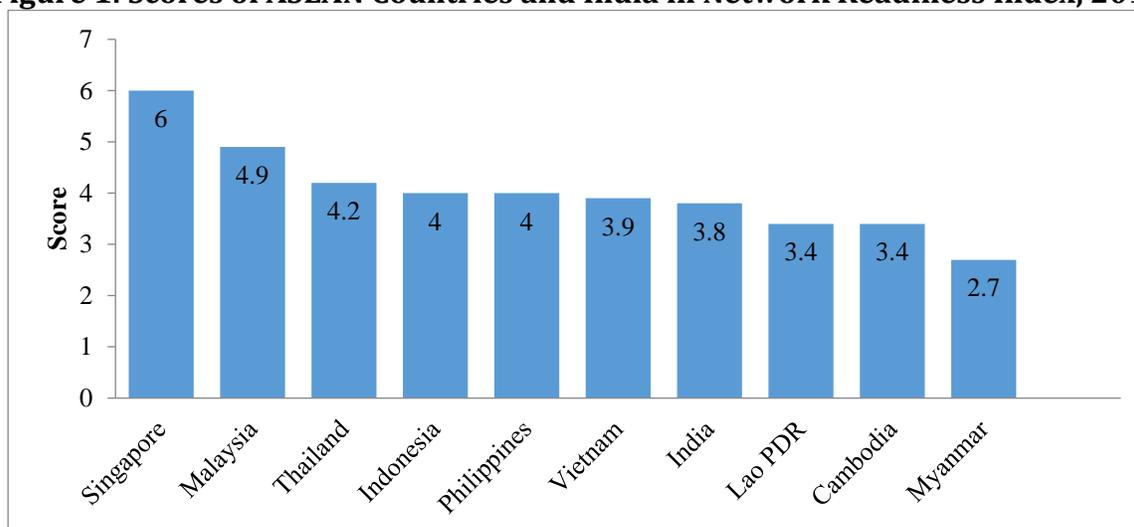
Country	Rank in 2017	Rank in 2019	Change in Rank
Singapore	1	2	↓ 1
Malaysia	24	26	↓ 2
Thailand	41	40	↑ 1
India	51	44	↑ 7
Philippines	46	55	↓ 9
Indonesia	59	56	↑ 3

Source: Compiled by the authors from the IMD World Digital Competitiveness Ranking, 2019.

Singapore has also topped the World Bank’s Digital Adoption Index, 2016, which measures digital adoption across three dimensions of the economy; people, government and business in 180 countries on a 0-1 scale. Myanmar on the other hand ranks amongst the last 30, with a score of 0.25. The ‘Ease of Doing Digital Business’ survey of Harvard Business Review which analyses 42 countries of the world, includes 5 ASEAN countries, namely Singapore, Thailand, Philippines, Malaysia and Indonesia. In the year 2018, Indonesia had the lowest rank in this index, with India, Thailand, Philippines and Malaysia lying in the bottom 10.

Network readiness measures a country’s potential in terms of possessing the necessary drivers for digital technology adoption and impact of these technologies on the economy and society. Among the countries in the ASEAN region, the latest rankings for 2015 are available for all the ASEAN countries except Brunei. The rankings show that there are wide dispersions in terms of digital readiness among ASEAN countries and India. While Singapore topped the index with a score of 6 (highest score being 7) through excellent use of digital technologies to provide access to basic and government services, countries such as Cambodia and Myanmar ranked among the bottom 30 (Figure 1).

**Figure 1: Scores of ASEAN Countries and India in Network Readiness Index, 2015**



Source: Compiled from <http://reports.weforum.org/global-information-technology-report-2016/networked-readiness-index/> (last accessed January 27, 2020)

## 2.2 Status of E-Commerce

E-commerce is changing the way businesses are conducted and is growing at an unprecedented rate both in India and in the ASEAN. There are various types of e-commerce models and are not limited to the sale and purchase of products, but includes a wide range of communication platforms and information services. It can be both e-commerce within an economy, and cross-border e-commerce. Based on the type of participants involved, they can be categorised into business-to-business (B2B), business-to-consumer (B2C), business-to-government (B2G) and consumer-to-consumer (C2C) models (WTO, 2013). The B2C e-commerce market is one of the fastest growing channels of e-commerce in India and ASEAN, although there are variations among the ASEAN member countries.

The UNCTAD's Global B2C E-commerce Index measures a country's readiness in supporting online commerce through factors such as ICT development, internet penetration, etc. The overall ranking for 2019 among 152 countries shows that Singapore ranked 3<sup>rd</sup> in the index, reflecting high rate of retail e-commerce penetration in the country. Countries such as Malaysia and Thailand feature among the top 10 developing countries, although there has been a decrease in the index value from the previous year, 2017. India, Indonesia and Philippines are among the fastest growing B2C e-commerce markets, with rising share of individuals with an online account. The relative position on India and ASEAN in the sub-indices of this index is given in Table 3. With rise in digitalisation and internet penetration, a number of entities involved in e-commerce are growing in ASEAN and India.

**Table 3: UNCTAD B2C E-commerce Index, 2019, ASEAN Countries and India**

Country	Rank in 2019 (out of 152 countries)	Index Value* Change from 2017-18	Share of individuals using the internet (2018 or latest)	Share of individuals with an account (15+, 2017)#	Secure internet servers (normalized, 2018)\$
Singapore	3	-0.2	88	98	97
Malaysia	34	-0.8	81	85	75
Thailand	48	-3.0	57	82	61
Vietnam	64	0.8	70	31	66
India	73	-1.3	34	80	48
Indonesia	84	1.6	40	49	64
Philippines	89	-2.1	60	35	43
Lao PDR	113	-13.1	26	29	30
Cambodia	122	-4.3	40	22	41
Myanmar	126	-8.2	31	26	24

Note: \* Index value ranges from 1-100, with 100 being the highest score; # 15+ denoted individuals aged 15 years or above; \$ Secure Internet servers per 1 million people is normalized with this formula:  $\text{Log (secure server penetration)} - \text{Log (maximum value)} / \text{Log (maximum value)} - \text{Log (minimum value)} * 100$

Source: Compiled from UNCTAD (2019)

### 3. Policies and Initiatives: India and ASEAN

#### 3.1 Digital Policies

Various countries in the ASEAN have demonstrated a strong commitment to the digital agenda with the development of tangible blueprints, strategies and frameworks for implementation. For example, Singapore has launched the Digital Government Blueprint, which is a five-year plan building on previous 'e-government master plans' to harness digital technology in order to build stakeholder centric services. Thailand has launched the three-year 'Digital Government Development 2016-19' in order to create a blueprint to identify digital capabilities by the government in alignment with national goals. In Malaysia, the 'Malaysian Public Sector ICT Strategy Plan 2016-20' provides a new ICT vision in line with the national transformation agenda to contribute to making Malaysia a developed country by 2020, and outlines strategies for various ministries and agencies for the implementation of the ICT initiative. The 'Cambodian ICT Master Plan 2020' is another example of a tangible strategic thrust to make Cambodia an ICT hub in South East Asia. Indonesia is yet to develop a comprehensive digital policy.

India has a focused digital policy with several sub-components and at the ASEAN level, the 'ASEAN Digital Integration Framework Action Plan (DIFAP) 2019-2025' provides a detailed framework for facilitating digital trade.

### **3.2 Data Privacy and Localisation Policies**

With increasing cross-border flow of data, data privacy and security are concerns for a number of countries. The ASEAN countries have various regulations in the form of laws, acts and additional decrees with respect to data privacy and security regulations, which are at different stages of operationalisation. Singapore has the 'Personal Data Protection Act, 2012' to complement sector-specific legislative and regulatory frameworks, while Thailand has recently enacted its 'Personal Data Protection Act' to be effective from May 2020. Brunei has a 'Data Protection Policy, 2014' and Lao PDR has a 'Laos Electronic Data Protection Law (EDPL)' enacted in 2017 along with the 'Law on Prevention and Combating of Cyber Crime'.

In countries like Vietnam and Myanmar, there is no general personal data protection law but sector specific regulations are in place. In Indonesia, the 'Personal Data Protection Bill' missed the 2018 deadline set by the Communication and Information Ministry. However, on October 10, 2019, the government came up with a regulation on Electronic (Network and Information) Systems (GR 71/2019), which had introduced key changes to data localisation requirements, personal data protection, government authority to block access to negative content, among others. In India, the 'Personal Data Protection Bill 2018' is pending in the Parliament.

Countries such as Indonesia, Vietnam and Malaysia have introduced and enhanced acts and regulations for data localization even though the extent of localisation requirements vary across countries. For instance, in Malaysia, there is a conditional flow of personal data with no local storage requirement, while in Indonesia, there is a ban on transfer of personal and transaction data, along with local storage requirements for financial data and protected private data. In India, the Reserve Bank of India (RBI) had issued two directives in 2018, mandating all authorised payment system operators and banks to store payment systems data only in India.

### **3.3 E-commerce Policies**

Almost all countries in the ASEAN region and India have enacted regulations or initiated the process of regulating e-commerce. For example, Malaysia's 'Electronic Commerce Act 2006', for the private sector and the 'Electronic Government Activities Act 2007', for the public sector. In Thailand, Vietnam and the Philippines, there are no specific e-commerce policies, but there are various regulations that govern e-commerce. For example, Thailand has the 'Electronic Transactions Act 2000', 'The Computer Crime Act 2007', 'Consumer Protection Act 1979', 'Direct Selling and Direct Marketing Act 2002' and other legal provisions.

India had come out with a ‘Draft National E-commerce Policy’ in February 2019. However, the policy had received certain criticisms and is under review as of January 15, 2020. In August, 2019, the government had come with the Consumer Protection Act, 2019, which aims to enhance consumer rights in a digital economy. Under this Act, Consumer Protection (E-commerce) Rules, 2019, were released on November 11, 2019, which had established conditions regarding the governing set-up and operations of e-commerce businesses, their liability for non-compliance, among others.

#### 4. International and Regional Agreements and Engagements

ASEAN countries are engaged in various bilateral, plurilateral and multilateral agreements and forums related to digital connectivity and e-commerce. These engagements vary from undertaking commitments in the WTO to sharing of best practices. In terms of multilateral technological agreements such as the Information Technology Agreement (ITA)-I (signed in December, 1996) and its expanded form, ITA-II (signed in December, 2015), while 7 ASEAN countries and India have signed ITA-I, Malaysia, the Philippines, Singapore and Thailand have signed ITA-II (Table 5). Of late, there have been concerns among countries such as India and Indonesia on taking multilateral commitments in digital sector and in e-commerce.

**Table 5: Participation of ASEAN Countries and India in Technology Agreements**

Countries	ITA-I	ITA-II	WTO Plurilateral Group on E-Commerce as on 25 January, 2019
Brunei	×	×	√
Cambodia	×	×	×
Lao PDR	×	×	√
Malaysia	√	√	√
Myanmar	×	×	√
Philippines	√	√	×
Indonesia	√	×	×
Singapore	√	√	√
Thailand	√	√	√
Vietnam	√	×	×
India	√	×	×

Source: Compiled by authors from different links for agreements from WTO website.

On January 25, 2019, 77 WTO member countries initiated plurilateral negotiations on global trade rules in e-commerce, to discuss restrictive policies like data localisation and digital trade facilitation. Six ASEAN members are part of this group (Table 5). Until recently, India was negotiating the Regional Comprehensive Economic Partnership (RCEP) which included ASEAN, Australia, China, Japan, New Zealand, and Republic of Korea. This

agreement has provisions on e-commerce. India has opted out of RCEP in November 2019, after seven years of negotiations.

Four ASEAN countries, namely, Singapore, Malaysia, Brunei Darussalam and Vietnam, are part of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which has provisions on e-commerce and digital trade, focusing specifically on cross-border e-commerce trade between the 11 member countries. Indonesia and Thailand are among those countries, which have interest in joining the agreement in the future. With tariff reductions, e-commerce players in these countries, especially the SMEs can see improvements in online sales and would be able to integrate to global supply chains. ASEAN countries like Vietnam has recently signed a trade agreement with the European Union (signed June 30, 2019) and thus they are open to taking regulatory commitments in the ICT sector and are willing to reduce tariffs.

Among the free trade agreements that ASEAN has signed, the ASEAN-Australia-New Zealand Free Trade Agreement 2020, has a chapter on e-commerce that aims to promote and enhance cooperation in the areas of electronic authentication and digital certificates, online consumer protection, data protection, paperless trading, etc.

The most comprehensive agreement on e-commerce is the 'ASEAN Agreement on E-commerce', which was signed in November 2018. The agreement is a starting point for facilitating cross border e-commerce trade by lowering specific non-tariff barriers and enhancing digital connectivity within the region. There is a commitment to cooperate in areas including ICT infrastructure, education and technology competency, online consumer protection e-commerce, legal and regulatory frameworks, electronic payments and settlements, trade facilitation, intellectual property rights, competition, cyber security and logistics to facilitate e-commerce. Unlike ASEAN, India is yet to sign an agreement where there are regulatory commitments in e-commerce. Indian agreements mostly have provision for co-operation and non-binding commitments. However, India has reduced tariffs through its free trade agreements with ASEAN and its member states like Thailand.

ASEAN countries have signed a number of MoUs on digital connectivity and e-commerce, both at country level and at ASEAN level. These include both government-to-government (G2G) and business-to-business (B2B) level engagements. Examples of MoUs with India include a G2G MoU with Singapore, signed in 2018, to promote exchange of best practices with capacity building for officials in regulatory institutions. Collaborations include in areas of application programming interfaces (APIs), regulatory sandbox models, security in payment and digital cash flow, etc., and a B2B MoU with Thailand, signed in the same year to create a customised platform to connect SMEs from India and Thailand and facilitate digital business networking.

## **5. Challenges to Growth of Inter-regional E-Commerce and Digital Connectivity**

The growth of e-commerce and inter-regional digital connectivity is below potential in the ASEAN region and India due to several barriers as follows:

- Regulations are at a developing stage, creating uncertainty for the business environment.
- Restrictive regulations and data localisation is a major impediment to cross border e-commerce trade. There is also lack of adoption of regulations at international best practices, which leads to lack of harmonisation and difficult to enter into cross-border collaborations.
- Limited participation in global forums lacks in putting forward requirements and establishing their strength. It is because most of the ASEAN countries and India are net importers of digital products and e-commerce, and therefore some of them have taken a defensive approach in multilateral and plurilateral discussions.
- Differences in logistics and infrastructural gaps among ASEAN and India may adversely affect the potential region to develop as a robust digital and e-commerce hub.
- Policy restrictions in terms of cross-border digital payments, custom duties, business models form of operation and digital platform restrictions in some of the ASEAN countries and India affect the e-commerce trade, especially the SMEs in ASEAN and India who are trying to use the digital platform.

## **6. Conclusions and Way Forward: India-ASEAN E-Commerce Platform**

While India and ASEAN have set up targets and goals for digitalisation and want to move towards a technology-driven economy, which are adversely impacting the ability of small businesses to trade and be part of global value chains. It is therefore important for ASEAN and India to improve connectivity, reduce digital divide and implement supporting regulation and enabling framework, which supports fast track logistics, door-to-door delivery and improves the ease of doing business, especially for the SMEs. The SMEs face other problems such as lack of market knowledge or inability to identify business partners. In this context, and given that cooperation between India and ASEAN in e-commerce is a core component of the India-ASEAN Framework Agreement, both India and ASEAN can work together to develop an integrated e-commerce platform which provides information and go-to-market strategy, provide B2B connect to help identify partners. In addition, the platform should have self-service modules to answer queries and provide clarifications. It should have a 24X7 query resolution facility.

SMEs can be encouraged to do product story creation and upload their success stories. To begin with, India and ASEAN can build on cultural synergies and common aspects like ethnic artifacts, handicrafts and local products to create an e-commerce platform that can increase market access for SMEs from local to global consumers. This can help to promote tourism which India and ASEAN are focusing on as part of their joint initiatives.

Innovative startups from India and ASEAN can form consortium to develop the platform. There is scope for engagement of data analytics companies, payment companies, logistics companies, advertising and marketing companies to use this platform to offer services. This will create jobs, investment and increase in trade flows and reduce barriers for SMEs to join global value chains. To conclude, this platform aims to enhance India-ASEAN trade

collaborations in industry 4.0 and it will be a pioneering initiative in developing such a platform through government-private partnership.

Given that India has decided to walk out of the RCEP, it would need ASEAN support for furthering its interests. Especially, with initiatives such as the Indo-Pacific, it is an opportune moment for both India and ASEAN to collaborate with each other and make use of the funds allocated under various policies and frameworks to develop a joint e-commerce platform, which will be self-sustainable and can address the key issues faced by the SMEs in both markets, and helping them to become competitive and to globalise. It will also help address one of the core objectives of India-ASEAN partnership - economic and socio-cultural cooperation.

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<sup>1</sup> Refer, UNCTAD (2019)

<sup>2</sup> Refer, KPMG & FICCI (2019)

<sup>3</sup> Refer, Rahayu & Day (2016)

<sup>4</sup> Refer, OECD (2019)

<sup>5</sup> Refer, McKinsey (2019)

<sup>6</sup> Refer, KPMG & FICCI (2019)

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## About AIC

Considering the work of the ASEAN-India Eminent Persons Group (AIEPG), and its Report with recommendations for forging a closer partnership for peace, progress and shared prosperity, the Heads of the State/Government of ASEAN and India at the ASEAN-India Commemorative Summit 2012, held at New Delhi on 19-20 December 2012, recommended the establishment of ASEAN-India Centre (AIC), which was formally inaugurated by the Hon'ble External Affairs Minister of the Government of India on 21 June 2013 at RIS. AIC serves as a resource centre for ASEAN Member States and India to fill the knowledge gaps that currently limit the opportunities for cooperation. AIC is closely working with the Indo-Pacific Division of the Ministry of External Affairs (MEA), Government of India to undertake and disseminate evidence-based policy research and provide policy recommendations.



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### Contact us at:

ASEAN-India Centre (AIC)  
Research and Information System of Developing Countries (RIS)  
Zone-IV-B, Fourth Floor, India Habitat Centre, Lodhi Road  
New Delhi – 110003, India  
Tel. +91-11-24682177-80  
Fax: +91-11-24682173-74  
E-mail: [aic@ris.org.in](mailto:aic@ris.org.in)  
Visit our website at: <http://aic.ris.org.in>

@AIC\_aseamindia

