



# STATUS, OPPORTUNITIES AND CHALLENGES OF BRICS E-COMMERCE



A report prepared by UNIDO and ITC

for submission to  
the BRICS Trade Ministers Meeting  
Shanghai, China  
2 August 2017

The report does not represent the views of the BRICS countries

## Disclaimer

The designations employed, descriptions and classifications of countries, and the presentation of material in this report do not imply the expression of any opinion whatsoever on the part of the United Nations Industrial Development Organization (UNIDO) or the International Trade Centre (ITC) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Terms such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment. This report has been produced without formal United Nations editing.

This report was prepared jointly by authors from UNIDO<sup>1</sup> and ITC, as a research paper for the purpose of eliciting comments and stimulating debate. The report does not represent the views of the BRICS countries. Although great care has been taken to maintain the accuracy of information herein, neither UNIDO nor ITC assume any responsibility for consequences which may arise from the use of the material. Any indication of, or reference to, a country, institution, firms, products or product brands or other legal entity does not constitute an endorsement. Information contained herein may be freely quoted or reprinted but acknowledgement is requested.

---

<sup>1</sup> Mr. Zhen Wang, Chief of Asia and the Pacific Division, UNIDO, is a team leader of this joint initiative.

## Contents

Tables and Figures .....	4
Acronyms .....	5
Acknowledgements .....	6
Executive Summary .....	7
Chapter 1 .....	10
1.1. Global Trends in E-commerce .....	10
1.2. Potential Impact of E-commerce in the Context of the Digital Economy and Factors Affecting E-commerce .....	15
Chapter 2 .....	19
2.1. Cross Comparison of E-commerce in the BRICS .....	19
2.2. Strengths, Weakness and Opportunities in BRICS E-commerce .....	23
2.3. Country Specific Details .....	27
2.3.1 Key E-commerce Trends and Figures .....	27
2.3.2. Business Models .....	39
2.3.3. E-commerce Platforms .....	43
2.3.4. Best Practices .....	44
2.3.5. Challenges and Business Environment .....	47
2.3.6. Public and Private Initiatives .....	55
Chapter 3 .....	57
3. Regulations and Standards in BRICS .....	57
Chapter 4 .....	63
4.1. Measuring Dynamism in E-commerce .....	63
4.2. Impact of New Business Models .....	66
Chapter 5 .....	67
5. Recommendations for Strengthening E-commerce Cooperation within BRICS .....	67
References: .....	70

## Tables and Figures

Table 1: Top Ten Countries in Terms of per cent Share of E-commerce to GDP(2015)	Page 14
Table 2: Strengths and Weaknesses of BRICS E-commerce	Page 22
Table 3: Use of E-commerce Applications by Netizens in China, Jan 2017 Survey	Page 37
Table 4: Responses of the Survey of Merchants -Russia	Page 50
Table 5: Broad Overview of Challenges Faced in the E-commerce Ecosystem of India	Page 51
Table 6: Adoption of Legislations in BRICS	Page 60
Table 7: Possible Indicators to Assess E-commerce Environment	Page 66
Figure 1: Retail E-commerce Sales Worldwide	Page 10
Figure 2: Global B2C E-commerce transaction volumes and shoppers	Page 12
Figure 3: Major Economies by total, B2B and B2C E-commerce, 2015	Page 12
Figure 4: E-commerce Market Size and Distribution (Sales in \$ Billions)	Page 13
Figure 5: Closing the gap in percentage of online buyers	Page 13
Figure 6: B2C E-commerce as Percentage of Global GDP	Page 14
Figure 7: Number of internet users worldwide	Page 16
Figure 8: Percentage of individuals not using internet in different regions	Page 17
Figure 9: Global payments report -2015	Page 18
Figure 10: BRICS E-commerce sales	Page 19
Figure 11: Internet penetration in BRICS, G7 and MIKITA	Page 20
Figure 12: Internet Penetration in BRICS countries	Page 20
Figure 13: Share of the population that pays bills or buys things on the internet	Page 21
Figure 14: Indicators along the E-commerce process chain proposed by ITC	Page 22
Figure 15: Total E-commerce Revenue, 2011-2016 (Brazil)	Page 28
Figure 16: Penetration of fixed broadband and mobile broadband , 2010-2015 (Brazil)	Page 29
Figure 17: Russia's domestic online retail market for physical goods	Page 30
Figure 18: Internet Penetration in Russia +16 yrs.	Page 31
Figure 19: Mobile Internet Penetration in Russia +16 yrs.	Page 31
Figure 20: Russia's cross-border sales volume (physical goods)	Page 32
Figure 21: Category wise share of goods purchased from Russian and foreign online stores	Page 32
Figure 22: India's Retail E-commerce Sales in \$ billion	Page 33
Figure 23: Share of retail E-commerce Sales to Overall Retail Sales in India	Page 34
Figure 24: India's Internet Users	Page 34
Figure 25: China's GDP (100 million Yuan) and its Growth Rates	Page 35
Figure 26: Growth of China's E-commerce Revenue , 2004-16	Page 36
Figure 27: Growth of China's Retail E-commerce Sales, 2004-2016	Page 36
Figure 28: Scale of Online/Mobile Online Shoppers in China (Dec 2015 – Dec 2016)	Page 38
Figure 29: Proportion of companies engaged in online sales (China)	Page 38
Figure 30: B2C E-commerce Turnover and Growth Rate (South Africa)	Page 39
Figure 31: Trends in Internet Users of South Africa	Page 40
Figure 32: Checklist for E-commerce growth (ITC)	Page 59

## Acronyms

Unless otherwise specified, all references to dollars (\$) are to United States dollars.

ASSOCHAM	The Associated Chambers of Commerce & Industry of India
B2B	Business to Business
B2C	Business to Consumer
B2G	Business to Government
BHIM	Bharat Interface for Money (App)
BRICS	Association of five economies: Brazil, Russia, India, China and South Africa
CDC	Consumer Defense Code (Brazil)
CMS	Content Management System
CNNIC	China Internet Network Information Center
COD	Cash on Delivery
CPA	Consumer Protection Act (India)
C2C	Consumer to Consumer
C2M	Consumer to Manufacturing
DTI	Department of Trade and Industry (South Africa)
ECT	Electronic Transaction Act., (South Africa)
FNB	First National Bank (South Africa)
ETP	Electronic Trading Platform
GDP	Gross Domestic Product
GST	Goods and Service Tax (India)
G7	Group of Seven (Canada, France, Germany, Italy, Japan, the UK and US)
G20	Group of Twenty (Includes 20 major economies)
IAMAI	Internet and Mobile Association of India
IBGE	Brazilian Institute for Geography and Statistics
ICASA	Independent Communications Authority of South Africa
IMRB	Internet Market Research Bureau (India)
ICT	Information Communication Technology
IT	Information Technology
ITC	International Trade Centre
ITU	International Telecommunication Union
MIKTA	Mexico, Indonesia, Republic of Korea, Turkey and Australia partnership
OECD	Organization for Economic Co-operation and Development
R & D	Research and Development
SARB	South African Reserve Bank
SARS	South African Reserve Service
SC2B	Supply Chain to Business
SME	Small and Medium-Sized Enterprises
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United nations Industrial Development Organization
WITS	World Integrated Trade Solution
WTO	World Trade Organization

## Acknowledgements

This report was jointly prepared by ITC and UNIDO. The authors include Ms. Rifat Jabeen Khan - Project Administrator at UNIDO, Mr. Tariq Manzoor - Project Associate at UNIDO, and Ms. Justine Lan, Ms. Jimena Sotelo - International Consultants at ITC. The cover page was designed by Ms. Leixi Wang, who worked as an intern under EFR/RPF/ASP at UNIDO.

UNIDO and ITC would like to thank the reviewers of this report including Mr. Zhen Wang- Chief of Asia and the Pacific Division at UNIDO, Ms. Marion Jansen, Chief Economist at ITC, Mr. Quan Zhao - Trade Policy Advisor at ITC, Mr. Thomas Jackson - International Consultant at UNIDO and Mr. Nobuya Haraguchi - Industrial Research Officer at UNIDO.

UNIDO and ITC would also like to thank Mr. Yongfu Quyang and Trobjorn Fredriksson from UNCTAD, Mr. John Hancock, Mr. Robert Koopman and other team members from WTO, and Ms. Natalia Popova, Head of the Department for External Economic Relations at Russia's Association of Electronic Trading Platforms, for their valuable inputs to this report.

UNIDO and ITC would also like to acknowledge the previous works that provided the background information for some sections of this report. Section 2.3 of this report builds on the BRICS E-commerce national reports prepared by Mr. Gabriel Alvares de Lima from Brazil (Founder/ Managing Director, Enext), Ms. Marina Sadyki from the Russian Federation (Leading Expert of the Division of Strategic Development, Ministry of Industry and E-commerce), Dr. Harish Pal Kumar from India (Honorary Executive Committee Member FICCI-CMSME), Mr. LI Yi from China (Deputy Director of the Research Center of Internet plus of Internet Society of China), Mr. YUE Hongfei from China (Beijing Normal University) and Mr. Percy Dumisani Mkhosi from South Africa (CEO, Datacomb). The report also builds on the previous work by ITC on the determinants of competitiveness along the E-commerce process chain – “Bringing SMEs onto the e-Commerce Highway”.

## Executive Summary

During the last decade, along with the rapid development of information technology (IT), e-commerce<sup>2</sup> has maintained swift growth and has become one of the world's most dynamic economic activities. Latest estimates from UNCTAD show that global e-commerce reached US\$ 25.3 trillion in 2015, of which US\$ 22.4 trillion was B2B e-commerce and US\$ 2.9 trillion B2C e-commerce<sup>3</sup>. E-commerce is playing an increasingly important role in promoting domestic and cross-border trade, industry transformation and job creation thereby providing overall strategic opportunities for the economic and social development for all countries. In this context, this report analyses the status of e-commerce in BRICS in the backdrop of global e-commerce trends. Due to the limited availability of reliable B2B and B2G e-commerce data in BRICS countries, the report relies mostly on B2C e-commerce data for cross comparative study and trend analysis in BRICS e-commerce.

Chapter 1 of the report examines the global trends in e-commerce, the impact of e-commerce on the global economy in the context of digital economy and the factors affecting e-commerce. The report finds that e-commerce as a share of overall global GDP is rising. China, the UK and South Africa have the highest proportion of eGDP in their overall GDP. Spurred by the increasing internet penetration in the past decade, the percentage of online shoppers has increased over time, which has in turn given a boost to the e-commerce industry across all sectors, including B2C, B2B and B2G. Cross-border e-commerce trade is also growing alongside the number of online shoppers. Though there is overall growth in e-commerce, market size and distribution varies across regions and countries. In 2015, the United States, Japan and China were the top performers in B2B sales. In the same year, the United States, China and the UK were the top performers in B2C sales. The top ten countries contributing to global e-commerce account for 64 per cent of B2B e-commerce. In 2015, the Asia-Pacific region recorded the largest e-commerce turnover, which can be attributed to the large markets in China and India. Internet penetration has a strong correlation with e-commerce development. In 2016, around 53 per cent of the global population did not have access to the Internet, with the majority of the offline population concentrated in Africa and LDCs. Improving Internet connectivity in these regions would boost e-commerce development. In addition to Internet access, the availability of diverse payment options also impacts e-commerce. E-wallets, credit cards and debit cards are the three most popular modes of electronic payments but in terms of growth, eWallets and PrePay are expected to have the highest growth in the coming years. Strengthening the infrastructure for easy use and secure payment methods can boost e-commerce.

Chapter 2 provides a cross comparison of the current status of e-commerce in BRICS countries covering B2B, B2C and, wherever possible, the B2G components of domestic and cross-border e-commerce trade. It also highlights the strengths, weaknesses and opportunities of the BRICS e-commerce ecosystems. Section 2.3 elaborates on the country specific e-commerce details within BRICS and sheds light on various aspects of e-commerce including the business models adopted, major e-commerce platforms available and the best practices adopted by successful players. It further explores the challenges faced by e-commerce enterprises within BRICS, as well as the public and private initiatives undertaken to address these challenges. The study finds that the volume of e-commerce sales varies significantly within BRICS. In Brazil, despite a difficult economic landscape, e-commerce maintained growth though the average spending per shopper is still low. Russia has a strong B2G sector but cross-border sales, though on the

---

<sup>2</sup> OECD definition of E-commerce has been adopted for the purpose of this study

<sup>3</sup> <http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1466>



rise, are relatively small. Retail e-commerce sales in India grew at an annual rate of 24.5 per cent to reach US\$ 16 billion in 2016 and are expected to reach US\$ 45.17bn in 2021. E-commerce in India has expanded over the last decade due to the rapid adoption of new technologies, a large increase in the number of internet users, innovative business models, and alternative payment methods offered by e-commerce companies. The Chinese e-commerce landscape is dominated by several giant platforms such as Alibaba and JD.com. China leads the Asia-Pacific region due to its large market size, growing middle-class, lower costs, high Internet penetration, and a large manufacturing base. In South Africa, e-commerce is still at the nascent stage though the country is one of the continent's leaders in e-commerce development, owing to its relatively better Internet and smartphone access and payment card penetration.

The analysis of the BRICS e-commerce ecosystem indicates that certain challenges are common to all BRICS countries. This includes bureaucratic procedures, unfavorable tax regimes, underdeveloped delivery infrastructure, a lack of e-commerce skills in SMEs, hindering their ability to compete with larger companies, and adequate mechanisms for ensuring privacy and security of data. At the same time, each BRICS country has its unique challenges. Brazil is facing a challenging economic situation. In Russia, language barriers and slow delivery are obstacles to the growth of cross-border trade. In India, there is a lack of trust among Indian buyers when it comes to online transactions and ePayments. For China, the lack of unified cross-border standards for inspection of parcels and lack of unified regulations to handle disputes emanating from cross-border transactions are major factors impacting cross-border trade. In South Africa, costs of data are some of the highest in the world and SMEs lack access to finance. These are the serious drawbacks of South Africa's e-commerce environment.

Chapter 3 provides information about the major regulations and standards adopted by BRICS for regulating e-commerce business processes. The study finds that all BRICS countries have adopted legislations for e-transactions and cybercrime. Brazil, China and South Africa have also adopted legislation for consumer protection, while Russia and India do not have dedicated e-commerce consumer protection laws. In terms of privacy and data protection, China, India, Russia and South Africa have adopted legislation while Brazil has drafted but not yet adopted relevant legislation.

Recognizing the need for a forward-looking approach to capture e-commerce dynamism, Chapter 4 identifies the challenges in e-commerce measurement as well as the major factors that will shape BRICS' e-commerce in the coming years along with economic variables that will be impacted by e-commerce. This will help the formulation of strategies and policies for e-commerce growth, and could also serve as a guideline for impact assessment. According to the study's findings, the major challenges facing e-commerce measurement in BRICS include inadequate availability of reliable statistics, especially in the

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_22926](https://www.yunbaogao.cn/report/index/report?reportId=5_22926)

