

Chapter 3

Supply Chain in Cross-Border E-Commerce

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ABSTRACT

Cross-border e-commerce has emerged with significant attention in the field of international trade. Exports and imports are more integrated with the revolutionary e-commerce platforms where people can buy things from other countries at their fingertips. However, the supply chain behind the business transactions beyond the country's boundaries is more complicated than traditional businesses. The successful supply chain performance of e-commerce depends on many local and international aspects. Issues and challenges of the supply chain rapidly change due to the fast development of internet infrastructure. The chapter identifies some key issues like supply chain facility, inventory management, legal obstacles with today's supply chain performance of international e-commerce. Comprehensive solutions and recommendations are given here with focusing the integration of blockchain technology, which tells how the businesses can initiate the combination of both e-commerce and cryptography for effective intercountry supply chain performance.

INTRODUCTION

With the accessibility and popularity of the Internet, as well as the advancement of information technology (IT), e-commerce has been gaining momentum in the global marketplace. The reason being that the Internet has, in many ways, made our lives much easier. The buying and selling of goods online from another country provides several advantages compared to only buying from local retailers. Customers now have access to a variety of products and sellers all over the world at their fingertips. Information regarding the products and purchases are becoming less asymmetric. As they can compare their desired products right on their devices, hence, product sourcing costs and time has lessened dramatically. Cross-border

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e-commerce (CBEC) has turned into a core passage of foreign trade in many countries with a B2C model (Mou, Cohen, Dou, & Zhang, 2019; Qi, Chan, Hu, & Li, 2020). With widespread operations of CBEC in many countries that required less time and money, it has created a huge competition among the seller where customers are getting quality products and services from this competitive market. E-Commerce sales was 1.3 trillion in the year of 2014 and that is expected to grow about 4.5 trillion in 2021, which is around 400% growth. CBEC sales only in China was reported at \$144.11 billion and is estimated to be \$200 billion by 2022. Even in Africa and the Middle East, Deloitte (2017) reports a high-growth path in e-commerce. The authors attribute this growth to the rising middle class in Africa which has contributed to the modernization of the retailing sector. In addition, changes in the shopping behavior of customers in this region has put pressure on retailers to actively peruse e-commerce opportunities.

The worldwide the value of e-commerce internationally was calculated as \$412 billion in 2019 with an increase of 4% than 2018. Integration with the social media platforms has given the power of raising customer voice as they review the products and share with others. E-commerce sales are done electronically and that is easy to trace for the convenience of both customer and seller. This has improved the quality control as well. CBEC comes with considerable increase of cost related to distance of physical location (Martens, 2013). The increase in online sales volume throughout the world put immense pressure on global supply chains. Around 54% of people in the US who purchase products online have reportedly bought products online from other countries. Survey data shown around 38% of people of Tier 1 cities and 27% of Tier 2 cities across China purchase products through CBEC (Nielsen, 2016). Giant e-commerce platforms are making the “local” experience of global online shopping as seen in e-commerce sites such as eBay (USA), Amazon (USA), AliExpress (China), Jumia (Africa) and Wildberries (Russia). Many manufacturers, logistics and other channels of distribution has emerged to fill the supply chain gaps of e-commerce transactions both locally and internationally. Unlike the traditional business, e-commerce is associated with the delivery of goods till the end of the supply chain stakeholder, the consumer, the whole supply chain must therefore be synchronized accordingly. This is generally a complicated task for the participants of the supply chain and it gets more difficult with cross-border transactions due to different entities of supply chain and various local and international rules and regulations. Supply chain parties have to maintain better insight about the local customs and cultures (Asian, European, Chinese) in order to make the most of it. Ease of transportation facilities (like the air shipments) have put manufacturers and logistic divisions in immense competition; if they don't provide a satisfactory outcome, buyers (or customers) can switch to other options easily. This chapter will discuss issues regarding cross border e-commerce supply chains in a modern age, considering its challenges and probable solutions. The contents of the chapter are arranged with the explanation of the e-commerce supply chain, understanding the logistics in international e-commerce platform, associated problems, solutions and recommendations in chronological sections.

UNDERSTANDING CROSS BORDER E-COMMERCE SUPPLY CHAINS

It is widely accepted that firms do not compete with each other, instead, it is their end-to-end supply chains that fight for market dominance (Aslam, Roscoe, & Azhar, 2020). CBEC occurs when multiple parties in different customs areas (global locations) conclude a transaction involving the international exchanges of products utilizing an e-commerce platform. Typically, the following parties are involved, i.e. a buyer and a seller, the e-commerce platform (cross-border online platform) and other third-party

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