International Business in the Information and Digital Age

Amazon and Alibaba: Internet Governance, Business Models, and Internationalization Strategies

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**Article information:**

To cite this document: Xinyi Wu, Gary Gereffi, "Amazon and Alibaba: Internet Governance, Business Models, and Internationalization Strategies" In International Business in the Information and Digital Age. Published online: 02 Nov 2018; 327-356. Permanent link to this document: https://doi.org/10.1108/S1745-886220180000013014

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PART IV

INDUSTRY 4.0
CHAPTER 13

AMAZON AND ALIBABA: INTERNET GOVERNANCE, BUSINESS MODELS, AND INTERNATIONALIZATION STRATEGIES

Xinyi Wu and Gary Gereffi

ABSTRACT

In the digital economy, what are the strategies of multinationals from developed countries and emerging markets? How do regulations in the home country affect their growth? Recent digital multinationals in diverse national and institutional contexts raise questions that require new approaches in international business (IB) studies. This chapter examines two leading firms in the global e-commerce industry: Amazon and Alibaba. We compare their digital capabilities and physical asset-building strategies over the past two decades and we connect the Internet governance environment in the United States and China with their business models and internationalization patterns. We argue that despite the platform and global nature of Amazon’s and Alibaba’s activities, the recent moves of governments across the world to regulate Internet governance poses an important challenge for digital multinationals. This research features a comparative analysis of two prominent digital multinationals and identifies a promising area for future IB strategy studies.

Keywords: Amazon; Alibaba; e-commerce; digital economy; business models; internationalization strategies; Internet governance
1. INTRODUCTION

There is a growing concern among nations about the power of digital corporations. As the Internet-based digital economy becomes universally accessible, the ability of a government to monitor, control, or stop digital activities is severely undermined. Although the infrastructure of the Internet and human beings who operate it are subject to legal jurisdictions, information flowing across borders via the Internet is difficult to control. Participating in international business via the Internet requires governments to adopt international laws and regulations that challenge their sovereignty, whose essential attribute is control over physical space and the objects within it (Hathaway, 2014). In this respect, digital corporations pose threats to “informational sovereignty” and related issues of national security and citizen privacy (Perritt, 1998).

Such concerns have elevated Internet governance as a critical public policy item. According to the Working Group on Internet Governance (WGIG) (de Bossey, 2005), there are four areas that are central to governing the Internet: (1) issues related to the infrastructure and management of critical Internet resources; (2) issues related to the use of the Internet; (3) issues that are relevant to the Internet but exert impact on a much wider scale; and (4) issues related to the developmental aspects of Internet governance, including capacity building in developing countries. Later, Yang and Muller (2014) added a fifth area based on their observation of Internet governance in China: (5) content regulation, a central focus of China’s legal, technical, and self-regulatory Internet mechanism.

All these issues matter to international business in the information and digital age. But the exact nature of such influence is a surprisingly understudied topic. While there has been a great deal of publicity about the digital economy and the suite of advanced technologies that underpin it, recent reports offer more questions than answers about how the global economy and strategies of leading Internet-based firms interact with national efforts to regulate and govern the Internet (Baur and Wee, 2015; Bughin et al., 2017; Mussomeli et al., 2016; Rüßmann et al., 2015; World Economic Forum, 2016; Schwab, 2017).

In 2015, four of the top 100 digital multinationals were headquartered in developing countries: Alibaba (China), Tencent (China), Cnova (Brazil), and Grupo Televisa (Mexico). According to the United Nations Conference on Trade and Development (UNCTAD), among the top 100 digital multinational enterprises (MNEs), 13% of digital affiliates are based in developing and transition economies (UNCTAD, 2017b, pp. 8-11; UNCTAD, 2017c). Although developing countries are still at the initial stage of homegrown digital multinationals, their emergence gives rise to questions that haven’t been fully addressed. For example, in the international business (IB) literature, the difference in internationalization strategies between multinationals from developed and developing countries has been noticed (van Tulder, 2010). Multinationals from BRIC countries (Brazil, Russia, India, and China) in particular have received attention because of the role that their home country environment, especially domestic market size and
national political agendas, played in shaping their strategies and success (van Tulder et al., 2016). However, we know very little about the difference between strategies among digital multinationals.

In the early 2000s, there was speculation about how the rise of the Internet might affect the governance structures of global value chains (Gereffi, 2001a, 2001b), which were receiving considerable attention since network-based production was becoming the predominant organizational form for globalized industries. The central argument was that alongside the producer-driven and buyer-driven value chains, which had been linked to the phases of investment-based and trade-based globalization, respectively, the emergence of the Internet in the mid-1990s could potentially give rise to an e-commerce revolution based on ‘infomediary-driven’ value chains that could apply to both business-to-business and business-to-consumer transactions in global industries. Given the transforming power of the Internet, in-depth research is needed to find out how it affects the strategies of digital multinationals from developed and developing countries.

This chapter will focus on two e-commerce companies, Amazon (United States-based) and Alibaba (headquartered in China). These firms exemplify the most financially successful advanced economy MNEs and emerging market MNEs (EMNEs), respectively, and their home countries represent distinct Internet governance models (Eichensehr, 2014). The interaction between Internet governance in the United States and China and the business models and international strategies of Amazon and Alibaba will lay the groundwork for the broader implications of these two cases.

The remainder of this chapter is structured as follows. Section 2 reviews relevant IB literature and conceptual frameworks on the digital economy to provide a background for the empirical analysis. Our comparative case study methodology is explained in Section 3. The findings in Section 4 focus on several topics: the digital capability and physical asset-building practices of Amazon and Alibaba over the past two decades; the international expansion of Amazon and Alibaba with an emphasis on the Southeast Asian and Indian markets; and the trends in Internet governance and home country politics in the United States and China, together with recent policies and regulations in Europe and India. Section 5 concludes and suggests directions for future IB research on multinationals in the digital economy.

2. CONCEPTUAL FRAMEWORK

This section draws complementary insights from two strands of literature. On the one hand, as the digital economy evolves, it has triggered research interests in companies with digitalized characteristics and successful business models. On the other hand, the recent surge in MNEs from emerging markets has encouraged IB studies to compare the features of internationalization strategies of MNEs from emerging versus advanced economies. Thus, we present the current literature in two strands: the role of international business in both the digital economy and
2.1. Firm Typologies and Business Models in the Digital Economy

While the ability of the digital economy to bring economic growth and social changes has attracted enormous attention, there is no consensus on how to understand its scope (Brynjolfsson & Kahin, 2000; G20 DETF, 2016; OECD, 2013). Different typologies have been developed to describe and analyze the components and structure of the digital economy. For example, Bukht and Heeks (2017) mapped the digital economy by classifying businesses into three layers of varying scope: core, narrow, and broad. The core scope is the “digital sector,” including hardware manufacture, telecommunications, information services, and software and information technology (IT) consulting. The narrow scope is the “digital economy,” consisting of digital services, platform economy, sharing economy, and the gig economy. A broader scope called the “digitalized economy” encompasses the core and narrow scopes; it refers to a range of extensive digitalized activities such as e-business, e-commerce, industry 4.0, and the algorithm economy. The United Nations Conference on Trade and Development (UNCTAD) (2017a) categorized MNEs in the digital economy into two groups: digital MNEs and information and communication technologies (ICT) MNEs (Fig. 1). ICT MNEs create a foundation for the digital economy since they provide the enabling infrastructure for various digital activities. Above ICT MNEs are digital MNEs, characterized by the central role of the Internet in their operation and delivery. Digital MNEs are further divided into four categories based on their functions, including e-commerce, digital content, digital solutions, and Internet platforms.

Although Bukht and Heeks and UNCTAD developed their typologies based on different criteria, central to their argument of the digital economy is the division between the ICT sector and the digital sector, which informs the equally fundamental roles that physical assets and digital capabilities play in shaping business competitiveness in the digital economy. However, the classification of digital MNEs remains inconclusive. In practice, companies always have businesses across diverse sectors of the digital economy and multiple sources of revenue. For example, although Amazon started its business as an online bookstore in the 1990s and most of its revenue is still generated by its e-commerce business, Amazon Web Services (AWS) is taking an increasingly significant part of its total revenue (nearly 10% in 2017). Also, AWS is growing at an annual rate of 43%, a figure much higher than Amazon’s North American sales (33%) and international sales (23%). Since AWS falls into the category of digital content, we question whether it is justified to classify Amazon as merely an e-commerce company.

Thus, there is a need to revisit the definitions of e-commerce and Internet platform. According to UNCTAD (2017a), Internet platform includes: (1) companies providing digital services through the Internet and cloud-based platforms, search engines and social networks; and (2) sharing-economy platforms, such as transaction platforms (eBay) and open-source platforms (Red Hat). Alibaba integrates
most of the features of Internet platforms. For example, within its consumer-to-consumer (C2C) site Taobao, Alibaba provides its search engine for users to find the product or service they need. Thus, it builds a network between buyers and sellers and serves as a platform where they make transactions — similar to the function of eBay. In this case, Internet platform and e-commerce activities are roles adopted by a single firm, rather than two distinct groups of companies.

For Kenney and Zysman (2016), the platform is a pervasive attribute underpinning the structure of a digitally based economy, rather than a subcategory. They labeled today’s transformation as “platform economy,” with an emphasis on an increasing number of economic, political, and social activities enabled by diverse digital platforms and the growing power of platform owners. For example, Kenney and Zysman regard Amazon as an operator of various platforms: Amazon.com is a retail platform, which connects sellers and buyers; AWS is a platform for platforms, which provides infrastructure and tools to build other platforms; and Amazon Mechanical Turk is a mediating platform, which enables companies to crowdsourced specific tasks and build a modern putting-out system.

Some scholars argued platform refers to an intermediary connecting markets of users and relying on technology/information to facilitate value creation through network interactions (Parker, Van Alstyne, & Choudary, 2016). According to Zeng and Glaister (2016), Internet Platform Companies (IPCs) are established primarily to provide infrastructure, information, and technology that enable direct transaction or value creation over web-based virtual platforms by linking different groups of users to extract revenues from the transaction. IPCs differ from traditional companies in fundamental ways. In the traditional manufacturing and professional service company, a firm’s ability to
generate supernormal economic returns is mostly determined by a firm’s internal resources and its supply-side efficiency. In contrast, the IPCs’ value is mainly driven by network externalities where the value to users largely depends on the number of others using the same goods or services. For example, the Internet platforms that establish two-sided markets that link e-commerce consumers with small- and medium-sized apparel manufacturers transformed the governance structure and upgrading patterns in China’s apparel value chain, which was traditionally a buyer-driven chain led by large retailers and branded manufacturers (Li, Frederick, & Gereffi, 2018). Also, the “asset-light” nature of Internet platforms has reduced transaction costs for physical assets management; thus, they can internationalize at a higher speed by relying on local providers for business adaptation and focusing on efficient operational integration (Kenney & Zysman, 2016; Parente, Geleilate, & Rong, 2017).

Libert, Beck, and Wind (2016) classified companies into the following four business models based on the way they create value:

• **asset builders** – deliver value through physical capital, such as manufacturers and traditional retailers;
• **service providers** – deliver value through human capital (skilled people), such as consulting firms and financial services;
• **technology creators** – deliver value through intellectual capital, such as the Internet and pharmaceutical companies; and
• **network orchestrators** – deliver value through network capital or relationships.

Based on their research on the S&P 1500 index over a 40-year time horizon, Libert et al. (2016, p. 15) concluded that network orchestrators, on average, grew revenues faster, generated higher profit margins, and deployed assets more efficiently than companies using the other three business models. This superior financial performance derives from the fact that network orchestrators can create connections between other asset types and thus gain a platform advantage.

Many scholars agree that successful digital companies are dependent on the network effects they create. According to Singh and Kundu (2002), e-commerce corporations (ECCs) are defined as “organizations that from inception are engaged in electronic commerce and derive significant competitive advantage from the use of network resources resident in virtual networks of commercial collaborative alliances.” They emphasized the network-based advantages in the success of ECCs – the value of the network to each of its members is directly proportional to the number of other network users. Thus, the value of a company website increases as the number of Internet visitors increases. Brouthers, Geisser, and Rothlauf (2016) argued that creating and capturing the value of networks is central to ibusiness companies, who use the Internet and other computer-based IT systems to allow users to interact with each other.

In sum, these business typologies and models provide a useful framework to examine the activity and competitiveness of Amazon and Alibaba. However, there are limitations. For example, UNCTAD narrowed the scope of e-commerce
down to “only full online and online-born commerce.” The e-commerce channel of traditional businesses is excluded, even though it is growing quite fast. Although there is a massive gap between internet retailers and traditional retailers, the line between them is becoming blurred given the convergence of online and offline businesses. For example, Amazon has acquired the chain grocery store, Whole Foods, and Wal-Mart’s e-commerce sales in 2017 amounted to $11.5 billion (Irwin, 2017). An underlying assumption of Libert et al. (2016) is that the four types of companies are different and a given company can fit into only one type. Thus, Amazon would be defined as a network orchestrator because it is an e-commerce company like eBay. However, Amazon creates value in multiple ways. Besides network orchestrator, it also has the features of asset builder (e.g., logistics infrastructure), service provider (AWS), and technology creator (apps developer for Amazon Prime).

While Amazon and Alibaba began as e-commerce companies, in reality their business models have expanded beyond internet-based activities and become more complex. Therefore, Libert et al. (2016) neglected the possibility that companies are a mixture of multiple business models and the value created by each model changes over time. To fill these gaps, our case study of Amazon and Alibaba will examine their digital capabilities and physical assets to present the scope of e-commerce business in the real world. Moreover, we will utilize platform theory to explore the competitiveness generated by networks, technologies, services, and assets in Amazon’s and Alibaba’s business models.

2.2. Internationalization Strategies and Home Country

Internationalization theory is often regarded as the dominant theory of IB studies on MNEs, emphasizing internal organization, network capabilities, alternative governance choices, and interdependencies between geographically dispersed economic actors. These factors together lead to the efficient governance of transactions and effective matching of firm-specific advantages (FSAs) to its environment (Buckley & Strange, 2011; Kano, Verbeke, & van Tulder, 2016). Although internationalization theories have been heavily influenced by developed country MNEs from the United States, Western Europe, and Japan, there has been an interest in the experience of developing country MNEs to enrich the IB literature. Different from their counterparts in developed countries, it is argued that economic and political factors play equally important roles in their international growth.

On the one hand, Verbeke and Kano (2015) have found that FSAs are based on such common elements as entrepreneurial agility, flexibility/responsiveness, and experience in operating in challenging environments. Also, brand and technology, when present, may not have been developed through traditional means of advertising and in-house research and development (R&D). Joint ventures between developed economy and emerging economy MNEs remain an essential vehicle for trade name and technology know-how acquisition by EMNE partners.
On the other hand, they use international expansion as a springboard to: (1) acquire strategic resources to compensate for their capability gaps; (2) overcome catch-up disadvantages; (3) exploit market opportunities in other countries; (4) alleviate institutional and market constraints at home and bypass trade barriers into advanced markets; and (5) better compete with global rivals after strategic asset acquisition. In other words, they systematically and recursively use international expansion to equip themselves to compete against global rivals, reduce vulnerability to weak or lagging home institutions, and fortify their ability to build new competitive advantages, domestically and internationally (Bae, Purda, Welker, & Zhong, 2013; Liang, Lu, & Wang, 2012; Luo & Tung, 2007).

Scholars have been describing this group of non-developed country MNEs in different ways, such as Third World multinationals, developing country multinationals, and emerging market multinationals. Most recently, a subgroup – BRIC multinationals – has been a hot spot. It is not only because of the presence of a number of prominent MNEs from this subgroup, but also because of the distinguishable characteristics of their home countries, such as the size of the domestic market, the influence of national policy and government involvement, that lead to more reliable generalizations with theoretical and practical implications (Wells, 1983; van Tulder, 2016; Verbeke & Kano, 2015).

Chinese MNEs, in particular, have been noticed given the significant influence of their home country. Luo, Xue, and Han (2010) integrated two seemingly paradoxical views – institutional escapism and governmental promotion – in explaining the international expansion of Chinese MNEs. The Chinese government’s decision to “go global” certainly incorporates a political dimension and appeals to national interest and the need to increase the efficiency of Chinese companies and the economy. China’s political leaders realized that a globalization agenda would materially facilitate China’s rise and fortify its influence, regionally and globally, over the structure and protocols governing well-established multilateral institutions and the world economy. This generates “government-created advantages” for the internationalization of Chinese MNEs, which complement China’s natural endowments and for the most part improved Chinese MNEs’ international competitiveness (Ramamurti & Hillemann, 2018).

Concerning the digital economy, some have argued that government control in China to curb the power of foreign digital MNEs has saved domestic digital companies and even stimulated local competition and innovation (Wadhwa, 2018). However, Chinese state-owned enterprises (SOEs) and private-owned enterprises (POEs) have different relationships with the government, and thus distinct internationalization paths. As a direct beneficiary of government assistance, Chinese SOEs establish relationships and networks in foreign markets through financial support and administrative privilege. In contrast, Chinese POEs (which make up the vast majority of digital economy firms in China) generally do not have such close linkage to the government. Two institutional hazards, the overprotection of SOEs and the uneven development of domestic industries in favor of sectors with strong SOE involvement, largely reduced the domestic market of POEs and forced them to internationalize (Wei, Clegg, & Ma, 2015).
While previous studies provide some insights into the motivations and strategies of Chinese MNEs, most of them draw evidence from firm-level case studies of leading manufacturing, oil, and electronics companies, primarily focusing on characteristics and motivation for foreign direct investment (FDI), location, and entry mode choices (Luo & Lemanski, 2016; Silva, 2016; Yorbana, 2016). However, Chinese digital MNEs are also becoming key players in the global economy. Two out of four EMNEs in the Top 100 digital MNEs, Alibaba and Tencent, are Chinese-born but few studies have addressed their internationalization patterns or compared them with their counterparts in developed countries. In our study, we will first briefly present the Internet governance status in the United States and China, and then explore the applicability of current internationalization theories to analyze the influence of the domestic regulatory environment on Amazon versus Alibaba.

3. METHODOLOGY

This research looks at the interaction between regulatory context, business models, and internationalization patterns of leading digital multinationals from developed versus emerging economies. Amazon and Alibaba are chosen because of their position as leaders and competitors in the global e-commerce industry. On the list of top 100 digital MNEs (UNCTAD, 2017b), Amazon ranked first under the e-commerce category as a global leader with Alibaba ranked second based on their sales in 2015. Fig. 2 presents key statistics and facts of Amazon and Alibaba obtained from their 2017 annual reports. In 2017, Amazon had $177.9 billion in revenue with 566,000 employees, a 56% annual growth rate, and a 3.9% return on assets. Alibaba had $22 billion in revenues with 50,092 employees, a 56% annual growth rate, and an 11.9% return on assets.

Besides differences in company size and profitability, Amazon and Alibaba have distinct distributions of revenue. In its annual report, Amazon divides its sources of revenue into three categories: North America ($106.1 billion); international ($54.3 billion); and AWS ($17.5 billion). Alibaba listed revenues from China commerce ($17.5 billion), international commerce ($1.94 billion), cloud computing ($0.97 billion), digital media and entertainment ($2.14 billion), and innovation initiative and others ($0.44 billion). Their financial success outweighs whether they are from developed or emerging economies. More importantly, we ask how they are similar and how they are different.

The case study method is employed to accomplish various goals, such as providing a description, testing existing theories, and generating new theories (Eisenhardt, 1989). First, we want to determine the usefulness of theories on the digital economy and IB to gain insights into these two companies. We identified several relevant approaches such as UNCTAD’s digital economy structure and Libert et al.’s four business models in the literature review section. On the one hand, they provide conceptual frameworks to organize and analyze the empirical research on Amazon and Alibaba. On the other hand, this process could help us understand the weaknesses of each framework and how to improve them to reflect
the reality of the digital economy. We expect the characteristics of Amazon’s and Alibaba’s growth and international expansion to reflect the features of their home economies strongly.

Second, we present real-world details of these two companies to better understand their growth trajectories. The six most commonly used sources of evidence in doing case studies are: documentation, archival records, interviews, direct observations, participant observation, and physical artifacts (Yin, 2017, p. 117). In our study of Amazon and Alibaba, the documentation and archival records are highly complementary. Therefore, the information in our study includes sources such as company annual reports, market research databases (e.g., Statista and Ychart), specialized institutions (e.g., eMarketer), and mass media (e.g., New York Times.}

Fig. 2. Statistics and Facts on Amazon and Alibaba, 2017. Source: Amazon 2017 Annual Report; Alibaba 2017 Annual Report.
and *Wall Street Journal*). Although efforts have been made to ensure the accuracy and reliability of the data from which we draw inferences, alternative explanations and interpretations of the data are possible. Therefore, we focused on qualitative analysis when comparing Amazon and Alibaba and used statistical data as a supplementary method.

4. FINDINGS

We divide our findings into three broad categories: the platform business model, the internationalization strategies of Amazon and Alibaba, and internet governance in the home country (the United States and China, respectively).


What makes Amazon and Alibaba the biggest e-commerce companies in the world? To answer this question, we need to realize that Amazon and Alibaba are not merely Internet retailers that deliver a remarkably diverse array of products and services. Amazon functions as a platform company by utilizing its e-commerce sites, AWS, and infrastructure together. A substantial amount of its revenue is created by providing consumers with technological service and physical assets. Its cloud computing business, AWS, has served its own computing needs and those of other companies since 2004 and it has become the largest cloud-computing service provider with a 47% market share (*Coles, 2017*). The more Amazon invests in AWS, the more appealing it becomes for companies and programmers.

Similarly, the philosophy of bringing connections is central to all of Alibaba’s business. Since it started its first e-commerce site, Alibaba.com, an English-language global wholesale marketplace in 1999, its mission has been connecting and facilitating cross-border trade among small businesses; its logistics network, Cainiao, provides a platform for delivery companies to connect with each other and with customers; and finally, Ali Cloud is designed to optimize the connecting process and economic returns. Its ultimate goal is building a network platform where the more sellers use the e-commerce site, the more buyers it attracts and the more data and revenue they generate.

The success of Amazon and Alibaba relies on their platform business model, featuring the network effects generated by bringing their digital capabilities and physical assets together. Based on public information from their websites and annual reports, *Fig. 3* adapted the typology offered by *UNCTAD (2017a, p. 165)* to give a full presentation of the digital and physical dimension of Amazon’s and Alibaba’s business models. On the one hand, the digital dimension is divided into three parts: e-commerce, digital content, and digital solutions. As noted before, the boundary between each segment is flexible, and specific products or services could be featured by two or three functions. For example, Amazon’s AWS provides both data analysis and digital assistance to business, so it is put in the overlapping areas of digital content and digital solution. This is mainly because both Amazon and Alibaba encourage innovation in their new business areas to add to profits. Also, they need to keep attracting new customers for more traffic and data
collection on their e-commerce sites. E-commerce is put at the top of the structure for two reasons: (1) Amazon.com and Alibaba.com are the starting point of these two companies; and (2) e-commerce still represent the most significant source of each company’s revenue, and thus it is the core of their business models.

“Internet platform” is not included as part of Amazon’s and Alibaba’s digital capability for two reasons. First, according to UNCTAD, Internet platforms mainly refer to search engines and social media. Amazon and Alibaba fail to attract enough users for these products to become a mainstream feature of their business models. This is not surprising if we look at the fierce competition in their home markets. In the United States, the search engine and social media platforms are dominated by Google and Facebook, respectively; in China, they are controlled by Baidu and Tencent. Thus, it would be hard for latecomers to be competitive enough to take a significant market share. Rather, we identify “platform” as a fundamental characteristic of their business model, and it would be misleading to objectify this term with certain products of Amazon and Alibaba. Their physical assets are a separate and significant dimension. We argue that even in the digital economy, the platform business model does not exclude the value generated by physical assets. The success of e-commerce is largely due to satisfying consumers through speed and convenience, which depends on well-functioning and enabling physical assets.

Just as the digital economy needs IT hardware like laptops and smartphones as a carrier for digital activities, Amazon and Alibaba need distribution capabilities like warehouses and logistics to deliver the physical products purchased online. In fact, Amazon’s business model could not succeed without heavy investments in its fulfillment centers and warehouses, which serve not only Amazon’s own inventory, but also third-party sellers that listed products with more than $23 billion value in 2016, about twice as much as two years earlier. The increasing investment in fulfillment centers, together with its acquisition of Whole Foods Market, shows that Amazon is determined not to be a purely digital company.
At the same time, Alibaba, known for being asset-light, has been investing in warehouses in China’s and international free-trade zones (Reuter, 2017) and the offline grocery chain Hema Fresh since 2017 (Najberg, 2017). For Amazon and Alibaba, being a platform business means more than minimizing physical assets. The future of their e-commerce business focuses on how they bridge the online and offline retail worlds.

4.1.1. E-Commerce

E-commerce can be classified based on the participants in the transaction. First, B2B happens where both the transacting parties are businesses, including manufacturers, traders, retailers, etc. Second, B2C is where businesses sell electronically to end-consumers. Third, C2C examples could be found in auction sites like eBay.

Both Amazon and Alibaba provide platforms for all these activities. Their development trajectories and achievements differ, however. Since it started as an online bookstore in 1994, Amazon.com has been a B2C-focused website. Now, people can also find portals for B2B (Amazon Business) and C2C (sell on Amazon) on Amazon.com, but B2C remains its core business. The merchandise option extends from books to nearly everything – millions of electronics, apparel, accessories, auto parts, home furnishings, beauty aids, toys, etc. According to eMarketer (2017), about 44 cents out of every dollar spent online in America flows to Amazon. Besides North America, Amazon has successfully transferred the B2C model to other countries through Amazon International websites. This practice will be discussed further in Section 4.2.

In 1999, Alibaba started with a B2B website, Alibaba.com, a global wholesale marketplace that connects Chinese manufacturers with overseas buyers. At that time, the Internet was becoming popular in China, and China’s low-cost manufacturing started to attract foreign buyers and investors. Today, Alibaba has created a portfolio of platforms covering every dimension of e-commerce – C2C (Taobao.com), B2C (Tmall.com, Juhuasuan.com), and B2B (Alibaba.com) as well as travel agencies (Alitrip). Together they account for 86% of Alibaba’s annual revenue in 2016. Besides the domestic market, Alibaba is attempting to attract international customers through Aliexpress.com and Lazada. Although international sales only accounted for 8% of Alibaba’s revenue in 2016, the growth potential is enormous.

4.1.2. Digital content

The sources of Amazon’s and Alibaba’s revenue in their annual reports are divided into three segments: domestic commerce, international commerce, and cloud-computing service. In its report, Amazon states that these segments reflect the way Amazon evaluates its business performance and manages its operations. Although the value generated by cloud computing was small compared to their total revenue, 3% for Alibaba and 9% for Amazon, its presence in the annual reports give us a glimpse of the strategic importance of AWS and Ali Cloud to Amazon and Alibaba, respectively. Launched in 2006, AWS offers a broad set of
global computing, storage, database, and other service offerings to developers and enterprises of all sizes. Because its revenue was not published until 10 years later, the public did not know whether AWS was making a profit before then. In April 2015, when Amazon first announced that the gross sales of AWS amounted to $4.7 billion in the previous fiscal year, its stock price skyrocketed, and its market cap quickly surpassed Warren Buffett’s Berkshire Hathaway and became the fifth largest company by market cap (Carter, 2017). Thanks to AWS, the annual revenue of Amazon in 2015 first exceeded $100 billion, two decades after the establishment of Amazon. This speed is impressive compared with Wal-Mart, which took 35 years to achieve $100 billion in sales.

In 2009, Ali Cloud, a data-mining and information-management company catering to e-commerce businesses, was established to serve Alibaba’s own computing needs and those of other companies. The large pool of data generated by over 400 million users shopping on its websites that are being stored and analyzed by Ali Cloud is advantageous to Alibaba in many ways. One of the most successful applications of Ali Cloud is pay-for-performance advertising. When certain keywords are searched, sellers can bid for a high ranking among the search results and advertisers can bid for space to recommend their products. Today, when customers open the website, they will be greeted with a homepage covered in tailored personal recommendations based on their browsing history, purchase history, and best guesses of what will interest them based on data from thousands of other similar shoppers’ profiles stored in Ali Cloud. With its US-rivals such as Microsoft Azure and Amazon AWS being restricted from operating in China because of the regulatory context (which will be discussed in Section 4.3), Ali Cloud retains a considerable business advantage in an environment with few competitors.

This leads to a virtuous circle – greater scale creates more value, more value attracts more customers and sellers, who in turn create greater scale. Yong Zhang, chief executive of Alibaba Group, said the online sales data and consumer footprints in the digital world allowed entrepreneurs to not only “better meet demand,” but also “create new demand” (Meng, 2017). This process is described by Alex Yao, a JP Morgan analyst, as “expanding from traffic monetization to data monetization,” which is bringing important changes not only to the core business function, but also the nature of competition within the e-commerce industry (Kim, 2017). The financial outcome of data monetization has yet to be determined, but it is reasonable to link Amazon’s and Alibaba’s top performance in the industry to their cutting-edge data and cloud technologies.

4.1.3. Digital Solutions
In 2017, the estimated active users of voice-enabled assistant devices in the United States was 60 million, and 70.6% of them use Amazon’s Echo (eMarketer, 2018). Through the Echo speaker, customers can use Alexa, an artificial intelligence (AI)-driven voice assistant, to order goods from Amazon as well as control household appliances. While still far from mass adoption, consumers are becoming increasingly engaged with the virtual assistant technology. eMarketer (2018) predicted that as prices decrease and functionality increases, consumers are finding more reasons to adopt these devices. This market will have over
75 million users by 2019. Amazon gave much credit to Alexa for its dominance in the US market. Seeing the potential of the application of voice assistants in e-commerce, Jeff Bezos stated that Alexa’s results far outpaced its internal projections and that Amazon would “double down” on its investment in this arena (Poletti, 2018).

In 2004, Alipay was launched as a third-party online payment platform, a key strategic move for Alibaba to win the e-commerce market. Online credit and debit payments were not popular among China’s sellers and customers in the early 2000s. In 2002, Chinese banks set up a payment card network named Union Pay, which was intended to become the “Chinese Visa and Master Card.” However, the banks were reluctant to deal with small transactions involving distance-selling since they considered them too risky and small to yield sufficient revenue. Also, online sellers and buyers with relatively low deal volume were unwilling to pay the high transaction fees, and Chinese consumers distrusted credit cards. In this context, Alipay formed partnerships with leading Chinese banks and signed a long-term agreement with China Post, the state-owned postal service, allowing consumers to deposit cash locally and replenish cash accounts like a bank. Today, with 450 million registered users, Alipay handles more than 50% of China’s online transaction payments. Beyond the Chinese domestic market, Alipay is competing for the global mobile payment market with PayPal and Apple Pay. Alipay could become a primary tool by which Alibaba expands its impact and increase its presence across Asia and the United States.

Two aspects of Amazon’s and Alibaba’s physical assets are noteworthy: first, the distribution network infrastructure, including Amazon’s warehouses and two-day delivery service, as well as Alibaba’s Cainiao Logistics; and second, their offline stores, including Amazon’s acquisition of Whole Foods Market in North America and Alibaba’s Hema Fresh stores in China. These phenomena are not mentioned in UNCTAD’s discussion of the digital economy, but digital giants like Amazon and Alibaba are bringing transformative changes to traditional express and retail industries, which are becoming an integrated part of the digitized economy.

4.1.4. Logistics and delivery

Amazon’s business model features heavy reliance on physical assets. In a letter to stakeholders, Amazon’s CEO, Jeff Bezos, emphasized AWS, Amazon Marketplace, and Amazon Prime as three pillars of the company’s success (Bishop, 2016). As discussed earlier, AWS and Marketplace refer to digital content and e-commerce, respectively. The third pillar, Prime, is a service whose membership customers have access to free limited-time guaranteed delivery and free access to online entertainment resources including music, books, and movies. Prime membership subscribers totaled more than 100 million in 2018, and they contributed more than $6 billion every year to Amazon’s revenue (Wingfield, 2018).

The secret to the success of Amazon Prime is its extensive logistics infrastructure: warehouses and fulfillment centers (FC) where Amazon stores and distributes most of its inventories; Amazon Prime Air, a drone-based delivery system that provides 30-minute delivery service; and Amazon Lockers where customers
can self-pick-up packages in nearby kiosks at their convenience after placing orders online. Given the combination of fast delivery, product diversity, and competitive price, it is not surprising that Prime can retain old customers and attract new ones and that Amazon's investment in logistics has been increasing by 30% annually since 2013 (MWPVL, 2018).

The tradition of emphasizing physical assets in Amazon's business model can be traced back to 1994 when Amazon first started its business as an online bookseller. To store its products, rather than outsource the FC as other Internet retailers did in the 1990s, Amazon built a vertically integrated network of facilities that would hold its inventory and use it to assemble and ship orders shoppers submitted through Amazon's site. The establishment of storage infrastructure laid the foundation for the later expansion to other business. Today, while Amazon still offers millions of books, other items – such as electronics, apparel and accessories, auto parts, home furnishings, health and beauty aids, toys, and groceries – contribute more than two-thirds of sales.

Starting with two FC centers in Seattle and Delaware, Amazon built 51 FC and sorting centers in the United States and more than 140 worldwide by 2017. Most of them are located outside major urban areas and provide a low-cost alternative regarding land value and real estate taxes to that associated with traditional brick-and-mortar stores operated by retail chains. The percentage of the total population in the United States that live within 32 kilometers (km) of Amazon's FC increased from 26% to 44% between 2014 and 2016 (Kim, 2016). It is estimated that although the FC network expansion from 2006 to 2018 has resulted in a loss in revenue of around $9.6 billion, it will reduce the average shipping distance from the FC to the consumer by around 290 km by the end of 2018. This would result in between $5 and $13.3 billion in savings on shipping costs and an increase in profit margins of up to 14% (Houde, Newberry, & Seim, 2017).

Alibaba owns a logistics company called Cainiao Network (formerly known as China Smart Logistics), a company formed by Alibaba in partnership with four other major Chinese package-delivery companies in 2013. Cainiao Network can support the delivery of 47 million packages per day, and it covers 224 countries and regions globally and 2,800 districts and counties in China (Alizila, 2016). However, rather than deliver packages itself like Amazon's delivery network, Cainiao Network operates a logistics data platform that uses data insights and technology to improve the capacity and capabilities of its package delivery partners, whose philosophy is analogous to that of Alibaba's e-commerce business. Another difference between Amazon Prime and Cainiao Network is that the latter does not have a membership program with exclusive benefits, so it is not as effective in cultivating loyal customers, although it requires much less financial investment to provide fast delivery.

4.1.5. Offline Stores
In Amazon's largest acquisition to date, Amazon gained an instant bricks-and-mortar presence when it bought Whole Foods Market in a $13.7 billion deal in
2016. By early 2018, Amazon had changed Whole Foods in several critical ways, including price cuts of up to 50% for fresh food, free two-hour delivery for fresh food via Prime Now service, and the sale of Amazon’s Echo device within Whole Foods stores (Valinsky, 2018). These moves appear to benefit both sides. Whole Foods has been struggling for years to be price competitive as grocery stores focus on healthy, organic, and locally sourced products. When Whole Foods made significant investments in lowering prices and building out its private-label brand, customers responded by shifting to lower-priced retailers. Amazon has brought lower prices to Whole Foods by using its scale and efficiencies to pass cost savings to consumers. On the flip side, Whole Foods gives Amazon access to more than 450 physical pickup points and distribution centers for both grocery and non-grocery items throughout the United States. Thus, the combination of Amazon and Whole Foods Market’s stores creates a promising outlook for more than the grocery segment alone. It underscores the potential for a hybrid, offline–online retailer that gives consumers a seamless experience and allows companies to capture the maximum operational benefits across both physical and digital operations.

Alibaba made an even more significant transformation. It launched over 20 Hema Fresh stores in Beijing and Shanghai, which provide imported seafood, meat, fruit, and vegetables for high-end customers. The strategy is intended to bring a seamless shopping experience to customers regardless of whether they are on a desktop, mobile device or in a brick-and-mortar store. Cheung (2017) provided a detailed picture of the operation of this new retail model: Hema shoppers are encouraged to download the store’s mobile app, which is connected with Alibaba’s other products, including the marketplace Taobao.com and the mobile digital payment Alipay. In-store customers can use the app to scan a product barcode to receive information or recommendations for related products. Once done with their shopping, customers can check out using the app.

Since the stores also double as fulfillment centers, shoppers within a roughly 3-km radius of a store can also make purchases remotely using the app, and then have goods delivered within 30 minutes. Alibaba uses data collected on these shoppers and their app usage to build a more personalized shopping experience, as well as to improve its understanding of a consumer’s online and offline journey. Thus, Alibaba’s business model is transitioning from a pure network orchestrator to a hybrid of network orchestrator and asset builder.

As traditional retailers are facing threats from e-commerce companies, Amazon and Alibaba have made it clear that they want a larger share of consumers by integrating online and offline services. In their domestic markets, we see a large number of investments, partnerships, and acquisitions of grocery chains, and this might be a start of more diverse offline initiatives. Both have made moves in healthcare – Alibaba has an online drugstore, Ali Health, and Amazon has formed a not-for-profit healthcare company recently. Armed with vast amounts of consumer data in their arsenals and advanced tech capabilities, they are in a good position to experiment and adapt to the brick-and-mortar drug stores and insurance companies.
4.2. International Expansion and Competition in Southeast Asia and India

International expansion is always employed to alleviate institutional and market constraints at home and take advantage of opportunities in other countries. Fig. 4 shows the geographic expansion of Amazon and Alibaba over the past two decades. As the largest B2C e-commerce retailer, Amazon already has expanded its e-commerce business to 14 foreign markets. Its international footprint has two characteristics. First, its performance in each foreign market differs. In the developed markets in Western Europe, Amazon has become one of the dominant e-retailers with a top market share or top visitor count. In emerging markets in Asia and Latin America, it is making much slower progress, especially in China, one of the biggest e-commerce markets, where its market share was lower than one percent in 2016.

Second, compared with its 44% share of the e-commerce market in the United States, its performance in foreign markets is less impressive. Several external factors contribute to the financial instability and less robust economic returns from Amazon’s global expansion, such as underdeveloped infrastructure, less Internet accessibility, unregulated business environments, less familiarity with local markets, and changing foreign exchange rates. Also, these limited gains partially result from Amazon’s business model; Amazon’s heavy dependence on logistics makes it difficult to transfer its domestic success. For example, in many of Southeast Asia’s markets, Amazon must rely on its vaunted experience in managing and delivering inventory to overcome the lack of reliable infrastructure for last-mile delivery (Chadha, 2017).

Compared with Amazon, the scope and scale of Alibaba’s international business are more limited. Far less than Amazon’s 14 international sites, Alibaba only had two platforms for international and cross-border commerce by 2016: Alibaba.com, the wholesale marketplace for global trade; and AliExpress, an international marketplace for consumers around the world to buy products and services directly from sellers in China. Also, the net sale of Amazon International was 40 times greater than that of Alibaba International. Although its first website, Alibaba.com, started with the goal to build connections among buyers and sellers across the globe, so far it has only managed to connect Chinese buyers with global sellers. In 2016, the revenue from international e-commerce accounted for 7.5% of the total, almost 75% less than its domestic revenue (Alibaba, 2017).

In the short term, Alibaba’s primary focus is likely to be maintaining its competitiveness in the Chinese domestic market. However, it makes no secret of its global aspirations. Alibaba announced a long-term goal for the global market in its annual report (2017): serving two billion consumers around the world and supporting 10 million businesses to operate profitably. To expand its presence in key markets and serve international customers, last year Alibaba proposed building a global commerce platform, World e-Trade Platform (eWTP), which aims to eliminate barriers to commerce to promote free trade and help businesses and consumers everywhere participate in cross-border trade. Rather than being far away, a head-to-head competition between Amazon and Alibaba is right around the corner in the e-commerce market in Southeast Asia.
In April 2016, Alibaba completed an acquisition of a controlling stake in Lazada, an e-commerce company that operates e-commerce platforms in Singapore, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. Lazada
provides local language options and mobile apps to cater to customers in each of the six markets. It has developed its own logistics infrastructure with warehouses and a last-mile delivery fleet to offer quick and reliable service to its customers. Sellers on this platform have access to a combined population of approximately 560 million and an Internet user base of approximately 200 million in these six countries. Alibaba intended that Lazada be the vehicle for expansion into the Southeast Asia consumer market, including potential cross-border opportunities introducing Chinese merchants and international brands to Southeast Asian consumers.

In the meantime, Amazon made the Prime Now app available for download in Singapore on both Apple’s App Store and Google’s Play Store. Singapore’s dense, urban nature will also make it easier for Amazon to manage delivery logistics within Prime Now’s two-hour delivery window (Chadha, 2017). The company has already built a fulfillment warehouse of about 100,000 square feet in Singapore to serve consumers there. With the move, Amazon has fulfilled a long-held expectation that it would target Southeast Asia’s e-commerce sector. The expansion pits Amazon directly against Alibaba in Southeast Asia, where e-commerce sales are expected to more than double between 2016 and 2020, from US $1 trillion to $2.7 trillion (eMarketer, 2017).

4.3. Internet Governance and Home Country Politics

Currently, there are few People’s Republic of China laws, regulations or rules for e-commerce because the industry is relatively new. However, it does not mean that e-commerce-related activities are not carefully monitored and controlled by the government. For example, e-commerce is classified as a value-added telecommunication business by the Chinese government, which restricts foreign ownership in this sector. As a result, Amazon has to operate its business in China through companies that are owned, wholly or partially, by Chinese citizens. Alibaba is also keenly aware of the potential adverse effects that Internet regulation in China has on its business. In its annual reports, it has been warning investors that requested disclosure of user information or data by the Chinese government due to either national security concerns or Internet censorship may harm Alibaba’s services and reputation in the future.

The contemporary Internet governance structure in China was established in 2000. According to the framework provided by de Bossey (2005) and Yang and Muller (2014), it has five major categories: cybersecurity, content regulation, Internet resources, intellectual property, and developmental issues (see Fig. 5). Over the last two decades, a common theme of these regulatory endeavors has been to strengthen government control over the Internet. Muller (2011) contends that China’s approach reflects cyber-nationalism and the exercise of sovereignty in Internet governance, which is contrary to the “private-sector based, more capitalistic, freer” international environment of Internet governance, which is “subject to US hegemony.” As a result, Internet governance in China is meant to support the dominance and power of the state.
This section mainly focuses on the interaction between Alibaba and three of China's most controversial Internet policies: The Great Fire Wall (GFW), real-name verification, and the special management share. First, we show the influence of Internet governance on China's digital companies in practice and the implications for the digital economy. We also will briefly review Internet governance from a comparative perspective. With this understanding, we will be able to examine the interaction between Internet governance in their home countries and the international expansion of Amazon and Alibaba.

4.3.1. Great Fire Wall
Among China’s Internet regulations, GFW is usually seen as the most controversial. It was launched in 2003 to prevent unfettered access to foreign websites as part of the Golden Shield Project. Multiple foreign Internet corporations were affected by GFW, including Google, Facebook, and Twitter, whose access to the Chinese market was restricted. Google, for example, was required by the Chinese...
government to accept a non-negotiable legal requirement of self-censorship when it launched in China in 2006. Under such censorship, Google must remove any information related to democratic, religious, or human rights issues in its search results (Hartnett, 2011). In 2010, the search engine decided to stop providing service in mainland China. Based on the government’s statement quoted by the official news agency, Xinhua, the reason for this decision is that “Google violated the promise it made when entering the Chinese market by not filtering its searching service and blaming China through insinuation for alleged hacker attacks” (Helft & Barboza, 2010). Since then, users visiting Google and its sub-sites, like many other websites that are blocked by the GFW, would be directed to a blank webpage.

GFW, viewed through the lens of strengthening national sovereignty, is seen as a boon to China’s domestic Internet companies. Because the GFW blocks foreign competitors in a targeted manner, it left enough space for Alibaba, Baidu, and Tencent to grow. However, it would be misleading to give GFW undue credit for the domestic Internet boom. GFW is a reminder of the values underpinning the regime of state sovereignty. Foreign Internet companies were banned because their values did not conform to those of the Chinese government. In contrast, Jack Ma, in his public speech and social media posts, dutifully recycles political buzzwords like “China Dream” and “new normal” (Foley, 2015). Alibaba and other Internet corporations recently agreed to invest $11.7 billion in the state-owned China Unicom (Yuan, 2017), furthering the government’s goal of channeling private money into state companies. Therefore, Alibaba became the biggest e-commerce corporation in China partly by maintaining a good relationship with the government and advocating for its values.

4.3.2. Real-Name Verification

The second type of Internet regulation in China is real-name verification. Since 2010, China’s Ministry of Industry and Information Technology (MIIT) has required real-name verification for Internet users. In the beginning, its enforcement relied on China’s three telecoms: China Mobile, China Unicom, and China Telecom. Then it was extended to the registration process of social media, such as Weibo and WeChat. In 2016, all users of online payment platforms, which includes Alipay, were required to link their accounts to an identification or bank account issued in mainland China.

Another regulated area related to Alibaba is delivery, which requires real-name verification to mail out or sign for a package. The MIIT claims real-name verification protects Internet users from cybercrime. In contrast, Columbia Law Professor Tim Wu claims the definition of cybercrime is distorted in this context (Osnos, 2010). Although most countries have decided that the Internet be subject to national laws, China’s idea of Internet sovereignty is unique in its lack of respect for the idea of an “open Internet.” China’s Internet regulations are often against “divulging state secrets,” “subverting state power,” “damaging state honor,” “propagating heretical or superstitious ideas,” and “spreading rumors and disrupting social order and stability” (Ash, 2017). These rules
equate Internet security to actions such as hacking and other forms of cybercrime.

Since this regulation is very recent, there are few clues about its impact. However, it could be helpful to look at other countries that have implemented real-name verification on Internet users, such as South Korea. In 2007, the South Korean government implemented a Real Name Verification Law by which Internet users must pass a verification process to express their opinions on most websites. Cho (2013) researched the impact of this law on privacy protection and free speech. He found that after the implementation of real-name verification, Internet users’ identity is more traceable; also, it has become more difficult to guarantee freedom of speech in South Korea’s Internet. By monitoring and restricting the content of the Internet, the state has more power to keep track of both the content users as well as providers.

4.3.3. Special Management Share
Chinese government regulators are pushing some of the biggest Internet corporations to give the state an ownership share and a greater role in decision making. The idea of special management shares emerged in 2016 when Beijing issued a draft proposal suggesting a government stake of one percent in exchange for board representation (Yuan, 2017). The stake comes together with the stipulation that investors appoint a government official to company boards and have a say in their operations. Some companies were worried about this plan in part because of the potential for shareholder lawsuits and the high cost of shares. A one-percent stake in Alibaba, for example, would cost over $4 billion. Others privately worried that bringing the government onboard would jeopardize their relative independence and affect innovation.

This special management share plan shows that, even though the government already has a heavy hand in existing rule making, they are still concerned about the growing power of Internet companies. Until now, the state has begun its “special management shares” project with two media start-ups, taking stakes of less than two percent in Yidian Zixun and Beijing Tiexue Tech, which operate news sites. No real action has been taken on Alibaba or China’s other Internet titans thus far.

4.3.4. Internet Governance in Comparative Perspective
According to Eichensehr (2014), China is advocating a multilateral model that prioritizes state control to govern the Internet. On both the domestic and international fronts, they tend to legitimize their efforts to regulate Internet participants and content and to monitor and restrict online activities as threats to national security. In 2017, the Ministry of Foreign Affairs and the Cyberspace Administration of China released guidelines on the International Strategy of Cooperation on Cyberspace. On the international side, it is reflected in a draft treaty – the International Code of Conduct for Information Security – that China, Russia, Tajikistan, and Uzbekistan proposed at the United Nations in 2011 (Ministry of Foreign Affairs of the PRC, 2011).
In practice, China’s Internet governance model has a complex influence on corporations, as the interaction between Alibaba and Chinese Internet regulations shows. Although Alibaba’s competitiveness in the domestic market partially originated from the restriction on foreign investment in China’s e-commerce industry, there is concern Alibaba’s edge will evaporate when it must compete with Amazon for the global market. While Alibaba’s internationalization strategy emphasizes localizing its business model by acquiring and collaborating with local firms, an inevitable question is how to avoid the same fate in the Southeast Asian market that befell Amazon in China.8

By contrast, the United States is pursuing a multi-stakeholder Internet governance model, arguing for the equal rights of all Internet participants in making the rules, including the private sector, governments, non-governmental organizations, civil society, academia, and individuals (Eichensehr, 2014). A recent example that could give us a glimpse of Internet governance in the United States is Internet neutrality rules, which require Internet providers to give consumers equal access to all content online. It first became a source of debate when Tim Wu (2003) published “Network Neutrality, Broadband Discrimination” and discussed neutrality between applications and different types of data and traffic at the level of network infrastructure, and proposed legislation to deal with these issues. In February 2015, the Federal Communication Commission (FCC) voted in favor of net neutrality rules to “keep the Internet open and free” under the Obama Administration.9 Within just two years, they were repealed in December 2017 by FCC under the Trump Administration.

Thus, this debate, which started as a technical dispute about the Internet, has become central to the concern of various actors in the digital economy, including the private sector, the Internet ecosystem (operators, application providers, content delivery networks, etc.), national states, regulatory entities, and finally, civil society and academic groups (Musiani et al., 2012). Although perspectives diverge on how this change might affect innovation and the direction of the digital economy (Kang, 2017), this controversy shows state sovereignty is not the only voice in deciding the design and outcome of Internet governance in the United States.

However, while the difference between the Internet governance model in the United States and China is striking, we want to shed light on a growing common ground: the recent policies and regulations in both countries show an increasingly restrictive attitude toward Internet governance. More importantly, this trend is not country-specific but increasingly global. Not surprisingly, China’s Internet sovereignty concern has affected the neighboring Southeast Asian region and India. Singapore’s Parliament, for instance, passed Cybersecurity Act 2018 (Act. 9 of 2018) in February 2018 that imposes China-like rules on digital-service providers. Also, India’s government has proposed a new requirement that asks foreign tech companies to store sensitive data only within the country and puts a restriction on the ability of foreign e-commerce companies to compete with domestic firms on price (Goel, 2018). In May 2018, the European Union enacted the General Data Protection Regulation (GDPR), which contains tough rules
on personal data protection. This new law, which allows people to request their online data and restricts how businesses obtain and handle that information, will not only force tech companies like Google and Facebook to adjust their data collection practices, but it may be a harbinger for a more unified global approach as Brazil, Japan and South Korea are poised to follow Europe's lead.

Given the Internet’s borderless nature, the regulation of online data privacy is bound to have an outsized impact far beyond Europe (Satariano, 2018). Digital corporations are intimately intertwined with projects of national economic development. Designing an Internet governance model that protects society while allowing for the Internet’s enormous economic potential to be fulfilled is a difficult task. The regulatory risks posed by the interaction between Internet governance and corporate power are more complicated in real life, and some will probably take longer to be noticed. However, the awareness of such risks is crucial.

5. CONCLUSIONS

Our study of Amazon and Alibaba provides a comprehensive look at the ecosystem of the digital economy from the perspective of the two largest e-commerce companies in the world. While recent frameworks of the digital economy are quite useful in identifying the types of digital MNEs that make up the system (UNCTAD, 2017a) and the main roles these firms carry out (Libert et al., 2016), they fail to convey the ways in which these activities and roles are interconnected within individual companies. The digital capabilities created over time by both Amazon and Alibaba go well beyond e-commerce and leverage other aspects of the digital economy ecosystem including digital content, digital solutions and Internet platforms. In addition, extensive investments in physical assets – both distribution networks to get products quickly to their customers and the recent acquisition of offline stores – challenge the notion that digital economy firms are “asset-light.”

In terms of whether the Internet era has transformed the basic governance structure of global value chains, the evidence is conclusive that a platform economy now exists, and Amazon and Alibaba are leaders in linking consumers and suppliers in new ways across the multiple B2C, B2B, and C2C platforms that they manage. However, the scenario of platform-company-driven chains does not exclude the option, as early global value chain theory anticipated, that internet-based sales can also be exploited by the lead firms in traditional producer-driven and buyer-driven chains (Gereffi, 2001a, pp. 1633–1634; Gereffi, 2001b, pp. 37–38). These more integrated digital and bricks-and-mortar scenarios also fit the tendency of Amazon and Alibaba to incorporate both online and offline stores in their strategies.

Finally, we highlight the significance of varied forms of Internet governance in evaluating the strategies of digital economy leaders. Although China is making a strong bid to use the digital economy and its advanced technologies as a pillar for its ambitious “Made in China 2025” development program (Perlez, Mozur,
Ansfield, 2017), growing state control over various aspects of the Internet in China could put a damper not only on China’s attractiveness as a host for digital economy investors, both foreign and domestic, but it could also hurt Alibaba in its efforts to become more integrated into global markets.

The limited number of cases studied in this research provides only a modest start in the effort to build new theories about the digital economy. For example, comparative analysis of the leading search-engine companies (Google and Baidu) and the top social-media companies (Facebook and Tencent) in the United States and China, respectively, is needed. One should also look at the full range of companies in the digital economy ecosystem to derive broader generalizations about the changing structure and impact of this sector. We hope our research on Amazon and Alibaba in the e-commerce sector can spark new insights on IB in the digital economy.

NOTES

1. This group was set up by the Secretary-General of the United Nations in accordance with the mandate given him during the first phase of the World Summit on the Information Society held in Geneva, Switzerland on December 10–12, 2003.

2. This information is also found in Form 20-F submitted to the US Securities and Exchange Commission.

3. All monetary amounts are in US dollars.


5. In 2017, it was estimated that AWS accounted for two-thirds of Amazon’s market capitalization and that AWS has 47% of the cloud computing market, while the figures for Microsoft, Google, and IBM are 10%, 3.95%, and 2.77%, respectively (Coles, 2017).

6. For example, while the delivery still relies on partner companies, Cainiao provides assisted-delivery services, which help sellers on the e-commerce websites to partner with delivery companies, provide real-time order-tracking information to consumers, shorten the estimated time for packages delivery, and build the “last mile” delivery infrastructure, such as the self-service package delivery machine in neighborhoods.

7. These include the UK, Germany, France, Spain, and the Netherlands in Europe; India, Japan, China, and Singapore in Asia; Brazil and Mexico in South America; in addition, Canada, Australia, and United Arab Emirates.

8. To some extent, Alibaba seems to be following the prescription of the Uppsala internationalization model, in line with the trajectories of Chinese electronics giants like Huawei and Haier, which is to begin its overseas expansion in adjacent markets with relatively low geographic, cultural, and institutional distances (like those in Southeast Asia) before finally entering the global market (Luo & Lemanski, 2017).

9. A detailed timeline for the development of net neutrality under the Obama administration is available at https://obamawhitehouse.archives.gov/node/323681.

REFERENCES


Amazon and Alibaba


