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Global Competitors? Mapping the Internationalization Strategies of Chinese Digital Platform Firms

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CHAPTER 8

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ABSTRACT

The recent emergence of Chinese digital platform firms, whose size rivals that of the US platform giants, has attracted much popular interest. Given the size and increasing technical sophistication of these firms, there has been increasing interest in whether they have developed sufficient capacities and resources to become global-class competitors for the reigning US platform giants. The authors assembled a database of all overseas operations of the Chinese platform firms. Nine of them have foreign operations, with Tencent and Alibaba being the most important offshore investors. The authors describe the globalization patterns of these firms and analyze the strengths and obstacles to their globalization. Their globalization has proceeded on a number of vectors: first, these firms, with a few exceptions, when they have global strategies, have largely invested in firms with useful technology or content. One common strategy has been to follow Chinese customers abroad. Second, Chinese firms have made equity investments in a number of foreign Internet firms. And yet, in nearly all foreign markets, Chinese websites and apps still trail the US firms in market share and salience. Finally, Chinese investments are concentrated in proximate countries. Chinese platform firms, while having some state-of-the-art technologies, have a far smaller foreign presence than their US competitors

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do. Finally, the authors consider the implications of their research for discussions of whether emerging nation multinational firms require new theories for explaining their globalization.

Keywords: Digital platforms; China; globalization; Tencent; Alibaba; emerging market multinational enterprises

In 2018, seven of the world's 10 most valuable firms were digital platforms owners; five were American and two of these firms were Chinese. There are three generalizations. First, the American firms have dominated in particular segments – search with Google, social media with Facebook, and retail sales with Amazon – and then tend to broaden out to domains that their initial positions facilitate. In contrast, Chinese firms have tended to build horizontal linkages and then develop deeper competencies in particular technologies and segments. Second, the US platform giants are the global leaders, while the Chinese platform giants dominate the Chinese market. The Chinese market today is the world's largest single internet market with the most smartphones, personal computers, online shoppers, etc., and, by all accounts, Chinese platform firms are innovating and, particularly, in apps for smartphones have developed global-class technology (Chandler, 2017; Mozur, 2016; Roth, Seong, & Woetzel, 2015). Finally, the Chinese firms have tended to buy equity stakes in partner firms in the Chinese market and, increasingly, overseas and search for cross-firm synergies. Having observed the increasing strength of Chinese firms, it is important to keep in mind that Japanese electronic and network firms were early leaders in mobile technologies and deployments (Funk, 2001; Kushida, 2011), but they were not able to break out of their home market. Will Chinese platform firms be able to build from domestic market innovations to establish a broader global presence?

This chapter considers whether Chinese platform firms are developing competencies that facilitate their expansion from their dominant position at home into global markets, where, in nearly every case, they face the powerful US giants, such as Amazon, Expedia, Facebook (WhatsApp and Instagram), Google, and Microsoft (Skype and LinkedIn), etc. China is particularly interesting as it is the only other nation with a significant number of platforms of sufficient size that one might expect them to be capable of globalizing.[1] One might expect the Chinese platform giants to be able to expand to foreign markets using their now substantial technical and financial resources. Does the Chinese market provide the conditions to develop from specific capacities that can be exploited globally?[2] Will their domestic innovations be transferrable to external markets? Or, alternately, will Chinese firms only be innovators and control the domestic market making China an anomaly?

The recent literature on emerging nation multinational enterprises (EMNEs) can offer theoretical insight into the nature of such expansions (for recent

summaries of these debates, see van Tulder, 2010; van Tulder, Verbeke, Carneiro, & Gonzalez-Perez, 2016; for Chinese multinationalization, see Deng, 2013). For example, Dunning, Kim, and Park (2008) suggest that to enter foreign markets, EMNEs are more likely to use alliances or acquisitions, emphasizing securing assets abroad because they either lack firm-level advantages, ~~are~~ more likely to invest in proximate markets, and/or have more government support. There is an ongoing debate about whether the new theory is needed to understand EMNE overseas investment. While this chapter cannot definitively address this debate, our three major results conform to the previous MNE theory. First, the Chinese platform firms have often used joint ventures as a way of tapping into local knowledge, while co-opting possible opposition. Second, most of the operational-level investments are in proximate markets. Third, the investments to access cutting-edge global technology are in technology clusters, in particular, in Silicon Valley.

Despite their enormous global reach and implications for the debates about weightless global trade (Keller & Yeaple, 2009), there has been little academic research on the globalization strategies of the US platform firms much less those from other nations. To contextualize any foreign investment by these firms, it is important to note the distinct characteristics of platform competition as it differs from that in traditional markets. Platform success is characterized by strong network effects, winner-takes-all (or most) dynamics, increasing returns, and lock-ins (Gawer & Cusumano, 2002; Parker, Van Alstyne, & Choudary, 2016). Market entry, where there are significant incumbents, is always difficult, because the structure of platforms permits their owners to cross-subsidize various "sides" of the platform (Jullien, 2011; Rochet & Tirole, 2003), thereby providing powerful incumbents the potential to undercut new entrants. The platform-related obstacles to entry are offset, in part, because Internet websites can be accessed from anywhere in the world. So, presumably, the initial entry costs for foreign firms are close to zero particularly for content that is delivered and consumed digitally. This suggests that any entrant with a better solution should be competitive; though as Kenney and Zysman (2018) suggest that the acquisition of a budding competitor has become an important strategy for forestalling competition.

While our objective is to locate the character and challenge of Chinese platform firms, this chapter does not develop a general or theoretical argument. Rather, it prepares us for that more ambitious task by exploring the goals, advantages, and strategies that Chinese platform giants are using in their efforts to expand externally. We systematically assembled data on all overseas operations of the Chinese platform firms. We identified the following Chinese platform firms, Alibaba, Tencent, Baidu, Ctrip, Didi, JD.com, Toutiao, VIP Shop, and Sohu, as having foreign operations.[3] We consider where possible whether firm-specific advantages, which, of course, emerged with their success in their home market, can be used to compete abroad. We explore whether their motivation for globalizing is based upon firm-specific advantages or advantages derived from the home market.

1. CONTEXT FOR THE CHINESE PLATFORM ECONOMY

Since the 1990s, the Chinese Internet market was largely protected and thus, in contrast, to other countries, the rapidly growing Chinese market has spawned an entirely separate ecosystem of platforms and firms; a number of which has grown in size sufficiently large to rival the US platform giants. As of 2017 with 772 million users, China was the world's largest Internet market, despite the fact that the penetration rate was only 55.8% (China Internet Network Information Center, 2018). As these Chinese platform firms have grown to enormous size and as the domestic market matures, the leading firms have begun to enter overseas markets through acquisition or investment.

The Chinese digital platforms have had a variety of motivations to globalize. Global expansion initially was tentative and began in the early 2000s when Alibaba and Baidu introduced websites for offshore customers.[4] Their success in the protected, rapidly expanding, and now enormous Chinese market provided them with significant capabilities; in particular, operational experience managing large platforms, massive amounts of data, and fickle consumers. These Chinese platforms are highly profitable and thus continue to have significant capital reserves that allow them to finance both domestic and international initiatives and investments from their cash flow. Finally, the Chinese government actively supports their globalization. This set of capabilities and assets permits them to undertake sustained attempts to enter global markets.

Two general observations are necessary. First, previous research indicates that Chinese firms have been biased toward expansion in Southeast and East Asian countries; particularly, the less developed regions (Morck, Yeung, & Zhao, 2008), as emerging market firms are found to expand to less developed markets (Cuervo-Cazurra & Genc, 2008; Morck et al., 2008). The rationale stems from the fact that these emerging market firms given their experience have competitive advantages in less developed countries where the governance conditions are "difficult," because they are experienced at operating in legally weak conditions (Morck et al., 2008). We confirm that Chinese firms are making such investments.

Second, our data shows that the acquisition of technology and investment in existing firms, particularly in gaming, has been a driver of their developed country investments. While the motivation to globalize has been complex for all firms, the case of the Chinese platform firms is particularly so. Because China is still a developing country, although its platform firms have advanced rapidly, the firms still trail the US giants in technological sophistication. So, evidently, an important globalization goal for the Chinese is to secure access to technology and content.

2. GENERAL MEASUREMENTS OF CHINESE PRESENCE IN OVERSEAS MARKETS

Before considering the globalization strategies of Chinese platform firms, let us situate the globalization of Chinese platform firms in aggregate terms. In a 2016 report, Peter Evans and Annabelle Gawer (2016) suggested that China has

64 platform firms, while the United States has only 63. While this may be the case, the most general way to understand platform globalization is the use of websites and apps outside the country of origin, that is, digital exports. To gauge this most basic form, we compare the usage of Chinese and US websites and apps in selected nations during March 2018 as reported by Alexa and AppAnnie. As Table 1 shows, that for the earlier technology, websites, when the entire world is considered, there are 13 Chinese websites in the top 50, while US firms own 33 of them (together these two countries had 92% of the top 50). The more interesting data are the national comparisons. What these show is that the global importance of Chinese websites is driven almost exclusively by their dominance of the Chinese domestic market. Similarly, the United States is completely dominated by the US websites.

The data for the Chinese and the US firms show the overwhelming dominance of US websites over those owned by Chinese firms in every nation, except in China itself. However, in some countries, such as Russia and South Korea, domestic websites continue as the most successful in their home markets. Even in nations geographically proximate to China, such as South Korea, or even locations such as Hong Kong and Taiwan that are part of China itself, the mainland Chinese websites and apps have experienced limited adoption.

The story is more complicated, though, when we consider particular applications. First, for smartphones and their apps, China was able to enter earlier in the industry life-cycle and this may explain why the Chinese platform firms have experienced greater success in globalizing their offerings. Chinese-related smartphone apps have been far more successful internationally (see Table 1). Not only do Chinese firms dominate the domestic market, but they also have a significant presence in all other countries including the United States. The smartphone apps data show significant Chinese presence globally. However, Chinese strength overseas is driven by entertainment (games and music streaming) and not by core apps such as search, maps, social media, messaging, etc. Moreover, nearly all of these successful gaming apps are actually produced by Western firms that Tencent, in particular, either purchased outright or in which it has an equity stake. Even in regionally proximate nations, where previous research suggests that Chinese firms are likely to experience significant competitive success (Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007; Ramasamy, Yeung, & Laforet, 2012); most Chinese globalization has been through acquisitions or equity investments, not user adoption of an application introduced by the Chinese firm.[5]

Websites are far more PC-centric and are a technology that the United States commercialized in the late 1990s, when China was far behind the United States in Internet penetration. More recently, traffic and the technological cutting edge have moved to mobile applications. To measure the relative strength of the United States and Chinese firms, we count the Top 50 downloaded and earning smartphone apps. As Table 1 indicates, in smartphone apps, the Chinese presence is global and extends to the United States, where China has 10 of the top grossing apps. In a number of nations, China has more top-grossing apps than the United States does, and as many free apps. In the apps market, the division of labor between the United States and Chinese may be emerging – in the non-gaming

Table 1. Ownership or Significant Equity of the 50 Top Websites and Smartphone Apps (Most Downloaded Free and Gross Revenue) Globally and by Selected Country, 2018.

Location	US Websites	Chinese Websites[a]	US Apps (Free)	US Apps (Gross)	Chinese Apps (Free)[a]	Chinese Apps (Gross)[a]
Global	33	13	n/a	n/a	n/a	n/a
China	10 (4 Google sites, 2 Amazon sites)	40	1	0	49	49
Taiwan (China)	10	2 (Baidu, Taobao)	11	2	11	16
South Korea	11	6	5	4	10	22
Russia	8	1 (Aliexpress)	9	7	9	13
United States	50	0	31	29	4	10
United Kingdom	37	0	20	24	7	10
France	26	1 (Aliexpress)	16	6	15	15
Germany	35	1 (Aliexpress)	22	10	7	19
Brazil	34	1 (Aliexpress)	22	18	6	10
India	31	1 (Paytm)	17	12	10	7
Singapore		6	20	11	11	20
Thailand	15	3 (Lazada, Hao123, Sanook)	14	7	14	16
Indonesia	21	2 (Tokopedia & Lazada)	18	16	20	16
Vietnam	12	2 (Zing and Lazada)	11	6	15	20

Source: Alexa Traffic Rankings (2018), AppAnnie (2018). Created by authors.
[a] Own or possess a significant equity stake.

applications, the US firms such as Facebook, Google (including YouTube), and LinkedIn (Microsoft) are dominant, while the Chinese firms, particularly Tencent, own or have invested in many of the world's most popular online app games.

Finally, data centers are the "refineries" for the digital age and the cost of a state-of-the-art data center is in the hundreds of millions of dollars (Business Facilities, 2018). Google, Amazon, Microsoft, Facebook, and IBM, roughly in the order of size, have offshore data centers necessary to service their global operations. In terms of data center capacity, their closest competitors are the Chinese digital platforms. As Table 2 indicates, both Alibaba and Tencent are establishing offshore data centers, while none of the other Chinese digital platforms have overseas data centers.

Given the cost of a data center, a necessary condition for establishing one is that it has sufficient traffic to justify not only the capital expenditures for its establishment, but also the operating costs in particular in terms of energy. Roughly speaking, there are two sources of traffic: first and most important is the traffic from the data center owner's operations. Second, the traffic from other firms that contract for data center services. Alibaba, which is the data center services leader in China, has established data centers offshore, not only for its own operations, but also to support its Chinese customers' global activities. And yet, the limited scale of Alibaba's investments (and presumably traffic) is evident from the fact that four of them lease space from independent providers. The newest expansions are in India, Malaysia, and Indonesia, where Alibaba has operations or major investments in domestic firms, thereby providing sources of potential traffic.

In terms of data centers, an important indicator of global business, Alibaba has largely leased cloud space abroad, while Tencent owns its overseas data centers. For offshore data center operations, Tencent's advantage is that its global

Table 2. Alibaba and Tencent Offshore Data Centers, Location, and Year Established.

Alibaba		Tencent	
Location	Date Established	Location	Date Established
Hongn Kong	2014	Hong Kong	2014
Singapore	2015	Canada[a]	2015
US SV[a]	2015	Singapore	2015
US Virginia[a]	2015	US SV	2017
Germany[a]	2016	Germany	2017
Dubai	2016	India	2017
Australia	2016	Korea	2017
Japan[a]	2016	Russia	2017
India	2018	Thailand	2018
Indonesia	2018		
Malaysia	2018		

Source: News media and various press releases. Created by authors.
[a] Space from local data center provider.

online-gaming business and the many Chinese tourists using WeChat guarantee significant traffic (Xia, 2017).[6] This makes it possible for Tencent's offshore data centers to also provide services to other Chinese firms with offshore operations. For Chinese customers, having firms that can provide global coverage is vital and of the Chinese firms, only Alibaba and Tencent have a global footprint.

3. CHINESE DIGITAL PLATFORMS GLOBALIZATION STRATEGIES

This section explores the globalization strategies of the various Chinese digital platforms. Prior to our firm-by-firm analysis, it is significant to note that only a small number of the Chinese digital platforms have a global presence. In most nations, a combination of domestic or US firms controls the vast majority of the most used websites and apps.[7]

The number of Chinese platform firms with overseas operation or even presence is quite small. To illustrate, as mentioned earlier, Evans and Gawer (2016) identified 64 Chinese platform firms; however, our database finds that only nine of these firms have an offshore investment or operation. There are only three firms that have a substantial global presence: Tencent, Alibaba, and Baidu. The remaining six firms have smaller foreign operations and, in fact, are little threat to the incumbents.

In global terms, Tencent is among the world's ten most valuable firms. It began by reverse engineering the Israeli instant messaging application, named ICQ , and grew rapidly by diversifying into gaming, mobile, social media, and eventually smartphone payment systems.[8] In 2018, it had become the largest online gaming firm in the world and 2017 revenue from all of its operations was $36.3 billion and operational profit was $13.8 billion (Tencent, 2018). Tencent might be thought of as China's Facebook/WhatsApp combined with the largest gaming firm in the world. Due largely to its gaming operations, Tencent is the most globalized of all the Chinese platform firms having stakes in nearly all of the important global gaming firms. However, the most important strategic technologies it possesses are likely the most sophisticated social media platform in the world, which is connected to a sophisticated payment system. Finally, it is perhaps the most powerful platform business group, as it uses its exceptional cash flow to expand its network of affiliated firms, which now includes Jingdong (JD), VIPshops, and other Chinese firms.

Alibaba is, in certain respects, the Amazon of China with a powerful payment system that provides it with enormous cash flow giving it some of the characteristics of a bank. Alibaba's revenues for the 2018 fiscal year were nearly $40 billion with profits of $11 billion (Alibaba, 2018). The marketplaces that Alibaba has developed are mainly focused on the domestic market, but it also has a marketplace, AliExpress, that serves foreign countries. As was the case with Tencent, it is experiencing growth rates of approximately 50% per annum as China rapidly intermediates increasing portions of its economy digitally. Alibaba is also aggressively investing abroad, particularly, in neighboring nations including SE

Asia and India, while simultaneously purchasing smaller technology firms in the United States and Europe. A particularly important part of its investments are in the financial sector as it attempts to knit together a global payment system.

The final important firm is Baidu, which can be seen as the Chinese analog of Google, as it also started in search and has steadily diversified by offering other services. Unfortunately, for Baidu, it has grown more slowly than Tencent or Alibaba and, in particular, its payment system has far less market share. With less revenue ($13.03 billion in 2017) and profits ($2.41 billion in 2017) (Baidu, 2018) and no particular competitive advantage against the Western giants, Baidu's globalization efforts have largely been confined to technology purchasing, establishing R&D laboratories in the United States, and a few small initiatives in the developing world. Baidu does continue to invest aggressively in fields, such as artificial intelligence and autonomous vehicles, but its portfolio suggests that, at this time, its globalization will be relatively subdued. In Sections 4-7, we examine the globalization strategies for each of the firms in greater detail.

4. TENCENT

Tencent was established in 1998 by reverse-engineering an Israeli-developed instant messaging application, named ICQ and it was introduced in 1999. By 2001, there were 50 million registered Chinese users.[9] Eventually, AOL, which had purchased ICQ, sued Tencent, which then changed its name to QQ (Huang, 2017). In the next three years, Tencent introduced QQ for mobile and quickly introduced value-added services including instant messaging, ring tones, an online dating service, and online games (Huang, 2017, p. 42). Already profitable in 2004, Tencent was listed on the Hong Kong Stock Exchange.[10] These early applications created the two product trajectories that would undergird Tencent's growth, entertainment (gaming and music streaming) and instant messaging that evolved into the social media-based WeChat platform to which it soon added a payment platform.

Tencent's globalization strategy has thus far had two prongs using games, instant messaging/social media, but it recently added the third prong, payment systems. The most successful of these appears to be gaming, where it has acquired or made investments in global gaming firms. It can draw upon a number of firm-specific advantages, namely its dominant position in the Chinese game industry, which draws upon the country-specific advantage, which is that China is the largest game market in the world. These linked advantages permit it to acquire rights to Western games that it can promote in China – something that is far more difficult to do for the foreign game-maker. In addition to acquiring the rights, it also secures the opportunity to make an equity investment in the Western game firm. This strategy began in 2007, when Tencent licensed CrossFire, which went on to become the highest-grossing online game ever in China, from SmileGate, a Korean game developer.[11] This deal and the success of Tencent's own games provided the firm with a platform upon which to introduce yet other games into the Chinese market. Through 2018, Tencent had

invested more than $13 billion in gaming firms globally and its estimated gaming revenues in 2017 were over $16 billion (Newzoo, 2017) though the domestic and foreign percentage is unknown. The best estimate was that in 2016, Tencent garnered 13% of global gaming revenue (Newzoo, 2016) and it was growing faster than the overall market.

After licensing CrossFire, Tencent began purchasing equity stakes in the foreign firms whose games it would introduce into the Chinese market. In 2008, it purchased equity in the Vietnamese firm, Vinagame, and introduced its games into China, while also providing Chinese games to Vinagame. Simultaneously, at the same time, Vinagame adopted QQ software to replace its failed Zing Chat and, today, it is the sixth most used site in Vietnam (Truoc, 2012). In 2009, Tencent made its initial investment in United States-based Riot Games that would gradually lead to its acquisition of near-total control in 2015.[12] As the Chinese gaming market continued to expand to be the world's largest and the fact that it was largely closed to foreign firms, Tencent's distribution ability became a powerful bargaining chip for foreign game producers (Hancock, 2018). As is often the case with Chinese platform firms, Tencent has begun integrating its value chain by investing in distribution channel partners. For example, in 2012, Tencent acquired Level Up, a game distributor located in Singapore and covering Brazil, Philippine, and India (Ong, 2012). In 2013, Tencent invested in Garena, another Singaporean game platform with strong distribution in SE Asia (Table 3).[13]

While facing some competition in China, Tencent Music, with 120 million subscribers and 700 million monthly-active-users is also globalizing.[14] Its investments were first in the proximate nations in SE Asia. In January 2015, Tencent established an Asian music streaming subsidiary, Joox, aimed at East Asia nations and it has expanded rapidly (Bundgaard, Karlsson, & Lau, 2016). In addition to Joox, Tencent Music invested in a US music streaming firm aimed at Asian markets, Smule, and an Indian music streaming firm, Gaana. In December 2017, Tencent Music agreed to an equity-swap alliance with the world's largest music streaming firm, Spotify.[15] This network of music sites and apps in Asia allows Tencent to leverage its power in China into the rest of Asia.

While game publishing has become an important global business for Tencent, its most important business and its core platforms in China are, of course, the social media/messaging platforms, QQ and WeChat, which it has actively, but largely unsuccessfully tried to extend to foreign countries. This is despite the fact that when WeChat was first introduced in 2011 it had an English version. Moreover, by 2016, WeChat supported 22 languages covering more than 100 countries.[16] While Tencent hoped that WeChat would be successful in SE Asia, Europe, and the United States, it has been unable to develop a significant installed base (except for its use by Chinese tourists and citizens abroad). Outside of China, WeChat and QQ must compete with Facebook, Instagram, and WhatsApp. In both of the Alexa website and AppAnnie app ranking, Tencent's overseas social media presence is limited to firms within which it has made equity investments, such as the Russian social media site, DST, the US social media firm, Snapchat, and a Thai firm it acquired.[17] It also acquired the Thai social media firm, Sanook. Finally, Vinagame's Zing, an instant messaging application, is largely based on

Table 3. Investments of Tencent in Global Gaming Industry.

Firm	Country	Type of Investment	Percent Ownership	Date	Investment (US$ Millions)
VinaGame	Vietnam	VC	20	July 2008	Unknown
Riot Games	United States	Equity	93	September 2009	350
Level Up	Singapore	Equity	49	January 2012	27
Zam	Europe	Unknown	Unknown	March 2012	Unknown
Epic Games	United States	Equity	48	June 2012	330
CJ Games	Korea	Equity	28	March 2014	500
PATI Games	Korea	VC	20	August 2014	20
4:33 Creative Lab	Korea	Equity	25	November 2014	110
Aiming	Japan	VC	Unknown	December 2014	Unknown
Miniclip SA	Switzerland	VC	Majority	February 2015	Unknown
Glu Mobile	United States	Equity	20	April 2015	126
Paradox Interactive	Sweden	Equity	5	May 2016	528
Supercell	Finland	Equity	84	June 2016	8,600
Activision Blizzard	United States	Equity	25	September 2016	2,300
Garena	Singapore	VC	Unknown	September 2016	Unknown
Pocket Gems	United States	Equity	38	May 2017	150
Ubisoft	France	Equity	5	March 2018	350
Total					13,400

Source: News media and press releases. Created by authors.

QQ.[18] In addition to these operations, it has invested in a number of startups, in particular, the Indonesian ride-sharing firm Go-Jek[19] and the Indian ride-sharing firm, Ola.[20] These complement Tencent's large equity stake in the Chinese ride-sharing firm, Didi.[21] It also has a miscellaneous collection of investments in other platform firms.

Tencent has significant overseas operations and the consequent data-processing needs, and this has allowed it to establish offshore data centers. To illustrate, Supercell's data center provider prior to the Tencent acquisition was Amazon Web Services,[22] but recently, Tencent announced that its offshore data centers were serving Supercell, Netmarble, Aiming, and Gamevil (~~"Tencent cloud to,"~~ 2017).[23] Tencent's first overseas data center was established in Hong Kong in 2014. In 2015, it leased data center space from a Canadian provider, opened one in Singapore. Then in 2017, it opened data centers in Silicon Valley, Germany, India, Korea, and Russia, and then, in 2018, it opened one in Thailand.

In international business terms, with 13% of the global market, Tencent has established a global games publishing empire largely through acquisition and equity investments. As is the case, to a lesser degree, for music in Asia, it has leveraged its dominant position in the Chinese gaming market to purchase equity stakes in various game producers. It then introduces the games into the Chinese market and even requests redesign or versioning of the game for the Chinese market.[24] In essence, Tencent is integrating the game design part of the value chain, even as it produces its own games. The equity connections with the game producers also allow Tencent to guide traffic to its international data centers, thereby allowing Tencent to build data centers abroad to serve a ready market.

5. ALIBABA

Alibaba's globalization can be traced back to 2000 when they received a $20 million investment from Softbank.[25] Jack Ma was eager to expand the Alibaba business-to-business (B2B) operations globally. He recruited managers and developers from advanced countries, established a technical infrastructure in the Silicon Valley, and opened branches in the United States, Europe, Korea, etc. This globalization strategy failed quickly as Alibaba could not attract sufficient buyers or sellers to its platform. As a result, Alibaba closed its overseas offices and relied on its Aliexpress website to enable Chinese retailers to sell to overseas customers (Erisman, 2016, p. 205). After this, Alibaba concentrated on the domestic market and grew extremely rapidly until approximately 2010, when it again began considering global operations.

First, e-commerce globalization is still the top priority for Alibaba. Instead of working as an intermediary between foreign sellers and foreign buyers, Alibaba serves as a platform for Chinese business to sell to other countries or selling foreign goods to China. According to Alibaba's 2017 Annual Report, 11% of its sales were outside of China, though this did not include the rapidly growing revenue of Alibaba global cloud-computing service. AliExpress, the global e-commerce brand of Alibaba,

which when combined with Lazada, has approximately 83 million annual active buyers globally.[26] It is difficult to estimate its market share by country, but Aliexpress is present in many countries including emerging economies like SE Asia, Russian, Brazil, etc., and as Table 1 shows, it is among the top 50 websites in a number of European nations including Germany, France, and Italy. So while, Aliexpress has a global presence, which makes it a competitor with Amazon and eBay, with the exception of a few countries such as SE Asia where Alibaba-controlled, Lazada, is dominant, Aliexpress badly trails Amazon and eBay in each of these markets.

Second, global financial platforms are a new strategic focus of Alibaba based on its domestic success with its payment service that has evolved into a powerful comprehensive financial services platform. Known as Alipay, the payment service initially grew out of the e-commerce platform. However, today, it is a comprehensive platform that serves wide range of transactions and is growing rapidly.[27] Based on the Chinese tourists traveling internationally, Alipay has become available in many foreign markets, though its usage is almost entirely confined to the Chinese tourists (PYMNTS, 2017).

Recently, Alibaba has been investing to extend its payment system to foreign countries. For example, in Malaysia in September 2017, it created a joint venture with a Malaysian bank and, in Russia, it partnered with Foreign Trade Bank (VTB Bank).[28] In November 2016, it acquired 20% of Ascend Money, a firm based in Thailand that provides online small loans in SE Asia.[29] This was followed by an investment in Paytm, the largest Indian payment platform.[30] In February 2017, it invested in the Korean payment platform, Kakao Pay.[31] Simultaneously, in February 2017, it invested in Mynt, a Philippine micro-finance site.[32] In addition to these investments in spreading its platform, Alibaba is investing in small firms with advanced technology. For example, they invested in V-Key in 2014, a Singaporean firm focused on encryption technology,[33] and ThetaRay in 2015, an Israeli company specializing in the financial network security.[34] Finally, Lazada, within which Alibaba is the controlling shareholder, had a payment system that is being rebranded from Hellopay to Alipay (PYMNTS, 2017).

Alibaba has made many other investments abroad that do not appear to be guided by any particular strategy. For example, it purchased 5.6% of the US firm, Groupon, 9.3% of the US e-commerce site, Zulily, and a small position in Snapchat. It also made a small investment in the US ridesharing firm, Lyft. In gaming, it invested in Gamepind in India and Kabam in Canada. In 2017, it signed a joint venture agreement with Marriott International to improve its service to Chinese tourists. In some respects, these seemingly disconnected investments fit with the strategy in China of expanding joint ventures as a part of developing the platform business group operations (Jia & Kenney, 2016), but there are also potential capital gains. Alibaba may be able to discover ways of using its capabilities to assist the firms in its investment portfolio. In this way, the investments can feed the core platforms, payments, and e-commerce, and contribute to an even greater accumulation of consumer data.

Finally, as with the other Chinese digital platforms, Alibaba has invested in or acquired small foreign technology firms. Very often, these acquisitions are

not market entry strategies but rather to acquire control of the technology with the aim of integrating it into its domestic platforms. Recent acquisitions include Tango, which has developed technologies to adapt instant messaging for e-commerce and MagicLeap, which develops AR/VR technologies. For Alibaba, it is difficult to separate its firm-specific advantages from the benefits it receives by having only token domestic competition from Amazon (Keyes, 2017).

6. BAIDU

Baidu operates the largest search engine in China and offers a number of other significant services in the Chinese market such as maps, cloud storage, an encyclopedia, translation, etc., nearly all of which are monetized through ad revenue. Effectively, Baidu is the Chinese analog to Google. More recently, Baidu has begun developing and testing autonomous vehicles in the United States.[35] In the case of Baidu, for nearly all of its technologies outside of China, it faces the much larger and more established Google, which nearly always has greater experience in whatever the local culture is. Further, in nearly all of these language areas, users also use English-language Google. Most users outside of China have little use for Chinese-language sites. Effectively, being the premier English-language site is an inherent advantage.

Baidu did attempt to globalize its search function beginning in 2006, when it introduced a Japanese-language search engine. However, the service never generated sufficient traffic and in 2015, it discontinued operations (Millward, 2015). In 2014, Baidu introduced a Portuguese-language search engine in Brazil;[36] however, according to Alexa.com, it was not in the Top 50 Brazilian websites. Simultaneously, Baidu purchased a group buying site in Brazil, which also was not in the Top 50. In 2016, it introduced a number of mobile apps into the Indian market,[37] though, in 2018, none of these apps were the Top 100. In 2017, it announced a partnership with the former Nokia Maps firm, HERE, which currently is owned by the German automakers, to provide global mapping functionality to Chinese tourists abroad (Stevenson, 2017). Despite these efforts, in terms of operations outside of the Chinese market, Baidu has had limited success.

Baidu has made a number of acquisitions and investments abroad (see Table 4). The vast majority of these are not for market entry, but technology acquisition appears to be the primary motivation, as appears to be the case with its overseas R&D operations.

Baidu's attempts to globalize its search operations have largely failed, and its operations are ~~largely~~ confined to the domestic market. It has established R&D centers in Silicon Valley and Singapore, and made a number of investments in firms, but these are meant to access knowledge and talent in those regions and do not appear to be market-entry strategies. The market-entry investments are in Brazil, where it has introduced its search engine and acquired an e-commerce site, and in India, where it has introduced a number of mobile apps; both of these modest initiatives appear to be having a modicum of success. At this time, Baidu is a domestic giant, but, as its revenues indicate it is not, at present, an important actor on the global technological scene.

Table 4. Baidu Investments by Firm, Nationality, Technology, Market, Type, and Date.

Firm	Country	Technology	Market	Type	Date
Simeji	Japan	Input method editor	Global	Acquisition	December 2012
Pixellot	Israel	Video capture	Global	Venture Capital (VC)	December 2014
Taboola	United States	Search engines	Global	VC	May 2015
popIn	Japan	Advertisement	Global	Acquisition	June 2015
Circle	United States	Payment	Global		June 2016
Dynamic Yield	United States	Machine learning	Global		July 2016
Zest-Finance	United States	Online finance	United States	Joint Venture	July 2016
Velodyne LiDAR	United States	Laser radar	Global	VC	August 2016
Dynamic Yield	United States	Hardware	Global	VC	December 2016
Xperception	United States	AI	Global	Acquisition	April 2017
KITT.AI	United States	AI	Global	Acquisition	July 2017
TigerGraph	United States	Data management	Global	VC	November 2017
TrustGo	United States	Anti-virus software	Global	VC	February 2018

Source: Various websites. Created by authors.

7. GLOBALIZATION OF OTHER CHINESE PLATFORM FIRMS

With the few exceptions discussed in the following paragraphs, most of the other Chinese platform firms have not invested abroad and remain~~ed~~ entirely focused upon the domestic market. With the exception of Jingdong (JD) which is an e-commerce firm affiliated with the Tencent group, the other firms are smaller and sectorally specialized. For this reason, their investments are in specific sectors. For example, Ctrip, the online travel agency, confines its investments to travel, Didi, the Uber equivalent, invests in ride hailing, and Toutiao, a news aggregating platform, invests in firms that develop or supply news and information to users.

In contrast to ~~Baidu, Alibaba and Tencent (B~~AT~~)~~, these firms have focused their overseas initiatives in their core businesses and directly related sectors. JD, which is the fourth largest Internet firm in China ~~and~~ has developed a more diversified overseas investment strategy that roughly conforms to the platform business group model of BAT. It is expanding horizontally to other sectors that are not closely related to e-commerce. In contrast, nearly all of the investments and acquisitions of Ctrip, Didi, and Toutiao are closely related to their Chinese operations, being the online traveling, ride-hailing, and content sharing, respectively. In Sections 7.1–7.5, the globalization strategies for these smaller platforms are briefly discussed.

7.1. Jingdong.com

Established in 1998, JD is an e-commerce platform and, while smaller than Alibaba, is its primary competitor within China.[38] As Table 5 shows, JD has invested in a number of online sales platforms, particularly in the neighboring SE Asian countries and Russia. It has also invested in three firms in the United States and the United Kingdom. For example, JD invested in Traveloka and Go-Jek in 2017, because both were located in Indonesia and participated in online traveling and ride-hailing, respectively. And yet, JD is more focused than BAT because nearly 60% of its global expansion is still in e-commerce. More recently, JD accelerated its overseas investments. In 2015, JD established a research center in Silicon Valley; almost certainly as a technology outpost.[39] Despite these investments, over 95% of its sales are in China.

As has been the case with Alibaba, and even more so, the smaller~~,~~ JD, with a few exceptions, has been investing in neighboring markets, such as Russia and SE Asia. JD's more conservative approach to ~~invest in~~ foreign markets is certainly a function of its smaller size and far lower market capitalization; both of which limit its ability to undertake large-scale foreign investment.

7.2. Ctrip[40]

In 2018, Ctrip was the largest non-US travel platforms in the world and, while significantly smaller than the US travel platforms that dominate most of the rest to the world, Ctrip is now one of the world's leaders. Ctrip's remarkable success is

Table 5. JD Overseas Investments by Firm, Nationality, Technology, Market, Type, and Date.

Firm	Nationality	Technology	Market	Type	Date
Misfit Wearables	United States	Wearable device	Global	VC	December 2014
JD Russia	Russia	e-Commerce	Russia	Greenfield	June 2015
Zest-Finance	United States	Online finance	United States	Joint venture	November 2016
FarFetch	United Kingdom	Online luxury goods	Global	Equity	June 2017
Traveloka	Indonesia	Online travel	Indonesia	VC	July 2017
GO-JEK	Indonesia	Ride-hailing	Indonesia	VC	August 2017
Pomelo Fashion	Thailand	Online fashion	SE Asia	Joint venture	October 2017
Central Group	Thailand	e-Commerce/ fintech	Thailand	Joint venture	September 2017
Tiki	Vietnam	e-Commerce	Vietnam	VC	January 2018

Source: Various websites. Created by authors.

inextricably linked with massive growth of Chinese tourism. Currently, the bulk of Ctrip's overseas investment has been investing in or acquiring firms/websites in developed nation markets that can service the enormous flow of Chinese tourists it controls (see Table 6). For example, the investments in ezTravel, Tours4fun, Universal Vision, and Ctour integrate offshore service providers for Chinese tourists.

The acquisitions of Travelfusion, Skyscanner, Trip.com, and Travstarz are investments meant to provide services to non-Chinese customers. With these investments, it can not only route its customers to these subsidiaries, thereby providing them with demand, but also offer the services to non-Chinese travelers. Prior to these acquisitions, Ctrip had directed Chinese tourists to Priceline for fulfillment of most foreign travel, thereby sharing the revenues.[41] With these acquisitions, it can route those customers to its subsidiaries.

At this point, Ctrip's globalization strategy has two prongs: the first prong has been using its enormous cash flow to acquire or co-invest in local firms that dominate other developing country markets that are expanding rapidly. The two cases in point are its equity investment in the Indian travel giant, MakeMyTrip, and investments in SE Asia. The second prong is that~~,~~ Ctrip can provide for these investments infrastructural and capital support to allow these operations to expand more quickly. It is uncertain how successful Ctrip's initiatives in international markets will be. However, given that Chinese tourism is likely to continue its rapid growth and Ctrip monopolizes this market, it has significant financial resources, enormous leverage in directing this flow of tourists for strategic advantage, and a rapidly developing capability in analyzing the enormous inflow of data that it receives. For the reasons ~~we describe~~, Ctrip is likely to be an increasingly formidable competitor to the US global travel and tourism platform giants, Expedia, Priceline, and TripAdvisor.

Table 6. Ctrip Offshore Investments by Country, Technology, Country Served, Investment Type, and Year.

Firm	~~Country~~	Technology	~~Country~~ Served	Type of Investment	Year
ezTravel	Taiwan	Online travel	Taiwan	Strategic alliance	2006
Tours4fun	United States	Online travel	United States	Acquisition	2013
Universal Vision	United States	Bus operator	United States	Acquisition	2013
Travelfusion	United Kingdom	Online ticketing	Global	Acquisition	2015
Ctour	United States	Group tour operator	United States	Investment	2016
Skyscanner	United Kingdom	International ticket reservation	Global	Acquisition	2016
MakeMyTrip	India	Online ticketing	India	VC	2016
Trip.com	United States	Predictive technology	Global	Acquisition	2017
Travstarz	India	Travel services	Global	Equity	2018

Source: Various news reports. Created by authors.

7.3. Didi

Didi is the largest mobile transportation platform in China, providing more than 7.43 billion rides for 450 million users in more than 400 cities nationwide in 2017.[42] Founded in 2012, Didi imitated the business model of Uber but subsidized both the drivers and passengers in an effort to capture the market as rapidly as possible. Didi merged with its main competitor, Kuaidi, in 2015 and became the largest domestic ride-hailing platform.[43] Didi bought the China assets of Uber in 2016, which further solidified its domestic dominant position.[44] Since then, Didi aggressively started globalizing by investing in and working with local players. Besides the investment in Ola in India in 2015, Didi undertook five other investments in 2017 including Brasil' 99 in Brazil, Careem in Middle East, Taxify in Europe and Africa, GrabTaxi in SE Asia and Lyft in the United States. In 2018, Didi entered the Mexican market to directly compete with Uber, which has built strong Latin American operations.

This globalization strategy is supported by raising capital from domestic and global capitals. After the first few rounds of investment from Alibaba, Tencent, and some other investors, including Chinese investors and firms such as Softbank and Apple, in February 2018, DiDi's valuation had grown to $56 billion, which was even greater than that of Uber (Shen, 2018).

7.4. Toutiao

Toutiao is one of China's largest mobile platforms of content creation, aggregation, and distribution underpinned by machine learning techniques. It will

recommend the most relevant contents, like news, videos, music, blogs, etc., to users by learning their preferences.[45] Founded in 2012, Toutiao now has over 120 million domestic daily active users (Huang, 2017). Like social network platforms, the Toutiao revenue model is based upon advertising.[46]

Toutiao began globalizing in 2016 and tried to export its business model. As part of this strategy, Toutiao made an equity investment in *Dailyhunt*, a news aggregator in India in 2016, and then acquired Flipagram, a Los Angeles-based video startup, News Republic, a mobile news and information platform, and Musical.ly, a most global popular short video startup, which has been ranked as high as No. 1 in iOS App Store.[47] In addition to these investments, Toutiao has localized its news service to Korea, SE Asia, Brazil, and North America, with the name of Topbuzz, the content-recommendation platform, and Tik Tok, the short video platform.[48] Despite the success of Topbuzz in Japan and Tik Tok in Thailand, it is too early to say how successful the globalization strategy of Toutiao will be, given the fierce competition in the advertisement market and uncertainty as to whether the service will be widely adopted.[49]

7.5. Vipshop, Sohu, and Ctrip

Vipshop is the third largest e-commerce platform in China trailing only Alibaba and JD.com. Founded in 2008, Vipshop provides high quality and popular branded products at a significant discount to listed retail prices.[50] It was listed on the New York Stock Exchange (NYSE) in 2012 and fulfilled 335 million customer orders in 2017, generating more than $11 billion net income and $805 million in profits.[51] In 2015, Vipshop initiated its globalization strategy by investing in BrandAlley, a British fashion online platform, and Ensogo, an e-commerce platform in the SE Asia. Given its relatively small market share in China,[52] but close relationship with Tencent and JD, thus far Vipshop has made only a few smaller investments. Finally, the online portal, Sohu, bought a small online portal in the United States, but otherwise is restricted to the Chinese market.

A few of the largest Chinese digital platform firms are globalizing. However, this number remains limited. The most important of these is clearly Tencent closely followed by Alibaba and Baidu. Ctrip is globalizing following its customers, Chinese traveling abroad. However, it has acquired some Western firms in an effort to increase its role in global travel markets. To be successful globalizing, Ctrip will have to develop the capability to serve non-Chinese customers and find a way to displace the incumbents. Recently, with the acquisition of Trip.com and Skyscanner, it has made investments aimed at building a travel website that will be used by non-Chinese consumers. Moreover, the income it receives from its near-monopoly of the Chinese travel market has created sufficient profits to sustain losses in order to capture market share outside of China. The other Chinese platforms are largely absent from the global market and most of them have less financial and technological strength and thus have been more conservative in their attempts to move into foreign markets.

8. FUTURE PROSPECTS FOR CHINESE DIGITAL PLATFORM GLOBALIZATION

In fields such as smartphone payment systems and social media applications, the two Chinese giants, Alibaba and Tencent, have developed new-to-the-world technologies. In addition, these firms have expanded in China integrating an ever greater variety of firms, offline and online, into the complex patterns of crossholding and ecosystem-based dependence that we have termed "platform business groups" that feed traffic to one another. They have developed rich ecosystems within the protected Chinese market. This has enabled them to grow to a massive scale that provides them with sufficient financial wherewithal to enter the ranks of the most valuable firms in the world and to become sufficiently large to theoretically threaten their Western rivals. However, as our data on top 50 websites and apps indicates, there is a little evidence of a significant threat outside of gaming.

The Chinese internet giants have ~~significant~~ strengths. First, they are located in the world's largest online market and have no overseas competition, which means that they will continue to accumulate financial resources. For Ctrip, the Chinese tourism market is a vital competitive advantage as it is already the largest single market in the world and growing far faster than any other one. As important, the global online travel market may be rather easy to enter for a firm with deep pockets as there do not appear to be any salient entry barriers. Similarly, Tencent has been able to establish a powerful position in gaming by leveraging access to the Chinese market that it dominates. In cases where Chinese firms can leverage the enormous domestic market, they may experience substantial global success. In other fields, where there are entrenched global platform incumbents with powerful lock-ins such as those of Google, Facebook, Microsoft, etc., dislodging them is likely to be nearly impossible absent a powerful technological shift or political decisions by the home-country governments. Amazon and online retail remains a mixed case, as Amazon is entering various Asian markets outside of Japan, where it is already very powerful, but in SE and South Asia there are significant local competitors in which the Chinese giants hold important equity stakes.

In strategic terms, an important strategy that Chinese firms use to enter new markets is to invest capital in domestic platform firms, enter joint ventures, or even acquire a domestic firm to secure a foothold in the various markets. Examples of this include Alibaba and Lazada, Tencent's investments in SE Asian music websites, and Tencent's provision of WeChat to Vinagames in Vietnam. These joint ventures and investments allow the Chinese platform firms to provide global-class technology to their partners; this may provide ~~another~~ subtler strategy for globalization in a world dominated by the US giants.

At other times, these investments may not lead to acquisition, but just significant financial returns. For example, in May 2018, Walmart made a $16 billion purchase of 80% of the Indian online shopping giant, Flipkart, which had, only one year earlier, received a large investment from Tencent. In this case, Walmart invested as a riposte to Amazon, which has been quickly gaining market share in India (Economic Times, 2018). It is uncertain whether Tencent exited the investment, but they certainly reaped a significant financial return.

The Chinese firms are also investing in developed country firms as exemplified by Tencent's purchase of equity in Snapchat and Spotify. While these are small in terms of the percent stake, they may be sufficient to provide the Chinese firms insight into the Western firm's business strategies and technologies and, perhaps, evolve into vehicles for exporting the technologies the Chinese firms have developed. One case in point is Tencent's investment in Snapchat. Other investments in sectors, such as ride-hailing, appear to be more financial than strategic.

The Chinese digital platforms have another powerful and rapidly expanding asset, namely given the size of their market they have enormous volumes of data, at a scale only rivaled by the leading US platform firms. They can use these assets to improve their cloud computing, machine learning, and artificial intelligence skills. In other words, they can develop global-class data management skills that they will be able to apply to various technical problems. The development of these skills may provide a leverage for overseas commercial activities, such as offering these services to firms in smaller markets.

9. OBSTACLES TO CHINESE DIGITAL PLATFORM GLOBALIZATION

Despite the current enthusiasm to expand worldwide, there are still significant weaknesses that handicap their global ambitions. The large but protected market provides them with ample opportunity for domestic success, but may prevent the development of global competences and understanding of non-Chinese markets. Here, the salient exception is Tencent whose ability to leverage their control of the Chinese game market to either acquire control or hold significant equity in foreign game makers has made it the most powerful game publisher in the world.

At this time, the Chinese digital platforms, as the late-comers, lack the experience to attain global success (Li, 2007). The Chinese firm's first attempts at globalization in the early 2000s were led by Alibaba and Baidu, but they experienced limited success, as their products were inferior to those offered by the US giants. Even later, in 2011 when WeChat was launched in China, it created an English-language version, but it and versions for other languages, were incomplete and not localized.[53] For example, for Asian markets, WeChat did not provide local packages such as emojis optimized for the individual countries. As a result, the Japanese messaging app, LINE, and the US messaging app, WhatsApp, captured dominant market share in SE Asia – and, thereby, established themselves as incumbents.[54]

Second, there may be some issues concerning regulation. In the domestic market, these Chinese firms operated in a loose regulatory environment within which the government accepted horizontal expansions and acquisitions that resulted in the creation of the platform-business-group model (Jia & Kenney, 2016). While it might be possible to expand horizontally and provide subsidies or channel traffic in some developing countries, this is unlikely to be accepted in developed nations. This means that Chinese platform firms have become accustomed to a market where they deliver entire packages of tightly interknit services, but in foreign

nations, they normally enter with individual services and thus do not benefit from the cross-platform synergies they experience in China.

Third, in terms of technology even as the Chinese platform firms have rapidly developed their technology, as are the US platform giants, the Chinese firms are purchasing and making venture capital investments in foreign small- and medium-sized firms. In the United States, in particular, their ability to purchase firms is increasingly constrained. In 2018, the US government blocked Ant Financial, an Alibaba affiliate, from acquiring MoneyGram, the second largest US money transfer firm (Russell, 2018). The investment was blocked on purported national security concerns, but it is likely that the true concern was that MoneyGram could become a way for Alibaba to introduce its Alipay platform into the global money transfer system and begin to threaten the control ~~of~~ US firms ~~on~~ the global financial transfer system.[55]

10. DISCUSSION AND CONCLUSIONS

Two Chinese digital platforms, Alibaba and Tencent, are among the world's 10 most valuable publicly traded firms and many others have grown to a significant scale in terms of revenues and profits on the basis of their operations in the protected Chinese market. Given their near-monopoly in the enormous and very profitable domestic market, this chapter examined the existing evidence regarding whether they had developed sufficient firm-specific advantages to effectively enter foreign markets and described their expansion strategies.

Competition in markets organized by digital platforms is subject to winner-take-most or all markets, network effects, lock-ins, and long-tail economics, which provide incumbents remarkable advantages. China is a particularly interesting case because it is today the largest single online market and the leading Chinese digital platforms have developed and deployed some innovative technologies; in particular, payment and messaging~~, particularly~~ for the mobile internet. Also, a number of Chinese digital platforms are growing rapidly in terms of revenues, have large profits, and have access to substantial amounts of capital. These resources provide important advantages for entering the overseas markets.

The difficulty for Chinese digital platforms is that, in most markets outside of China, there are nearly always two groups of incumbents. The first group being local firms; many of which in larger countries such as India have grown to a significant size. However, the more important incumbents are the US platform multinationals led by Google, Facebook, Microsoft, and, often, Amazon. In specialty niches such as travel, the US firms, such as Expedia, Priceline, and TripAdvisor, are present. These US firms almost always have the advantages of network effects and lock-in that Chinese firms would have to overcome – simply being cheaper or somewhat better will not be sufficient to dislodge their competitors.

Faced with this reality and several failures such as Baidu's attempt to enter the Japanese search market, as theory suggests, Chinese firms developed a complex

portfolio of strategies for their entering foreign markets: the first strategy was to enter new markets where they did directly compete with the US platform giants. As EMNE theory predicts, one of most frequent entry strategies was to conclude joint ventures with indigenous firms; many of which were being threatened by far larger US platform firms. Chinese firms such as, Ctrip, and the other Chinese internet services, such as Alipay and WeChat Pay, followed Chinese travelers abroad as a method for diffusing the system – effectively integrating the product delivery chain. Unfortunately, this has met with little success outside providing for Chinese visitors.

The most successful of these firms was Tencent that, by using its leverage in largely controlling access to the Chinese gaming market and financial resources, became the largest game publisher in the world. This allowed Tencent to invest in or acquire many of the world's most important gaming firms. The firms that receive the investments are potential customers for Tencent's global network of data centers offering cloud computing. This secures steady traffic for Tencent's offshore data centers and allows Tencent to provide global cloud solutions to other Chinese firms with global business operations. There is little evidence that these offshore cloud data centers are attracting unrelated customers in foreign markets. This contrasts with Amazon, Google, and Microsoft that dominate local markets for cloud services.

Chinese digital platform firms have also expanded into developing economies in sectors where US competitors are not yet dominant, most often by acquiring outright or taking an important stake in a local firm with significant market share. For example, Alibaba leveraged its success in China with online payments competences to invest in firms in similar markets in proximate nations and purchased small equity stakes in the US firms.

The final goal of the Chinese platform firm foreign investments, often through their venture capital arms, is to acquire or understand newly developed technologies or content being developed abroad. These initiatives are underway even as there are increasing pressures from foreign governments to curtail technology acquisition.

If we can make any generalizations about the globalization patterns of the Chinese platform firms, it appears that their behavior provides some support for the theorization that EMNEs are different from developed nation MNEs; particularly, in terms of using joint ventures to enter foreign markets and for productive investments in proximate nations. For technology acquisition, investments are largely concentrated in developed nations. What seems certain is that the Chinese platform firms will continue to search for ways to expand outside the domestic market, particularly through joint ventures with domestic rivals, such as Ctrip's investment in the Indian domestic travel giant, Makemytrip.com, to the US platform giants. And yet, at this time, the Chinese firms are not significant competitors to the US platform firms.

NOTES

1. There are nationally important websites in a number of nations including India, Iran, Japan, Korea, and Russia. However, in all of these nations, US website providers also have significant market share. China, which blocks most foreign websites, is unusual in the effort it expends to sequester the Chinese market.

2. There is a significant literature that considers the national market advantages firms may have and firm specific assets that develop (Bartlett & Ghoshal, 2002; Dunning, 1988).

3. Our initial source was CrunchBase, but we found that was incomplete. In addition, we visited the websites of all of the Chinese platform firms we could identify in an effort to identify their overseas operations. Finally, we searched the Internet media in English and Chinese for their other overseas operations such as data centers. For each investment, we attempted to identify the Chinese platform firm, the activity in the foreign country, the investee firm's target market, investment type, amount, and investee firm revenues where available. Using this methodology, we were able find 142 overseas investments by Chinese platform firms. We caution, this does not include use of Chinese websites and Apps in foreign markets. These investments can be considered the "points of presence." Finally, in the descriptive portion of the chapter, we compare the status of the Chinese and the US platforms in selected countries. We consulted Alexa, which is a website that ranks the most used websites by country, and AppAnnie, which ranks the most used apps in each country by country of origin, ~~for~~ the websites and apps were then examined as to their country of origin. In addition, we checked to see whether these websites had equity-based relationships with any Chinese or US operating firm. To be clear having an equity investment from a Chinese venture capital firm did not constitute a relationship with China, unless the venture investment came from a Chinese platform firm's venture capital arm. If the Chinese platform firm's venture capital arm had invested that was included as an equity relationship.

4. The first globalization of Alibaba began around 2000 when Alibaba established its core team in Silicon Valley, which was shut down later (Erisman, 2016), while Baidu started its global expansion by launching Japanese search engine in 2007, which was shut down eight years later. See https://www.techinasia.com/baidu-shuts-japan-search-engine.

5. In contrast, the US platforms entered these foreign markets through direct expansion. As we mentioned earlier, essentially anyone can access any platform globally. In the normal sequence events for the English-language websites or apps that successfully globalize, it is introduced in English, but as it adopted internationally, the US firms introduce native-language versions, and soon establish domestic offices for the larger markets (Rothaermel, Kotha, & Steensma, 2006).

6. As important is that online gaming data traffic from 2016 to 2021 is projected to grow at Compound Annual Growth Rate (CAGR) of 57%. In 2016, global Internet gaming traffic was 1% of global consumer Internet traffic and it is projected to be 4% in 2021 (Cisco, 2017).

7. European platforms, with the exception of Spotify, are not significant ~~of~~ their home country and none of them are in the top 50 websites outside their home country – with the exception of some gaming sites. Similarly, Japanese and Korean websites are also seldom of significance outside their home markets. In smartphone app markets, there is slighter greater penetration into global markets by European, Korean, and Japanese apps.

8. On the disputes between Tencent and ICQ, see http://www.project-disco.org/competition/042414-a-tale-of-two-instant-messengers-tencent-aol-and-disruptive-innovation/#.WvcIrpe-nIU.

9. In 2001, the online users of Tencent instant message app reached 1 million. See, The history of QQ at http://www.sohu.com/a/125973649_437281.

10. The Roadmap of Tencent. See https://www.tencent.com/en-us/company.html#company_dev.

11. See, No-one wants to talk about Tencent, the biggest gaming company in the world. https://www.pcgamesn.com/tencent-stock-pc-games.

12. See, This Chinese Tech Giant Owns More Than Riot Games. http://fortune.com/2015/12/22/tencent-completes-riot-games-acquisition/.

13. See, Garena, Southeast Asia's most valuable tech startup, lands additional funding https://techcrunch.com/2016/09/05/garena-southeast-asias-most-valuable-tech-startup-lands-additional-funding/.

14. See, China's Tencent Music Expects a $1B IPO Next Year–It Already Has Double the Paying Users of Spotify. http://fortune.com/2017/12/14/tencent-ipo-spotify/.

15. See, Tencent Music, Spotify's strategic partner in China, is valued at over $12B. https://techcrunch.com/2018/02/28/tencent-music-spotify/.
16. See, seven years of WeChat. https://www.techinasia.com/history-of-wechat.
17. Some have speculated that Tencent with its experience in China with WeChat may be able to assist Snapchat with improving its website and operations (Russell, 2017). However, there is no evidence that this is the case. It may be more likely that Tencent could provide superior technology to the Russian DST or Thai Sanook social media operations.
18. See, "企鹅"腾讯的国际化全局. http://www.cb.com.cn/deep/2010_0512/129149_4.html.
19. See, Indonesia's Uber rival Go-Jek raises $1.2 billion led by Tencent at a $3 billion valuation. https://techcrunch.com/2017/05/03/go-jek-tencent-1-2-billion/.
20. See, Ola raises $1.1B led by Tencent to fuel battle with Uber in India. https://techcrunch.com/2017/10/10/ola-raises-1-1b-from-tencent-and-softbank/.
21. See, Didi Chuxing, a Chinese Rival to Uber, Raises $4 Billion. https://www.nytimes.com/2017/12/21/business/dealbook/didi-chuxing-softbank-uber.html.
22. See, Supercell Case Study. https://aws.amazon.com/cn/solutions/case-studies/supercell/.
23. Three of these four firms have large equity investments from Tencent.
24. For example, in 2018 Supercell introduced a special Lunar New Year game pack that explicitly appealed to Chinese gamers.
25. See, Softbank to Invest $20 Million In Hong Kong's Alibaba.com. https://www.wsj.com/articles/SB948202996877749173.
26. See Alibaba Group Announces March Quarter 2017 and Full Fiscal Year 2017 Results. https://www.alibabagroup.com/en/news/press_pdf/p170518.pdf.
27. See, Everything You Need to Know about Alipay and WeChat Pay. https://medium.com/@charliecliu/everything-you-need-to-know-about-alipay-and-wechat-pay-2e5e-6686d6dc.
28. See, Alipay enters partnership with VTB to expand merchant network in Russia. https://globenewswire.com/news-release/2017/08/04/1079603/0/en/Alipay-enters-partnership-with-VTB-to-expand-merchant-network-in-Russia.html.
29. See, Ant Financial invests in Thailand's Ascend Money as part of global expansion play. https://www.cnbc.com/2016/11/01/ant-financial-invests-in-thailands-ascent-money-as-part-of-global-expansion-play.html.
30. See, Alibaba to invest $177m in India's Paytm. https://www.ft.com/content/5cbb69bf-a2ae-3288-8500-27656a12067b.
31. See, Alibaba's Ant Financial to invest US$200m in Korea's Kakao Pay. http://www.scmp.com/tech/china-tech/article/2072731/alibabas-ant-financial-invest-us200m-koreas-kakao-pay.
32. See, Alibaba's Ant Financial extends global reach with first investment in the Philippines. https://techcrunch.com/2017/02/20/ant-financial-mynt/.
33. See, Singapore security startup V-Key gets important new investor and customer: Alipay. https://www.techinasia.com/alipay-investor-customer-singapore-security-startup-vkey.
34. See, 专注金融网络安全 ThetaRay 获Alibaba 和 PwC 等大集团青睐. http://www.weiyangx.com/154205.html.
35. See, Baidu gets approval to test self-driving cars in California. https://techcrunch.com/2016/08/31/baidu-gets-approval-to-test-self-driving-cars-in-california/.
36. See, Baidu launches Portuguese search engine. Retrieved from http://usa.chinadaily.com.cn/business/2014-07/24/content_17915623.htm.
37. See, Baidu, China's biggest search engine, has growing ambitions in India. Retrieved from https://www.techinasia.com/baidu-india-ambitions.
38. See, JD's history. http://corporate.jd.com/ourHistory.
39. See, China's JD.com expands operations to Silicon Valley. http://www.scmp.com/business/article/1866876/chinas-jdcom-expands-operations-silicon-valley.
40. For an in-depth discussion of Ctrip, see Shao and Kenney (2018).
41. Priceline is a major investor in Ctrip owning about 9% of the total stock (O'Neill, 2017).
42. See, DiDi completes 7.43 bln rides in 2017. https://article.wn.com/view/2018/01/08/DiDi_completes_743_bln_rides_in_2017/

43. See, China taxi apps Didi Dache and Kuaidi Dache announce $6 billion tie-up. https://www.reuters.com/article/us-china-taxi-merger/china-taxi-apps-didi-dache-and-kuaidi-dache-announce-6-billion-tie-up-idUSKBN0LI04420150214

44. See, Uber China Merges with Didi Chuxing. https://www.uber.com/newsroom/uber-china-didi/

45. See, It Built an Empire of GIFs, Buzzy News and Jokes. China Isn't Amused. https://www.nytimes.com/2018/04/11/technology/china-toutiao-bytedance-censor.html.

46. See, Chinese startup Toutiao raising funds at over $20 billion valuation. Sources: https://www.reuters.com/article/us-china-toutiao-fundraising-idUSKBN1AR0DE.

47. See, How a failed education startup turned into Musical.ly, the most popular app you've probably never heard of http://www.businessinsider.com/what-is-musically-2016-5.

48. See, Yiming Zhang: The Keyword for Toutiao in 2018 is Globalization. https://pandaily.com/yiming-zhang-the-keyword-for-toutiao-in-2018-is-globalization/.

49. The fierce competition ~~could~~ be seen from the recent case between Toutiao and Baidu. See, Toutiao is suing Baidu for unfair competition after (alleged) biased search results and security warning. https://technode.com/2018/01/30/toutiao-baidu/.

50. See, Wikipedia of Vipshop. https://en.wikipedia.org/wiki/Vipshop.

51. See, Vipshop Revenue, Profits – VIPS Annual Income Statement. https://amigobulls.com/stocks/VIPS/income-statement/annual.

52. Alibaba and JD ~~occupied~~ most of the domestic e-commerce market. For example, in the last 11.11, Chinese shopping festival similar to Black Friday in the western world, Vipshop only took 3.43% of the total sales while Alibaba and JD ~~took~~ 66.23% and 21.41%, respectively. See, "双11" 澎湃消费新动能（经济聚焦）. http://paper.people.com.cn/rmrb/html/2017-11/13/nw.D110000renmrb_20171113_2-22.htm.

53. The original WeChat English version was merely a skeleton of Chinese version, reflecting Tencent's strategy that domestic market is of the most important position. See comments like https://www.fastcompany.com/3060494/why-chinas-biggest-social-app-has-sputtered-overseas.

54. See comments like http://blog.btrax.com/en/2017/10/25/asias-battle-of-the-messaging-app-wechat-vs-line-vs-kakaotalk/.

55. MoneyGram ~~is of vital importance for Ant Financial~~ to become a global powerful payment platform (Bukhari, 2017).

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