

## Activity System Analysis of Baidu, Alibaba, Tencent

—Reason for Baidu's Downturn\*—

Byunghun Choi\*\*

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**Key words:** Activity System, Strategic Positioning, Baidu, Alibaba, Tencent

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\*\* Professor of Business Administration Dept. of Kongju National University of Korea, [cbh797@daum.net](mailto:cbh797@daum.net)

## I . Introduction

Chinese big three online platforms' structure, called the BAT; Baidu, Alibaba Group Holdings & Tencent Holdings, began to show up change signals together with their going abroad efforts. The managerial performance indexes of BAT are still good as of 2018. However all of them face various difficulties inside China as well as outside of China. In case of Baidu, the biggest huddle for sustainable growth is the decreasing users' trust resulted from the search restriction, censorship & false search results.<sup>1)</sup> The Alibaba is still named on the US government blacklist due to the counterfeit goods trade on TaoBao even though it has taken positive steps to remove all the fake products on its related sites.<sup>2)</sup> The Tencent has been under lots of criticism of local community which worries about the internet addiction of young people and the violence of some games. So Chinese government began to regulate the online games more strictly by delaying the approval of new games.<sup>3)</sup>

Most of all, the going abroad strategy of BAT became a true litmus paper whether the existing business practices can work outside of China or not (Deng 2018). In fact, a long term online market protectionism by Chinese government

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- 1) Chinese online users argued that Baidu manipulated the medical information bulletin boards on its 'Tieba' & 'PostBar' in order to gain unfair profit, and Baidu finally apologized for such misconducts & unethical engagement after Chinese government investigated the case in January 2016 (Wildau 2016).
  - 2) The U.S. Trade Representative (USTR) put TaoBao on the blacklist for trade of pirated or counterfeit goods in January 2018. TaoBao had been out of the blacklist from 2012 to 2015, but it was included again in 2016 and in 2017. Alibaba did not agree the USTR's decision but it made a big impact on Alibaba's efforts to eliminate the past image of fake goods trader (Fortune, Jan. 12, 2018).
  - 3) Chinese government stopped the approval for commercial licensing for new online games from March 2018 to January 2019 for the reasons of kids' addiction to online game, a bad impact on their eyesight and the decline of Chinese cultures (Jiang 2018).

and the nationalism have made a very favorable business environment for the BAT. Further a great domestic market condition<sup>4)</sup> has supplied many business opportunities for them. So the BAT could get such a noticeable double-digit growth rate from early 2000s as to be the world biggest online platforms at least for the revenue size or user scale. The number of retail consumers of Alibaba reached 515 million, and the number of Tencent mobile SNS, Weixin (WeChat) users approached 1 billion as of 2017 (Fannin 2018). Also Baidu argued that annual users for the mobile search services got to 665 million. Such a user scale or user increase rate is very hard to see in any other countries or regions except China.

Whereas the global market performances of BAT are still very poor in spite of their aggressive going abroad efforts along with Chinese government's support. The international revenue proportion of the NYSE-traded Alibaba took only 8.3% of total revenue of 2017. The Hong Kong Stock market-listed Tencent's international revenue proportion was only 5%, and the NASDAQ-listed Baidu's international proportion was under 1% (Fannin 2018). It can be said that the BAT hardly passes yet the litmus paper of globalization.<sup>5)</sup> Therefore it is hard to discuss the BAT leadership or market control power outside of China because it is a limited story just for China. In particular, it needs to pay more attention on the downturn of Baidu in revenue and operating profit in recent years. Since 2007 Alibaba and Tencent have kept the revenue growth momentum continuously

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4) As of 2018, the number of internet users of China approached 750 million, and the number of smart phone users reached 680 million. In addition the online transaction amount already exceeded over 1 trillion USD in 2017. If considering the internet penetration rate of China, about 55~60%, the growth potential of online business is still huge (Fannin 2018).

5) By comparison with the BAT, the non-US revenue proportion of Google reached 53% in 2017, and Facebook made the 56% of whole revenue outside the United States. Amazon also keeps a growing momentum of international revenue from the ratio of 32% in 2017.

but Baidu showed a sluggish growth pattern by only recording 13 billion USD in 2017. Actually the revenue of Baidu began to be clearly stagnant from 2015, so the revenue gap between Baidu and other two rivals largely increased from that time.

Such a breakaway sign of Baidu from the BAT leadership is a very interesting point because it means that the BAT began to show a limitation of existing business models. The downturn of Baidu is concerned with the poor performance of BAT's globalization because all of them confronted the difficult problems that rarely managed in China. Now this study tried to access the reason for Baidu's downturn from the strategic positioning perspective. Strategic positioning suggests a distinctive capability of a firm to make it get the sustainable growth (Porter 1996; Barney 2002). Theoretically it can be made by three types of business activities; customer needs-based activity, customer access-based activity and product or service variety-based activity. This study reviewed the activity systems of BAT from which type of activity they mainly pursue in order to manage the reason for recent downturn of Baidu. At the chapter two, the previous studies and strategic positioning theory were reviewed. At the chapter three, management performance of Baidu, Alibaba, Tencent was analyzed, and the strategic positioning was reviewed through activity system map at the chapter four.

## II. Previous Study and Theory Review

Many studies have managed the Baidu, Alibaba, Tencent respectively to access the key success factors of each firm but few studies took a comparative approach for all of three firms. In case of Baidu, most of previous studies picked out differentiation points by comparing with Google in China (Lu *et al.* 2013; Zhang *et al.* 2013; Horwitz 2018). Recently some studies paid more attention on the risks of Baidu from the government protected monopoly, limitation of localized search engine, personal data misuse or less innovative business model (Knockel *et al.* 2016; Custer 2016; Dor 2018). As for Alibaba, much more studies managed the success factors or innovative practices of Alibaba by comparing with Amazon rather than the studies for Baidu or Tencent (Hu *et al.* 2004; Davison & Ou 2008; Wu & Gereffi 2018; Leavy 2019). However not a few studies began to pointed out the critical issues of Alibaba's global business, which covered the intellectual property rights infringement, fake goods trade & personal data mismanagement (Defotis 2017; O'Connell 2018). In case of Tencent, many studies concentrated on the internal capabilities of Tencent in making Chinese unique social networking practice at the online space (Fong & Wong 2012; Chen *at al.* 2018).

Among the former studies which taking a comparative approach for BAT, Choi (2011 (a)) reviewed the differentiation of business models of Baidu, TaoBao, Tencent. So Choi (2011 (a)) argued that their successes resulted from breaking the trade-off relations between the cost leadership and the customized services. In addition, Choi (2011(b)) traced the growth process of online instant messenger, Tencent QQ through the field survey for Chinese users. Chao &

Fletcher (2011) picked out the key success factors of Baidu, and Stone & Einhorn (2010) also followed up the growing process of Baidu as the biggest search engine of China. Besides Choi (2013) compared the innovative practices of Baidu and Tencent from the dynamic capability perspective. Choi (2013) argued that Baidu and Tencent succeeded in creating its own business ecosystem in China even though it was not fully verified in abroad yet. Choi (2017) also reviewed the corporate strategies of BAT from the diversification strategy by looking into the electric vehicle (EV) industry of China. Overall there are relatively few studies to manage the risks or limitation of BAT by comparing their business activities, so this study can suggest meaningful implications academically as well as in actual business viewpoint.

The strategic positioning can be defined as a distinctive capability of a firm to make it maintain a sustainable profitability (Porter 1996; Barney 2002; Choi 2008). The core of strategy is to choose a different set of business activities to supply a unique mix of value for customers, and the strategic positioning is the accumulated results came from the strategy. So it is to do some different activities from others or to do similar activities in different ways from customer value perspective.<sup>6)</sup> The strategic positioning is not easy to be copied by rivals because it is a complex combination of unique activities beyond a simple sum of similar activities. By confirming the sources of strategic positioning, it can be classified into three types; product or service variety-based positioning, customer needs-based positioning, access-based positioning (Porter 1996). The variety-based positioning can be made when a firm present an

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6) M. Porter (1996) argued that the operational effectiveness of a firm is just to do similar activities better than rivals. So the operational effectiveness usually takes more interest in cost reduction through the mass production with less defects or cheaper services. The operational effectiveness is definitely necessary for a firm to make the competitive advantage but it might not be sufficient to get the sustainable profitability without the strategic positioning.

optimal set of products or services that customers consider meaningful. The customer needs-based positioning concentrates on the target customers' different needs or different types of trade-offs. So it is a similar concept as the market segmentation or target customer grouping. The access-based positioning puts emphasis on the timing & place which product or service is supplied to follow up changeable needs. The access covers the delivery time, location, scale or anything that requires a set of different activities. The condition of strategic positioning is usually reviewed through the activity system map of each firm. The activity system of a firm means overall connecting status of a series of business activities in creating the added value (Porter 1996).

Further three types of strategic positioning can be matched with four key success factors, so called 'Four Cs' of online business; Customer value, Cost, Convenience, Communication.<sup>7)</sup> The needs-based positioning mostly includes the customer value and communication, and the access-based positioning manages the cost and convenience more critically than others. However the variety-based positioning is generally oriented for diversifying online services from the suppliers' perspective rather than customer value perspective. To supply various online services does not necessarily mean the increase of customer value or convenience due to the probability of value reduction of existing core activity. Especially the online service provider needs to deeply consider that strategic positioning is mostly resulted from the choice and concentration by trade-off among various activities. As a result, it can be said that variety-based type of activities are relatively more tough to get the 'Four Cs,' customer value, cost, convenience & communication than the needs-based type or the access-based type of activities.

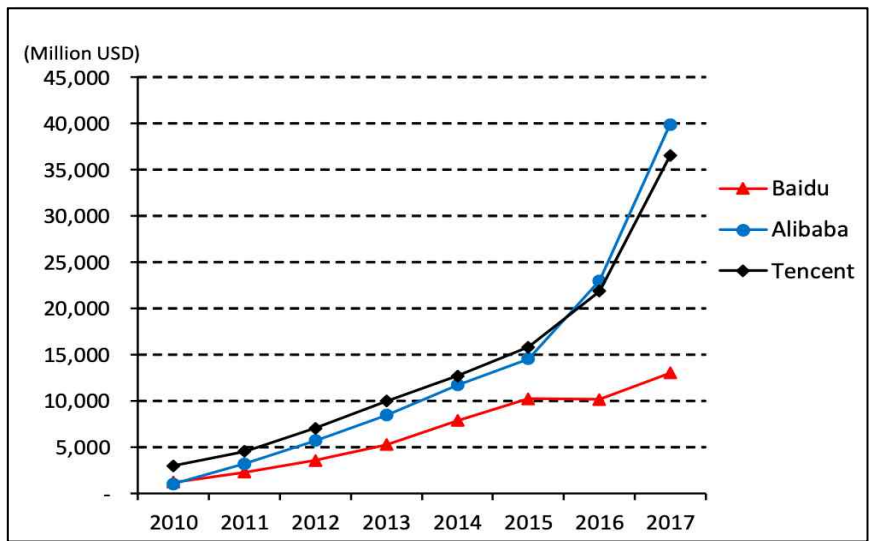
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7) Traditionally the 'Four Ps,' of marketing mix include the product, price, promotion, place which are key success factors of offline marketing from suppliers' perspective. However the 'Four Cs' are more customer oriented factors rather than the supplier of the online business.

### III. Management Performance of Baidu, Alibaba and Tencent

Baidu, Alibaba and Tencent recorded the high revenue growth rates consecutively since 2010. The annual average growth rate of revenue (CAGR) for Baidu, Alibaba, Tencent reached 40.6%, 68.9% 43.1% respectively in 2010~2017, so Alibaba showed the highest growth rate. But the annual average growth rate of operating profit for Baidu, Alibaba, Tencent was 21.9%, 68.4%, 37.6% each for the same period. In result the growth momentum of Baidu became clearly weaker than the momentum of Alibaba or Tencent. More specifically, the revenue of Alibaba almost got to 40 billion USD while exceeding the revenue of Tencent, 36.5 billion USD <Figure-1>.

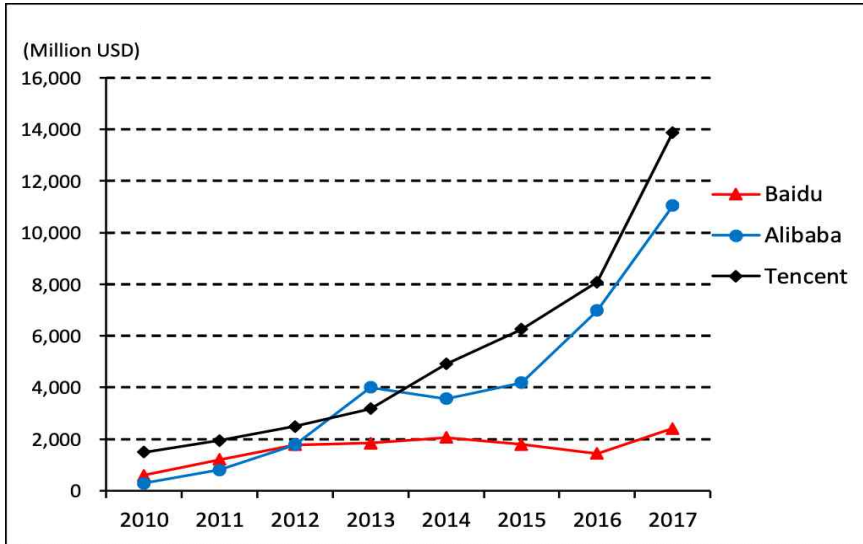
<Figure-1> Revenue Trend of Baidu, Alibaba, Tencent



Sources: Baidu Annual Report 2010, 2012, 2014, 2016, 2017.  
Alibaba Annual Report 2012, 2014, 2016, 2017, 2018. Tencent Annual Report 2011, 2013, 2015, 2016, 2017.



&lt;Figure-2&gt; Operating profit Trend of Baidu, Alibaba, Tencent



Sources: *Baidu Annual Report 2010, 2012, 2014, 2016, 2017.*

*Alibaba Annual Report 2012, 2014, 2016, 2017, 2018. Tencent Annual Report 2011, 2013, 2015, 2016, 2017.*

Both Alibaba and Tencent have shown a similar pattern for revenue growth since 2007 but the revenue of Baidu showed a very different pattern from two rivals by only recording 13 billion USD in 2017. If looking their revenues of the year 2010, the difference among them was not so big as the difference of the year 2017 (Figure-1>. However the growth momentum of Baidu began to noticeably got down from 2015, so the revenue gap between Baidu and other two rivals largely increased from that time. The operating profit trend of Baidu, Alibaba, Tencent was also similar to the revenue trend in 2010~2017 <Figure-2>. The operating profit of Alibaba largely went up to 7 billion USD in 2016, 11 billion USD in 2017 from 1.7 billion USD in 2012. Also the operating profit of Tencent soared to 8 billion USD in 2016, 14 billion USD in 2017

from 2.5 billion in 2012. But the operating profit of Baidu had stayed at around 1.5~2 billion USD since 2012 <Figure-2>. From 2010 to 2017, the annual average growth rate of operating profit for Baidu, Alibaba, Tencent was 21.9%, 68.4%, 37.6% respectively. So two key indexes of managerial performance denote the breakaway of Baidu from the existing ‘BAT’ dominance structure of China.

〈Table-1〉 Baidu Revenue & Operating Profit Trend in 2010~2017

(Million USD, %)

Year	2010	2011	2012	2013	2014	2015	2016	2017
<b>Revenue</b>	<b>1,201</b>	<b>2,303</b>	<b>3,580</b>	<b>5,277</b>	<b>7,887</b>	<b>10,220</b>	<b>10,155</b>	<b>13,034</b>
Online marketing services	1,200	2,301	3,571	5,254	7,798	9,859	9,288	11,242
Other services	0.3	1.7	9.7	23.4	89.6	361.0	867.2	1,792
<b>Operating Cost</b>	<b>600</b>	<b>1,100</b>	<b>1,807</b>	<b>3,428</b>	<b>5,829</b>	<b>8,423</b>	<b>8,709</b>	<b>10,624</b>
Cost of Revenue	326	619	1,035	1,895	3,037	4,228	5,078	6,619
Selling, general & admin.	165	269	401	855	1,669	2,629	2,169	2,018
Research & development	109	212	370	678	1,123	1,567	1,461	1,987
<b>Operating Profit</b>	<b>601</b>	<b>1,203</b>	<b>1,774</b>	<b>1,849</b>	<b>2,059</b>	<b>1,797</b>	<b>1,447</b>	<b>2,410</b>
<b>Revenue to Profit Ratio</b>	<b>50.0</b>	<b>52.2</b>	<b>49.5</b>	<b>35.0</b>	<b>26.1</b>	<b>17.6</b>	<b>14.2</b>	<b>18.5</b>

Sources: *Baidu Annual Report 2010, 2012, 2014, 2016 & 2017*

If looking into the revenue structures of the BAT in detail, the dominant business of Baidu, online marketing service took up 86.3% of whole revenue in 2017 <Table-1>. The revenue proportion of online marketing has been down continuously from the almost 100% in 2010. Among the other services of Baidu, the online video service, ‘iQiyi’ which includes licensed & self-made original movies or shows with free of charge or paid subscribing, occupied over 10% of revenue of 2017. It is still difficult to say that Baidu created something new business models except the online marketing due to a very limited information as for other revenue sources.

In case of Tencent, a dominant business has been the social network based value added service (VAS).<sup>8)</sup> The revenue proportion of VAS had been down continuously from 92.6% in 2010 to 64.8% in 2017 <Table-2>. But the revenue ratio of online advertising services went up to 17% from 7% for the same period, and the other services like shopping or transaction also took up 18.2% of whole revenue of 2017. So it can be argued that Tencent took a good performance in diversifying its businesses through a massive SNS user basis. As of the end of 2017, the combined monthly actual users (MAU) for Weixin (WeChat) reached 987 million that increased by 11.2% than the number of MAU in former year, and the number of fee-based VAS subscriptions got to 135 million which was 22.1% more than the number of 2016 (Tencent Annual Report 2017).

<Table-2> Tencent Revenue & Operating Profit Trend in 2010~2017  
(Million USD, %)

Year	2010	2011	2012	2013	2014	2015	2016	2017
<b>Revenue</b>	<b>2,980</b>	<b>4,525</b>	<b>7,045</b>	<b>9,985</b>	<b>12,692</b>	<b>15,837</b>	<b>21,871</b>	<b>36,541</b>
Value Added Services	2,761	4,179	5,733	7,432	10,180	12,420	15,519	23,665
Online Advertising	208	316	543	832	1,336	2,689	3,882	6,215
Others	11	30	769	1,721	1,176	728	2,470	6,660
Gross Profit	2,022	2,949	4,123	5,396	7,728	9,428	12,163	17,970
<b>Operating Cost</b>	<b>1,532</b>	<b>2,721</b>	<b>4,649</b>	<b>7,180</b>	<b>8,494</b>	<b>10,231</b>	<b>14,687</b>	<b>26,363</b>
Cost of Revenue	959	1,577	2,922	4,589	4,964	6,410	9,708	18,571
Selling & Marketing Expenses	143	305	480	941	1,254	1,231	1,747	2,713
General & Administrative Expenses	430	839	1,246	1,650	2,276	2,590	3,233	5,079
Other (loses) Gains	45	141	89	366	713	649	894	3,701
<b>Operating Profit</b>	<b>1,492</b>	<b>1,946</b>	<b>2,485</b>	<b>3,171</b>	<b>4,911</b>	<b>6,255</b>	<b>8,078</b>	<b>13,878</b>
<b>Revenue to Profit Ratio</b>	<b>50.1</b>	<b>43.0</b>	<b>35.3</b>	<b>31.8</b>	<b>38.7</b>	<b>39.5</b>	<b>36.9</b>	<b>38.0</b>

Sources: *Tencent Annual Report 2011, 2013, 2015, 2016 & 2017*

8) The value-added service (VAS) is a popular term for ICT industry because it is concerned with the peripheral services of a core service. The VAS is usually supplied with a low price or almost free for niche segmented users. The VAS of Tencent include Game, Comic, Literature, e-Sports, Music or Utilities like map.

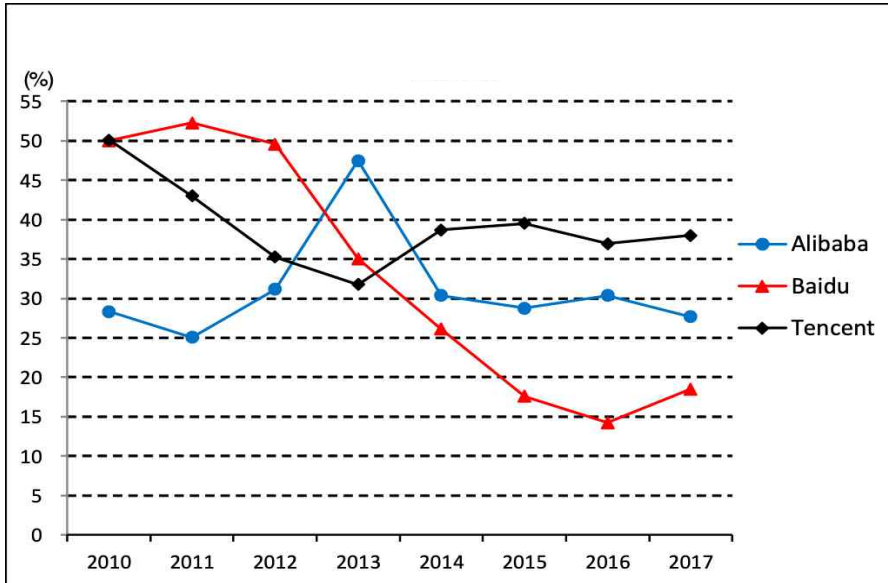
〈Table-3〉 Alibaba Revenue & Operating Profit Trend in 2010~2017  
(Million USD, %)

Year	2010	2011	2012	2013	2014	2015	2016	2017
<b>Revenue</b>	<b>1,019</b>	<b>3,214</b>	<b>5,702</b>	<b>8,443</b>	<b>11,733</b>	<b>14,559</b>	<b>22,994</b>	<b>39,898</b>
International Commerce	596	604	687	780	999	1,098	1,938	3,322
China Commerce	352	2,510	4,819	7,257	9,690	12,138	17,403	29,290
others	71	17	89	281	848	889	2,685	5,151
cloud computing		83	107	124	196	435	968	2,135
<b>Operating Cost</b>	<b>751</b>	<b>2,363</b>	<b>3,300</b>	<b>4,378</b>	<b>7,822</b>	<b>9,883</b>	<b>15,269</b>	<b>27,634</b>
Cost of Revenue	200	1,052	1,606	2,150	3,670	4,945	8,642	17,065
Sales & Marketing	324	491	597	731	1,311	1,628	2,370	4,352
Product Development	125	465	620	819	1,641	1,985	2,479	3,628
General Administrative	102	355	477	678	1,201	1,325	1,778	2,589
Other Profits (Loss)	20	(47)	(626)	(58)	(349)	(487)	(744)	(1,214)
<b>Operating Profit</b>	<b>289</b>	<b>805</b>	<b>1,776</b>	<b>4,007</b>	<b>3,562</b>	<b>4,189</b>	<b>6,981</b>	<b>11,050</b>
<b>Revenue to Profit Ratio</b>	<b>28.3</b>	<b>25.0</b>	<b>31.1</b>	<b>47.5</b>	<b>30.4</b>	<b>28.8</b>	<b>30.4</b>	<b>27.7</b>

Sources: *Alibaba Annual Report 2012, 2014, 2016, 2017 & 2018*

As for Alibaba, Chinese online commerce which covering both retail and wholesale, became a key business from 2011. The revenue ratio of international commerce was 58.5% in 2010 but it largely went down to 8.3% in 2017 <Table-3>. Besides the revenue ratio of cloud service reached 5.4% in 2017 from 2.6% in 2011. However Alibaba has actively pursued the geographic diversification of the online transaction but the revenue concentration on Chinese market rarely got down while staying at around 80~85%. In particular, Alibaba still faces many difficulties in expanding its businesses in North America due to a bad reputation came from the fake trade or personal information misuse.

〈Figure-3〉 Revenue to profit Ratio Trend of Baidu, Alibaba, Tencent



Sources: *Baidu Annual Report 2010, 2012, 2014, 2016, 2017.*

*Alibaba Annual Report 2012, 2014, 2016, 2017, 2018. Tencent Annual Report 2011, 2013, 2015, 2016, 2017.*

Overall it needs to pay more attention on a rapid downturn of Baidu from the revenue to operating profit ratio after 2012 <Table-1>. The revenue to operating profit ratio of Baidu was 52.2% in 2011 but it plummeted to 14.2% in 2016. Also it did not go over 20% in 2017. If considering the fact that the revenue to profit ratio of Alibaba has mostly stayed on 30% line <Table-2>, and Tencent also has kept its revenue to profit ratio of 35~40% after 2012 <Table-3>, a poor position of Baidu obviously turned out. On the contrary, Tencent showed a better performance than Baidu or Alibaba at the revenue to profit ratio <Figure-3>. In 2017 the operating profit of Baidu was 2.4 billion USD, which was only about 17.4% of the operating profit of Tencent. Therefore it can be argued that online marketing business of Baidu confronted a limitation of

sustainable growth in China. Such a limitation of Baidu business model can be managed through the activity system map.

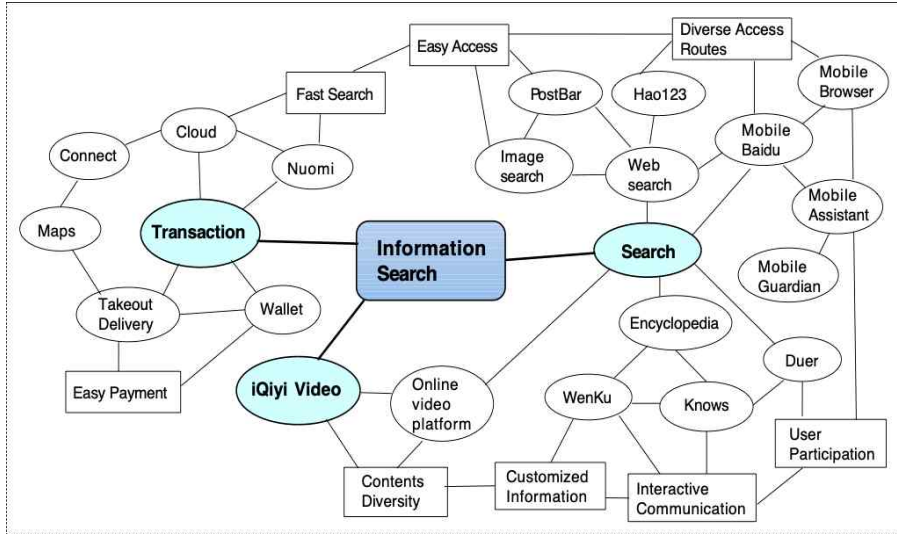
#### IV. Activity System and Strategic Positioning Analysis

A core of activity system of Baidu is the information search through online or mobile device <Figure-4>. Every business activity of Baidu is covered by three categories; search, transaction and iQiyi video. Most of all, Baidu has diversified web search routes continuously including mobile Baidu, mobile browser, Wenku, Knows, Encyclopedia or Hao123.com.<sup>9)</sup> The Wenku is an online document sharing platform, and the Knows is a query-based searchable community to share personal experiences and knowledge. The mobile Baidu is a customized search engine for a wireless internet users and the mobile browser is an exclusive browser for smartphone. In addition, the PostBar is a social media platform for user to gather with a common topic, hobby, study or interest. The Duer is an AI (artificial intelligence) based personal assistant through the interactive communication. Overall it can be said that every activity for web search is closely connected each other in order to promote the mobile access and the users' participation <Figure-4>.

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9) Hao123 has been accused of internet hijacking by installing a virus through Hao123. It is a malicious web browser hijacker and often installs itself without users' consents, and it is very hard to remove once it installed. As a result, Hao123 is still considered as a critical virus by anti-virus software developers but Baidu does not present any official response yet on Hao123 induced virus.

〈Figure-4〉 Activity System Map of Baidu (as of Feb. 2019)



Sources: Own Research by *Baidu Annual Report 2017* & Baidu homepage ([www.baidu.com](http://www.baidu.com))

However the iQiyi video service did not take a position yet in China as the online video platform, and the connection between transaction activities and search activities is still weak. In result the transaction activities like Nuomi, Wallet, Takeout Delivery or Maps are not well enough to create revenue as a next step of search activities. The Nuomi is multiple services' platform including movie ticketing, hotel or restaurant reservation, health & beauty care etc. The Maps provide users with location-based information or routes, transportation to get famous stores, landmark, hot spots. Besides the Wallet is the online payment system of Baidu, and the Connect is a marketing application for merchants to sell their products or services with a large scale. But such transaction activities are not so attractive or essential as to use the search results of Baidu when comparing with the convenience of transaction activities through Alibaba or Tencent.

The core of business activities of Alibaba is the online shopping & transaction, and the basic business structure is composed of three sectors; Buy on Alibaba, Sell on Alibaba and Trade Services <Figure-5>. Most of business activities are organically interconnected to improve the convenience of online buyers and sellers. From the buyers' side, TaoBao is a general B2C platform, and Tmall is the premium B2C & B2B platform. The AliExpress is for global buyers to access the Chinese manufactures & distributors, and the Juhuasuan usually gives a special offer or discount trade for group buyers of China. In addition, the Lazada is specialized for women accessories & fashion items, and the Xiami is for buying the sound sources of popular songs, the Fliggy focuses on travel products. From the sellers' side, the Alibaba.com is for global

〈Figure-5〉 Activity System Map of Alibaba (as of Feb. 2019)



Sources: Own Research by *Alibaba Annual Report 2018*, Alibaba Group homepage ([www.alibabagroup.com](http://www.alibabagroup.com)) & Alibaba homepage ([www.alibaba.com](http://www.alibaba.com)),

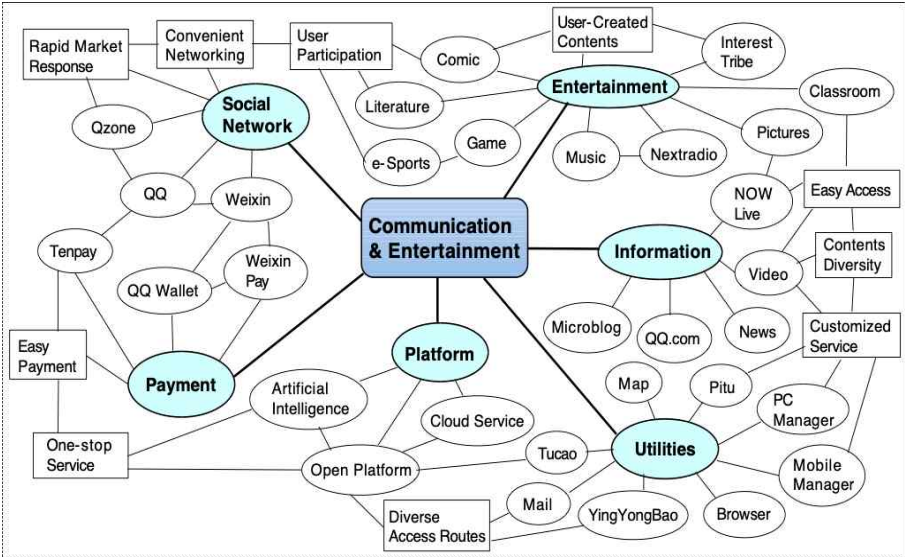


wholesale trade platform, and the 1688.com is for domestic wholesale trade platform. The Alimama provides the online marketing applications or technologies for sellers, and the Cainiao Network manages all of the logistic requests.

Especially the trade services of Alibaba like business partner identity, payment security, credit transaction assurance and product quality inspection have made a big contribution for Alibaba to be a global leading trading platform. The Alipay has played a critical role to guarantee the payment for Chinese local manufactures with few transaction histories. It can be said that trade services of Alibaba have taken an important part in operating whole activity system successfully. A good reputation for Alibaba like easy payment, fast & trustable trade or one-stop service has been based on the competitive trading activities.

As for Tencent, the online communication and entertainment have been the core of all activities, and they are classified into six business sectors; social networks, payment, entertainment, information, utilities, platform <Figure-6>. Traditionally the QQ instant messenger had played a critical role for the rapid growth of Tencent from early 2000s, and then the mobile messenger Weixin (Wechat) takes a lead in creating a sustainable development basis. The value added services like games, e-Sports or comic have been operated by a big number of QQ or Weixin users while maximizing the network effect. Furthermore, the Tenpay and Weixin Pay, QQ Wallet made the SNS users be convenient to pay the service fees at any access points, and Cloud service & Open Platform emerged as a great place for communicating & networking between service providers and users.

<Figure-6> Activity System Map of Tencent (as of Feb. 2019)



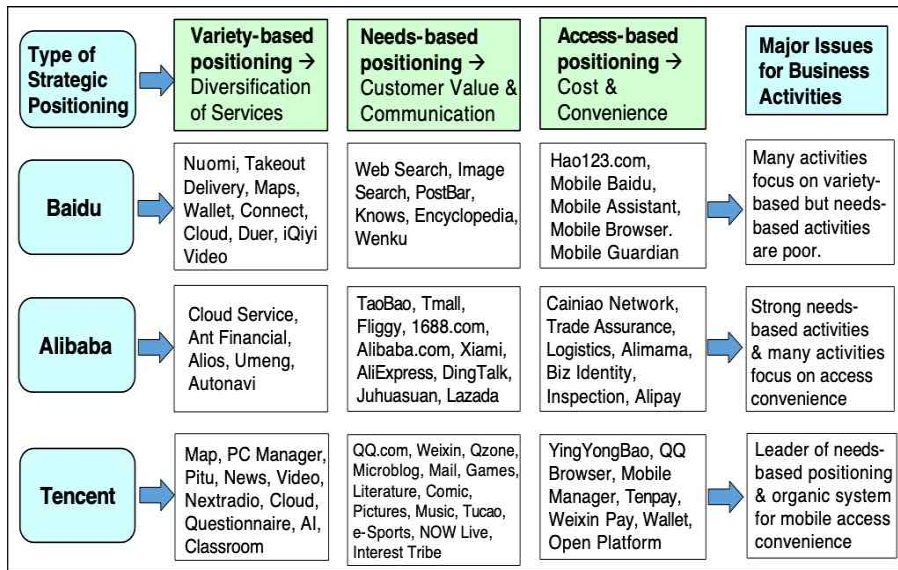
Sources: Own Research by *Tencent Annual Report 2017* & Tencent homepage ([www.tencent.com](http://www.tencent.com)).

Another noticeable advantage of Tencent activity system is the interconnection between entertainment services and information services so strong as to promote a natural changeover from free services to paid ones. For example, Tencent Video became a major video platform in China, and it is closely related with the Now Live & Tencent Picture of the entertainment sector <Figure-6>. In particular, lots of activities are customized to induce users' participation & to share user created contents. Many utilities of Tencent like YingYongBao, browser, mobile manager or Pitu that is a self-editing image software are supplied for free to increase the users' experiences.

Now from the strategic positioning perspective, all the business activities of Baidu, Alibaba & Tencent can be reorganized into three types of positioning <Figure-7>. Firstly, the variety-based positioning is to diversify the services beyond the existing core activity, and many activities of Baidu turned out to be more concerned with the variety-based positioning. Most of transaction activities

including Nuomi, Takeout Delivery, Wallet, Maps & Connect are considered with having few links with the search activity. In case of Alibaba, the Ant Financial, Alios, Umeng & Autonavi are close to the variety-based positioning type of activities, but the number are not so many as other positioning types of activities. Also Tencent do not have so many variety-based type of activities if considering the number of other type of activities. The Pitu, News, Nextradio or PC Manager are regarded as the variety-based positioning type of activities.

〈Figure-7〉 Strategic Positioning Review for Activity Systems of Baidu, Alibaba & Tencent



Source: Own Research by each firm's *Annual Report* & online homepage

Secondly, the needs-based positioning is to increase the users' value or promote the communication by deepening the core activity for user segmentation and target marketing. The Knows, PostBar, Wenku or Encyclopedia of Baidu are

the needs-based type of actives, but the number is not as many as the number of Alibaba or Tencent <Figure-7>. In addition, Taobao, Tmall, Fliggy, 1688.com, Xiami or Juhuasuan for Alibaba, and QQ.com, Weixin, Qzone, Game, Comic or e-Sports for Tencent are covered by the needs-based type of activities. Thirdly, the access-based positioning is to reduce the access cost while improving the access convenience from the users' perspective. So the Mobile Browser, Assistant or Hao123.com of Baidu, and the Cainiao Network, Trade Assurance, Alimama, Business Identity or Alipay of Alibaba can be considered as the access-based type of activities. Tencent also strengthens the access-based positioning through YingYongBao, Mobile Manager, Tenpay, Weixin Pay or Open Platform.

As a result, the limitation of business model for Baidu that causes a recent downturn is concerned with the fact that too many activities concentrate on variety-based positioning to be hard to find which values are meaningful for the users. In other words, the needs-based type of activities of Baidu should have been more specific to create a distinctive value but they were rarely so valuable as to attract other users who stay on other rivals <Figure-7>. However both Alibaba and Tencent intensively compete each other to be the number one platform of China from the customer needs-based positioning side. The value added services of Tencent efficiently provide something new values for its SNS users, and various types of commerce sites of Alibaba succeed in customer needs segmentation. Further it can be said that both firms make the best practice in China by creating its own access-based positioning, so called the online business ecosystem beyond the mobile access convenience.

Finally, the stock price trend for three firms present a similar information as the findings of this study. The Baidu (BIDU) is listed on Nasdaq, and as of March 16 2019, the trading price is 170 USD with the past 52 weeks' price

range of 153~284 USD. Since September 2017, the stock price rarely got out of the downturn state. The Alibaba (BABA) is listed on NYSE, and as of March 16 2019, the trading price is 181 USD with the past 52 weeks' price range of 130~212 USD. The stock price has maintained the upward trend continuously since September 2017. The Tencent (0700.HK) is listed on Hong Kong Stock Exchange, and as of March 18 2019, the trading price is 366 HKD<sup>10)</sup> with the past 52 week price range of 251~477 HKD. The stock price has kept the upturn trend since April 2014.

## V. Conclusion

Recently all of the BAT; Baidu, Alibaba, Tencent confront with various problems that were rarely managed before. The Alibaba is still named on the US government blacklist due to the fake trade, and Tencent is under a big pressure to tackle the internet addiction came from violent, money seeking or gambling nature of some games. The Baidu also faces the users' trust problem resulted from the search restriction, censorship, user information misuse or the manipulation of search results. Such hardships of the BAT began to show up a poor performance of going abroad strategy. The globalization performance of BAT is a true litmus paper whether the existing practices within China can work outside of China or not. In particular, the recent downturn of Baidu can be considered as a meaningful change signal of a strong leadership of BAT.

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10) If considering the exchange rate between HKD and USD, the 366 HKD is approximately 46.6 USD as of March 18, 2019.

Since 2007 Alibaba and Tencent have kept the revenue growth momentum continuously but Baidu showed a sluggish growth trend. The revenue of Baidu began to be clearly stagnant from 2015, so the revenue gap between Baidu and other two rivals largely increased from that time. In 2017 the revenue of Alibaba, Tencent reached 40 billion USD, 37 billion USD respectively but the revenue of Baidu was only 13 billion USD. In addition, the operating profit of Alibaba, Tencent went up to 11 billion USD, 14 billion USD each but the operating profit of Baidu was only 2.4 billion USD. It means a breakaway of Baidu from the BAT leadership structure, so this study tried to trace the reason from the strategic positioning perspective.

In result, lots of business activities of Baidu turned out to be more oriented for variety-based positioning rather than needs-based positioning or access-based one. Most of transaction activities like Nouni, Takeout Delivery or Wallet still have less links with search activities, and new activities of search are not enough as to lead the needs-based positioning or access-based positioning. As of 2018, the needs-based type of activities of Baidu should have been more specific to create a distinctive value. On the contrary, Alibaba and Tencent intensively compete each other to be the best platform of China from the needs-based positioning as well as the access-based positioning. The value added services of Tencent make the SNS users stay more on its sites, and Alibaba also succeeds in online shoppers' segmentation by supplying various types of transaction sites. Therefore it can be argued that the downturn of Baidu resulted from a weak positioning or a failure of repositioning which only pursuing the service diversification. Of course, it is too early to judge that the positioning of Alibaba and Tencent how much is sustainable because global market performance is still very poor.

Not only global revenue or profit indexes but also the brand recognition or website traffic analysis inform well the competitive disadvantage of BAT in abroad. At the brand recognition, all the BAT were not included in the ‘Global Top 100 Brand’ list made by Interbrand in 2017 and in 2018. In fact, Chinese brands covered by Top 100 Brand of 2017 were only two, Huawei (70<sup>th</sup>) and Lenovo (100<sup>th</sup>) (Interbrand 2017). Besides only Huawei (68<sup>th</sup>) existed at the Top 100 Brand of 2018. In contrast with BAT, Google (2<sup>nd</sup>), Amazon (3<sup>rd</sup>), Facebook (9<sup>th</sup>), e-Bay (38<sup>th</sup>) put their names on the Top 100 Brand of 2018 (Interbrand 2018). The BAT still have a long way to go to improve the brand recognition globally. According to the Alexa, a website traffic<sup>11)</sup> analysis company, the Baidu.com turned out to be the number one website at the traffic ranking of China, the 4<sup>th</sup> of the global traffic ranking as of March 2019. But about 96% of whole visitors for Baidu.com came from China. The qq.com recorded the second traffic ranking in China, the 6<sup>th</sup> of global traffic ranking. Approximately 94% of total visitors for qq.com also came from China. In case of Alibaba, the Tmall.com, Taobao.com took the third place, the fourth place respectively in China with the 7<sup>th</sup>, the 8<sup>th</sup> of global traffic ranking. Like the Baidu.com or qq.com, about 95% of whole visitors for both sites emerged from China.<sup>12)</sup> In result, the website traffics of BAT are still too much dependent on domestic visitors, and it is definitely a big assignment of the globalization strategy of BAT.

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11) The website traffic is the amount of data sent and received by visitors for the website. Usually it is estimated by the number of visitors and the number of pages they visit.

12) On the contrary, the U.S. visitors’ ratio of Google, the first of global traffic ranking, was only 21% as of March 2019. And only 25% of whole visitors of Facebook, the 3rd of global traffic ranking, came from the U.S. In case of Amazon, the 10th of global traffic ranking, about 66% of whole visitors came from the U.S.

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국문초록

## 바이두, 알리바바, 텐센트의 활동 시스템 분석 -바이두의 부진 원인을 중심으로-

최 병 현  
공주대학교

최근 중국의 3대 온라인 플랫폼, 바이두, 알리바바, 텐센트는 예전에 겪어보지 못했던 다양한 어려움에 직면하고 있다. 특히 개인 정보의 부적절한 사용, 중국 청소년들의 인터넷 중독, 모조품 유통과 거래 및 비윤리적인 온라인 마케팅 관행 등은 3대 온라인 플랫폼의 저조한 국제화 실적과 깊은 관련이 있다. 무엇보다도 2015년 이후, 상승세가 크게 둔화된 바이두의 매출액 추이에 좀 더 주목할 필요가 있는데, 시간이 지날수록 바이두와 알리바바 및 텐센트 사이의 매출액 차이가 점점 커지고 있다. 이에 본 연구는 바이두 경영성과의 부진 이유를 전략적 포지셔닝 관점에서 분석하였다. 일반적으로 기업의 전략적 포지셔닝은 다양한 제품과 서비스 중심 활동, 소비자 니즈(needs) 중심 활동, 소비자 접근성 중심 활동 등 세 가지 유형의 활동에서 형성된다. 따라서 본 연구는 바이두, 알리바바, 텐센트의 기업활동들을 세 가지 유형으로 재구성하고, 전체적인 활동 시스템 지도를 작성함으로써, 어떠한 유형의 활동들이 다른 유형의 활동들보다 더 많은지, 즉 어떠한 종류의 포지셔닝으로 볼 수 있는지를 분석하였다. 그 결과 바이두의 경우, 많은 활동들이 서비스 다양성 중심의 포지셔닝에 집중된 것으로 나타났다. 더 나아가 바이두의 소비자 니즈(needs) 중심 활동들은 사용자들에게 독특한 가치를 제공하는데 있어서, 알리바바나 텐센트에 비해 상대적으로 빈약한 것으로 나타났다.

**핵심주제어:** 활동 시스템 분석, 전략적 포지셔닝, 바이두, 알리바바, 텐센트

Abstract

## **Activity System Analysis of Baidu, Alibaba, Tencent —Reason for Baidu's Downturn—**

**Byunghun Choi**

Professor of Business Administration Dept. of Kongju National University of Korea

Recently the leadership of Chinese big three online firms, Baidu, Alibaba, Tencent, called the BAT confronts with various difficulties that rarely managed before. The difficulties include the personal data misuse, internet addition, counterfeit goods trade and unethical online marketing, and they work as the direct reason for poor performances of their globalization. In particular, the revenue of Baidu began to be clearly sluggish from 2015, so the revenue gap between Baidu and other two rivals largely increased from that time. This study analyzed the reason for Baidu's recent downturn from the strategic positioning perspective. The strategic positioning of a firm can be made by three types of business activities; customer needs-based activity, access-based activity, product or service variety-based activity. This study reorganized the business activities of BAT, and displayed the activity system of each firm in order to decide which type of business activities is relatively more than other types. In result, many activities of Baidu turned out to be more oriented for variety-based positioning rather than needs-based positioning or access-based one. Further the needs-based type of activities of Baidu should have been more specific to create a distinctive value for users.

**Key words:** Activity System, Strategic Positioning, Baidu, Alibaba, Tencent