

Liu, Yunhan; Kim, Dohoon

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Why did Uber China fail in China? – Lessons from Business Model Analysis

Yunhan Liu, Dohoon Kim

School of Management, Kyung Hee University

lyunhan@hotmail.com, dyohaan@khu.ac.kr

Abstract

The ride-hailing platform presents an on-demand business model on the basis of business ecosystems in the era of the sharing economy. The ride-hailing platforms became popular and common around the world as a sustainable option that complements the public transportation services. This article presents a case study that analyzes the intense competition between global giant Uber and Didi Chuxing in Chinese ride-hailing market. First, employing the Canvas model, we compare and analyze the characteristics of the business model of the two platforms. Our analysis and comparisons of the strategic positioning and implementation of the two platforms with respect to the major building blocks of the Canvas model finds out the success factors of Didi as well as the sources of failure of Uber. For example, although both Uber and Didi provided similar service offerings covering diverse market segments from low- to high-ends, Uber's mismatches between its strategic focus on the high-end premium segment and service operations proved to be a mistake. On the other hand, Didi operated its business more efficiently by providing a wide range of service offerings and leveraging the two-side market properly. As a result, Didi has grown successfully as a one-stop transportation platform, which is well suited to the Chinese market. This study provides important insights into business model innovations in the sharing economy and implications for the evolution of future transportation platforms.

Keywords

Sharing economy, Ride-hailing platform, Canvas model, Uber China, Didi Chuxing, ...

1. Introduction

After intense competition for Chinese market during two years, Uber decided to merge its Chinese operation with Didi Chuxing on August 1, 2016, that obtained seats on the

board of both companies (Hook, 2016; Salomon, 2016). Meanwhile, Didi has also run Uber China independently as a separate brand (Kirby, 2016). Many data have showed that, since Uber entered the Chinese market in 2014, Uber invested more than \$1 billion per year in expansion business. In 2015, it burned \$1.5 billion in China accounting for 60 percent of Uber's global spending (Hook, 2016; Ovide, 2016; Kelleher, 2016; Salomon, 2016; Gasiorek, 2016). Didi Chuxing which formed by a merger of Chinese two largest ride-hailing apps (Didi Dache and Kuaidi) and getting investments from Alibaba and integration with WeChat's messaging app. As Uber's biggest competitor in the Chinese market, Didi also subsidized up to \$4 billion a year to blunt Uber's ability to gain market share (Kelleher, 2016), and finally in 2016 controlled 80 percent of Chinese ride-hailing market.

Sharing economy has also been labelled as "collaborative consumption" (Botsman, 2013; Botsman & Rogers, 2010a; Botsman & Rogers, 2010b; Codagnone & Martens, 2016) in which develop digital platforms such as Uber and Didi Chuxing to enable Peer to Peer (P2P) sharing of ride services. Through increased data flow, sharing economy platforms enable innovative two-sided business models to transition from individual to community collaborative consumption (Täuscher & Kietzmann, 2017) and from a corporation-centered economic model to "crowd-based capitalism (Sundararajan, 2016)". Despite Uber is considered to be the most valuable startup firm enjoying international success with deep penetration, however, due to its loss of the Chinese market, a few existing research analyzed the mainly reasons for its failure. Wirtz & Tang (2016) tried to discuss Uber's different operating strategies in the U.S. and China markets by showing its business model. Salomon (2016) suggested that Uber was poorly positioned to capitalize on China's ride-hailing market and described the risk and complex of the Chinese market making it difficult for western firms to operate as they do at home. Parente et al. (2017) mentioned that, Uber ended up its internationalization in the Chinese market because of failing to acknowledge local users' preferences in the national ecosystem, underestimating local competition, and avoiding local partnerships. Research by Täuscher & Kietzmann (2017) supports that network effects and scalability do not necessarily contribute to a competitive advantage for Uber despite they represent common attributes of sharing economy firms.

Although prior research literature has provided valuable insights into sharing economy

platforms such as Uber face the challenges and the obstacles need to be overcome when competing in international markets, relatively little practical investigation has been done to comprehensively compare business model positioning and innovation among competitors. In this study, we aim to systematically analyze the characteristics of the business model focus on difference between Uber and Didi Chuxing that pointing out the success factors of Didi as well as the sources of failure of Uber drawing from the Canvas model approach. We extend the framework that combines insights into business model of ride-hailing platform, which enables to describe and understand the operational functions of the platform and its competitors.

The outline of this article is as follows. We provide the value proposition and strategic positioning of Uber and Didi in Section 2. In Section 3, we describe the structure of the demand and revenue model as well as supply side analysis according to Canvas. Section 4 concludes this article.

2. Ride-Hailing Platforms in China: Business Model Comparisons and Lessons

2.1 Uber vs. Didi in China: Value Proposition and Strategic Positioning

Uber entered the Chinese market in 2014. In July, Uber China as a subsidiary company, which was established and launched operations in Beijing and Shanghai. For many potential Chinese users, Uber changed to a more localized business approach. That was linking Baidu map to complete the positioning and navigation functions, likewise completed the payment function by Alipay and UnionPay credit cards. After two years of development, China has become Uber's largest overseas market in the world. In October 2015, Shanghai Wubo Technology Company which was the only independent company outside the United States was established, and Uber China's operations were moved to servers in China. In contrast to its main competitor in the Chinese market, Didi Chuxing was launched by Beijing Xiaoju Technology Company which was established in June 2012, and officially launched operations in Beijing in September. In February 2015, Didi achieved strategic merger with its Chinese domestic competition enterprise called Kuaidi Dache (invested by Alibaba), and then gained the market leading status with a total registered users scale of 250 million and 80% of market share. At present, Didi has grown from a taxi-hailing software to a one-stop travel platform covering taxis, carpooling,

chauffeur, car rental and other mobile transportation services. In 2015, the total amount of orders for Didi platform reached 1.43 billion, which is equivalent to nearly twice the total orders of all taxis in the United States in 2015 (IBISWorld & Statistic Brain, 2016). In 2016, Didi entered the international markets of Southeast Asia and India, and officially launched its ride service in the United States in April. After experienced a frenzied battle of money-burning subsidies especially in 2015, Didi and Uber China merged under the promotion from capital and the catalysis of related China's ride-hailing regulations. Uber sold its operation in China to Didi on August 1 in 2016, that obtained seats on the board of both companies. Meanwhile Uber got around a 20% share of the Chinese company, which will run Uber's Chinese operation as a separate brand (Kirby, 2016).

In building blocks of Canvas model, value proposition emphasizes that creating value through a unique combination of segmentation group needs (Osterwalder & Pigneur, 2010). Compared with traditional taxi services, a variety of differential ride services are provided on both Didi and Uber platforms to meet the different needs from different passenger groups. By providing flexible working hours and considerable earnings, it creates an alternative way of working for idle car owners. The use of information communications technology (ICT) has not only reduced vacancy rate of drivers, but also reduced waiting time and taxi expenses of passengers, and effectively reduced information asymmetry between the two through recommend system. Value propositions can be quantitative, such as providing homogenous values at lower prices to meet price-sensitive customer segmentation groups (Osterwalder & Pigneur, 2010). For example, Didi has adopted a low-price value proposition that is lower than Uber China's pricing in response to the price-sensitive characteristics of Chinese low-end private car drivers. It can also be qualitative, such as the accessibility that One-click helicopter call is regarded as a Uber's more famous marketing plan. Within reach of acceptable prices, passengers were provided with previously unreachable services. In addition, Uber China actively advocates and strictly enforces the convenience and usability in process design that included in the value proposition.

Strategic positioning for competitive advantage, which is defined as “an issue of choosing position in terms of product scope, market scope, and business value system scope” (Stabell & Fjeldstad, 1998). For example, offering exquisite service experience and providing varied luxury vehicle are important parts of Uber's value proposition. In

comparison, because taxi drivers and users are also important for Didi in customer segments who want a simple ride demand with cheaper fare, so meeting the need of such customers is one of value propositions that are different from Uber. According to Porter (2008), strategic positioning means performing different activities from rivals, or performing similar activities in different ways. As a competing company, Uber started as a luxury brand with the business of high-end service. Based on market segmentation, it has attracted customers from different strata of society and met the different needs of ride hailing in different types of income groups. For example, it attracts a large number of customers by launching carpooling service (People's Uber) that is cheaper than taxi, as a strategic business for opening up Chinese market. Meanwhile, Uber also launched its initial business, UberBlack, to provide luxury car services for high-income people. Unlike Uber China, Didi has chosen to perform activities in different ways from its rivals. Starting from the traditional taxi business, that has made Didi have a large number of taxi users and developed from an auxiliary tool for optimizing taxi-hailing service to a one-stop ride-sharing platform. Didi has successfully extended the product line and launched high-end car service, long and short distance carpool, and other multiple horizontal extension services. Therefore, although Didi and Uber China are engaged in similar types of activities, the two companies have differences in market entry and expansion. Uber China relies on its own technological advantages to focus more on the vertical in-depth product, while Didi has a large user base and domestic business advantage, that the development trend is more inclined to the horizontal expansion of product line.

3. Ride-Hailing Platforms in China: Business Model Comparisons and Lessons

3.1 Uber vs. Didi in China: Demand and Revenue Model

Since Uber is the first platform provider that launched the 'ride-hailing service' even before this term appeared in the news and media, its brand power is very powerful and driving force for its business growth. In fact, as in 'Google' for Internet search, Uber is almost synonymous with ride-hailing service. The brand recognition reaches to over 40 million monthly users and the service operates in 633 cities worldwide with high brand equity and awareness. Thus, it was quite natural to predict that Uber would be able to penetrate Chinese ride-hailing market rapidly if it could be allowed to start business there. However, Uber China failed in creating a winner-take-all situation in the Chinese ride-

hailing market, where there are huge potential customers who are difficult to get taxi, particularly in peak hours. According to iResearch (2016), the number of users enjoying the ride-hailing service reached 399 million in Chinese market by the end of 2015. And in the first quarter of 2016, Didi's market share (in terms of the order volume) reached 85.3%, ranking first in the industry; on the other hand, Uber's market share reached only 14.9%, taking the second place (CNIT-Research, 2016). The big difference in the market share implies that despite Uber's strong brand power in the global market, there were other factors in the Chinese market which affected users' choices of the ride-hailing platforms. Now, we first propose the following factor about the effect of the brand power on the Chinese ride-hailing market.

Factor 1: The users in China did not seriously take the brands of ride-hailing services into account despite Uber's strong brand recognition in the Chinese /* or global? */ market.

A survey in 2016 (when both platforms were competing) about users' preference to ride-hailing software in China showed that 77.2% of passengers said that they heard about the brand name of Uber China, while 91.7% of passengers already knew the brand Didi Chuxing. Relatively higher user awareness of Didi's brand naturally led to more referrals to friends. Furthermore, unique usage patterns of Chinese users explain that the brand loyalty of Uber is 45.3%, the brand preferred rate is 21.9%, and the brand preference

accounts for 22.4%.

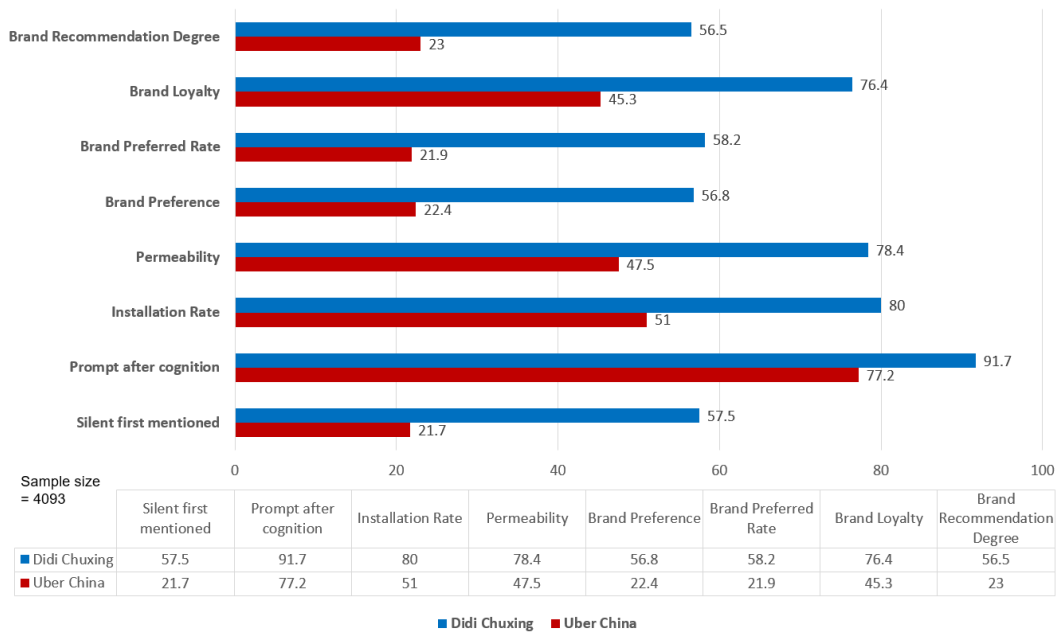


Figure 1 Brand Comparison between Didi Chuxing and Uber China

Source: China Mobile Internet Travel Market Research Report, Nielsen Global Performance Management Company, March 2016.

As Uber entered China, the competitive landscape of the Chinese ride-hailing market changed. Since the second half of 2014, the market competition has intensified using aggressive financing, subsidies and cash burning. In terms of the coverage of service regions, the number of active users, the growth rate, etc., Didi was able to rapidly establish inherent advantage as a local company and made the most of Chinese population density and local partners. Didi was more than 10 times bigger than that of Uber China. Although Uber steadily occupied some portion of market segments with its own technological skills, especially in the high-end services (e.g., ride-hailing with luxury vehicles) and the carpooling services. On the other hand, Didi kept higher market penetration in the many segments (even including the high-end) and elicited active user penetration there. According to data from iResearch (2015), the user coverage in the high-end in Didi app record is as high as 88.4%. Therefore, we conclude the following factor of the regional coverage in the Chinese ride-hailing market.

Factor 2: The larger regional coverage of Didi than that of Uber would significantly

helped the market penetration and complemented the disadvantage that Didi had as a follower.

In October 2015, Uber China’s order volume (i.e., the number of service requests) in Chengdu surpassed that of New York, making Chengdu the largest city in terms of the service requests on earth. However, Uber’s expansion strategy focused on the first tier cities in China and it seemed that its plan to move down to the second tier cities was stuck there. Table 1 shows that Uber ran its business in less than 40 cities until the second quarter of 2016. On the other hand, Didi had a large number of user base and operated its service in more than 400 cities in the same period. Starting with its initial service offering of taxi-hailing, Didi leveraged subsidies to foster various services provisioned through its calling platform. At the same time, Didi cooperated with taxi drivers and companies in many cities, which made Didi quickly expand its coverage to more than 400 cities. As a result, the number of active users per month reached 58.86 million in 2016.

Table 1 Coverage of Didi Chuxing and Uber China

2016 Q1-Q2	Didi Chuxing	Uber China
Number of City Coverage¹	400	37
Active User Coverage¹	85.6%	15.4%
Monthly Active Users² (unit: 10 thousand)	5886.7	1848.8
Monthly Active User Growth Rate²	195.9%	890.5%
Daily Active Users² (unit: 10 thousand)	908.6	229.6
Number of Employees³	≈5000	≈300

Source: Data was collected and organized from the following multiple sources: 1) China Economic Information Network, June, 2016, <http://www.cei.gov.cn/>, 2) QuestMobile, Mar, 2016, <https://mp.weixin.qq.com/>, 3) Baijia Hao, Jan, 2016, <https://baijia.baidu.com/>.

As Uber and Didi competed in the Chinese ride-hailing service market, their target market segments and service offerings were overlapped in many service categories. Uber China focused its service offerings on vertical segmentation based on car types and provisioned refined services to dominate the high-end segments. For example, “People’s Uber+ (UberPool)” was launched to take advantage of Uber’s technological superiority

for high quality carpooling service at reasonable price and to promote basic services at the same time. Uber seemed to expect that this approach would greatly improve the efficiency of vehicle usage on its platform, while impressing the users that Uber would be a representative company in the sharing economy.

A survey report released in March 2016 (IResearch, 2016), however, revealed that it was Didi's ride-hailing app that provided the most comprehensive service contents in the area of Chinese mobile transportation service category. On the top of the ride-hailing services, Didi also provisioned travel-related services which provide passengers with a rich travel information. The goal of Didi's app strategy is to improve and expand the business ecosystem thereby enhancing users' stickiness to the platform and positioning itself as a comprehensive transportation service provider. Accordingly, we present that these differences in service offerings resulted in different outcomes to both platforms.

Factor 3: Didi's richer service offerings appealed to Chinese users more attractive than Uber's strategy of focusing position.

Table 2 compares the scope of service offerings of both platforms. In some classes, both platforms compete over the same market segments. Since both platforms were interested in high-end special car services or premium service class, for example, they provisioned similar service offerings and fiercely competed. In particular, Uber China put much efforts into this service class and provided new type of ride-hailing services (e.g., ride-hailing with private cars), while ignoring some portion of the service categories or the market segments such as the long-distance carpool, taxis, and designated driving, which were included in the service offerings of Didi. In fact, Didi provided wider service offerings than Uber, and targeted almost every market segments from low-end to high-end. Didi is still pursuing all types of users with various income levels and provides a variety of ride-hailing services to meet diverse needs from many segments. 'Didi Express,' which Didi launched to compete UberX in the same category presented cheaper ride-hailing service with slightly lower price than daily taxi charge for Chinese low and middle-income users who are highly price sensitive.

Table 2 Service Class and Service Offering of Didi Chuxing & Uber China

Service Class	Didi Chuxing	Uber China
Carpool	DiDi Express; DiDi Hitch	People's Uber(+)
Economy	DiDi Express	UberX
Premium	DiDi Premier; DiDi Lux	UberBlack; UberXL
Others	DiDi Taxi; DiDi Designated Driving	-

Since UberXL usually employs large vehicle, it is classified as premium for the purpose of this study.

Source: Data was collected and organized from the official websites. <http://www.xiaojukeji.com/> and <https://www.uber.com.cn/>.

When assessing the Chinese ride-hailing market, Uber's expectation and prediction was not successful in designing and implementing its marketing strategy. With fierce competition for market share against Didi and other incumbent platforms in the Chinese market, Uber did not seem to clearly determine what it wanted to do there and what it could really do well at that time. This mismatch resulted in losing the winner-takes-all game, typical pattern of play in the platform businesses. For example, there seemed to be a mismatch in the service offerings like 'Uber Black' and its knowledge on the high-end segment. Although Uber offered quite a wide range of service classes as shown in Table 2, Uber Black took a position that represented company's unique competitive advantage. Uber seemed to assess that this category would be more profitable than the ride-sharing service class. On the other hand, the (potential) high-end users in the Chinese market are big enough to accommodate multiple platforms. According to a consulting report in China (reference?, 2015), there were about 300 million passengers and more than 10 million drivers registered in the ride-hailing platforms by the end of 2015. The active users were growing at an average monthly rate of 13%. 83.2% of these active participants in the private-car ride-hailing market chose Didi and 16.2% for Uber China. Furthermore, 80% of the drivers registered in Uber China actually worked for the ride-hailing services only in part-time basis. In fact, these potential users or drivers belonged to Chinese upper-middle class and took advantage of Uber platform for social networking to make friends rather than for real use. In sum, Uber China's efforts to foster advanced services have been misplaced. Therefore, we suggest that the well- or mis-match in target segments and service offerings resulted in different outcomes.

Factor 4: Didi's target segments and service offerings were better matched than those

of Uber's. Furthermore, this matching strategy of Didi's was consistent with its value proposition.

While Didi offered the advanced services, it also provisioned other lower level service classes like Didi Express and taxi, which accounted for 90% of the total order requests (Roland Berger, 2016). On the other hand, Uber's initial service offerings in the United States included advanced and premium-like services, and it also tried to deploy similar service offering plan in the Chinese market. As shown in the following table, however, the number of requests of below the economy class services accounted for 92% of the total service orders. Indeed, it is the services in these categories (e.g., Didi Express and People's Uber) that get the most benefits from the network externalities. While Uber's market share is small in these categories, its most revenue (more than 90%) came from these services. In fact, the premium services including UberXL and UberBlack accounted only for 8% of the total service requests. The imbalance and mismatch between strategic focus area (the premium category) and revenue sources in practice (below the premium class) implies that the marketing and operational plans was considerably unreasonable, which means that Uber has achieved meager success compared to much effort and investment (e.g., manpower and financial resources) in the Chinese market.

Table 3 Daily Order Requests (million) by Service Offering Classes

Service Class	Didi Chuxing		Uber China	
Carpool	DiDi Express & DiDi Hitch	270.8(~90%)	People's Uber	53.4(~92%)
Economy	DiDi Express		UberX	
Premium	DiDi Premier & DiDi Lux	29.5(~10%)	UberXL & UberBlack	4.6(~8%)

Source: Roland Berger (2016 China car-sharing market analysis report)

Like any other business, the pricing scheme constitutes one of core value propositions of the ride-hailing platforms. The pricing scheme is also a key strategic tool for creating the installed-base of the platforms, thereby capturing customer value. Compared with other B2C ride-hailing platforms, Didi and Uber both employ P2P (Peer-to-Peer) business

model, which requires competitive advantage in designing the pricing scheme. In particular, the ride-hailing platforms leverage the two-sided markets connecting drivers (service providers) on the one side and passengers (users) on the other side (Eisenmann et al., 2006; Rochet and Tirole, 2003). Under the framework of Porter's five-force model, we can analyze how the ride-hailing platforms leverage pricing strategies as well as the bargaining power to the suppliers and the buyers.

First, in the supplier side, the car owners (drivers) collect fares by providing ride services to passengers using one or multiple the ride-hailing platforms. In exchange for providing channels to the users, the platforms receive certain percentage of the fares as platform service fee. Since the channels to connect the users are critical to the suppliers, the platforms are able to establish bargaining power to the suppliers and control them by leveraging the pricing scheme. The platforms attract users by setting the platform fee at low levels and providing incentive (e.g., subsidies or coupons) to join the platforms. Thank to this value-added relationship between users and platforms, both can achieve a win-win situation. That is, as the number of service requests increase, the platform will attract more drivers on the supplier side and enhance passengers' service experience. At the same time, as the number of drivers in a platform increases, more passengers will join the respective platform on the user side due to higher chance of satisfying users' needs. This virtuous cycle is well-known 'indirect network externalities (Eisenmann et al., 2006; Katz and Shapiro, 1994; Rochet and Tirole, 2003)' in typical two-sided markets, which makes the platforms ultimately gain benefits from their brokerage services.

This feedback mechanism, however, requires careful approach to the pricing scheme. Otherwise, the mechanism may not work the way the platforms want; even worse, the mechanism works in a way to deteriorate the platforms' gain. That is, the platform should carefully choose one side that is more efficient and effective in utilizing the indirect network externalities. Typically, the supporting side is one who is more sensitive to the pricing scheme: the users (passengers) in our ride-hailing platform. Thus, the users (buyers in Porter's bargaining framework) have the key to platforms' success in their service operations. For example, users' decisions such as whether to use a particular platform and when to use the platform, are greatly affected by the relevant platform's pricing strategy.

In addition to the pricing schemes, there are other factors that affect users' choices of

platform, which eventually establish the bargaining power of users: for example, the reputation on the service quality regarding the drivers of a particular platform: appearance and hygiene condition of cars, service attitude of drivers, drivers' experience, etc. Taking malfunctioning of Uber's dynamic pricing as an example, users also have deep antipathic to opportunistic and egoistic behavior of drivers and platforms during peak hours or in crowded areas. Therefore, the capability to manage and control the driver is an important factor in preventing the user from leaving the platform. Lastly, since users are concerned their peers' platforms (e.g., friends' use of platforms), direct network effect also intensifies the growth of platform usage. All of these factors significantly affected users' preferences and choices, thereby resulting in a big difference in leveraging the bargaining power of users.

Factor 5: A slightly different strategic approach to passengers between Didi and Uber made a big difference in overall scale of their service operations.

Table 4 compares the pricing schemes (for users) of Didi and Uber for each service class. In the premium service class, both Didi and Uber charged 20% of driver's fares as platform fees. In other service classes, however, two platforms' pricing schemes are different. For the carpool service like Didi Express & Hitch, Didi charged 5% of driver's fare as platform fee, while Uber provided its compatible service (People's Uber) for free to users. Considering the nature of the carpool market as a complementary option for public transportations in big cities in China, Didi's 5% charge was not a big difference from Uber's free-of-charge. On the other hand, for the economy class services (Didi Express and UberX), Didi charged only 5% as its platform fee, compared with Uber's 20%.

As pointed out earlier, Uber's major target segment was the premium services (e.g., UberBlack), seeking for high margin with dynamic pricing. However, most revenue of Uber came from the lower segments such as People's Uber, People's Uber+ and UberX. The users in these lower levels of service class can be characterized as being more sensitive to price and cost-effectiveness. Thus, Uber's pricing strategy failed in attracting a large number of users in these classes, where its most revenue streams occurred.

Furthermore, one of major resources of these service classes is private car owners and some rental companies, who join the platform as almost full-time drivers. Accordingly, this problem was not confined to the user side, but it also had a negative effect on the other side due to the characteristics of the two-sided market. Uber’s pricing strategy totally failed in leveraging the indirect network externalities between the users (passengers) and the suppliers (drivers). When subsidies were reduced and eliminated due to some government regulations and the growth of the ride-hailing services, Uber’s mistake in pricing strategy weakened its competitive capability and made it harder to recover the losses.

Table 4 Comparisons of Platform Service Fees

Service Class	Didi Chuxing		Uber China	
Carpool	DiDi Express & Hitch	5%	People’s Uber(+)	0%
Economy	DiDi Express	5%	UberX	20%
Premium	DiDi Premier & Lux	20%	UberBlack; UberXL	20%

Source: Industrial Securities Research, One of the smart traffic reports - Key Data Interpreting Industry, 2016 April.

Didi, on the other hand, appropriately adopted a pricing strategy that is well suited to the two-sided markets and aggressively exploited the user side by providing higher subsidies and other incentives to the passenger in the early stage of cultivating user needs and expanding markets. Didi was also stick to its own strict service quality standard, and took advantage of rapid growth of urban expansions. Thus, it could achieved huge market share and developed comprehensive business ecosystem in many local markets. Didi established a clear position, and it has now the advantage of network effects.

3.2 Uber vs. Didi in China: Supply Side Analysis

It has been observed between Uber China and Didi Chuxing that there was a difference in the value proposition and service design particularly in terms of the service process. In the perspective of the two-sided markets, both platforms paid more attention to passengers (i.e., the user side) who prefer efficient and reliable ride-hailing services. In

particular, Uber tried to simplify its service operation process for its passengers. Uber's passengers needed only two steps using their smartphone to complete all the requests. In order to maximize convenience in users' experience as well as chances of passenger-driver matching, Uber employed an automatic dispatch system, with which drivers could not choose or reject service requests from passengers. That is, whenever a passenger sends out ride-hailing request, the platform assigns this order to the available driver within the closest distance to the passenger so that the matching maximizes user's efficiency. Furthermore, for improving the overall service quality provided by the drivers, a series of stringent regulations were implemented. For example, a recommend system was employed to evaluate and transparently share drivers' performance.

Didi also took much care about the user side. Since Didi had accumulated great user base from its first service for taxi users, the platform already built fundamental ground for its user side of two-sided market when entering the ride-hailing market. Compared with other competing platforms in the Chinese market, Didi provided more extensive service offerings and provisioned many operational functions to support these wide range of services. Thus, Didi was able to fulfill diverse needs for transportation options from multiple user segments. Furthermore, on the basis of a large number of subscriber, Didi could also pay more attention to the supplier side (drivers) and implemented many operation mechanisms for arranging users' service requests. These supporting functions made it possible for the drivers to flexibly respond to the orders. These actions enriched the pool of drivers and vehicles, which in turn enhanced passengers' experience. To a great extent, Didi's approaches to design and operations of its service process involved and complemented both sides—the user and the supplier—thereby, improving the overall service quality through its platform. We therefore suggest that the differences in the basic design and operations of the service process may have led the two platforms to different paths.

Factor 6: The way that Didi operates the service process (e.g., matching passengers and drivers) was different from that of Uber. This difference resulted in different focus on their service operations, and eventually the way to boost both sides of the platforms.

We examined the main service operations along the path of service request and respond. Figure 2 depicts and compares the main service flows of two platforms. Basically, the overall structure looks similar. However, as explained above, the focuses of service process are quite different each other. First, Uber's service flow is simpler than that of Didi, which reflects the key differences in approaching to users' needs. The former prefers simple process and pursues convenience first as in the US and some European countries, while the latter encompasses many functions and service features. For example, comparing the flows of appointment service and passenger's waiting, Didi and Uber show a clear difference. With the function of drivers' collecting service requests, Didi incorporated a procedure that allows drivers to wait until accepting orders and negotiating the short contract with potential passengers (e.g., tips). On the other hand, since Uber still advocates service concepts of no booking, real-time dispatch and dynamic pricing, it did not allow such functions favoring drivers. Indeed, the interface of Uber app is simpler than that of Didi.

Another big difference lies in the payment system associated with the final service flows. Didi provided many options for payment, which made the entire service flow complicated. For example, Didi is still in close cooperation with WeChat and Alipay which are two major payment platforms in China. Furthermore, Didi allowed its users to choose to pay for fares in cash since many drivers as well as passengers in China preferred cash to online financial options. On the contrary, Uber implemented a global payment system and pushed all the user in the globe including Chinese to get connected and integrated into this system. Thus, Uber China also accept only credit card or Alipay and enforced users to register for accounts in these financial medium. The purpose of this service design was to simplify the payment process to improve the user's convenience, but rather this approach has become an entry barriers, impeding the rapid growth of the business.

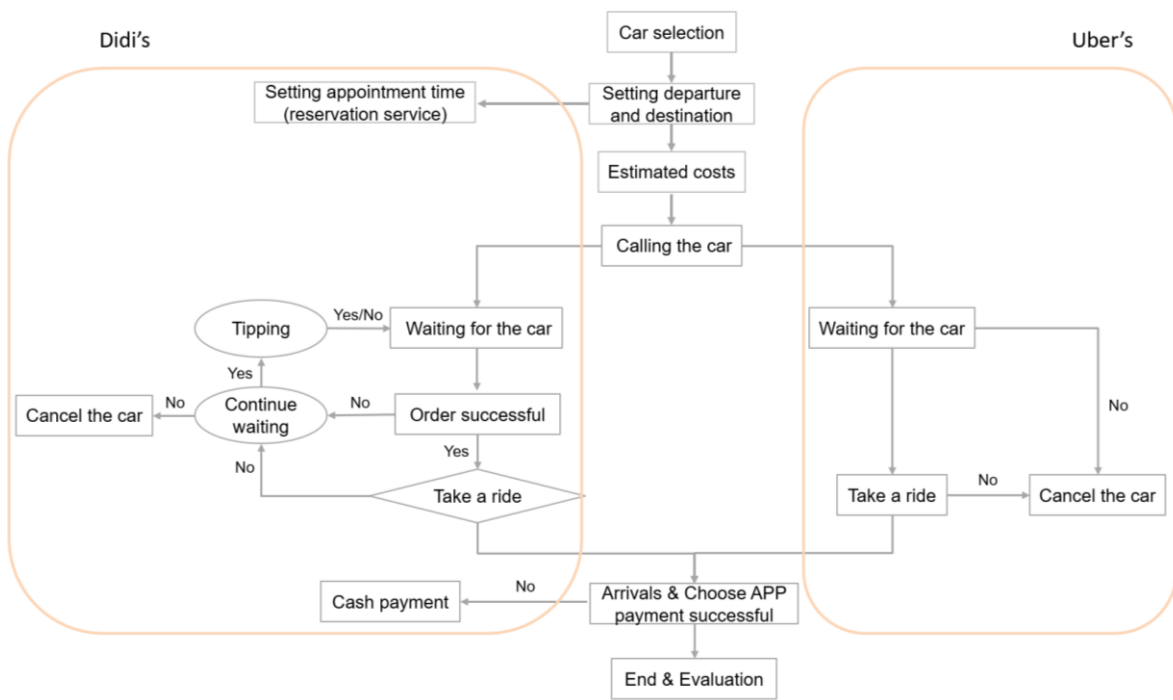


Figure 2 Service Flow Comparisons between Didi and Uber

Source: Didi, Uber, Shenzhou App Competition Product Analysis.

<http://www.chanpin100.com/article/46196> March 2016.

(For the sake of our research purpose, figures were depicted based on information collected and organized around Nov 2017.)

Figure 2 shows value curves of Didi and Uber, which reveals that there were significant gaps in terms of passengers' satisfaction in terms of many service attributes. Although Uber showed its efficiency and convenience in simple service design and real-time automatic dispatch, the overall satisfaction level of Didi seems higher than that of Uber (when both platforms competed in 2016: reference - 2016 Q1 China Ride-sharing Market Research Report). In particular, Didi outperformed Uber in many attributes like payments and after-sale services, which also confirms our earlier service flow analysis in these aspects. Accordingly, we conclude that Didi's service design and operations fit well with its diverse service offerings. The simplicity and convenience that Uber pursued in global scale, on the other hand, did not work well in the Chinese market. This suggests that Uber China lacked understanding of what passengers and drivers in China wanted.

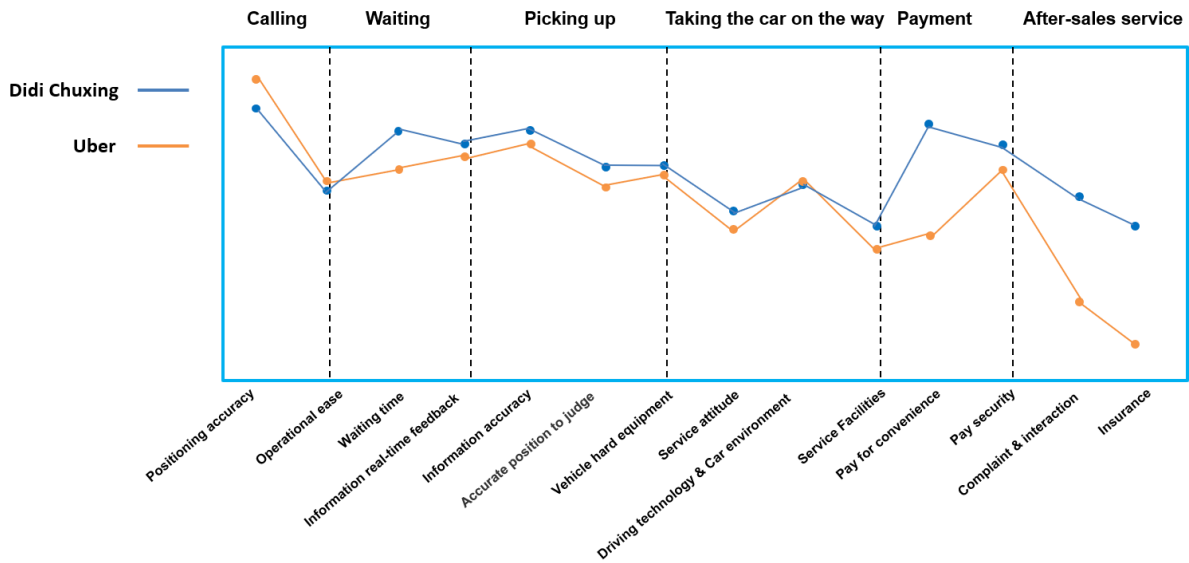


Figure 3 Value Curve Comparisons between Didi and Uber

Source: CNIT-Research Data Center, 2016 Q1 China Ride-sharing Market Research Report.

For cost savings and service collaboration, the platform receives investment and resources from multiple partners. Unlike the existing value chain, the role of the partner in the platform ecosystem is important as it is more important not only for the supplier, but also for the complementor that helps in various service offerings. Partners sometimes go beyond mere investment, sometimes share strategic interests, and engage in service development to maximize common value. The ride-sharing platform is no exception, and Didi and Uber follow the growing pattern of expanding their relationship with their partners.

In July 2014, Uber established a Chinese subsidiary called Uber China and entered into a strategic alliance with Baidu, one of the three largest Internet companies in China. With the help of Baidu, which dominates the search engine, we have completed the mapping of the core technology necessary to operate the Uber platform. In addition, we have accumulated user resources for entering the Chinese market through various collaborations. We also interconnected key partner platforms, including sponsors who will be responsible for advertising and marketing. Compared with Didi, Uber focused on global markets, so it had to be limited in terms of platform operations and A/S services, reflecting the regional characteristics of the market. Hence, the strategic alliances of Uber China focused on marketing strategies in the front market: for example, word of mouth

marketing, event marketing and cross-border marketing. As a result, Uber gained a high reputation within a short time in China and was chosen by Chinese users. These initiatives have played an important role in enhancing corporate image and expanding brand impact while fully utilizing the word-of-mouth effects of users and drivers.

Compared to Uber's marketing efforts, Didi quickly spread through WeChat's community network and successfully introduced traffic to the platform. Moreover, the market investment that can support in earlier period is also due to strong support from Tencent and Alibaba. Utilizing the advantages as a local company which focusing on cooperation with upstream and downstream companies in various cities, such as traditional taxi enterprises, car rental companies and auto aftermarket. At the same time, in order to increase competitive strength, Didi has achieved cross-border investment and cooperation with Lyft and Ola in September 2016. From this, we propose the following factor.

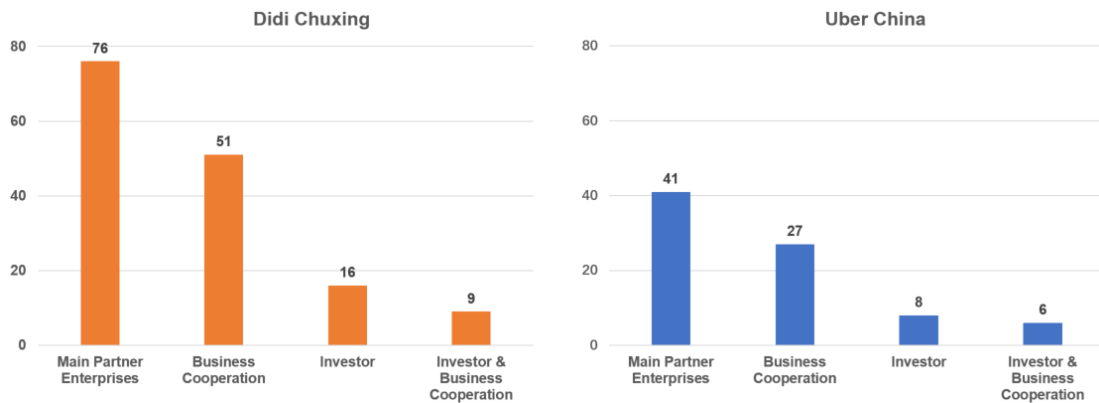
Factor 7: Didi's partnership structure was more diverse and richer than Uber, enabling Didi to develop a broad range of service offerings. On the other hand, Uber was forced to concentrate on marketing efforts (e.g., frequent promotions) and rely on the brand popularity as a last resort.

In order to further observe partnership structure and industrial sectors distribution of Didi and Uber China, we have collected and filtered out the major companies who having investment and business partnerships with Didi or Uber China in 2015 and 2016 (the most competitive period for two companies). The method of social network analysis was used to draw conclusions in Figure X1 and compare the distribution between two companies through Figure X2.

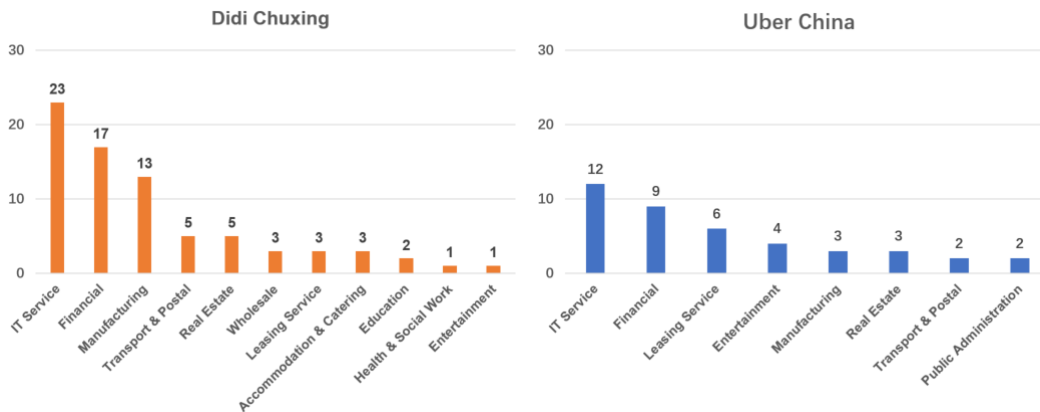
Through collation and analysis of corporate collaborator data (Figure X2), it found that the most cooperation with two companies were IT technology service companies and financial enterprises such as bank and insurance companies. In the Chinese market, there was a larger number of companies cooperating with Didi, also involving more abundant industries (Figure X1). It made Didi's partnership structure is more diverse and richer than Uber China. For example, Didi Chuxing cooperated with hundreds of taxi companies in Shanghai and other cities in 2016. Taking advantage of internet technology and big

data, Didi has offered assistance to local traditional taxi companies improve their operations and establish driver evaluation systems. It also got the support from local governments. Furthermore, company has collaborated with some convenience stores, such as 7-eleven, to provide waiting services for passengers and drivers.

The difference is that, in addition to several car manufacturers and car rental companies operating in China, Uber China has also cooperated with public organizations in charitable charity such as China Green Foundation (CGF) and China Women's Development Foundation. It has promoted the relationship between Uber and stakeholders. While improving the business environment, it has become one of effective strategies for Uber and related organizations to maintain their own development and brand powers.



(a) Partner types



(b) Sector distribution

Figure 4 Partnership Structure Comparisons between Uber and Didi

4. Conclusion

This study has analyzed the intense competition between global giant Uber and Didi Chuxing in Chinese ride-hailing market. By employing the Canvas model, we systematic analyze the characteristics of the business model of the two platforms. The results show that in our study, the comparisons of the strategic positioning and implementation of the two platforms with respect to the major building blocks of the Canvas model are pointed out the success factors of Didi as well as the sources of failure of Uber. We also extend the framework that combines insights into business model of ride-hailing platform, which enables to describe and understand the operational functions of the platform and its competitors.

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Appendix