The role of Alipay in commerce in China

FACILITATOR OF TRUST OR ABUSER OF BIG DATA?

M.A.Th Werker
MA Asian Studies: Chinese Studies
MA Thesis
Professor Dr. F. Schneider
30-06-2017

Table of Contents

1.Introduction

With the latest release of the mobile payment solution Alipay 9.0, Alibaba launched its new commercial, called 'the loser with the perfect girlfriend.' The main character is a stereotypical chubby geek who plays computer games all day while picking his nose. Unexpectedly, his pretty girlfriend appears and she takes care of him in all aspects of his life. She kisses him good morning, helps him to brush his teeth, ties his shoelaces, cooks for him, takes care of his money and even hails him a cab in the pouring rain. His girlfriend turns out to be his imagination of what Alipay's payment application would be if it were a person, the most supportive girlfriend a man could wish for. The commercial concludes with the sentences: Not everyone has the perfect girlfriend, but everyone has Alipay (Alipay 2016b). In the commercial, the perfect girlfriend is the embodiment of Alipay and suggests that Chinese users have a close personal relation with technology and especially with this payment solution. It both suggests how dependent the Chinese consumers are on Alipay in their day-to-day lives and the endless possibilities Alipay provides.

Alipay is a digital platform and is comparable to PayPal, Uber, Amazon or Airbnb. Digital platforms have infiltrated our lives, and unconsciously we spend a great deal of our time in this digital world. We are social on Facebook and Instagram, we spend our money via PayPal or Alipay, and we make daily use of search engines like Google, Yahoo or Baidu. These kinds of digital platforms are characterised by their function to gather supply and demand in one place and are intermediaries in trade. (Alibaba Group 2016)

Uber is often described with words like digital, technology and disruptive as it has significantly transformed the taxi world. Most digital platforms have a disruptive nature and Alipay is no exception. The transformation of Alipay into the one-stop-payment portal it is today, can be seen as an indicator for changing commerce in China.

In this thesis, I will conduct a political economy analysis which is framed by the question: What does the role of Alipay as an intermediary tell us about the changing nature of commerce in China?

In the next chapters, which function as my background sections, I will focus on the work of Dan Schiller to get a basic understanding of the rise of the internet and digital platforms in general and the expansion of neoliberalism this has generated. Subsequently, I will put this in the context of China and focus on the digital platform company Alibaba and its online payment portal Alipay. My theoretical background section concentrates on two theories about the role

of intermediary-platforms in society, based on theories produced in the West[1] and Japan. The first theory mainly emphasizes the disruptive power of digital platforms and the unbalancing effect they have on society because of their pricing structure. The second theory stresses the importance of intermediary-platforms as creators of trust between trading partners. In my analysis, I will give a company overview of Alipay, highlight its functions and the different players active on the platform. Then, I will focus on the political environment's effect on Alipay's role as an intermediary.

[1] The West refers here to North American and European societies.

2. Digital Capitalism and the Rise of the Platform

Digital platforms have unconsciously infiltrated our daily lives. We spend hours on Facebook, Twitter and Instagram to fulfil our social needs. We buy our books online at Amazon, we search for online information on the Google search engine, we take an Uber taxi to get to the restaurant which we have booked online, and of course we post an Instagram picture to let all our friends know we are having a great time. The most commonly accessed digital platforms in the world are American sites such as Google, YouTube, and Facebook, followed by Chinese companies such as Baidu.com and Taobao.com. Because of the new importance digital platforms have gained in our lives, it is necessary to look at the origin and meaning of the term 'platform'. Before I turn to these conceptual discussions below, allow me to outline how platforms have become a crucial component of digital capitalism.

2.1 The Emergence of Capitalist Values in the Digital World

Historian of information and communications Dan Schiller (1992), has written the book *Digital Capitalism: Networking the Global Market System*. It examines the transformation of the political economy of cyberspace. He has a sceptical attitude towards the dominant workings of the capitalist market system (Schiller 1992, XIV). Christian Fuchs (2015b) also notes that capitalist ideas shaped the internet. After the Second World War, the ideas of Fordist capitalism, which was based on domestic mass production and characterised by state intervention in the economy, dominated the US (Fuchs 2015b, 84). The rise of digital capitalism started in the US telecommunication sector and was also highly bound to government restrictions until the 1960s. The prices that telecommunication providers charged and the services they provided were all monitored by the US government to provide every user a comparable service (Schiller 1992, 3). The telecommunication sector was initially developed to serve the government, the military, and some educational systems.

From the 1960s onwards, telecommunications moved towards the private sector. Users of business networks in industries like aerospace and military electronics opposed the government legislation. They argued that to improve their business they needed the freedom to develop communication systems. They insisted on a corporate network that was no longer bounded by government legislation. Their campaign for domestic liberalisation of the telecommunication system was successful.

Dan Schiller (1992, p.1) argues:

> The architects of digital capitalism have pursued one major objective: to develop an economy-wide network that can support an ever-growing range of intra-corporate and intercorporate business processes.

According to Christian Fuchs (2008), the technology of computer networks was the foundation and the enabler of the process of globalisation (Fuchs 2008, 87). Between 1970 and 1990, the number of transnational companies from the developed countries exploded and competed to outperform each other in globalising their production. Therefore, transnational companies were in need of an improved network system (Schiller 1992, 37). During the 1980s, a lot of nation-states started to liberalize their telecommunication sector and neo-liberal and market-driven US communication policies became the regulatory norm in those decades.[2]

The foundations of the world's electronic information infrastructure had to change to create such a capitalist system. The Fordist mode of development of capitalism, which was popular until the 1970's, turned out to be unsuccessful. As a reaction, a new social order emerged. A competitive state was introduced with a neoliberal method of regulation. This manner was characterised by withdrawal from the government in multiple areas of society (Fuchs 2008, 86). These newly acquired neoliberal values were also visible in the telecommunication sector. Corporate capital's ownership and control of networks should be beyond dispute, beyond discussion. The neoliberal freedom for enterprises to deploy internet networks should stay untouched (Schiller 1992, 1).

Yuezhi Zhao (2000) also states that the telecommunication companies are replacing the old national network structures with new transnational systems. The neoliberal values of the US telecommunication sector spread out to the rest of the world. Between the years 1984 and 1999, privatisation of the telecommunication sector became a global trend. Corporate ownership became the norm (Ibid,138). Globalised capital values even reached China's telecommunication sector. When Deng Xiaoping introduced the economic reforms, he focussed on the four sectors of agriculture, industry, national defence, and science and technology (Harvey 2005, 120). Soon the party recognised that modernisation would not be successful without informatisation, a process in which new communication technologies became the drivers of development (Zhao 2000, 140). As a result, the Ministry of Information Industry was

[2] On the rise of neoliberal governance see *A brief history of Neoliberalism* by David Harvey, 2005, New York, Oxford University Press Inc.

established to import advanced information technologies and direct China into the digital era (Ibid, 141).

As part of the economic reforms, China attracted a lot of foreign direct investment. To integrate companies into the transnational production line, a great demand for advanced network services was developed. China became one of the most important markets for multinational telecommunications companies (Ibid,145). With the accession to the World Trade Organisation (WTO) China agreed to open up its communication sector for foreign companies. In other words, China agreed to structure its telecommunication sector according to the neoliberal regulatory believes of the WTO. (Ibid, 146)

Nevertheless, Schiller also argues that these neo-liberal policies in the telecommunication sector have benefited the transnational companies, but have deepened social inequalities between those who have access to the information and those who have not. He adds that the internet is mainly used for commercial gain that enhances consumerism among those who possess the information (Schiller 1992, 53). The introduction of digital capitalism brings economic development to China, but it also generates social struggles. Only the urban population could make use of the internet to form new networks and became familiar with the Western consumption culture. The urban elite did not establish new networks with the countryside, and the rural population was left behind and did not benefit as much from the new digital age (Zhao 2000, 147; Harvey 2005, 137)

From the 1990s onwards, the information and communication technology (ICT) sector has concentrated on combining several technologies in one place. Dal Yong Jin (2015) has shown that the internet has merging functions; people can make use of multiple features, such as shopping online and reading newspapers, without any additional devices. This became most visible with the emergence of digital platforms. These platforms are a combination of a merger between different technologies as well as an integration of industries across different business sectors (Jin 2015, 51).

In the 21st century, platform companies such as Google and Amazon dominate our society. Bruce Schneier (2012) compares the current situation of platform domination on the internet, with the feudal period in Europe. The big internet platforms, such as Google and Apple, are the new feudal lords and the internet users are their vassals. The Google platform rules over all the Google users of Gmail, Google, Google calendar, Google maps. For the internet user it is attractive to become a vassal of one of the big platforms, because they offer security and convenience. The vassal offers the feudal lords its data, but the platform does not give a lot of guarantees in return (Schneier 2012).

US-based transnational companies own the greater number of these platform companies. Therefore, Dal Yong Jin argued, that the US dominates the platform industry (Jin 2015, 6). According to data from Alexa.com on the 100 most visited websites around the world, nearly 50 percent are owned by US corporations. After the United States, China followed with nearly 20 percent of the sites (Ibid, 53). Google is the most accessed website in the world and is the largest search engine. In the year 2014, it held 88 percent of the worldwide market share. Nevertheless, Google cannot extend its reach into several countries, including China, Korea, and Russia. These countries have developed their local search engines which have dominated the domestic market (Ibid).

2.2 The Origin of the Term Digital Platform

In one of the most central discussions on platforms, Tarleton Gillespie (2010) explains the origin of the term platform by referring to four connotations. In a technical context, the term platform mostly refers to its computational meaning: a computational infrastructure that supports the design and use of applications (Gillespie 2010, 349-350). It also has an architectural connotation; in this use the term platform points towards a raised level of surface. The more figurative usage of this would be connotations such as "the ground or foundation". The term platform also has a political meaning, referring originally to the actual stage where political candidates proclaim their points of views. Eventually, the meaning of the term platform drifted to the meaning of political beliefs being articulated. According to Gillespie, these different meanings of the term platform are all relevant to the explanation of the term digital platform. He writes (Ibid,350):

> All of these meanings point to a common set of connotations: a 'raised level surface' designed to facilitate some activity that will subsequently take place. The meanings suggest a progressive and egalitarian arrangement, promising to support those who stand upon it. The 'platform' is defined not just by height, but also by its level surface and its openness to those hoping to stand upon it.

He argues that because the term platform entails all these connotations it is attractive to multiple actors. Because of its computational meaning, it is interesting for developers, while the other connotations are attracting users, advertisers, and clients (Ibid.). Platforms like Facebook, Twitter, Google, Instagram, and PayPal are dominating our world. Most, if not all, originated in the US and especially in Silicon Valley. The domination of the US in the digital landscape is also visible in the theory produced about the role of digital platforms, as most scholars base their study on US-originated platforms (cf. Steinberg 2017). In an article about the global

political economy of social media platforms in China, Christian Fuchs (2015a) writes that of the 20 most commonly visited digital platforms on the World Wide Web in 2015, six originated in China (Fuchs 2015a, 1). This shows that times are changing and the US is no longer the only country dominating the creation of digital platforms. Therefore, it is also important to consider de-westernised digital platform theories.

Marc Steinberg (2017) draws attention to the different views on platform-business theory between scholars from the United States and France on the one hand and scholars from Japan on the other hand. They both have a different perspective on the role of an intermediary-platform in multi-sided markets. Western scholars tend to focus more on the "edges of the market". They look at the role of digital platforms and the creation of a winner and loser situation in the market. Japanese scholars, on the other hand, focus on the role of a trusted intermediary that forms the foundation of new trade relations. In the remaining parts of this theoretical background section, I will elaborate these two unique views regarding the role of platforms in our societies, to understand how these theories apply to Alipay. I will use the terms platform business and intermediary-platforms to refer to the same kind of digital platform.

2.3 Theory on Multi-Sided Markets based on Western Perspectives

Companies that operate based on a platform business-mode are multi-sided. To succeed, platforms must get the demand and supply side of the market on board (Rochet & Tirole 2003, 990). Most work in economics was, until the appearance of platforms around the year 2000, concerned with a single-market. In a single market, there is an arrangement with producers on one side of the production chain and consumers on the other side. For example, farmers produce potatoes, and they sell them to a supermarket, which sells them to the consumer (Steinberg 2017, 5).

Multi-sided platforms, on the other hand, coordinate demands of different groups of customers who need each other (Evans 2003, 328). For example, if a company is looking for employees, they may no longer use an employment agency, but rather use LinkedIn to directly find and contact the suitable candidate. The candidate can also use LinkedIn to look for potential jobs. In addition to this example, Evans discusses dating clubs, where men and women come to meet possible partners. This kind of matchmaking only works if two or more groups participate. It has to attract enough men and woman to be valuable for a single person to attend (Ibid). Rochet and Tirole (2003) provide a basic model of a multi-sided platform and use the credit card as an example. To be a useful concept, these cards have to attract both the cardholder as well as the merchant, as cardholders only value credit or debit cards when they are widely accepted by the

merchants. On the other side, affiliated merchants also benefit from a widespread diffusion of cards among consumers. The more consumers make use of the platform, the more valuable it becomes for the merchant. (Rochet & Tirole 2003, 990).

Because platforms are multi-sided, they have to construct a price structure instead of a fixed price for their services. Platforms often treat one side as a profit centre and the other as a loss leader (Ibid, 991). In Evans' dating club example, clubs have to decide how much to charge men and women to get the right amount and right mix of customers. In cases like this, men are often charged more and woman can get in for free (Evans 2003, 338). The main problem for a platform business is to decide how much to charge from one side and which side should be subsidised. This results in a shift, as the best price for one side does no longer follow the marginal cost on the other side of the market (Ibid, 328). Digital platforms offer exceptionally low prices on one side of the market, which improves their competitive position and gives them a lot of market power. For this reason, digital platforms often tend to be monopolistic (Ibid.).

Michael Betancourt (2016) criticizes the effect platforms create in multi-sided markets in his book *The Critique of Digital Capitalism.* He describes how the internet is the embodiment of capitalism and how technology has made capitalist values priority number one in our societies. Digital networks do not experience any restrictions when expanding and we do not notice the social cost this expansion entails. Because of digital platforms, we no longer connect the product with the resources it requires (Betancourt 2016, 38). If you download a file from the internet, you are not aware of the labour and resources that went into making it. In an interview, Betancourt says that we live in a digital illusion; we assume that the digital technology is the answer to the limits on production and resources and that it can end scarcity (cf. Scalan 2015, 2).

This digital illusion discards everything created in the physical world, especially government regulations, laws, and protections that enable the society to function. These regulations would obstruct economic growth and innovation and would impede digital platforms from growing to full strength (Ibid, 2). In his interview, Betancourt further elaborates on the effects this has by giving the example of the sharing economy. Where companies create digital intermediaries to facilitate transactions. These platforms connect the consumers with the providers and take large portions of the transaction fees. The problem is that the intermediary platform does not employ the provider, so the costs that are created by providing the service, such as offering a hotel room or a taxi ride, are the responsibility of the provider. People who actually perform the labour incur all the costs. Platforms like Amazon, Airbnb, and Uber all work like this. The material costs of driving a taxi are all carried by the driver and instead a large proportion of the profits

goes to the digital platform Uber (Ibid, 3). Consequently, such discussions of the digital economy in for example the US tend to concentrate on the disruptive role some digital intermediaries play in our society.

2.4 Functions of the Intermediary-Platform Business based on the Japanese Perspective

Japanese economist Kokuryo also produced a theory of platforms in mid-1990s Japan that focusses on another role platform businesses play, and he describes them as intermediary-platform businesses. According to Steinberg, Kokuryo's notion of platform businesses is important because his theory also analyses the role of platform businesses in electronic commerce. In this theory, Kokuryo explains the role of transaction intermediary-type platforms in electronic markets (Steinberg 2017, 9). He argues that platform businesses perform several functions that realize trade relations that otherwise would not be able to exist (Kokuryo 1997, 6). Through case studies, conducted by Harvard Business School and Keio Business School, five elements are identified that are necessary for making electronic transactions and thus make e-commerce possible (Ibid). Kokuryo especially focusses on the role of a digital platform as a trusted intermediary that facilitates trade. In the next part, I will discuss the five elements a digital platform should entail, according to this theory.

To do business, buyers and sellers have to find each other. Search costs includes the search for both providers of goods as well as quality products. Search costs can be significantly reduced by the use of intermediaries, as they limit the geographical area of trade. Intermediaries also enable sharing of information and therefore reduce search costs (Kokuryo 1997, 7).

Kokuryo views trust as the most important feature of a platform business because without trust there will be no trade (Ibid). In his article on Western and Japanese platform theories, Steinberg formulates the general academic discourse around intermediaries in the US. Some scholars thought that in e-commerce, intermediaries would disappear because they would no longer be necessary (Steinberg 2017, 10). Kokuryo contradicts this theory. The absence of face-to-face contact between the trading parties creates a growing need for intermediaries that provide trust. He states that without the formation of a trust-creating mechanism, such as mediating-platforms, electronic commerce will fail (Kokuryo 1997, 7). In Kokuryo's analysis, there are four different ways to establish trust between trading partners. The first one is to create long-term trade relationships, but as the infrequency of trading partner's increases, this becomes nearly impossible. Another way to establish trust is by providing a warranty by the merchant, which often only proves that the merchant is to be trusted, but says little about the trustworthiness of consumers. Trust can also be created by government control such as through

legislation against the creation of monopolies that could otherwise engage in price-fixing mechanisms to secure their profit. The provision of trust by an intermediary is the final option, and the option Kokuryo's platform model focusses on (Ibid). There are three areas of trust that have to be realised for trade. The first one is the quality of the product followed by the punctuality of delivery and other services. The last area is the trustworthiness of realising the financial transaction (Ibid).

A computer system is not able to determine the right price for a product. Often, price formation needs communication between the buyer and the seller. Intermediaries can reduce the costs in three ways. The first method is to provide supporting mechanism such as auctions to formulate the price. Second, the platform business can behave as a dealer and determine the price. Third, they can create an evaluation mechanism where consumers can rate a product based on, for example, quality. Based on these ratings, a price can be formed (Kokuryo 1997, 8). These days, buyers and sellers often change their trading partners. they are in need of a standardised selling process provided by a mediating-platform. If they have to set up the selling process each time they change trading partner, it will become costly and inconvenient (Ibid, 9).

Platforms should integrate various functions. A good example is Amazon.com. To fulfil the transaction and get the product to the consumer it has also integrated the service of a credit card company and a package delivery company. For the consumer, it is most convenient if all these services are integrated into one platform (Ibid). There is also an economic reason why this integration of services takes place. Because other platforms are specialised in, for example, offering payment services, for a platform like Amazon it is often less costly to integrate these in the platform than developing these services itself. By incorporating different services, platform businesses can offer consumers the complete package (ibid, 10).

In conclusion, these two perspectives on the role of digital platforms in society – one from the United States and France, one from Japan – differ significantly from each other. Western-based scholars, such as Rochet and Tirole and Evans, focus on the disruptive role of digital platforms. Government legislation does not restrict these intermediaries, and their pricing structure creates imbalances in society as some people profit highly from the platform while others suffer losses. The rise of digital platforms comes with social costs. On the contrary, Japanese scholars focus on the role of the intermediary as a creator of trust in trade relationships. Without the existence of these platforms, trade would not be possible. In the next chapters, I will apply these theories to Alipay and show that both theories are applicable. Besides the creator of trust, it also has a significant disruptive role.

3. Alibaba in China's Digital Economy

Because of the Great Firewall, the Chinese internet is almost similar to an intranet. Instead of using Western platforms, such as Facebook and Google, China developed similar platforms of its own. As these Chinese copycats started to develop amazing and convenient new features, they became examples for Western-based digital platforms. The digital platform market in China is characterised by the three "super apps", Alibaba, Tencent, and Baidu. They can be explained as a concentration of Amazon, Facebook, Twitter, Youtube, Whatsapp, Uber, and much more in one app (Mozur 2016). This chapter will explain why the Chinese market is so attractive for digital platforms and how these companies could have become so successful. The second part especially focusses on Alibaba's ecosystem.

3.1 The Digital Platform Market in China

After the turn of the century, China entered the digital era. The amount of the population that had access to the internet at home increased from 10.5% in 2006 to 53.2% in 2016 (CNNIC 2017). According to the Chinese Ministry of Industry and Technology, the number of Chinese mobile phone users reached 1.306 billion people at the end of 2015 (He 2016). China's population at that time was 1.376 billion people, which means that around 94.9% of China's population were mobile users. Not only do people possess mobile phones, but they also use them to purchase goods online (Kuo 2015, 7). The number of online shoppers reached 410 million Chinese in 2015 and has not stopped growing. It is estimated that private online purchases will increase by 20% annually until 2020, compared with 6% of annual growth in private offline retail. Mobile e-commerce will grow even faster and will increase from 51% today to 74% of all online sales in China. E-commerce is stimulating consumption in China for various reasons, but most of all it offers products and services that traditional brick-and-mortar stores do not sell(Ibid).

In the 2000s China's e-commerce market exploded. According to statistics from the National Bureau of Statistics in China, Chinese e-commerce sales reached 9.17 trillion RMB(134 billion USD), in 2016 (National Bureau of Statitistics in China n.d. b)Which is comparable to the GDP of the Netherlands in 2015 (The World Bank n.d.)**.** In 2016, China surpassed the US and became the largest e-retail market in the world. As a result, the number of e-commerce platforms also exploded. Therefore, it is no surprise that China is an attractive potential market for foreign platforms.

However, it is also protected from foreign competition. Google is the example of a company that suffered from this protection. In 2010 Google ended its four-year presence in China because of several cyber-attacks on its company. The same day, the Nasdaq stock of the Chinese opponent Baidu rose to 16%. The same happened with other Chinese search engines Sohu and Sina. Their stock price increased by 6.2% and 4.9% (Liu 2011, 1205). Youtube has not been accessible in China since 2009; this gave Chinese equivalents such as Youku the chance to fully capture the Chinese market. The same happened to Facebook as Chinese sites like RenRen took over (Ibid.).

Because of this protection, the Chinese market is not dominated by Western platforms but has developed platforms of its own. The three largest platforms in China are Alibaba, Baidu and Tencent. Jia Kai and Martin Kenney have created an overview of the different platforms in the United States and China. Their research focusses on the difference in platform structure.

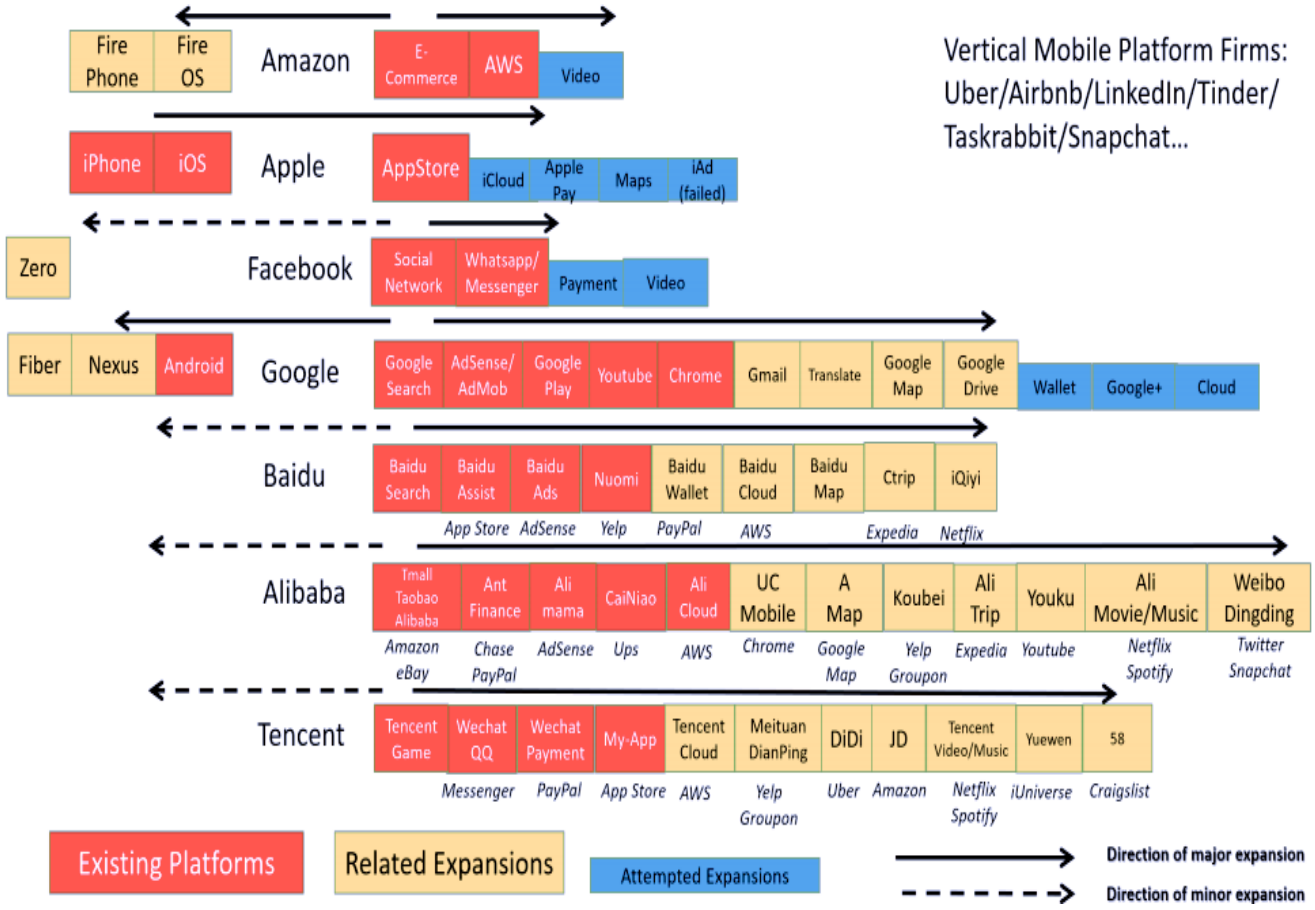


Figure 1 Mobile internet platform coverage comparison of US and China (Kenney 2016)

Figure 1 shows that the business models between platforms in the US and China differ significantly. The red blocks symbolize the core businesses of the company, the yellow blocks are the successful expansions to other businesses and the blue are still uncertain. The Chinese

firms focus on expanding horizontally as they incorporate all kinds of services into one platform (Kenney 2016, 5). It is remarkable that the three biggest digital platforms have developed in the same way: they all have similar business groups and therefore compete in multiple sectors. These three companies, named BAT (Baidu, Alibaba, Tencent), dominate the Chinese internet. The core business of Baidu is search, Alibaba is the dominant player in the e-commerce market, and Tencent holds power over social media (Li 2015). In this thesis, I will focus on the payment method of the e-commerce giant Alibaba.

3.2 The Alibaba Ecosystem

According to the website of Alibaba Group, its mission is to make it easy to do business anywhere. Its goal is to create an online infrastructure where merchants or businesses can easily use the power of the internet to reach its users and consumers. Its vision is that its customers will meet, work, and live on Alibaba (Alibaba Group n.d.).

Jack Ma, the founder of Alibaba, was a former English teacher in Hangzhou. Together with a group of 18 people, he laid the foundations of Alibaba in 1999. They assumed that the internet would be the future field where small companies would be able to use the new technology to compete on a global level. Initially, their aim was to provide a safe network between Western businesses and Chinese manufacturers (Alibaba Group n.d.).

Alibaba is often explained as a mixture between Ebay, Amazon, and PayPal. While this is not untrue, Alibaba is more than that. Alibaba comprises multiple businesses, which are active in online payments, cloud services, music streaming, maps, retail outlets, mobile operating systems, cloud storage, group buying, car service, mobile messaging, and much more. In other words, Alibaba has created an entire online ecosystem that holds an essential place in the day-to-day lives of the Chinese people. Alibaba is officially situated in the Cayman Islands and had the largest IPO (Initial Public Offering) in history in the United States in 2014 (Barreto 2014). Alibaba's leading businesses are Taobao, Tmall, and Alipay. They are all part of the Alibaba cloud, and they are all inter-connected and support each other. I will shortly introduce Taobao and Tmall. In my analysis, I will give a thorough introduction of Alipay.

In 2003, Alibaba group launched its C2C (consumer-to-consumer) marketplace Taobao, which grew out to become China's largest online shopping destination. Taobao offers hundreds of millions of products of all kinds of value and convenience to consumers. Alibaba's Taobao is the Chinese equivalent of Ebay. Merchants can list and sell their products for free. Taobao claimed that it had 500 million registered users by 2014 and more than 800 million listed

products. Taobao would make up for 80% of the C2C-market in China. Taobao does not charge any commissions on sold products but gains its revenue from advertising which seems inevitable for merchants as there are many competitors on this platform (Hoffmann 2012, 3).
To expand its business, Alibaba group launched its B2C (business-to-consumer) platform Tmall in 2008. Tmall is mainly created to satisfy the needs of the more sophisticated shopper as Tmall offers all kinds of products from top-quality brands, both foreign and domestic. Brands listed on Tmall range from jeans brand Levi's to the Dutch supermarket Albert Heijn. Tmall is comparable to its American counterpart Amazon. Tmall offers brands the possibility to set up their own unique virtual store with their own layout. Businesses pay to get listed on the site and Tmall gains a commission on each transaction. Before the introduction of Tmall, foreign brands needed to be physically present in China before they could sell their products online. Because of Tmall this is no longer necessary (Gervasi 2016, 124). Together with Taobao, Tmall dominates the Chinese e-commerce market, and they sell everything from expensive Swarovski jewellery to shoelaces.

4. Methodology

My analysis is framed by the question: what does the role of Alipay as an intermediary tell us about the changing nature of commerce in China? To answer this question, I will conduct a political economy analysis. When analysing a digital platform, it is important to note that these platforms are no longer demarcated areas of our societies, but instead are completely intertwined with larger digital networks and have become zones of growth, profit, and innovation. The political economy of technology is appropriate for analysing the current society as digital platforms highly influence the economy and our culture. In this thesis, I will examine if and how Alipay transforms the distribution of power and wealth between different groups and the effect this has on commerce in China.

In my analysis I will try to explain how the theories fit Alipay by giving a complete company overview, focussing on the board of directors, shareholders, profit and market share, government legislation, and the different functions Alipay offers. I will analyse the functions Alipay holds by following the guidelines Kokuryo presented. Methodologically, this will be based on a print screen of the 9.0 mobile application of Alipay. I will also make use of press releases released by Alibaba group or the website Alizilla, which mainly produces articles on all different businesses that operate under the leadership of the Alibaba group. By analysing Alipay's functions, and following Kokuryo's theory, I will particularly focus on the platform's role as a trusted intermediary and the effect this might have on commerce in China.

I will also concentrate on the other perspective on intermediary platforms to detect the role Alipay has in commerce in China. For this part, it is important to define the market share of Alipay and to see if it shows monopolistic behaviour or disruptive behaviour and whether this is prohibited or promoted by Chinese legislation. In 2014, Alipay was renamed Ant Financial Services Group and became an affiliated company of Alibaba. Ant Financial Services Group is not publicly listed and its annual reports are not accessible. Therefore, information on profits made by the company will be derived from newspaper articles, Ant Financial's press releases and I will consult the annual reports of Alibaba. Data found on the website iResearch China, the leading provider of consumer insights in China, will give a better understanding of China's internet sector and will offer more information on the market share of Alipay. Another important aspect of the Western theory is the pricing structure which might have an unbalancing effect on society. I will define the players in the multi-sided market of Alipay by looking at the different contracts users can enter into. By looking at the terms and agreements on the site of Alipay, I will outline its pricing structure by referring to its transaction fees. This

all promises to give insight into the profit centre and loss leaders on the Alipay platform. To conclude my political-economy analysis, I will look at the effects of the government regulations on the role of Alipay in China's commerce. Based on legal documents retrieved from the websites of the National Peoples Congress of the People's Republic China, I will explore if digital platforms enjoy the same "political freedom" as in the west.

5. The Political Economy of Alipay

China's largest e-commerce company Alibaba launched its online payment portal Alipay in 2004. It is the core of Alibaba's internet finance eco-system and has developed from being only a payment system into a one-stop payment portal and a lifestyle enabler (Hendrichs 2015). Users can book flights, order a taxi, buy movie tickets, pay their utility bills, and much more by using Alipay. It functions as an e-wallet and offers a safe and easy way for merchants and buyers to do business online.

From 2005 onwards, Alipay established strategic cooperation's with several financial institutions starting with the China Merchants Bank, the Industrial and Commercial Bank of China, and VISA. In the year 2007, Alipay already had more than 50 million users and surpassed the number of 30 million credit card users. The volume of users doubled in one year and reached 100 million in 2008. A year later it formally launched its mobile application and introduced its mobile payment service. Alipay kept on growing, which resulted in the establishment of a relationship with the train ticketing company 12306.cn. Yu'e Bao, which gives Alipay users the chance to buy wealth management products for as little as 1 RMB, was also launched (Ant Financial Services Group n.d. b).

From 2014 onwards, Alibaba no longer fully owned Ant Financial. As both its name "Ant" and its slogan "bring small and beautiful changes to the world" imply, Ant Financial focusses on serving small and micro enterprises. Their vision is to use the power of the internet and big data to empower financial institutions to create a digital ecosystem. This network focusses on serving small and medium enterprises (SMEs) and individual consumers to whom they provide comprehensive financial services (Alibaba Group 2016).

Ant Financial is one of the world's biggest fintech (financial technology) companies and offers all kind of financial services. Businesses operated by Ant Financial include Alipay, which operates in the payment sector, Yu'e Bao, which focusses on wealth management, Ant Micro Loan, which specialises in SME loans, Sesame Credit, which provides credit reference, and various insurances. Currently, Alipay is the largest component and has 451 million registered users and almost 100 million active daily users (Alibaba Group 2016).

5.1 How does Alipay work?

Alipay is an e-wallet, just like its American equivalent PayPal. This means that users can connect their bank account or other payment methods to a digital wallet and they can pre-load money into this wallet. In contrast to PayPal, Alipay works as an escrow service. This means that to secure the rights of the buyer, Alipay does not directly releases the money to the seller but works as a middle man and deposits the money in an official Alipay account until the customer confirms their satisfaction with the product. When they have notified Alipay of this, Alipay releases the money to the seller. In this way, Alipay protects both the seller and the buyer. According to the theory of Kokuryo, this escrow service is a creator of trust as it facilitates trade between Taobao merchants and consumers. Without the creation of this trust, the Chinese e-commerce market would not have seen this explosive growth.

Besides its escrow service, Alipay also offers direct payment solution. This is mostly used when products do not need to be shipped or for transferring money between friends or relatives. Alipay thus fulfils one of Kokuryo's requisites: to provide a standardised payment process. With the newly released mobile Alipay application, the company offers users the complete package (9.0 in July 2015); the experience of the app is based on a day-to-day scenario. Users can transfer money to their friends, scan QR codes, and pay at restaurants and everywhere else. They can use Alipay to pay for cabs, buy train tickets, pay utility bills, and much more. Alipay has gone through a significant transition from being only a payment solution to becoming the one-stop payment portal that has integrated all kinds of functions essential for life in China.

5.2 Management and Shareholders

The management of Ant Financial Services Group, the mother company of Alipay, consists mostly of former employees of Alibaba. The executive chair is Lucy Peng who was one of the co-founders of Alibaba in 1999 and was the leading person in the establishment of Ant Financial Services Group in 2013. Eric Jing is Ant Financials CEO and was vice-president of Alibaba between 2007 and 2009 (Ant Financial Services Group n.d. a).

After its IPO in 2014, Alibaba publishes a SEC 20-F form every year. This form is issued by the US security and exchange commission (SEC) and foreign companies who are listed in the US must submit this document. In this form, Alibaba elaborates on the relation between Alibaba and Ant Financial. In the year 2010, regulations issued by the People's Bank of China (PBOC) required non-bank payment companies to obtain a licence to operate in China. These laws

especially focusses on domestic PRC-owned entities. For foreign-based payment companies, regulations would become even stricter as they have to meet more requirements to get the approval of the PRC state council to obtain a licence. As Alibaba Group is based in the Cayman Islands, the future of Alipay became uncertain. The management of Alibaba concluded they had to divest all of its interest in and control over Alipay to restructure Alipay as a wholly-owned company by PRC-nationals (Alibaba Group Holding Limited 2016, F 35).

In 2011, the ownership structure of Ant Financial Services Group was changed and Jack Ma held the majority of the equity ownership interest.[3] In may 2016, Ant Financial services organised a round of equity financing. By selling a part of their shares, Ant Financial sold $4.5 billion worth of shares. As of may 2016, Junhan Equity Investment Partnership holds 42.28% of the equity interests and 34.15% of the equity interests are owned by Junao Equity Investment Partnership. The other shareholders that participated in the round of equity financing own 23.57% of the shares in Ant Financial. Both Junhan and Junao Investment Partnerships are limited partnerships. This means that there is one general partner, Jack Ma, who acts as a managing partner and is allowed to act on behave of the company without approval of other investors. This shows that as a general partner of the two biggest equity shareholders of Ant Financial, Jack Ma still has a lot of authority (Chen, L. 2014).

Information gathered from Thomson Reuters shows that Ant Financial organised two fundraising rounds. The first round took place in March 2015. 13 companies participated, but the amount they raised was not made public. In the second round, around April 2016, six companies contributed and raised $4.5 billion. Mainly state-backed companies participated, such as the government-owned China Development Bank and the country's wealth fund China Investment Corporation (Thomson Reuters 2017). Figure 2 shows all the shareholders that have participated in the two fundraising rounds.

[3] Equity interest is an ownership interest in a specific company. As shareholders purchase a share of stock in a company, this gives them a share of ownership. (Murray 2017)

BUSINESS DESCRIPTION

Zhejiang Ant Small & Micro Financial Services Group Co., Ltd is a China-based financial company focused on serving small and micro businesses and consumers. The Company is principally engaged in the investment financing, mode of payment and personal credit. Its brands include Alipay, Yu Ebao, Zhao Cai Bao, Ant Mirco Loan, Sesame Credit and Ant Financial Cloud, among others.

KEY FACTS

Company Founded Date	10/19/2000
Company Status	Active
Current Operating Stage	Shipping Product or Providing Services
PE Backed Status	Currently PE/VC Backed
Total Funding to Date	4,500.00 USD Mil

INVESTMENT ROUNDS COLLAPSE ALL

DATE	STAGE	# OF INV	DEAL VALUE (USD MIL)	EQUITY AMOUNT (USD MIL)	PE DEBT AMT (USD MIL)	COMPANY VALUATION (USD MIL)
04/25/2016	Acquisition	6	-	4,500.00	-	60,000.00

FIRM	FUND	SECURITY TYPE	EQUITY AMOUNT (USD MIL)	DEBT (USD MIL)
China Development Bank Corp	China Development Bank Capital Corporation, Ltd. - UF	Series B Convertible Preferred Stock	750.00(e)	-
CIC Capital Corporation	China Investment Corporation - Unspecified Fund	Series B Convertible Preferred Stock	750.00(e)	-
Primavera Capital	Primavera Capital Fund II	Series B Convertible Preferred Stock	750.00(e)	-
CCB Trust	Undisclosed Fund	Series B Convertible Preferred Stock	750.00(e)	-
China Life Insurance Co., Ltd.	Undisclosed Fund	Series B Convertible Preferred Stock	750.00(e)	-
China Post Group	Undisclosed Fund	Series B Convertible Preferred Stock	750.00(e)	-

07/03/2015	Acquisition	13	-	-	-	29,010.24

FIRM	FUND	SECURITY TYPE	EQUITY AMOUNT (USD MIL)	DEBT (USD MIL)
China Development Bank Corp	China Development Bank Capital Corporation, Ltd. - UF	Series A Convertible Preferred Stock	-	-
Gimpo Ind Invest Fund Mgmt Co	Shanghai Financial Sector Investment Fund	Series A Convertible Preferred Stock	-	-
Primavera Capital	Primavera Capital Fund II	Series A Convertible Preferred Stock	-	-
China Life Insurance(Group) Company	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
China Pacific Life Insurance Co., Ltd.	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
New China Life	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
PICC Capital Investment Management Company Limited	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
Shanghai Jingyi Investment Center, L.P.	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
Shanghai Zhongfu Equity Investment Management Center, L.P.	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
Suzhou Industrial Park Guokai Xinyuan Investment Center, L.P.	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
National Social Security Fund	*Undisclosed Fund	Series A Convertible Preferred Stock	-	-
Undisclosed Firm	Undisclosed Fund	Series A Convertible Preferred Stock	-	-
Yunfeng Capital	Yunfeng Fund II	Series A Convertible Preferred Stock	-	-

Figure 2: Ant Financial Shareholders (Thomson Reuters 2017)

5.3 Alipay's Market Share

Regarding growth potential and absolute size, China's mobile payment market is the largest in the world. Reports of iResearch show that the Gross Merchandise Volume (GMV) of China's online third-party payment reached 12.2 trillion RMB (1.7 trillion USD) in 2016, and grew by 12 trillion RMB compared to the beginning in 2012. Several players such as Apple Pay, Alipay, WeChat Pay and Baidu Wallet dominate the Chinese online third-party payment market. According to a report of iResearch, Alibaba's online payment method Alipay and Wechat's

payment solution Tenpay are the largest players in this online third-party payment service market (iResearch 2016).

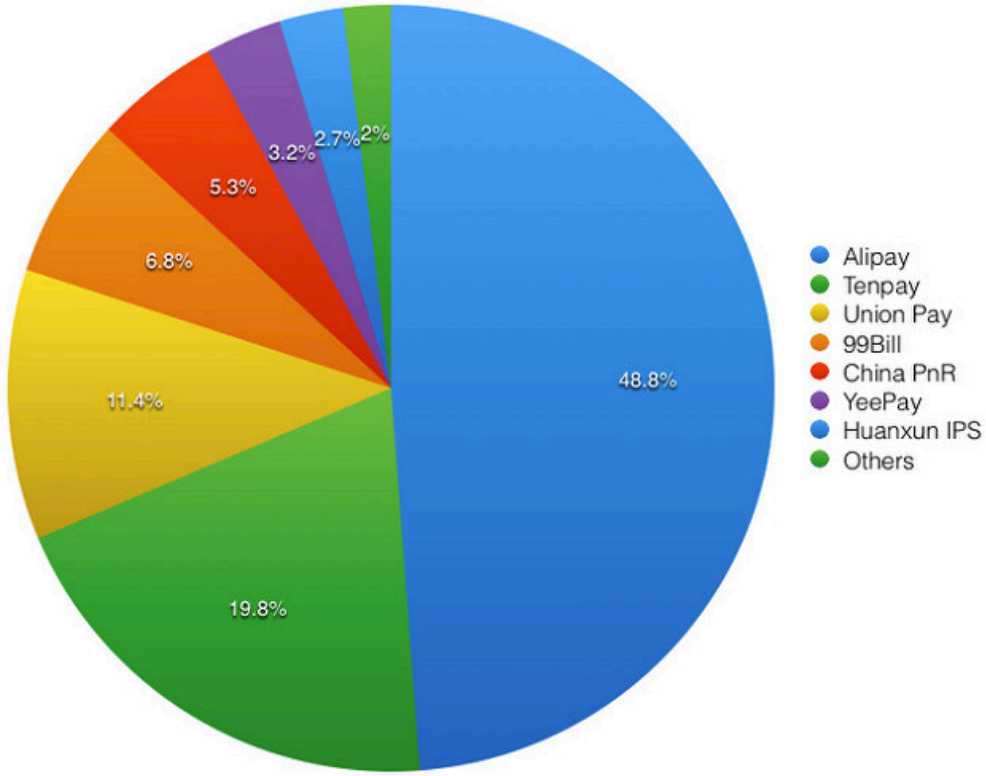


Figure 3: Alipay's market share (Lockett 2015)

The market share of a platform also shows its attractiveness as a multi-sided platform. The more consumers there are on the platform, the more attractive it becomes for the merchant to participate. This is called economies of scale on the demand side. Scale leads to more value for the users and enhances the platform effect. On a digital platform like Alipay, users generate data. This data is used to attract other users but also to improve the performance of Alipay. This will attract more users and more data. Because Alipay holds the majority of the market, they possess valuable data about Chinese consumer behaviour. For a digital platform to reach this network effect, the difficulty is getting established and achieving scale.

Two large competitors in the Chinese digital economy are Alipay and Wechat Pay as they offer similar services. Alipay and WeChat Pay both make use of an e-wallet with a QR payment option. The merchant or the seller scans the QR code to initiate the payment. Both e-wallets are connected to a credit card (Weinswig 2016, 15). Alipay has 450 million registered users and processes 175 million transactions a day (Zhu, L. 2016). According to iResearch, Wechat Pay is catching up, but Alipay is still the dominant player in the online payment market in China.

By June 2016, Alipay possessed 43.3% of the market, while Tenpay held 20.1% (iResearch 2016). Because Alipay and Wechat Pay have such a significant market share, it is hard for other third-party payment methods to establish themselves as they will struggle to reach scale (Pettinger 2013). Alipay has therefore created monopoly power and has turned itself into a payment method that is inevitable for commerce in China. Western theories about digital platforms would suggest that their monopolistic behaviour is often seen to have an unsettling effect on society because it creates winners and losers. The different players on the platform have to be assessed in order to check whether this argument holds and if Alipay has an unbalancing effect on the Chinese society.

6. Players on the Multi-Sided Platform

A multi-sided platform holds the function of bringing supply and demand of various actors together to decrease the transaction costs from information asymmetry. It is important to point out the different actors on the platform, to discover who might benefit or lose because of the Alipay platform. Because of its size and market share, multiple actors are brought together by Alipay. This chapter will discuss all of them. It is important to note that, to be successful Alipay, needs to attract all kinds of actors. Executive Chair of Ant Financial, Lucy Peng, gives the following explanation of Ant Financial (Christie 2014):

> Ant Financial will focus on serving small and micro enterprises, as well as individual consumers. Building on internet-based solutions and technology, we plan to work with ecosystem participants such as financial institutions to create an open ecosystem, as well as provide support to the financial industry to realize our vision 'To turn trust into wealth' (Christie 2014).

Therefore, one can conclude that the players on this digital platform consist of small and micro enterprises, individual consumers, and financial institutions. On the Alipay platform, a user can both be a consumer and merchant; when referring to users, I will make no distinction between merchants or consumers.

6.1 Financial Institutions

A requirement for using Alipay is that the user's account is connected to a bank account to transfer money or to deposit money into the Alipay account. Therefore, it is important for Alipay to link as many banks to its platform as possible to become more valuable to both merchants and consumers. Alipay is an example of a digital platform that has moved into the financial sector. With the introduction of the internet, it became possible to create direct transactions between the demand and supply side (Zhu, X. 2016, 163)**.**

Alipay and Wechat Pay dominate the Chinese online payment market. While China's banks have tried to introduce their own mobile payment programs they were not able to participate in China's great mobile payment revolution. As consumer spending behaviour changed from traditional card payments to mobile payments, China's banks suffered great losses in potential transaction fees (Meertens 2017, 4). In the year 2015, only 40% of all the retail sales in China were transacted in cash compared to 61% in 2010. WeChat Pay and Alipay seized 28% of all retail transaction fees. If these transactions had been processed with bank cards, the value of the fees would have reached the amount of 20 billion US dollars (Ibid,6).

Before the introduction of the internet, merchants had to make use of the settlement systems of the bank to receive money from consumers. A traditional settlement system starts when retailers close their business, and their collection of transactions are sent to the bank. The bank of the merchants sends this data to the payment processor. The payment processor identifies the bank of the consumer and forwards the purchase data to this bank. The bank of the consumer transfers the amount of the purchase out of the account of the consumer and sends this to the payment network. The payment network transfers this money to the merchants' bank, and the merchant gets paid by their bank.

Customers and merchants could not access the payment settlement systems of all the banks because this was costly, and it was not efficient for some banks to provide this service to small merchants. To be able to make use of the settlement system and possess a credit card or bank account, a merchant had to meet several requirements imposed by the bank. Many small merchants were never able to fulfil these standards and were not allowed to make use of the settlement service and could only accept cash.

State-funded banks in China have long dominated the Chinese financial industry. These banks were highly trusted by the public and acquired a monopolist status. As an effect, industry competition was limited, which was not beneficial to, for example, consumer service. After entrance to the WTO, the industry expanded and city commercial banks were established. Alipay made use of the lack of consumer protection laws and the unwillingness of banks to provide payment protection to individual consumers because of high costs and risks. Banks failed to meet the demand of the consumers and trust in these financial institutions eroded. Alipay portrayed itself as the solution (Yu 2015, 5).

Ant Financial established its position and expanded into microfinance. Its initial goal was to target the large group of small and medium enterprises. Internet companies like Alipay could develop in the financial market because they were collectors of big data and possessed information about consumer behaviour and their credit standing. Alipay created a payment gateway, this is a link through which consumer data retrieved from the internet can be verified in the closed data circuits of credit card companies, which forms a connection between merchants and banks. This illustrates that the standardised process of payment methods that Kokuryo theorised is indeed successful in this case, as this is beneficial for both merchant and bank: they no longer have to establish a costly one-to-one gateway. Because this newly created gateway by Alipay is so efficient, it is also financially appealing for financial institutions to participate on the Alipay platform, as this gives them an opportunity to extend their services to the large group of Chinese small and medium enterprises.

Even though Alipay gives traditional banks the opportunity to enlarge their user base, it also has a disruptive role, as Western theories predict. Alipay uses its own procedures to handle the transactions, and it keeps the information away from the banks. If a merchant sells something to a user, the user will transfer money from their bank account into their Alipay account. Alipay will transfer these funds to the Alipay account of the merchant and later it will end up at the merchant's bank. The only information traditional banks receive from this transaction is the debit going to the Alipay account and later on, the credit flows to the merchant's bank account (Meertens 2017, 43). This makes Alipay very powerful, as they deprive the traditional banks of big data, such as data on consumption patterns, which is essential for establishing competitive services and products.

Information on its history, published on the website of Ant Financial, gives insight into the established relations between Alipay and financial institutions. The China Merchants Bank, the Industrial and Commercial Bank of China, and Visa were the first financial institutions that started a collaboration with Alipay in 2005. They were soon followed by the China Construction Bank, the Industrial and Commercial Bank of China, and the Agricultural Bank of China in 2006. In 2009, Alipay started collaborating with the Bank of China. All the five state-owned banks are present on the online payment platform, as well as 15 national commercial banks (Ant Financial Services Group n.d. b).

Not only domestic banks are participating, but Alipay has also expanded into Europe. Its first collaboration was with financial institutions such as the German payment service provider Concardis. In December 2016, Alipay partnered up with European banks such as BNP Paribas, Barclays, UniCredit, and SIX Payment Services. BNP Paribas will assist Alipay payments via the bank's merchant network in France and later also in other European countries. Barclays will start by offering digital ways for Alipay users to pay in the UK and Europe. UniCredit will introduce Alipay in Italy in 2017 and SIX Payment Services will enable consumers to use Alipay throughout its network across Europe. This expansion will allow 930.000 European merchants to connect to Alipay (Andreasyan 2016).

6.2 Merchants

When Alipay was first created in 2004, it was aimed to produce a financial link and create a convenient standardised payment process between merchants and consumers on Taobao. Because Taobao's user base was already significant, Alipay had no difficulties overcoming the challenge of achieving scale. When looking at the role of merchants on the Alipay platform, it is important to note the position of Alipay in the Alibaba ecosystem. The first merchants that

got connected to Alipay where those who sold their products on the Taobao marketplace. The demand for online shopping in China was present, but there was still fear of losing money and being cheated. A requirement for establishing an Alipay account is ID verification, another form of trust creation.

To sell their products to the enormous number of consumers that are active in the Alibaba ecosystem, merchants have to accept and use Alipay. Besides the high number of consumers, the Alibaba platform is also attracting sellers for other reasons. It provides retailers access to big data. These SMEs that engage in business on Taobao are not able to acquire this data themselves. However, now the data is provided by Alibaba, they can analyse their business models and improve their services. Merchants can also make use of the Taobao Index, a Chinese consumer data base, in which they can search for popular searches or trends and decide about how to position their products (Zhu, X. 2016, 17).

As explained above, Alipay was the missing financial solution SME's. The loans offered by Ant Financial to these sellers have three characteristics: they calculate interest on a daily basis, they are paid online, and there are no collateral requirements (Ibid, 17). Since 2013, the service of Ant Micro Loan became so popular that they are currently offering loans to almost 500.000 merchants (Jiang 2017).

Before the widespread acceptance of Alipay in China, lenders often did not possess information about the borrower's financial history and their motivation to borrow because of lack of a sufficient credit scoring system. For traditional banks it was an expensive and inconvenient process to assess an individuals credit worthiness. As a result, people with low income and SMEs were left out of the financial system. To provide a solution, Alipay established its own credit scoring agency: Sesame Credit. They combine traditional data about public records with its own big data on their 300 million registered users and their consumption habits. Because Ant Financial uses big data to verify the credit score of an individual or seller and determine its trustworthiness, it is able to reach those who were excluded from the financial system. This resulted in a lot of new economic possibilities as Chinese people with lower incomes were, for the first time, able to participate in trade as they could set up a store front on Taobao and make use of the loans of Ant Micro Loan.

The Chinese version of the Alipay website for businesses shows Alipay's four services that merchants can use to receive payments from the costumer. Retailers can make use of Alipay for creating payment gateways on their website, mobile website, or app. They also offer a service for face-to-face payment. For all the successful transactions, the merchant has to annually pay a fee between 0.6% and 1.2% which depends on which service is used (Alipay

n.d. b). The company changed its fees to 0.55% until the end of 2017, arguing that this would benefit SMEs even more (Alipay Business n.d.). In 2015, China experienced a boom in the establishment of SMEs. More than 1.76 million companies entered the market, most of them made use of the Alibaba platforms (Halder 2015). Alipay's fees are very cheap and will rise to a maximum of 1.2%. If the value of the transactions rises, the amount of the fee will decline. For example, a fee of 1.2% is charged for transaction value until 60.000 RMB (8700 USD), when transactions rise to a value of 2 million RMB (292.000 USD) or higher, services fees will decline to 0.7% (Alipay n.d. b). Alipay's fees are cheap compared to the fees issues by PayPal or the Dutch Ideal. On top of that merchants do not have to pay any transaction fees unless the payment is conducted via credit card. Then the merchant has to pay the fees imposed by the bank.

Besides its escrow service, Alipay also offers another trust-creating service which is related to Ant Financial's Sesame Credit. This service mainly focusses on verifying the other user on the platform. It gives merchants the opportunity to check a consumer's credit score and their authenticity for instance by checking if their personal data, such as their ID, are correct. It also warns the merchants of the biggest risk in their respective industry. Merchants have to pay each time they want to access this database. The rate lies between 0.10 and 0.40 RMB. (Alipay Business n.d.) The influence of Sesame Credit on Alipay users will be further discussed in the part on consumers.

Ant Financial offers services that might help merchants increase the value of their service. This service is in accordance with Kokuryo's provisions of partner search and evaluation of economic value. Merchant and consumers can make use of a local service platform Koubei, which links offline retailers to the online sector. Its principal features are guest reviews and a geographical map which shows users the nearest deal and connects clients and merchants. It especially focusses on restaurants and entertainment (Crunchbase n.d.). Koubei gives consumers the opportunity to purchase movie tickets online and order food. The users can join life circles which are interactive online groups of people or companies who share the same interests (Alipay Business n.d.).

Because of the growing number of Chinese tourist that come to visit Europe or the United States, Alipay also offers special products to merchants outside of China. In this way, they can provide the growing amount of tourists a safe and familiar payment method. Depending on the transaction volume, merchants have to pay a rate between 2.2% and 3.0% (Alipay n.d. c). Ant Financial also provides an in-store payment solution where consumers can pay face-to-face using their Alipay account. Because a half million merchants are already using Alipay, any new

merchant who wants to compete in the market has an extra incentive to accept Alipay to gain traction. According to Alipay's pricing system regarding merchants, foreign merchants pay the highest transaction fees and they benefit the least.

6.3 Consumers

Alipay possesses a user base of around 400 million users. Online payment methods like Alipay are immensely popular in China because they fit perfectly in the new digital lives of the Chinese. Because China has experienced a rapid transition into urbanisation, a lot of people now make use of social media to connect with their family in the countryside. Smartphones and internet data are widely accessible, and prices are relatively low. Using a smartphone is for many Chinese an easy and convenient way to access the internet, and e-commerce sites like Alibaba have already accumulated a lot of active buyers. Therefore, it is no surprise that the mobile payment method, introduced by Alibaba, would become so well accepted across Chinese society (Zhu, X. 2016).

As explained above, Alipay initially focussed on creating a trust mechanism to facilitate trade between consumers and sellers. Before Alipay, the way to pay for online purchases was cash on delivery, as the customer would pay for the product on arrival. This is an economy with a deficit in trust. To monetize this trust issue, Alipay introduced its escrow service. Alipay and Taobao also give financial chances to those who are not participating in the traditional banking system. Based on data from China's statistical yearbook, 603 million people lived in rural areas in 2016 (National Bureau of Statistics China n.d. a).

To promote its rural strategy, Alibaba has introduced rural Taobao. Because of high distribution costs, it remained difficult for the rural citizens to participate in trade and they were often left out of the banking system. Because rural residents also have access to SME loans and they can increase their money with Yu'E Bao, they attain some new purchasing power. This focus on the countryside by Alibaba and Ant Financial creates a rural two-way distribution infrastructure, as these rural residents became sellers and consumers and created a chance for new users to participate in commerce.

Over the years Alipay transformed itself from just a payment method into a one-stop payment portal and has made itself essential for life in China. The products they offered to consumers seem endless. Therefore, it is useful to look at the functionality of the newest version of the Alipay application. This representation will show that Alipay, like the theory of Kokuryo explained, integrates several functions on its platform.

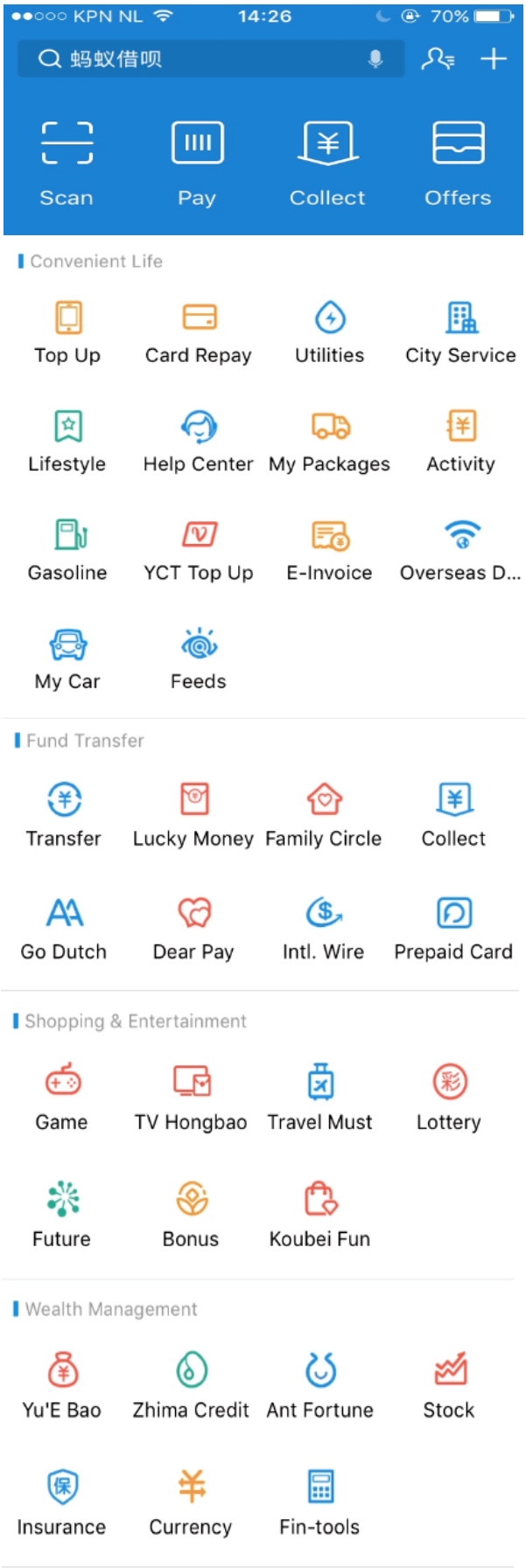


Figure 3: The upper part of Alipay's mobile interface (English version, author's screenshot, June 2017)

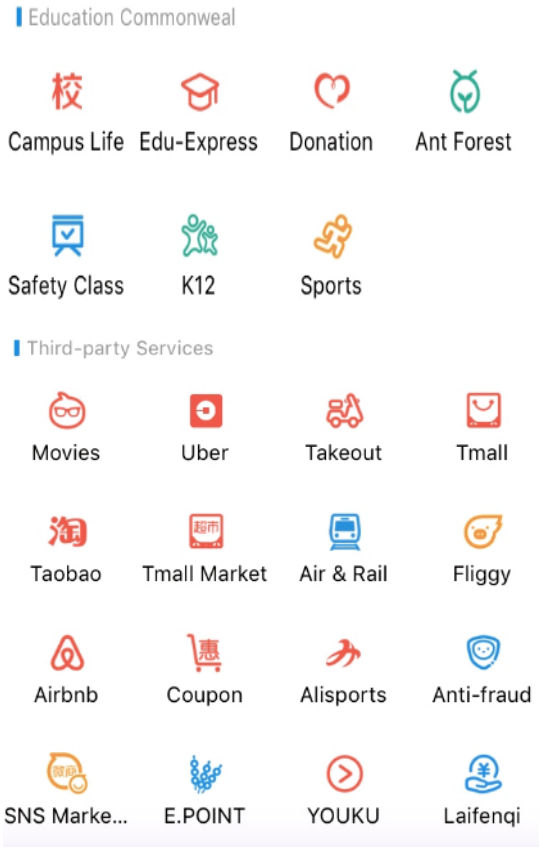
The upper part of Figure 4 shows the most frequent used payment options. With these functions the user can scan a merchant's or other person's QR-code, show their own QR code, and search for sales discounts in the neighbourhood. These are the functions of the standardised payment processes.

At the convenient life part of Figure 4, Alipay allows the users to pay for all the necessities in life; they can top up their mobile phone, pay their utilities, track deliveries, or pay their gasoline. These, and all the following functions, are examples of services that are integrated into the Alipay platform and create a complete package for the user

"Fund Transfer" is displayed in the lower section of Figure 4 and enable users to transfer funds to friends or their own Alipay account. As a part of a Chinese tradition, they can send a "red envelope", a monetary gift which is given at special occasions, to a group of friends or one friend. They can also "go Dutch" and split the bill or pay for family members with Dear Pay.

The shopping and entertainment section in Figure 4 focusses on the online gaming industry and the travel industry. With "Travel Must", users can take care of all of their travel worries, such as tax refunds. "Future" provides insights into Ant Financials future projects. "Koubei fun" shows all the merchants in the neighbourhood who provide services like KTV or fitness clubs.

In the the lowest part of Figure 4 on "Wealth Management", users can invest their e-wallet leftovers on "Yu'E Bao", access the social credit scoring system "Sesame credit", check currency rates, check the stock market, apply for insurance, and make use of other financial tools.



In the upper part of Figure 5, "Educational commonwealth", users can access "Campus life", and can top up their campus card. "Donation" allows them to donate to charity causes. "Ant Forest" is also a charity service. After the user has accomplished some tasks, "Ant Forest" will plant a tree. "K12" provides information by primary and secondary schools, and "Sports" provide information about physical activities, such as counting the steps a user has taken throughout the day (registered by the user's phone).

In the category "Third-party services" of Figure 5, users will find all the organisations that have a relationship with Ant Financial. Alibaba's Tmall and Taobao are also third party players. Chinese users can purchase movie and train tickets, but they can also make use of the services of "Airbnb" and order food. "SNS market" stands for Alibaba's 1688.com business-to-business marketplace.

Figure 4:The lower part of Alipay's mobile interface (English version, author's screenshot, June 2017)

This mobile interface shows that Alipay has turned itself into a lifestyle enabler. On top of that, all the services they provide for the consumer are without transaction fees or additional monetary costs. Based on Alipay's pricing structure, the consumers seem to be the "winners" on the digital platform. Nevertheless, they are offering Alipay all their personal data, which gives Alipay insights in all aspect of the user's life. Alipay knows what they buy, where they buy it, where they go, who is there, how they get there, and much more.

A feature that deserves special attention is the wealth management function Yu'E Bao. According to the website of the fund, it is China's first internet fund and it is specially designed for Alipay. Its unique features correspond to those of Alipay. It is easy to operate, has a low barrier of entry, is free of charge, and users can withdraw funds anytime (Tianhong fund n.d.). Ant Financial capitalizes on the fact that after users purchase goods and services online, they frequently have leftover money in their e-wallet; Yu'E Bao gives Alipay users the possibility to use this money to invest. As said before, the entrance barrier is extremely low, and users can invest as little as 1 RMB. This is 50.000 times less than the entry barrier of traditional banks in China. Yu'E Bao, like all the other services of Ant Financial, focusses on middle-class consumers who are left out of the original banking system but can now all participate in this

one big mutual fund. It is also China's largest internet fund and has acquired 1.14 trillion RMB (205 million USD) since its launch in 2013. Yu'E Bao is especially attractive because users can immediately use their earned interest to pay for their shopping expenses; they can transfer money, withdraw funds, or use the money through other functions on the Alipay app. This service is beneficial for users, as they can use the money left in their account to earn more money.

At the same time, Yu'E Bao is disrupting and ultimately damaging the traditional Chinese financial industry. In the past, merchants would withdraw all of their earnings from their Alipay account and put them in their bank account to earn interest. These interest rates would reach a maximum of 3.3 % on a one-year term deposit. This changed with the launch of Yu'E Bao in 2013, as the merchants just need to click once to invest their revenues from Taobao by buying funds on Yu'E Bao, where the interest rate was 5% in 2014 (Cheng 2014). Because of the success of Yu'E Bao, the money is no longer flowing out of Alipay into the traditional banks but now stays inside the system of Ant Financial. When the returns of their investments are higher than the interest they have to pay to Yu'E Bao users, Yu'E Bao is another profit stream for Ant Financial. How much Ant Financial earns from Yu'E Bao is unknown because its is not obliged to disclose financial information. To promote this new trend, Alipay has started to charge fees when users transfer money from their Alipay account into their bank account. Users are allowed to withdraw 20.000 RMB, almost 3.000 USD, to their bank account for free. After reaching this quota, they have to pay 0.1% transaction fee for every transaction (Alipay n.d. a)

An additional incentive for consumers to use Alipay are the discounts and special "shopping holidays". Alipay offers its customers an extra discount at brick and mortar stores when they pay with Alipay. Just like Alibaba, it also organised a spending holiday, every 12th of December. As Alibaba's singles day on the 11th of November is aimed at larger brands, the 12.12 shopping holiday of Alipay enables smaller e-tailers and offline shops who do not benefit from the event in November to participate. Alipay promises a 50% discount to encourage consumers to use their mobile phones to shop online and offline and use Koubei to search for participating merchants. Koubei includes 1.5 million merchants, and 1 million participated in the 12.12 shopping festival. More than 110 million consumers participated, and in 2015 the total sales reached roughly 14.3 billion dollars (Wang 2016).

Besides the special shopping holidays, Alipay users also receive extra benefits if they make use of Ant Financials credit scoring system Sesame Credit. This feature of Alipay is a clever way to connect users to its platform.

Figure 5 Alipay's Sesame Credit (English version, author's screenshot May 2017)

In contrast to credit scoring agencies in Europe or the US, the score is not only determined by someone's credit history. As seen in figure six, there are five factors that influence the score; identity characteristics, behavioural preferences, credit history, performance capabilities and interpersonal connections. To define the score, Sesame Credit uses big data to acquire information about a person's legal records, consumption data, payment data, traditional credit data, social network relationship data, identity data, and many more (Zhang 2016).

The amount of Alipay transactions and what they buy will also determine their score. If a user buys organic foods or donates to charity, it might seem as if he or she is a responsible person. Based on this, the score on Sesame Credit will increase. Receiving a high score also depends on the scores of your social connections and how you behave towards others. This creates peer pressure to maintain a good score because it will affect the scores of friends and family Having a high score will give the user a lot of benefits, such as booking a hotel without having to pay a deposit. Some even show their credit score on their dating profiles to prove their trustworthiness.

By affording people benefits based on their Sesame score, Alipay has gamified user's behaviour on Alipay. For example, a user who has 750 points will get a discount on the deposit for a hotel booking, but someone with 790 point won't have to pay any deposit at all. People will feel

motivated to raise their score by spending more by using Alipay. In this way, people get rewarded for being an active Alipay user, which will make them even more loyal to the platform.

6.4 Third Parties

For other third parties, it is also valuable to be present on the Alipay platform. For foreign-based companies like Airbnb or Uber, it is of particular importance to link their services to Alipay for several reasons. It is a good way to connect with the local culture. Because Alipay already has this enormous user base, it is an easy way to reach these 400 million Chinese Alipay users. Platforms like Airbnb face a lot of competition from local platforms who offer similar services. If Airbnb does not provide a convenient payment method, it might not be able to seize the Chinese market. Before entering into a cooperation with Alipay, Chinese people could only make use of Uber if they possessed a dual-currency card. This was not convenient and prevents people from making use of Uber. Alipay offers a standardised payment method that gives access to all the Chinese consumers. For these foreign companies, it is also a way to target the Chinese tourists who come to Europe or the United States and can use their own payment method.

Since Alibaba and Ant Financial became separate entities in 2014, the Alibaba platforms behave as third parties integrated into the Alipay platform. Alibaba and Ant Financial have a unique commercial agreement on which they elaborate in Alibaba's 20-F form of the United States SEC. Alipay provides the other Alibaba platforms with escrow and payment processing service. Alibaba pays a fee to Ant Financial for these services, and Ant Financial pays Alibaba a reimbursement for the use of its technology and services. Based on information of the 20-F form, Alipay has paid Alibaba 3.029 million RMB for its services and Alibaba paid Ant Financial 5.197 million RMB. They also have a big data sharing agreement (Alibaba Group Holding Limited 2016).

7. Government Legislation

According to theories from the West, digital platforms tend to show monopolistic behaviour that, because of lack of regulation, has a disruptive and unbalancing effect on society. In the West, these laws are based on neoliberal values. As the Chinese government holds socialist values, it is interesting to ask if their rules regarding digital platforms and especially Alipay might create a different role for Alipay.

According to a statement made in Alibaba's 20-F form, Alipay and its affiliated company Alibaba operate in the complex legal and regulatory environment of the PRC:

> Alipay, which provides the substantial majority of the payment processing services on our marketplaces, is subject to various laws, rules and regulations in the PRC and other countries where it operates, including those governing banking, privacy, cross-border and domestic money transmission, anti-money laundering, counter -terrorist financing and consumer protection laws, rules and regulations (Alibaba Group Holding Limited 2016, 32).

In this 20-F form they also clearly state that, according to rules issued by the PBOC, non-banking companies had to obtain a special business licence. For foreign-owned payment companies, the rules were even stricter as they even had to get approval from the PRC state council to be able to conduct their business in China (Ibid, F35). The fact that the highest government agency has to approve foreign presence in the Chinese financial market shows how strongly the government is involved in regulating capital flows in China. This section will assess the most relevant PRC rules and regulations that are most relevant to Alipay.

When Jack Ma established Alipay, he used the relationship between Paypal and Ebay as an example. Some argue that Alipay is the Chinese equivalent of Paypal, but there is a big difference in their legal character. Because of burdensome US regulations regarding escrow services, Paypal does not represent itself as an escrow service. Before the introduction of Alipay, China's legislation was not familiar with this kind of payment services, and there was not yet a Chinese term to describe this service. In 2009, Chinese scholars invented the term TuoFu to refer to escrow services (Yu 2015, 4). *Tuo* is the Chinese word for trust and *Fu* is Chinese for payment. There was no special regulation regarding Alipay until 2011 and only banks were allowed to perform transactions and, before regulations changed, Alipay was illegal (Ibid). Alibaba launched Alipay in 2003 and the Chinese government regarded this payment method as too small to be regulated. However, as the amount of money that was transferred by Alipay increased over time, specific regulations became essential. In 2011, the Chinese government introduced the Administration Rules on Non-Banking Institutions Payment Services. These

laws obliged Alipay to obtain a non-banking payment licence to conduct third-party payment services. Because it is a national payment service, it had to have 100 million RMB (14 million USD) as registered capital. The PBOC was responsible for managing and issuing the licence. The company has to pay a fine if it does not obey the Anti-Money Laundering Law (Lexis China 2015). This law requires financial institutions like Alipay to create systems for distinguishing and verifying clients' identities, preserving data related to clients' identities, and keep records of transactions. To fulfil these requirements, Alipay clearly states in its service agreement that the users have to provide accurate information concerning their ID, name, contact details, date of birth (Alipay 2015).

Article 5 of the Anti-Money Laundering Law clearly states:

> The data for clients' identities and information about business transactions obtained through performing, in accordance with law, the duty or obligation of anti-money laundering shall be kept confidential. None of the aforesaid data or information may be provided to a unit or individual, unless it is done in accordance with the provisions of law (National People's Congress of the Republic of China 2006).

When looking at the Alipay Privacy Policy, it is remarkable to see that Alipay is not only using the collection of personal data to abide by the Anti-Money Laundering Law, but is also using it for commercial purposes. In its privacy policy and service agreement they state that users agree to provide Alipay with personal data, and they authorize the company to use data for the purpose of verifying user identity and checking if the users are eligible for Alipay. They also state that Alipay may disclose and transfer such personal data to service providers and financial institutions for purposes such as data entry, database management, and most importantly, marketing and promotions. (Alipay 2015).

Ant Financial Services Group also states in its privacy policy that they use the date of its consumers for analysing and processing the identity data and transaction data. The processed data may be utilised for the purpose of sales and rewards and provide users with exclusive offers (Ant Financial Services Group n.d. c). Alipay is collecting data on an exceptionally large scale, which is used for commercial purposes and is shared with third parties. It seems as if Alipay does not only acquire the personal information to meet the requirements of the Anti-Money Laundering Law, but also uses this data for their own benefit, to increase their big data intelligence and improve their dominant market position.

Another law that is established to prohibit Alipay to fully strengthen its market position is the anti-monopoly law, which promotes healthy competition. This law prohibits companies from

abusing their dominant market position; having the capacity to control the price or other trading conditions or prohibiting other business operators to enter the market (Anti-monopoly Law of the People's Republic of China 2007).

As explained earlier, Alipay's success has substituted the traditional monopoly of the banks by offering consumers its escrow service. Alipay also receives non-escrow deposits of hundreds of millions of users. These deposits are often small sums of money but because Alipay operates on a colossal scale, the aggregate of these funds is estimated at almost 40 billion RMB in 2015 (Yu 2015, 6). Jack Ma once said that we have to look beyond the value of the fund and that the acquired data is now the company's biggest asset (Chen, L.Y. 2017). The size of the fund owned by Alipay is not the only indicator of Alipay's dominant position; it is its enormous possession of big data that actually poses a threat.

Internet companies, like Alipay, control such a large part of the web traffic and the data, that they can easily manipulate the market. Not only merchants or financial institutions are eager to get access to Alipay's data, but also the Chinese government. In July 2015, the Chinese government released a draft of the new cybersecurity law which would give the Chinese government unlimited access to users' data to improve national security. The Chinese government also passed the Anti-Terrorism Law that required technological firms, such as Alipay, to hand over sensitive data on consumer expenditure. Information based on consumer transactions might reveal someone's motives. This raises questions about the safety and protection of the users' information. It almost seems as if consumer protection does not exist in China.

To protect consumers, the Consumer Protection Law was first introduced in 1993. Even though China's consumerism has completely changed since then, and new problems have appeared, the Chinese government did not revise the law until 2013. With its escrow service, Alipay offers the users more security. Nevertheless, the fact that Alipay is often used on a mobile device as a mobile payment method also increases security risks. For example, mobile phones are easily lost or stolen, and hackers can use Bluetooth to obtain data. The administrative measures for the payment services provided by Non-Financial Institutions (AMNFI), states that the payment service providers are responsible for the security of their consumers and they have to take measures to prevent user information from loss or damage. Surprisingly, the service agreement of Alipay shows that the users are liable for financial losses themselves, for example if their password is stolen. The company states that data transmission over the internet is never completely safe and that it cannot guarantee the security of information that consumers transmit to its services. Users do this at their own risk, and Alipay is not liable for any data loss or other

economic loss (Alipay 2016a). When further investigating the Alipay Service Agreement it is remarkable that the liability for losses is always placed on the user, not on Alipay:

> To the full extent permitted by applicable law, the Alipay indemnified Persons, shall not be liable for any indirect, consequential, incidental, special or punitive damages, including damages for loss of profits or revenues, business interruption, loss of business opportunities, loss of data, or loss of other economic interests, whether in contract, negligence, tort or otherwise, arising from the use of or inability to use the Account Services (Alipay 2016a)

As a comparison, Paypal's safety and security policy states that the consumer is not liable for unauthorised payments made from its account. Alipay does offer the user a feeling of security when it comes to its escrow service but when the user suffers financial losses because of data loss or other damages on the Alipay platform, Alipay will not guarantee their safety and will definitely not be liable for their losses.

Alipay, as well as its affiliated company Alibaba, are often testing the limits of the law. This started with the Public Offering of Alibaba, which used an illegal construction to sell it shares in the United States (Alibaba Group Holding Limited 2016, 40). Together with Alibaba, Alipay is constantly expanding its collection of consumer information and is using this information for commercial purposes in ways that might be in violation of the Anti-Money Laundering Law. Also, Alibaba prohibited merchants on Taobao from using Wechat Pay instead of Alipay, which might be a monopolistic movement on the part of Alibaba and Alipay. Yu'E Bao strengthens Alipays monopolistic position as it has the power to undermine traditional banks because of its high interest rates. The past has taught that investments with such high rates are often risky. Is this beneficial for the Chinese consumer and the Chinese economy? Most important, is it advantageous for a country when just a small amount of people or one company possess the majority of the big data? As payment facilitator of the e-commerce giant Alibaba, Alipay maintains the vast majority of all the data about consumer expenditure.

Even though Alipay has become incredibly powerful, it had never been punished by the government until 11th of May 2017, when China's central bank for the first time publicly penalised Alipay for its failure regarding the Anti-Monopoly Law. Yet this fine does not pose a real threat to Alipay as it is only 30.000 RMB (4.300 USD) (Wu 2017). Its size and its possession of big data have made Alipay and Alibaba particularly powerful. Therefore, it would be no surprise if Alipay had strong connections with the Chinese government. When looking at all the investors that have participated in the fundraising rounds organised by Alipay, it is remarkable to see that almost all investors are related to the Chinese state. This indeed implies

that the company maintains a connection with the Chinese government, but it is unknown how strong these ties are.

Firm	Relation to the Chinese government
China Development Bank Corp	Key entity within the China Development bank, State-owned bank under direct leadership of the State Council (China Development Bank 2015)
CIC Capital Corporation	Founded on 29 sept 2007 as a wholly state-owned company (China Investment Coorperation n.d.). Chief executive Ding Xuedong affirmed the fund's alignment with officials in Beijing, enabling the massive asset pool to serve as a strategic lever for the Chinese government. (Forbes n.d.)
Primavera Capital	Founded by Fred Hu, private company (Primavera Capital n.d.)
CCB trust	Operates as a subsidiary of China Construction Bank Cooperation, one of the big state-owned banks (Bloomberg n.d. c)
China Life Insurance Co, ltd.	State-owned insurance group, one of the largest investors in China's capital market. (China Life Insurance Group n.d.)
China Post Group	Wholly-state owned (China Post Group n.d.)
Gimpo Ind Investment Fund mgmt. Co – Shanghai Financial Sector Investment Fund	Shanghai Financial sector investment fund is organised by the Shanghai municipal people's government and was approved by the State Council and the National Development and Reform Commission. It is led by the government. (GP Capital 2016)
China Pacific Life Insurance Co, Ltd.	No information
New China life	50.6% of all the shares are state-owned legal person shares (New China Life Insurance Company Ltd 2015)
PICC Capital Investment Management Company Limited	Operates as subsidiary of People's Insurance company, which is a state owned company (Bloomberg n.d. b)
Yunfeng Capital	Established by Jack Ma and David Feng
Shanghai Jinyi Investment centre	No information
Suzhou Industrial Park Guokai Xinyuan Investment Center	No information
Shanghai Zhongfu Equity Investment Management center	No information
National social security fund	Government-controlled investment fund (Bloomberg n.d. a)

Table 1: Alipay's investors and their relation with the Chinese government

8.Conclusion

Although this research has reached it aims, there were some unavoidable limitations. The digital payment market in China is dominated by two payment services: Alipay and Wechat Pay. This research focussed on Alipay and did not assess the different role Alipay has compared to Wechat Pay regarding the changing nature of commerce in China. Because Ant Financial is not obliged to disclose financial information, a lot of information on Alipay had to be distracted from Alibaba's SEC 20-F Form. If Ant Financial would make its own Initial Public Offering in the future and releases for example, its SEC 20-F Form, this would offer additional information that can contribute to this research as it would provide a better understanding of Alipay's revenue streams, which will explain more thorough the effect this might have on the relations between the different actors on the platform.

Platforms have infiltrated our lives and have made themselves indispensable. These platforms, such as Facebook, Google or Uber, are the embodiment of US-capitalist values. Based on the widespread neoliberal thoughts in the West, digital platforms never faced strict government restriction and were able to acquire a dominant position. A characteristic of digital platforms is that they are successful when they have achieved scale. As a result, popular platforms tend to be monopolistic. This monopolistic behaviour could have an unbalancing effect on society. Western theories, about the role of digital platforms in commerce, focus mainly on these disruptive effects. In a neo-classic economic theory, demand and supply are believed to naturally result in an economic equilibrium. However, since demand and supply are both incorporated into a digital platform, the pricing structure of the platform determines which side will have a commercial advantage or disadvantage.

Theories produced in Japan shift away from the focus on the disruptive nature of digital platforms and concentrate on the function of facilitator of trust and creator of trade. According to Kokuryo's theory, a platform like Alipay should perform the following roles in facilitating commerce: it should provide a mechanism for partner search and evaluating economic value, it should create trust among trading partners by providing a standardised payment process, and it should integrate multiple functions to offer the user the complete package.

When applying these two theories to Alipay, it is evident that both explain the role Alipay performs in commerce in China. In line with Kokuryo's theory, Alipay started by providing a standardised payment process that could be utilised in trade. This payment method appeared in the form of an escrow service, which was the facilitator of trust and therefore the creator of commerce. Without Alipay, Chinese e-commerce would not have experienced such a boom.

Because it has integrated multiple functions on the platform, it has transformed itself from just a payment method into a one-stop payment portal and has made itself essential for life in China. With several financial and wealth managing functions, Alipay gives those who were not able to participate in the traditional banking system a chance to partake in commerce. Koubei links offline merchants to the online world and provides consumers with a map. This shows that Alipay also fulfils the role of facilitating a partner search service and promotes commerce. As Koubei also provides mechanisms to evaluate economic value, it is apparent that Alipay fulfils all of Kokuryo's five roles to promote trade.

Besides these five roles, Alipay also plays a disruptive role. Among the different players on the Alipay platform, financial institutions seem to benefit least, as Alipay poses a substantial threat to them. In the West, it is especially through their pricing structure that digital platforms take on a disruptive role. This is not the case for Alipay; It is not specifically its pricing structure that harms either consumers or merchants. Instead, the urge to collect an extreme amount of big data is generating the unsettling character of Alipay.

Alipay has shifted its focus from facilitating trust among buyers and sellers to integrating as many functions as possible and enlarging its possession of big data. Consumer protection is not the priority as the company does not hold itself responsible for the security of the users on the platform, and it is not liable for the losses users may suffer. More importantly, the acquired personal data of the users is not primarily used to protect them but is mostly collected for commercial purposes. Therefore, the pricing structure of Alipay is not creating winners and losers, but the way Alipay is using big data is harmful for the users nonetheless. In the Chinese language there is a saying: an ant may well destroy an entire dam (*千里之堤溃于蚁穴*). It is a metaphor and warns not to overlook a small problem as it could develop into a big disaster. Ants could multiply and create tunnels in the dam which would bring it to collapse. Ant Financial's Alipay should not be seen as just small player in the payment market and their influence should not be overlooked. It is no longer only a creator of trust and a facilitator of trade, but its unseen possession of big data has made Alipay into one of the most powerful companies in the world.

Bibliography

Alibaba Group (2016) *Alibaba Investor Day Cyril Han appendix.* Retrieved from http://www.alibabagroup.com/en/ir/pdf/160614/12.pdf (opened on 06 28, 2017)

Alibaba Group (n.d.) *Company Overview.* Retrieved from http://www.alibabagroup.com/en/about/overview (opened on11 19, 2016). (Alibaba Group n.d.)

Alibaba Group Holding Limited (2016*). SEC Form 20 F.United States Securities and Exchange Comission Washington, D.C.* Retrieved from http://www.alibabagroup.com/en/ir/pdf/agm160524_ar.pdf(opened on 06 14, 2017).

Alipay (n.d. a) *支付宝提现要手续费吗？(do you have to pay withdrawal fees for Alipay?* Retrieved from https://cshall.alipay.com/lab/help_detail.htm?help_id=248134(opened on 06 23, 2017).

Alipay (n.d.b) *支付宝产品签约费率(Service fees for Alipay's products).* Retrieved from https://.alipay.com/enterprise/knowledgeDetail.htm?knowledgeId=591311 (opened on 06 23, 2017).

Alipay (n.d.c).*Products for Merchants.* Retrieved from https://global.alipay.com/products (opened on 05 02, 2017).

Alipay (2015) *Alipay Privacy Policy.* Retrieved from https://intl.alipay.com/ihome/help/agreements/detail.htm?agreement=AlipayPrivacyPolicy (opened on 12, 2017)

Alipay (2016a) *Alipay Account Service Agreement.* Retrieved from https://intl.alipay.com/ihome/help/agreements/detail.htm?agreement=AlipayServiceAgreement (opened on 05 11, 2017).

Alipay (2016b) *The loser with the perfect girlfriend.* Retrieved from https://v.qq.com/x/page/a0331cwdqw8.html (opened on 02 01, 2017).

Alipay Business (n.d.) *产品大全 (all the products).* Retrieved from https://b.alipay.com/signing/productSet.htm?navKey=all. (opened on 05 28, 2017)

Andreasyan, T. (2016) *Banking Technology.* Retrieved from http://www.bankingtech.com/666562/alipay-partners-with-major-european-banks-and-payment-provider/ (opened on 04, 2017).

Ant Financial Services Group (n.d. a). *Our Leadership.* Retrieved from https://www.antfin.com/team.htm (opened on 05 02, 2017).

Ant Financial Services Group (n.d. b) *Ant Financial History.* Retrieved from https://www.antfin.com/history.htm (opened on 05 01, 2017).

Ant Financial Services Group (n.d. c) *Ant Financial Privacy Policy.* https://render.antfin.com/p/f/antfin-privacy-policy-en/use-information.html (opened on 05 12, 2017).

Anti-monopoly Law of the People's Republic of China (2007) Retrieved from http://www.china.org.cn/government/laws/2009-02/10/content_17254169.htm (opened on 05 12, 2017).

Barreto, E. (2014) *Alibaba IPO ranks as world's biggest after additional shares sold.* Retrieved from http://www.reuters.com/article/us-alibaba-ipo-value-idUSKCN0HH0A620140922 (opened on 04 02, 2017).

Betancourt, M.(2016) *The Critique of Digital Capitalism: An Analysis of the Political Economy of Digital Culture and Technology*." New York: Punctum books

Bloomberg (n.d. a) *Company Overview of National Social Security Fund* . Retrieved from https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=39437660 (opened on 05 11, 2017).

Bloomberg (n.d. b) *Company Overview of PICC Asset Management Co. Ltd.* Retrieved from https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=10461365 (opened on 05 11, 2017).

Bloomberg (n.d. c) *Company Overview of CCB Trust Co., Ltd.* Retrieved from https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=40541867 (opened on 05 11, 2017).

Chen, L. (2014) *SEC Letter - SEC.gov.*Retrieved from https://www.sec.gov/Archives/edgar/data/1577552/000119312514298625/filename1.htm (opened on 05 02, 2017).

Chen, L.Y. (2017) *Alibaba's Jack Ma Gets $2.8 Billion Richer in One Day* Retrieved from https://www.bloomberg.com/news/articles/2017-06-09/asia-s-richest-man-sees-net-worth-soar-2-8-billion-in-a-day(opened on 06 05, 2017).

Cheng, A. T. (2014) *Institutional Investor.* Retrieved from . http://www.institutionalinvestor.com/article/3346365/investors-sovereign-wealth-funds/yue-

bao-wow-how-alibaba-is-reshaping-chinese-finance.html?ArticleId=3346365&p=1#/.WQ9qU7zyg6V (opened on 05 7, 2017).

China Development Bank (2015) *About CDB.* Retrieved from http://www.cdb.com.cn/English/gykh_512/khjj/ (opened on 05 12, 2017).

China Investment Coorperation (n.d.) *About CIC.* Retrieved from http://www.china-inv.cn/wps/portal/!ut/p/a1/jZJNb4JAEIZ_DVf2LVBAb1u1fIk1USPupcGEriTAEqDl70vRi4mOzm0mz5OZvLtMsISJKv3LZdrlqkqL_17Y3yvYeJttECLmn-AuFvGXGQbRwh6Aw0PA8CyD9Jfm1Z953LecJQDLNRDMP_y5M4mBwH7Nx4PiIP13kPePwEv7CeBJfnsmSCSyaMDbOiRweYMRoEIeASpF8shhRciELNRx_DIHXh1NVzLRZD9ZkzX6bzOMT11Xt1MNGvq-16VSssj0qtBwzziptmPJDcjqcjdUgjzI1-Xebc8CO4Bn/dl5/d5/L2dBISEvZ0FBIS9nQSEh/
(opened on 05 11, 2017).

China Life Insurance Group (n.d.) *About us* Retrieved from .
https://www.chinalife.com.cn/publish/yw/index.html (opened on 05 11, 2017).

China Post Group (n.d.) *About us.* Retrieved from
http://english.chinapost.com.cn/html1/folder/1408/3920-1.htm(opened on 05 11, 2017).

Christie, R. H (2014) *Official Launch of Ant Financial Services Group Brings New Financial Ecosystem to China.* Retrieved from
http://www.businesswire.com/news/home/20141016005260/en/Official-Launch-Ant-Financial-Services-Group-Brings (opened on 05 01, 2017).

CNNIC (2017) *Statistical Report on Internet Development in China*. Retrieved from
http://cnnic.com.cn/IDR/ReportDownloads/201706/P020170608523740585924.pdf
(opened on 06 13, 2017).

Crunchbase (n.d.) *Koubei.com.* Retrieved from
https://www.crunchbase.com/organization/koubei#/entity(opened on 05 02, 2017).

Evans, D. S. (2003) The Antitrust Economics of Multi-Sided Platform Markets. *Yale Journal on Regulation*, 325-381.

Forbes (n.d.) *Ding Xuedong.* Retrieved from https://www.forbes.com/profile/ding-xuedong/
(opened on 05 12, 2017).

Fuchs, C. (2015a) Baidu, Weibo and Renren: the global political economy of social media in China. *Asian Journal of Communication*, 14-41.

Fuchs, C (2008) *Internet and Society: Social Theory in the Information Age*. New York: Roudlegde

Fuchs, C.(2015b) *Marx in the Age of Digital Capitalism*." Boston: brill

Gervasi, M. (2016) *East-Commerce: China E-Commerce and the Internet of Things* New Jersey: John Wiley & Sons

Gillespie, T (2010) The politics of 'platforms'. *New Media Society*, 347-264.

GP Capital (2016) *基金介绍*. 2016. Retrieved from http://www.gpcapital.com.cn/index.php/5774bcd00c0 (opened on 05 11, 2017).

Halder, B & Butler, S.(2015) *China's Big Boom in Small Companies.* Retrieved from http://www.huffingtonpost.com/2015/03/06/china-small-companies_n_6817710.html (opened on 06 25, 2017).

Harvey, D (2005) *A brief history of Neoliberalism*,. New York : Oxford University Press Inc.

He, Y. (2016) *China's mobile users hit 1.3 billion in 2015.* Retrieved from http://www.chinadaily.com.cn/business/2016-01/26/content_23261207.htm (opened on 11 29, 2016).

Hendrichs, M. (2015) *Why Alipay is more than just the Chinese equivalent of PayPal.* Retrieved from https://www.techinasia.com/talk/online-payment-provider-alipay-chinese-equivalent-paypal (opened on 05 01, 2017).

Hoffmann, S., Lannes, B., Dai, J.(2012) *China ecommerce: Heading toward 1.5 trillion, Can China earn its place as the world's largest e-commerce market*? Retrieved from http://www.bain.com/publications/articles/china-ecommerce.aspx(opende on 06 28, 2017)

iResearch (2016) *China's Online Third Party Payment Market GMV Topped Four Trillion Yuan in Q1 2016.* Retrieved from http://www.iresearchchina.com/content/details7_23437.html (opened on 05 03, 2017). (iResearch 2016)

Jiang, X. (2017*) Private and confident*. Retrieved from http://www.chinadaily.com.cn/business/2017-01/16/content_27961167.htm(opened on 06 28, 2017)

Jin, D. Y (2015). Ditigal Platforms, Imperialism and Political Culture. New York: Routlegde

Kokuryo, J., Takeda, Y. (1997) *The role of "Platform Businesses" as Intermediaries of Electronic Commerce*. Retrieved from https://www.researchgate.net/publication/303672916_The_Role_of_Platform_Businesses_as_Intermediaries_of_Electronic_Commerce?_esc=publicationCoverPdf&el=1_x_2&enrichId=r

greq-3a3d5eac1331782938362b4485f958b2-XXX&enrichSource=Y292ZXJQYWdlOzMwMzY3MjkxNjtBUzozNjc0NTUyMTUwNzk0MjVAMTQ2NDYxOTU1ODE2MA%3D%3D (opened on 03 28, 2017).

Kuo, Y., Walters, J., Gao, H., Wang, A., Yang, V., Yang, J., Lyu, Z, Wan, H. (2015) *The New China Playbook Young, A uent, E-savvy Consumers Will Fuel Growth*. The Boston Consulting Group, Aliresearch,

Lexis China (2015) *Announcement of the People's Bank of China [2015] No. 43--Administrative Measures for Internet Payment Services of Non-banking Payment Institutions.* Retrieved from http://hk.lexiscn.com/law/announcement-of-the-peoples-bank-of-china-2015-no-43--administrative-measures-for-internet-payment-services-of-non-banking-payment-institutions.html (opened on 5 11, 2017).

Li, Y. (2015*) Kingmakers of China's Internet: Baidu, Alibaba and Tencent; Companies' deep pockets and powerful presence have made them both loved and feared by startups*. Retrieved from . https://www.wsj.com/articles/kingmakers-of-chinas-internet-baidu-alibaba-and-tencent-1445451143 (opened on 05 01, 2017).

Liu, C. (2011) Internet Censorship as a trade barrier: A look at the WTO consistency of the great firewall in the wake of the China-Google dispute. *Georgetown Journal of International Law,*

Lockett, H. (2015) *In-depth: Chinese e-commerce's rush into online finance could put countless users' data at risk.*. Retrieved from http://www.chinaeconomicreview.com/chinese-e-commerces-rush-online-finance-could-put-countless-users-data-risk (opened on 01 23, 2017).

Kenney, M., Jia K.(2016) Mobile internet business models in China: A vertical hierarchies, horizontal conglomerates or business groups? . *BRIE Working Paper 2016-6.* Retrieved from http://www.brie.berkeley.edu/wp-content/uploads/2015/02/Working-Paper-2016-6.JiaKenney.pdf (opened on 05 01, 2017).

Meertens, M., Kapron, Z (2017) *Social Networks, e-Commerce Platforms, and the Growth of Digital Payment Ecosystems in China*. Kapron Asia , Retrieved from https://btca-prod.s3.amazonaws.com/documents/284/english_attachments/ChinaReportApril2017Highlights.pdf?1492606527 (opened on 06 28, 2017)

Mozur, P., Kessel, J. *How China Is Changing Your Internet.* Retrieved from https://www.youtube.com/watch?v=VAesMQ6VtK8&t=8s (opened on 06 20, 2017).

Murray, J. (2017) *What is Owner's Equity?* Retrieved from https://www.thebalance.com/g00/what-is-owner-s-equity-398387?i10c.referrer=https%3A%2F%2Fwww.google.nl%2F (opened on 06 20, 2017).

National Bureau of Statistics China (n.d. a) *Total Population by Urban and Rural Residence and Birth Rate, Death Rate, Natural Growth Rate by Region*. Retrieved from http://www.stats.gov.cn/tjsj/ndsj/2016/indexeh.htm (opened on 06 28, 2017)

National Bureau of Statitistics in China (n.d. b) . *Informatization and E-commerce of Enterprises by Industrial Sector.* Retrieved from http://www.stats.gov.cn/tjsj/ndsj/2016/indexeh.htm (opened on 06 28, 2017).

National People's Congress of the Republic of China (2006) *Anti-Money Laundering Law of the People's Republic of China.* Retrieved from http://www.npc.gov.cn/englishnpc/Law/2008-01/02/content_1388022.htm (opened on 05 12, 2017).

New China Life Insurance Company Ltd (2015) *Annual Report 2015*. Retrieved from http://www.cpic.com.cn/upload/resources/file/2016/06/13/32531.pdf (opened on 06 28, 2017)

Pettinger, T. (2013) *Network Effects.* Retrieved from http://www.economicshelp.org/blog/glossary/network-effects/ (opened on 05 14, 2017).

Primavera Capital (n.d.) *About us.* Retrieved from https://www.primavera-capital.com/ (opened on 05 11, 2017).

Scalan, S. (2015) *An interview with Michael Betancourt, author of agnotology & crisis in digital capitalism.* Retrieved from http://www.nanocrit.com/files/7814/6332/3426/An_Interview_with_Michael_Betancourt_SeanScanlan-2015.pdf (opened on 04 01, 2017).

Schiller, D. (1992) Digital Capitalism: Networking the Global Market System. Cambridge: Mit Press,

Schneier, B.(2012) *When it comes to security, we're back to feudalism* Retrieved from https://www.wired.com/2012/11/feudal-security/ (opened on 06 16, 2017).

Steinberg, M. (Forthcoming) A Genesis of the Platform Concept: i-mode and Platform Theory in Japan . *Asiascape; Digital Asia 4(3): 1-21*

The World Bank. (n.d.) *GDP.* Retrieved from http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=NL (opened on 06 16, 2017).

Thomson Reuters (2017) Profile Report Zhejiang Ant Small & Micro Financial Service Goup Co Ltd

Tianhong fund (n.d.) *Yu'E Bao.* Retrieved from http://www.thfund.com.cn/en/yuebao.html (opened on 05 07, 2017).

Tirole, J., Rochet, J-C. (2003) Platform competition in two-sided markets. *Journal of the European Economic Association* : 990-1029.

Wang, A. & Shek, M.(2016) *Ant Financial's Double 12 Global Shopping Festival helps offline merchants boost sales.* Retrieved from https://www.antfin.com/newsDetail.html?id=584fb54b846cd841377424e7 (opened on 05 08, 2017).

Weinswig, D. (2016) *Deep dive: Mobile payments in China*. Retrieved from https://fungglobalretailtech.com/wp-content/uploads/2016/11/Mobile-Payments-Report-November-19-2016-1.pdf (opened on 05 03, 2017).

Wu, Y., Zhang, Y., Wang, Y.(2017) *Real-Name Registration Negligence Lands Alipay, Tencent in Hot Water.* Retrieved from http://www.caixinglobal.com/2017-05-11/101089328.html (opened on 05 11, 2017).

Yu, Y., Shen M.(2015)*Alibaba and the Threat to China's Banking Sector How consumer protections are providing Alibaba's 'Open Sesame' to steal China's consumer market*. The Foundation for Law, Justice and Society, Retrieved from http://www.fljs.org/sites/www.fljs.org/files/publications/Alibaba%20and%20the%20Threat%20to%20China%27s%20Banking%20Sector.pdf (opened on 06 28, 2017)

Zhao, Y., Schiller, D.(2000*) Dances with wolves? china 's integration into digital capitalism*. Emerald Insight. Retrieved from http://www.emeraldinsight.com.proxy-ub.rug.nl/doi/pdfplus/10.1108/14636690110801879 (opened on 06 24, 2017).

Zhang, W.(2016) . Exploring the Improved Personal Credit Scoring Model of Ant Financial Services in its Disruptive Innovation Process. *International Conference on Applied Social Science Research.* 408-410.

Zhu, L. (2016) *Alipay speeds up expansion in Europe, targeting Chinese tourists*. Retrieved from http://www.chinadaily.com.cn/business/tech/2016-08/09/content_26407293.htm (opened on 06 28, 2017)

Zhu, X., Song, B., Ni, Y., Ren, Y., Li, R. (2016) Digital finance- from traditional finance to digital and internet finane. In: Business trends in the digital era. Singapore: Springer