FSM - Finance & Strategic Management

Master Thesis

"What is the fair theoretical value of Alibaba Group Holding Limited (Alibaba)?"

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Executive summary

By using theories from finance and strategic management, this Master thesis has evaluated the fair theoretical value of Alibaba Group Holding Limited stock. The 10-year forecast was made based on an analysis of country, industry and company strategies.

The analysis of the country was made according to the PESTLE framework, while Porter's 5 forces analysis was made on selected industries. Due to the global nature of the digital conglomerate, country analysis is supplemented with global factors, while the global ecommerce and cloud computing industries were enhanced with factors from China. The business model and strategy were analysed using a combination of Aggregator theory and the theory of Network externalities. Findings show that integrated, data-driven ecosystems can reinforce core business due to synergies and network effects.

EVA model was used to evaluate enterprise value and consequently the fair stock price, which was \$185.53, while it was traded for \$182.45 on the 1rst of April 2019. Since the stock was traded at a lower price the suggestion for an investor would be to buy the stock. However, the decision depends on individual risk preferences and beliefs.

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1.1 INTRODUCTION

The beginning of the 21st century has radically changed our lives. The internet, smart phones, laptops, tablets have not only changed the way we work and communicate but also how we shop, pay our bills or spend our time. Now we live in a world with no need to leave our homes, we can order anything from everywhere, we can talk to our friends all around the globe. In this setting, the new type of conglomerates emerged - digital conglomerate. These companies grow fast by buying start-ups and their portfolios include subsidiaries in diverse industries, from groceries to artificial intelligence. The value proposition of the digital conglomerate is that digitalization will transform every industry and that integrated, data-driven ecosystems will reinforce core business due to synergies and network effects (Krause, 2016).

Not surprisingly, in 2019, digital companies took 7 positions among the top 10 most valuable brands in the world (Handley, 2019), 5 of them can be called the digital conglomerates: Amazon, Alphabet (Google), Facebook, Alibaba and Tencent. Their market power emerges from the capabilities in levering data intelligence in creating tightly knit customer-centred network ecosystems. These companies are able to rapidly and dynamically adapt to the changing market environment and consumer needs (Zeng, 2018). Naturally a question arises how to value these companies, where a majority of stock value is derived from the value proposition to consumers of integrated ecosystem that feeds itself?

Probably one of the most interesting companies among the list is China's tech Unicorn Alibaba (Deer, L. ; Peter, S., 2017), which held a record of largest IPO in history for over 5 years (Shen, 2019), (Horowitz, J.; Defterios, J., 2019), since it doesn't fully fit into any standard definition of a company. During this year "Singles day" (China's equivalent of "Black Friday") Alibaba managed to sell goods worth of 38.3 Billion USD within 24h via its websites (Kharpal, 2019). It operates across the globe, has 91 subsidiaries operating through 336 companies (orbis.com, 2019), in

industries ranging from ecommerce to cloud computing and to entertainment (finance.yahoo.com, 2019). Even though Alibaba is highly diversified, its main line of business is core commerce, yet it is not a traditional retailer as it does not keep stock or source, rather it performs all the functions associated with retail. In fact, Alibaba has created digital ecosystem which performs the same functions as Amazon, Google, eBay, FedEx combined and also offers financial services (Zeng, 2018).Therefore, in my Master Thesis I would like to answer the question:

What is the fair theoretical value of Alibaba Group Holding Limited (Alibaba)?

1.2 METODOLOGY

1.2.1 Organization of the Thesis

The Thesis is subdivided into 6 major parts: the first part covers introduction, methodology, delimitation and company description, second chapter deals with external business environment (PESTEL and Porter's Five Forces); third chapter provides deeper internal company business model analysis and sums up findings; the fourth chapter deals with company financial position., the fifth chapter deals with forecasts about the future; and the last chapter and provides company valuation, discussion and conclusions.

For the readers convenience, theoretical frameworks will be provided in the chapters before the relevant analysis, while the company description and analysis will be provided in different chapters, allowing to get deeper understanding of the firm as the Thesis progress.

1.2.2 External analysis

PESTEL framework will be used to assess the macro factors which influence the performance of the firm. However, since Alibaba operates not in a single country, the "traditional" PESTEL of China will be supplemented by important information about global and other Asian markets.

The company operates in four segments: Core Commerce, Cloud computing, Digital Media and entertainment, Innovation Initiatives and others. However, since the last segment is diverse and accounts for only 1% of the revenue (Alibaba Group, 2019). The Porter's Five Forces Analysis will be applied to the 3 largest segments. Furthermore, since ecommerce and cloud computing industries

are global by nature, the analysis in those segments will be supplemented by the relevant data from the Chinese market

1.2.3 Internal analysis

The combination of Platform Theory and Aggregator Theory will be used to analyse company's resources and capabilities and evaluate how their business model fit with its environment. Furthermore, the evaluation of fitness considers all three segments together and provides real life example of how Alibaba earns its revenues.

1.2.4 Company valuation

First of all, based on the financial and strategic analysis the 10-year forecast will be made and later the company valuation will be done by using Economic Value Added (EVA). The EVA model was chosen because it user friendly and the results can be easily interpreted since it provides information of how much value is created (or destroyed) in any given year.

1.2.5 Data used and data collection

The Thesis is based only on the secondary data easily available in CBS library, databases, financial webpages and company web page. Data collected spans from 2014 when Alibaba went public to 2019 when the Thesis is written, data includes country, industry and company profiles as well as annual reports. The analysis is also supplemented with data and information from the newspapers as well as academic papers.

1.3 DELIMITATION

This thesis has several major limitations: data sources, valuation method and it omits other additional information such as CSR policies.

First of all, even though main data was retrieved from reliable sources such Marketline, Statista.com, the data on country and industries is outdated, especially considering the rapid development of the markets, therefore the missing trends/ figures or information were obtained from less reliable sources. However, the data was cross-referenced and only most reliable included. Furthermore, Alibaba has changed accounting rule in recording its related party revenues and expenses, therefore the most recent financial data may be biased and does not reflect the situation. Next major limitation is in using book values instead of market values when calculating weighted average cost of capital, this was done due to the authors knowledge limitation in how to evaluate the market value of negative debt. Consequentially this may have contributed to the valuation error and unrealistic estimates and thus the incorrect value and conclusions. For this reason, only one valuation model was used.

Lastly, the CSR policies or the change in leadership was not considered in this thesis since the author has no prior theoretical knowledge in assessing how the change in leadership will affect the overall company performance. Whereas the investigation of CSR policies was omitted due to the lack of scientific proof that they directly contribute to the firms' performance. In addition, there are also theoretical limitations arising due to the cultural differences between the scholars who developed and advanced them and the country or company to which they are applied to.

1.4 COMPANY DESCRIPTION

1.4.1 What is Alibaba?

Alibaba group holding limited, most commonly known, simply as Alibaba, is the Chinese tech and ecommerce giant (Diamandis, 2018). Alibaba Group operates in four segments: Core Commerce, Cloud computing, Digital Media and entertainment, Innovation Initiatives and others. Core Commerce is the main Alibaba's segment accounting for most of the revenue (86%) (Alibaba Group, 2019). It is comprised of 13 interlocking ecommerce platforms that connect retailers, manufacturers and consumers allowing them to make many different transactions within Alibaba's ecosystem. Alibaba acts as the business facilitator and earns its money by charging yearly subscriptions for the maintenance of storefronts, commissions per transaction, or higher rank in the search engine and delivery (Eckstein, 2019).

Alibaba's Cloud computing segment provides full range of cloud computing services: elastic and large-scale computing; data storage; database; big data analytics; network visualization, IoT, security management and application services and machine learning platform. Digital Media and entertainment segment extend ecosystem beyond Alibaba's core business and comprises the production, promotion and distribution of original content movies, variety shows and television series (Alibaba Group, 2019), furthermore, the company operates online video platform as well as mobile and UC browsers (finance.yahoo.com, 2019). Innovation initiatives and others is the smallest segment dispersed over many industries and is responsible for the development of the new

products, accounting for only 1% of the revenues (Alibaba Group, 2019). Alibaba also works closely with its affiliate Ant Financial (separate entity), which operates China's largest online payment system Alipay (Ibid) a7s of 2019 Alibaba became the most valuable Chinese brand with estimated worth of \$131.2 billion, ranking 7 in the world (Handley, 2019). Furthermore, it also holds the same positions both in China and globally when ranked according to the market capitalization of \$480.8 billion (Duffin, 2019).

Alibaba group has 91 subsidiaries operating through 336 companies (orbis.com, 2019) and employs 101,958 people in its entire ecosystem. The company has more than 650 million annual active consumers and more than 720 million monthly users on its China retail marketplaces (Alibaba Group, 2019). Not surprisingly, China is the main market in which the company operates, currently it is the undisputed e-commerce leader in the Chinese market, accounting for nearly 56% of total e-retail market (Cheung, M-Ch.; Lipsman, A., Peart, M., 2019). Alibaba is also rapidly gaining foothold in ASEAN markets and across the world (see the entry year table in the appendix). According to Gartner (2019), its subsidiary, Alibaba Cloud has been the market leader in the Asia Pacific region for 2 consecutive years in IaaS and IUS (Bloomberg, 2019).

1.4.2 Major businesses

TaoBao is the C2C ecommerce platform designed for small businesses and individual sellers that uses big-data analytics to offer the consumers personalized shopping experience. In Taobao marketplace consumers can learn about products by directly interacting with merchants. Despite being the largest platform, TaoBao is only available for Chinese companies and consumers. Tmall is the B2C ecommerce platform designated for brands and established retailers, accessible to both foreign and local sellers, according to statista (2019) Tabao is the largest in terms of GMV third-party ecommerce platform in the world. Aliexpress is C2C is the global equivalent of TaoBao in terms of services and interaction, the platform is available in 17 languages. Alibaba.com is the oldest of the platforms and is designed for B2B transactions and connects sellers around the globe, as of March 31, 2019 it had buyers from more than 190 countries, the platform has its Chinese equivalent designed for local Chinese market 1688.com. Under its core commerse segment Alibaba also has the CaiNiao Network, the losgistics division which operates together with partners to fulfil the the online order. (Alibaba Group, 2019).

Besides ecommerce and cloud computing businesses, Alibaba also has a monetarization platform Alimama, which uses the data technology to provide targeted advertisements for its ecosystem and third parties. Alimama enables Alibaba to leverage ecommerce platforms for promotional marketing, thus allowing the users to extend their reach (Ibid). Furthermore, in its movies and entertainment segment Alibaba operates Youku Toudou and TiaoPiaoPiao, Youku is the Chinese equivalent of YouTube and Netflix combined since it hosts online wideos and also offers online streaming services. Whereas TiaoPiaoPiao is one of the largest online ticketing apps in China (Yuan, 2018).

1.4.3 History of Alibaba

Alibaba was founded in 1999 by Jack Ma and 17 other people (Alibaba Group, 2019) in his small flat. Jack Ma, who did not know anything about computers, and was first time introduced to the internet in Seattle in 1995, invited his friends to discuss opening e-commerce company. After two hours, everyone scoped their pockets and gathered \$60,000 to start the company. Because the founders wanted an international company, that would level the playing field for the small companies, they have chosen name Alibaba, easy for foreigners to spell and invoking association with "Open, Sesame" (from One Thousand and One Nights). Alibaba had no money, until later in 1999 (Jack Ma, 2008) it (the company) got \$3.3 million investment from Goldman Sachs and secured \$20 million investment from Japanese technology corporation SoftBank in the early 2000 (Vanderklippe, 2018). The company expanded rapidly, and the dot.com bubble burst. Once again, Alibaba had no money and had to lay off its employees, however, they have developed a platform for American buyers to meet Chinese exporters online and by the end of 2002, Alibaba has made \$1 profit (Jack Ma, 2008).

From then on, company was improving every year, and started to diversify and expand its core offering (Walraven, 2009). Alibaba's diversification strategy was fuelled by the need to fill in the holes in the developing Chinese e-commerce market such as online payment services, logistics and providing loans to small businesses. Most of the new businesses became market leaders, however, large ventures with Koubei (app listing real estate, restaurants) and Huashu Taobao (state-owned television network) went under due to cultural clash (Greeven & Wei, 2017). Alibaba's international expansion started before their IPO, when company began investing in America, neighbouring countries and Europe. In 2014, on the 19th of September, Alibaba went public on NYSE. The long-anticipated IPO broke the world record and raised \$25 billion (Timms, 2014).

Since IPO, Alibaba has expanded rapidly by acquiring companies in e-commerce, logistics, cloud computing in China and around the world, (see Appendix 1). However, to this day, most of the success is in China and other developing countries since more than 4/5 of the revenue in core commerce segment comes from China (Blazyte, 2019).

1.4.4 Company vision and mission

In 2015, at the World Economic Forum in Davos, Jack Ma stated that Alibaba Group wants to serve 2 billion consumers across the world and help 10 million small businesses to reach global markets and to create 100 million jobs (Erikson, 2015), the same aspiration remains to this day (Liu, 2019). This is clearly reflected in the company's mission and vision statements: Alibaba's mission is "to make it easy to do business anywhere" and vision is "to build the future infrastructure of commerce. We envision that our customers will meet, work and live at Alibaba and that we will be a company that lasts at least 102 years." Alibaba's expansion and development path over the years clearly follows the statements and the diversification into additional industries creates more connectivity in its ecosystem (mission-statement.com, 2019).

1.4.5 Current owners of Alibaba

Alibaba has two different share types: ordinary and American depository shares (ADS). ADS represent the real claim to Alibaba's ordinary shares and can be converted to ordinary shares upon investors wish (Chen, 2019). Consequently, shares trading at the New York Stock Exchange are ADS, and 1 ADS represents claim to 8 ordinary shares. As of June 3, 2019, there were 2,603,531,693 ordinary shares outstanding, in calculating the number of shares owned by the individual and the percentage ownership, all ordinary shares, ADS and the options to acquire additional shares are included (ref). Based on information above, the largest shareholders of Alibaba group holding limited were SoftBank with 25.9% (673,758,371 shares); Altaba, the former Yahoo, owns 9.4% (244,790,000 shares), the co-founder and former executive chairman, Jack Ma held 6.2% (161,861,406 shares); and co-founder and current executive vice chairman, Joseph C. TSAI owns 2.2% (56,202,810). Overall, all directors, executive officers and owners account for 9.3% of common stock outstanding (alibabagroup.com, 2019).

2. EXTERNAL ANALYSIS

2.1 PESTLE Analysis

All companies in the world are influenced by the macro conditions affecting not only the bottom line of the firm but also influencing the business models, operating regions, strategies, industries and so on. Therefore, it is important to understand which macro factors affect the company and how. Probably one of the most common techniques used to analyse macro-economic situation is PESTEL framework, an acronym for political, economic, technological, environmental and legal factors. Framework is relatively easy to use if a company operates in one country but becomes cumbersome when applied to international firms (business-to-you.com, 2016) due to the vast number of factors and interdependencies. Therefore, since the main operating region for Alibaba Group is China and its neighbouring countries, the analysis in this section will be done on China and supplemented with factors (if relevant) from other countries where Alibaba does its business. Furthermore, only key factors will be included, for example, factors such as unrest in Tibet will not be included.

2.1.1 Political Factors

China has stable government since the formation of modern China, the country is ruled by a single Communist Party of China (CPC), which is the largest in the word and has nearly 90 million members. China's political structure allows the government to implement policies without deliberation and oversee the entire process. This means that CPC fully controls how China and its economy is developing. Not surprisingly, Chinese government restricts freedom of speech not only among Chinese individuals (Marketline, 2018), but also bans majority of Western newspapers and media, portals or webpages, for example, there is no Facebook, Twitter, YouTube or Google in China, under the pretext of international security (Yuan, 2018), and the Great Firewall of China closely monitors the media.

Due to its power and importance to the global economy China has strong influence on many countries, especially in Africa and it is also increasing its geopolitical power in South and Southeast Asia. However, the territorial tensions in South China Sea has strained relationships with trade allies and its neighbours, including Australia, the US, Japan, Philippines and other ASEAN nations. On the other hand, China is developing close relationships with Russia through bilateral trade

agreements, both countries have also aligned their interest in challenging international US-led system (Marketline, 2018).

Chinese government is known to protect and subsidize industries it thinks are crucial to economy. Moreover, China has long history of limiting access to foreign countries through taxation or mandatory joint ownership (floship.com, 2018). In recent years, China has relaxed some of the import regulations - lowered tax on imported goods from overseas e-tailers (Brennan, 2016).

In the beginning of 2017, the US, led by President Donald Trump, by trying to level the trade deficit, started a trade war with China. The trading relationship between China and the US became on fire when both countries started adding more and more taxes on each other's imported goods, resulting in loses for both parties (Wong, D.; Koty, A. C., 2019). In 2019, China added to high-tech, IT and electrical appliance industries to the subsidy list, further fuelling the trade war with the US (Kubota, 2019).

2.1.2 Economic factors

After decades of robust of economic growth, China's economy is slowing down, reaching 20 year historical low of 6% (Trading Economics, 2019). However, the world's second largest economy still grows almost two times faster than the overall global economy which grew 3.2% in 2019 (International Monetary Fund, 2019). China's weakening growth is mainly attributable to decelerating investment and weak global demand (Marketline, 2018). Global FDI has dropped by 13% in 2018, the largest decline was seen in the developed nations 27%, while in the developing nations FDI increased by 2%. One of the reasons behind the decline is structural changes in international business since digital companies do not require large investments in tangible assets. In the global downturn, China remains the second largest FDI recipient and experienced increase in FDI from \$136.3 billion in 2017 to \$139 billion in 2018 (Omic, 2019).

For a long time, China's economic growth was fuelled by massive investments in infrastructure and manufacturing. The slowing down of global economy and trade war resulted in industrial overcapacity which in turn led to disinvestment and shutdown of unproductive firms in coal, steal and other industries, effectively increasing unemployment rate and posing challenges for the future economic growth prospects .The Chinese government is restructuring the economy from industrial towards service oriented. Over the last years, the government has stimulated growth in service sector through investments and gradual elimination of barriers for foreign firms to enter and operate

in China. Foreign healthcare, credit card and payment, banking, and IT companies are now entering the service sector (Marketline, 2018).

Despite rising consumer income, the final household consumption expenditure as percentage of GDP in China remains low at 53.35%, compared to other large economies: the US (82.27%), Japan (75.33%), Germany (72.04%), the UK (84.01%). In comparison with developed countries, China's service sector is still developing and accounts for 52.2% of the GDP, while in the US services contribute 77.4% to the GDP (World Bank, 2019). The changed economic development strategy from export and FDI oriented towards increasing domestic consumption and development of service sector has strong potential to keep economy growing. Furthermore, it should limit China's dependence on exports and mitigate the effects of ongoing trade war with the US (Marketline, 2018)

2.1.3 Social factors

China's GDP per capita continues to increase, in 2018 the average per capita income was \$ 9,770.8, in PPP terms \$18,236.6 (World Bank, 2019), however, the majority of GDP is created in the major cities and in the most developed provinces. Variation in GDP by region is vast because of SEZ and investment direction (Crane, B.; Albrecht, Ch.; Duffin, K.;, 2018). Due to the large gap in economic development between the regions, the major cities in eastern and south eastern regions are becoming overcrowded. Large floating and inner migration aggravates unequal concentration by putting pressure on infrastructure, housing, work opportunities and results in skyrocketing living expenses (Marketline, 2018). The average persona's disposable income in urban areas has also increased from 36,396.19 yuan in 2017 to 39,251 yuan in 2018 (Trading Economics, 2019), while in rural areas it was approximately only14,617 yuan (Han, 2019).

China is the largest country in the world in terms of population size, with an estimate of more than 1.4 billion people (internetworldstats.com, 2019). The improvements in healthcare and living environment has led to increased life expectancy and despite the one child policy, aging population growth. Even though, one child policy has been lifted, many couples in China choose to either have one child or have no child at all to keep their better living conditions (Marketline, 2018). The rising income, better work opportunities has produced a spoiled generation having two parents and four grandparents to take care of them (Gao, 2017), however this situation poses a huge problem when it will be reversed in the future due to the lack of adequate safety nets such as pension. Furthermore, despite the government's efforts to reverse gender imbalance from one child policy, the gap shows

only minimal improvement and in some regions men to women ratio is 114:100 meaning that millions of men will remain unmarried. Gender gap contributes to having low birth rates, raising elderly population and large floating population, as many leave for the better work and marriage opportunities (Marketline, 2018).

2.1.4 Technological factors

During the last couple of years, China has shifted from being technology follower towards becoming a leader, the massive expenditure in R&D accounting for more than 2% of GDP representing 20% of total world expenditure, furthermore, China's R&D expenditure rate is growing faster than the US or EU (European Commition, 2019). China's large number of R&D institutions, science and engineering graduates, partnerships with more 150 countries has helped China to make breakthroughs both in simple and advanced sciences. Well- educated and technologically savvy population is the driving force behind innovation in next generation telecommunication technologies, big data, e-commerce, AI, robotics, space technology (Li, 2018). Despite the lack of appropriate intellectual property protection laws, the number of registered patents has surpassed 53 thousand during 2018, putting China in the second position behind the US (Duffin, 2019).

In the middle of 2019, China's internet penetration rate reached 61.2% (CIW, 2019). Despite low penetration rate, China remains number one by the share number of the internet users reaching 829 million, in comparison, India which has similar population and is considered to be the world's IT hub has only 560 million (Clement, 2019). Over the years the number of the internet users in China has grown steadily, with the majority of the internet users being from urban areas and accounting for the 73.3% of all users. More than 99% of people indicated that they use the internet primarily via mobile phones, while computers and laptops were in the 2nd and 3rd places with 46% and 36% respectively. Most of the people use the internet for instant messaging, search, reading news, watching videos and shopping (CIW, 2019).

According to McKinsley Global Institute (2017), China is among the most active digital environments in the world, it has been among top 3 recipients of venture-capital investments in digital technology, including robotics, 3D printing, virtual reality, AI, autonomous vehicles. Today, one third of the world's unicorns (start-up companies value more than \$1bilion) comes from China and represents over 40% of the global value of all unicorns. China is also one the largest adopters of digital technology in the world due to large market of young and technology engaged people.

Furthermore, China is already the world's biggest e-commerce market and is number one user of mobile payments.

2.1.5 Legal factors

China has very weak protection of intellectual property rights (IPR), even though, the country has moved to innovation from imitation and has IPR laws, the enforcement is ineffective. China is the number one violator of the US IPR, and is commonly accused of infringements such as piracy, trade secret theft and counterfeit manufacturing (Marketline, 2018). Furthermore, to this day China does not have strict data security law, its law only covers basic privacy requirements: forbids distribution of identifiable data without consent, requires companies to safely keep data and limits what data can be collected (Sheng, 2019).

In 2014, China has introduced stronger consumer protection laws against counterfeit goods, the new provisions not only increased the penalties but also gave more security and power to the consumer. Namely, the new law states that it is the retailer's responsibility to prove its innocence instead of consumers to prove wrongdoing, greater restrictions on collecting consumer data were also implemented (Shira, D. & Associates, 2014). Furthermore, in 2019, the government introduced e-commerce law stating that e-tailers are jointly with merchants responsible for selling fake goods and are liable up to \$290,000 fine. Additionally, the law prohibits e-tailers to collect any data which is not crucial for their business (Bogy, 2019).

As the importance of digital companies is raising, the perception about them is changing and they are no longer seen as friendly initiatives due to externalities they cause, such as oligopolistic tendencies, taxation evasion, no labour protection. Most of the countries lack regulatory and taxation laws and the technological and innovative nature of these digital giants poses additional challenges to regulation (Lecha, E. S., 2018). EU, the US, China and many other countries are widening their data protection and monopoly antitrust laws to include internet companies (Financier Worldwide, 2019), (Shedd, 2019), (Tabeta, 2020), while others, like India are tackling tax evasion (Parkin, 2019).

2.1.6 Environmental factors

Since 2014, the Chinese government has been introducing stricter environmental protection laws, linking environment protection to country's modernization and urbanization goals. However, despite having comprehensive environmental plan, China is not effective in its implementation due to lack of innovation in environmentally friendly technologies and the need to satisfy ever rising

energy demand. Furthermore, resource price fixing in China creates distorted market prices and provides little incentive to lower consumption which could impede the effectiveness of environmental policies. During the last two years China has managed to lower its coal consumption for energy production from accounting for 69.6% in 2016 (Marketline, 2018) to 59% in 2018. However, the overall energy usage has increased by 1% (Daly, T.; Xu, M., 2019). On the positive side, China is the largest investor in renewable energy (Marketline, 2018) and is the world's leader in manufacturing wind turbines and solar modules (Daly, T.; Xu, M., 2019). In addition, China is aiming to become the world's number one market for electric vehicles, and requires car manufacturers that at least 10% of the newly produced cars are zero or low emission vehicles (Marketline, 2018).

While consumers in the developed world are demanding more and more eco-friendly products and are moving towards more sustainable life (European Commition, 2019), (Martins, 2019), eco-friendliness and sustainability is not as popular in China. Even though, the demand of green products is rising in China, the purchase decision is driven by personal health and safety, not the environmental impact (Xinhua, 2017). China has a long way to go towards sustainable living, and due to the governmental subsidies to purchase green cars, produce solar energy some improvement in a consumer's behaviour has been achieved. However, incentives are low and environmental awareness spreads slowly through small city communities (Middlehurst, 2016).

2.2 INDUSTRY ANALYSIS

2.2.1. 5 Forces Analysis

The Five Forces framework proposed by M. Porter (1979) states that competition in the industry is not only driven by competitors but rather depends on technical characteristics and underlying economics that give a rise to competitive forces shaping the industry. Furthermore, it is the combined strength of the forces that determines the profitability and attractiveness of the industry. Understanding how threat of new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products or services, and existing rivalry shapes the industry, helps company to identify its weakness, strengths and position itself in the market to earn superior returns.

As mentioned before, three main segments of Alibaba's business are: core commerce, cloud computing, digital media and entertainment. Since the company does not operate in a single

industry, to assess the overall company's position and strategy, the five forces analysis will be applied to the corresponding industries: online retail, cloud computing and Movies & Entertainment, with the most focus on ecommerce. Furthermore, since Alibaba does business in core commerce and cloud computing on a global scale, the country industry analysis will be supplemented with global completive rivalry, and since cloud computing is not location bound the global 5 forces analysis will be supplemented with countries competitive rivalry.

2.2.2. 5 Forces Analysis- Online retail

Industry overview

The online retail industry, also e-tailing, digital retailing includes all sales taking place over the internet and payment is conducted online. It also includes both pure-play internet vendors and traditional bricks and mortar retailers offering their products online. The product categories sold include apparel and footwear, consumer electronics, food and groceries, gardening and home improvement, leisure equipment, accessories and toys (Marketline, 2018). The broader term ecommerce includes all sales over the internet irresectable of payment type (Lipsman, 2019).

Despite global retail market slowdown due to economic uncertainties in 2019, the global ecommerce market is expected to rise by 20.7% reaching \$3.535 trillion. However, the growth rate is expected to fall below 20% by 2020. The global growth is mainly driven by the growth in the Asia-Pacific region representing more than 64% of total ecommerce spending. While the fastest growing single ecommerce market was India, its nascent market only reached \$46.05 billion in 2019 (Lipsman, 2019).

Since 2013 China is number one ecommerce market in the world and the margin is widening further due to higher growth rate. In 2019 China's ecommerce generated nearly twice as much sales as the following five countries combined, accounting for 54.7% of the global ecommerce market and totalling to \$1.935 trillion. Furthermore, based on forecasts in 2023 China will solely account for nearly 63% of the world's ecommerce market and will generate over \$4 trillion sales (Ibid). For more details, please see the graphs below.



Retail Ecommerce Sales in China, 2017-2023 in trillions, % change and % of total retail sales \$4.096



The power of buyers

Buyers in the online retail are the end consumers irrespectively whether it is a single consumer or a shop, therefore identically to the traditional retail, there are many small buyers who have little financial impact. However, the online retail gives the opportunity for the buyers to become sellers themselves by backward integration: a small buyer can purchase many products and resell to other consumers (C2C). The number of buyers is largely affected by the internet penetration, access to devices and technological literacy.

The digital nature of the transaction means that consumers can easily shop around for the best deals either by searching themselves or by using price comparison apps, websites (Marketline, 2018). Furthermore, Chinese consumers are still price sensitive either due to lower income or just want to get the best deals (Wang, 2012) and since most of the online retailers offer undifferentiated goods meaning that switching cost for the consumer is (are) virtually non-existing resulting in high tendency to switch. On the other hand, the transaction safety (Marketline, 2018) and preferences for market places instead of single shops (Wang, 2012), increases consumer loyalty for secure and large online market place retailers. Given the analysis above, the buyer power is moderate since tendency to switch is negated by the rising number of buyers (Marketline, 2018).

The power of suppliers

Suppliers to the online retail are ICT system developers, logistic services, manufacturers and packaging material suppliers (Ibid). ICT refers to applications, networking components and systems that allow people to interact online (Rouse, 2019). Secure and reliable ICT system is necessary for

all online retailers, ICT suppliers tend to be large themselves especially the ones who are able to meet large e-tailers needs, therefore exhibit high bargaining power. Similarly, large manufacturers of differentiated goods such as consumer electronics, suppliers of strong brands and specialist products also have high power. Due to small costs of operating of opening e-shop or using platform also increases the power of even of small suppliers. However, the supplier power is negated as most of the retailers are large themselves and sell multiple products from multiple manufacturers, have ITC systems in place and have the buyer "traffic" (Marketline, 2018).

The quality and costs of logistics services are also crucial for online retail as delays, high costs, missing products negatively affect sales, especially in China due to the loss of trust. Furthermore, the delivery service suppliers are usually large and well diversified such as SF Express and thus has strong say in bargaining. Additionally, since the packaging comprises most of the overheads, suppliers of packaging material are also important for the company's bottom line. On the other hand, large online retailers tend to integrate further and have their own capable of fulfilling large volume of order. The opposing pressures drive the supplier's power to be moderate in China (Ibid).

The treat of substitution

The only substitutes for online retail are traditional brick-and-mortar shopping and catalogue retail. Most of the consumers in China still prefer traditional shopping due to the ability to try the product. One of the largest downsides of online retailing is the delivery time, since consumers have to wait for the product instead of getting right away. On the other hand, the convenience of shopping from home and home delivery negates some of the effect. In addition, online retailers offer the lower price than traditional retail which is the most appealing to consumers (Marketline, 2018).

The fake goods are a huge problem for online retailers in China, well-known for its counterfeit (Bogy, 2019) pushing consumers toward traditional retailing (Marketline, 2018). However, during the last years, stricter laws were implemented and many of the online retailers have "purged the fakes out" and increased consumer trust (Shira, D. & Associates, 2014). Moreover, more and more consumers are buying online and based on the projections (see the graph above) in 2021 the online retail will surpass the traditional retail, considering the projections, the threat of substitution is currently moderate and in the near future will be low.

The threat of new entry

The new entrants to the industry can be either the existing retailers diversifying to include online business or the brand-new companies. Since entering online retail requires low capital investment compared to the traditional retail, the entry barrier is low. Furthermore, the new entrant mainly needs to invest only into ITC systems and logistics facilities, the latter can be bypassed by using third-party services. As consumer habits are changing, many large traditional stores have diversified to online retail, thus creating appealing multichannel experience and keeping their revenues. Whereas small players can enter the market by using platforms (where many small retailers are hosted) such as Taobao. Moreover, the nature of the sector, and relaxed government regulations allow international online retailers to enter the market without having physical presence in the country. However, high customs, shipping costs and longer delivery time may act in the local incumbent's favour (Marketline, 2018).

China's high ICT readiness and demanding consumers push (nielsen.com, 2018) large online retailers to invest in R&D, especially in the development of mobile apps with AI that create superior customer experience (Marketline, 2018) as for the 99% of the internet mobile phones are the primary mean (ref). The crucial to the online retail, logistics sector quite well developed in China with particular edge in international shipping meaning that online retailer's performance will not be hindered by the latter. Even though, the existence of strong online retailers in the market may deter new entrants, the rapidly growing market, the market size and mentioned above favourable conditions mean that the possibility of new entry is strong (Marketline, 2018).

Competitive rivalry

The majority of the online retailers sell undifferentiated products, and most of the major online retailers offer the same brands and products on their platform marketplaces, highly preferred by the Chinese consumers who like simple one step buys. The easiness to compare prices allows consumers to make purchases based on price alone. Larger retailers who have better economies of scale are more likely to engage in aggressive pricing and extend the core offering to include free shipping, for example, and therefore outcompete smaller players. However, specialized retailers, high end retailers offering well-known brands and niche retailers face competition mainly due to the share number of firms in the market. Furthermore, since many consumers worry about the transaction security and counterfeit goods, they tend to be loyal to well-known retailers (Marketline,

2018). Also, in China people tend to buy from the retailers recommended by their families, friends and other interest circles, thus the good customer service and stable quality is a key in keeping customers (nielsen.com, 2018). Due to the low cost of entry and exit, the competitive environment in this segment is very dynamic as many firms can easily enter and gain significant market share like Pinduoduo (discussed below) or exit.

Chinese ecommerce sector is dominated by 3 large companies: Alibaba, JD.com, and Pinduoduo, accounting for 55.9%, 16.7% and 7.3% respectively (Blazyte, 2019), together they are responsible for nearly 80% of the total sales in China. Even though, they compete for the same market share, the consumer demographics differ significantly between the companies. Alibaba mainly sells to Tier 1 and Tier 2 cities, while JD.com and Pinduoduo mainly to Tier 2 and lower Tier cities (Graziani, 2018), (JD.com, 2019). This distribution can be explained by the differences in their business model and/or the strengths.

Alibaba is the undisputed leader in Chinese online retail both in terms of the GVM and MAUs, however, in contrast to JD.com it is not a traditional online retailer, as mentioned in the company description, Alibaba does not keep the inventory, but rather provides the trading platforms that connect B2B, B2C and C2C in China and around the world (the main platforms will be discussed in more detail in the company analysis section). What separates Alibaba from the rest of the competitors is the number of different platforms it operates, Alibaba has platforms designed for second hand clothes, group purchase, high end brands. It is the only one out of top 3 players in the industry to cover all the ecommerce and also offers delivery services. So, the competitors compete with Alibaba's separate divisions, for example, JD.com competes with Tmall (B2C), while Pinduoduo competes with JuHuaSuan. Taobao, Alibaba's C2C platform mostly connecting small businesses to consumers (the best equivalent is eBay) is the most popular marketplace in China, with 540.27 million MAUs and install penetration rate of 52.2% (Leung, 2019), and is number one platform in the world in terms of GMV sales accounting for 16% of the total global market (Clement, 2019). Furthermore, close cooperation with AntFinancial's (affiliate in which Alibaba has not controlling stake), payment system AliPay which is the leader in online payments both globally and in China, has helped Alibaba to gain consumer trust in the security of their transactions (Jao, 2019). Alibaba's key weakness is its logistics and delivery system, in attempt to strengthen its logistics services, in 2019 Alibaba has invested additional \$3.3 billion in its Cainiao Network, since

the affiliate is unable to cope with the volume of parcels, Alibaba has to rely on third-party logistics services to fulfil its orders and is increasing its ownership stakes in the largest delivery firms in China (Singh, 2019).

JD.com is the largest traditional online retailer in China, its business model closely resembles Amazon's ecommerce model. JD.com sells huge range of products from groceries to consumer electronics including video and audio products and books. The company sources merchandise from local and global manufacturers, distributors, publishers, has its own brand with more than 30 original products and it has a platform to where companies can sell directly to consumers (JD.com, AboutsUS, 2019). JD.com is a technology-driven company backed by the Tencent (holding 21% stake) - the second most valuable company and number 1 messaging app and IT service provider in China, and the world's largest gaming company (Rutherford, 2017). Furthermore, JD.com is cooperating with Tencent's mobile payment system Tenpay to secure online transactions (Jao, 2019). The key weakness of the company is its low growth in MAUs, as compared to Alibaba and Pinduoduo, JD.com has the least and the lowest install penetration rate (Leung, 2019).

What significantly distinguishes JD.com from other online retailers in China, including Alibaba, is its logistic system. The company has around 500 warehouses located all around the country in more than 50 cities and close to 7000 delivery and pick up stations. To put it in perspective, the company has the capability to deliver goods to over 1 billion people within 24h and can reach 99% of the population. Furthermore, JD.com is well-known for its superior service as 95% of the time the parcel will be delivered by a driver wearing JD.com uniform in a braded vehicle. The company has already sold the access to its extensive network to the corporations such as Unilever (Smith, 2018).

The fastest growing app in China's history, Pinduoduo is a good example, that the existence of large and well-established players in the market does not mean that there is no room. In fact, Pinduoduo has managed to reach its current market position within three years, by growing nearly 10 times faster than the whole industry (Zhang, 2019). The success of Pinduoduo rests on the different business model; any Chinese consumer likes a good bargain, especially if it is a daily household product or disposable good and Pinduoduo leverages that by providing a platform where consumers connect via chat and create a group to purchase a specific product directly from the supplier, the larger the group the lower the price (Graziani, 2018). The consumers can get discounts so large that Alibaba's B2C marketplace Tmall looks expensive. However, one of the major Pinduoduo's weakness is that its product range is significantly lower than JD.com and Alibaba. Furthermore, Pinduoduo only operates in China. In response, Alibaba is not only lowering prices on Tmall, but also restructuring ecommerce social division JuHuaSuan an independent business to rival Pinduoduo (Zhang, 2019).

Taking into account that China's ecommerce market is the largest in the world, and that the rest of the online retailers account for the small market share and sells highly undifferentiated goods, the competitive rivalry among smaller players is moderate, thus giving the overall assessment of rivalry as moderate (Marketline, 2018).

On a global scale

Based on analysis above it seems that global ecommerce is dominated by Chinese companies, however, this is not the case, Amazon and eBay dominate in the US, Europe's markets the same way as Alibaba and JD.com dominate in China (Kaziukenas, 2017). Based on global rankings in terms of GMV, Alibaba has still the largest GMV, accounting for 29% (only includes Tmall and Taobao), Amazon 10%, JD.com 8%, eBay 3% (Clement, 2019). Furthermore, both companies have entered China's market well ahead of ecommerce boom, eBay entered China in 2002 and was the market leader with over 70% control of the market (at its peak 2003) and lost the dominance to Taobao in the middle of 2004, and Amazon, which entered in 2004 failed to gain any significant share. The failure of both companies is attributable to their inability to adapt to the market conditions and Chinese consumer's needs (Kaziukenas, 2017).

Amazon started as online bookstore in 1994, however, over the years it has become the leading ecommerce, payments, logistics, hardware, media and data storage giant that shock industries. At its core, Amazon is B2C ecommerce platform which sells vast array of merchandise, media and digital content, which accounts for nearly 90% of its revenue (Coresight Research, 2018). Amazon both provides the marketplace for third-party sellers and sells its own products such as Alexa, Kindle. Amazon Prime is essential to the company's business as it assures consumer loyalty. Consumers pay \$119 (in the US) a year to become Prime members and get the benefits of mostly free 2 day shipping, access to Prime Video, Music, e-books and various discounts on products sold in Amazon's ecosystem. Amazon Prime is available in the largest markets: the US, the UK, Japan,

France, Germany (Amazon, 2019). Even though, Amazon mostly relies on the third parties such as the US post to deliver its parcels, it has an extensive network of partly automated warehouses, distribution centres where packages are algorithmically optimized for efficiency and speed. Amazon also provides cloud computing services (Gershgorn, D.; Griswold, A. et al., 2017), its subsidiary is AWS the global leader with nearly 50% market share in public cloud computing (will be discussed in detail in the next section of 5forces) (Jones, 2020).

eBay is the marketplace that connects B2C and C2C. The company started in the late 90s as an auction house for collectors to trade with the main premise that something is only worth what others are willing to pay for it (Hsiao, 2019). However, due to the changes in the ecommerce market the company's strategy today is very similar to that of Amazon; it offers free delivery, nearly 90% of the goods sold are new and mostly from businesses. On the other hand, it remains one of the best marketplaces to find collectables, vintage and rare items. Even though, eBay is among the leaders in the top western markets, it is losing for other online retailers due to the difficulty in using search engines. The unique items are proven to be difficult to classify and consumers are switching to user-friendly marketplaces (Levy, 2019).

Industry key success factors

Based on the analysis above the key factors for succeeding in China's ecommerce are low price, platform marketplace, secure and user-friendly websites, good delivery time and range and consistent quality record. Even though the price is the most important attribute, the retailer offering the lowest price is not likely to be able to keep the customers if its services are poor due to the fact that the same products are being offered by competing firms with better track record at very similar price.

2.2.3. 5 Forces Analysis- Cloud Computing

Industry overview

Cloud computing industry is comprised of the three segments: Software as a Service (SaaS), Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) (Marketline, 2019). SaaS is a type of cloud computing where third-party provider hosts various applications and distributes them through the internet or lightweight applications (best example Gmail) to the users. IaaS is a type of cloud computing, where the cloud provider hosts virtualized computing resources such as database, storage, servers or networking hardware, in an on-premises data center and provides the client with the access over the internet (Wix website) (Rouse, 2019). In PaaS cloud computing model, the service provider gives the customer access to the cloud environment where the customer can develop, host and manage applications and it is essentially used as testing place (Jones, 2020).

In 2018, the global cloud computing industry has grown by 26.7% totalling to \$153.9 billion and is forecasted to reach 539.1 billion by the end of 2023. Between 2014 and 2018, the global cloud computing industry has experienced strong growth representing compound annual growth rate (CARG) of 30.4%, however it is forecasted that the growth rate will slow down in the future (see the fig below). The US alone accounts for more than 55% of the global industry, followed by Europe (23.4%) and Asia-Pacific (13.4%) (Marketline, 2019).



Global cloud computing industry value forecast: \$ billion, 2018-23

source: (Marketline, 2019)

SaaS is the largest segment representing 57.1% of the total revenues, while IaaS and PaaS account for 22.3% and 20.6% respectively. Due to its usefulness, endless application and customization possibilities both for small and large businesses, SaaS is expected to remain the leading segment. However, IaaS is the fastest growing segment and it is projected that the growth in cloud computing will be driven by the growth in IaaS and PaaS segments (Marketline, 2019).

In comparison, over 2018, China's cloud computing market grew by 39.2% reaching \$13.97 billion (Xinhua, 2019), it is projected that the market will continue to grow by 27.3% on average per year until 2023 and exceed \$42.3 billion. The fastest growing segment was IaaS, which grew by 86.1% almost twice as fast the global average totalling to 45%. The cloud computing market structure in

China differs from the global: in 2018, SaaS accounted for nearly 60% of the revenue, IaaS for 34.5% and PaaS for less than 6% (Jao, 2019).

The power of buyers

In cloud computing services, the buyers vary in size, from a single individual who seeks additional storage or wants to back up his computer to large corporations and government agencies seeking to store vast amount of data and need advanced services. While small buyers have no financial muscle, the large buyers such as multinational corporations exert tremendous bargaining power. Therefore, the contract size differs significantly, single individuals account for a very small share of the total market, where the majority of users are small and medium size companies (Marketline, 2019).

Since the companies in this industry usually charge the buyers according to their usage of service, the contracts are mostly short-term in a pay-as-you-go format, this allows the buyers to terminate the contract quickly without any additional cost, resulting in a switching costs being negligible. However, to better understand the customers companies collect a lot of data about the customer that needs to be stored, analysed and used constantly to effectively target their buyers. This makes the services, provided by the players in the industry, to be important for the functionality of their business, making the buyers to be dependent (Ibid).

Data security is one of the most important factors in cloud computing industry, meaning that buyers will use the trustworthy and reliable companies for the services, especially if the buyer is the government agency vulnerable to IT failure and needs to protect sensitive data. Because services in this industry are mostly undifferentiated the price competition is high, some service providers offer complex customized features or unique services to differentiate themselves. Taking all the factors into account, the buyer's power in this industry is moderate (Ibid).

The power of suppliers

There are four types of suppliers in the industry: employees, raw material suppliers, hardware and software suppliers. Due to the nature of the industry, the cloud computing services need to have highly educated and technologically skilled personnel to ensure reliable and progressive business. The required skill set is quite particular and workers with high expertise and knowledge are scarce, leaving companies to compete for the skilled individuals. However, large players with good reputation and financial means can attract these individuals to their companies, leaving smaller

players disadvantaged. On the other hand, this problem may be addressed with the new generation of graduates or if services become automated (Marketline, 2019).

Providers of raw materials such as plastic, glass, steel and silicon are key suppliers in the industry because these components are used to produce physical servers that house large data. Silicon is the most critical component as it is used to produce silicon wafers that are utilized by the microchips. The production of wafers is long, difficult and expensive process meaning that suppliers of wafers are highly specialized and there few large producers. This resembles oligopoly, as producers can pass fluctuating commodity costs to cloud service providers, that compete on low price (Ibid).

Since the player's ability to expand is linked to the hardware with certain specifications and the suppliers of these components are large companies such Dell, Lenovo offering high quality differentiated goods they exert large bargaining power over the cloud computing companies. Some of the players such as IBM have integrated backwards to reduce its reliance. On the other hand, software suppliers tend to integrate forward when complex software is necessary to provide cloud computing services to powerful computers, Microsoft is a good example of forward integration. Based on the analysis above the supplier's power is strong (Ibid).

The treat of substitution

The only alternative to the cloud computing services is to have traditional internal IT system. In some situations, the traditional IT systems are preferred, for example, a company has as severe security requirements and is unwilling to store data within shared centres or the information protection laws where the data centre is located are weak. However, this alternative is not cost effective as hardware wears off and needs to be replaced, also trained IT personnel needs to be hired. Furthermore, cloud computing services often offer more advanced products that traditional IT systems cannot provide and major capital expenditure costs are undertaken by the vendor, which in the long run saves the money, especially for large corporations, therefore threat of substitution is low (Marketline, 2019).

The threat of new entry

Industry's rapid growth during recent years has attracted many new players to the industry. Both the small and large companies can enter the industry, the small companies can enter by providing innovative solutions to the specific niche market, while large players have the means to offer wider service spectrum and larger computing power. In the high-tech cloud computing industry, the high

level of expertise is required, large companies fiercely compete for major byers thus deterring small new entrants who cannot compete against companies with strong financial positions (Marketline, 2019).

There is no common regulation in this industry, therefore it differs among the countries and depends on the type of buyers and services involved. The ability of the companies to expand may be hindered by restrictions on data flows between the countries and varied levels of IT infrastructure development meaning that data centres have to be located in a certain country. Furthermore, companies usually must comply with laws and regulations both in the country where data is stored and processed and in the country from which the client firm originates (Ibid).

The cloud computing industry is a subject to rapid technological changes that can change industry standards and erode business, as a result, larger players are actively looking to acquire small and innovative companies to get the technological knowledge and invest heavily in the R&D. However, as the importance of intellectual property increases and the industry is shifting to more complex services, small innovative players have the possibility to compete. Given the opposing forces the likelihood of the new entry is moderate (Ibid).

Competitive rivalry

Although there are many small players in the global industry who target the niche markets, the industry is dominated by 5 large firms: Amazon, Microsoft, Alibaba, Alphabet (google) and IBM accounting for over 75% of the word cloud computing businesses (Jones, 2020), meaning that competition is fierce. While the cloud computing industry is dominated the US companies, due to intercountry data transfer limitations, local companies can dominate a single country market, for example, Alibaba dominates China's market. Industry is consolidating fast as the large players are acquiring small innovative companies and integrating into their organization; thus, the small players can earn superior gains by either selling or merging their companies. In attempt to differentiate themselves, large companies are undertaking numerous initiatives (Marketline, 2019).

Some companies are specializing in a particular type of cloud computing, for example, Microsoft is number one provider of SaaS in the world with 17% market share, while the individual share of other four companies do not reach 6%. Whereas IaaS market is dominated by very large margin by Amazon accounting for nearly 50% of the total market. In fact, in 2018, Amazon had more than

three times higher market share than second place holder Microsoft (see the tables below). On the other hand, there is no dominance in PaaS segment due to complexity, there are 22 services that can be provided by the companies, yet only 10 companies can offer more than 10 different services while the majority just offer 1 multipurpose PaaS solution meaning that the new entrants can claim market dominance if they are capable of providing all 22 services (Jones, 2020).



The global nature of the industry means that rivalry regarding cost reduction is high. Due to the storage costs and regulations of international data flows, many companies have local data centres. Besides that, the secrecy and security are also important factors and tax havens countries such as Monaco, Luxemburg have the most secure servers per inhabitant in the world. Furthermore, the leading companies compete in security strength of their products as the security breach can damage the reputation and untimely destroy business since the products being offered are undifferentiated, therefore the competitive rivalry is strong (Marketline, 2019).

In China's market

As mentioned before, China's cloud computing industry differs from the global industry in terms of sector importance distribution. Despite rapid development, IT service sector is still nascent compared to that of the US, in some industries such as energy cloud computing penetration is only 10%. Furthermore, Chinese government sees cloud computing as an integral part for the development of the country's economy. Since 2010, government is investing over 1 billion yuan to the development and promotion of cloud computing (Yin, 2019) and state-owned enterprises account for majority spending. Also, since Chinese companies spend less than western counterparts and are more price sensitive (Brinda, M.; Shin, M., Wooley, K., 2019).



While the global industry is dominated by Amazon and Microsoft, China's market is dominated by Alibaba and Tencent (see the fig above). In 2018, Alibaba's market share in public IaaS stood at 43% well ahead of the Tencent's 11.2% (CIW, 2019). Market shares differ in overall cloud computing Alibaba still has 43%, while Tencent, Amazon and Baidu (Chinese equivalent to google) accounted for 17.4%, 9% and 8.7% respectively (Qu, 2019). Alibaba Cloud has been the market leader in the Asia Pacific region for 2 consecutive years in IaaS and IUS (Bloomberg, 2019) with market share of 19.6%, followed by Amazon (11%) and Microsoft (8%) (Gao, 2019).

The rivarly between Alibaba and Tencent pertains in more industries such as ecommerse, digital advertising, mobile payment. Tencent's market share in cloud computing has risen dramatically since 2016 when the company accounted for only 7.4% of the IaaS market. Even though Alibaba was the first mover to the industry, Tencent has a competitive advantage in certain segments such as providing services to the gaming and video streaming platforms (Yao, 2019).

Industry key success factors

Given the analysis above, the industry key success factors are trustworthiness, price and firm's ability to comply with regulations. Even though, the competition is mainly based on price, a bad record of safety or not compliance with laws and requirements means that the buyers will quickly move their business to the competitor who can assure safe storage and processing.

2.2.4 5 forces analysis- Movies and Entertainment

Industry overview

The movies and entertainment industry consist of distributors and producers of entertainment formats, namely movies and music. The industry can be divided into two broad segments movie box office, valued by revenues generated from annual admissions and the music and video segment, valued by revenues received from the sales of CDs, DVDs or paid to for downloadable movies and music. In 2018, China's movie and entertainment industry reached \$9.088 billion, the box office accounted for 93.4% of the total revenues, while music and video for 6.6%. China's box office, dominated by local firms (62% of the value) is the second largest in the world behind the US and represents 37% of the total industry value in Asia-Pacific region. Despite sharp drop in growth rate in 2015 (2.6%) attributable to frauds, subsidy cutbacks and weak currency, the growth recovered and is expected to grow by more than 10% per year until 2023 (see fig below) and surpass US box office (Marketline, 2019).



China movies & entertainment market value forecast: \$ million, 2018–2023

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The power of buyers

The buyers in movies and entertainment industry are cinemas and video and music distributors doing their business either online or offline. However, this industry exhibits tendency to vertically integrate, for example, Disney not only produce movies but also started to distribute them, whereas buyers are unlikely to backward integrate (Marketline, 2019). The size of buyers differs from small independent shops to multiplex cinema chains and large retailers. Though small buyers do not have any bargaining power, the large ones can have significant effect on players' performance. On the other hand, buyers generate revenues from products offered by players and are bound to purchase products that can attract large audiences. Since the only differentiation of the product is its quality there is no brand loyalty and buyers tend to switch based on trends, although some buyer may prefer particular actors or directors who attract larger audience, thus buyers are strongly influenced by the end consumer and must purchase films or music that cate to the demand. Given the opposing forces the buyer power is moderate (Ibid).

The power of suppliers

There are two three types of suppliers in this industry: suppliers of human capital, technical equipment and raw material. Among those, the highest bargaining power is held by the suppliers of human capital- actors, screenwriters, directors, singers, camera crew just to name a few. However, their power depends on their reputation and carrier, for example, a well-known Oscar winning actor has very high bargaining power while a starting actor will essentially have no power as there are plenty of substitutes. The strength of special equipment suppliers such as cameras is negated by the existence of close substitutes, furthermore, large players tend purchase many products in bulk and can reuse the equipment purchased. On the other hand, suppliers of extremely specific equipment, for example the live-motion-caption technology (J. Cameroon waited several years for it to make Avatar) have strong bargaining power over certain film production companies. The suppliers of raw materials such as materials for costumes have little power due to the available substitutes and the existence of CGI technology. Overall, the supplier power is moderate in this industry (Marketline, 2019).

The treat of substitution

Key substitutes in movie and music making segment are theatres, operas and other types of entertainment, however these forms of entertainment not only coexist but also may share the

audience. Distribution means, on the other hand, have strong threat of substitution due to the rise in online streaming services. For example, in music industry vinyl was replaced with cassette, the latter was replaced by CDs, that mostly have been replaced by downloadable music each time destroying production industries and changing distribution channels. Now downloadable music is being replaced with online streaming. Analogically with movie distribution, as the new formats offer distinct advantage in terms of storage place (both physical and digital).

The threat of new entry

The market is fairly fragmented with various sizes of players producing wide range of products. Although, producing blockbuster movies can require major upfront investments in terms actor and director salaries, editing, technical equipment, insurance that only the largest producers can afford, there are many smaller players in the market. Furthermore, the large budget does not guarantee a good-selling movie, for example Mortal Engines (2018) had production budget of more than \$100 million but made a loss of \$174.8 million, whereas Paranormal Activity (2007) had only \$15,000 budget and grossed profit over \$193 million worldwide. This example illustrates that even small production companies can successfully compete in this industry, however, the economies of scale are important in the market (Marketline, 2019).

Small players can successfully enter the market through showing their movies at film festivals such as Cannes, thus increasing the chances that their following moves will be bought by buyers. Even there are many small independent new entrants, the large-scale entry is highly unlikely. Furthermore, China has strict censorship on movie content that can be shown, it only allows movies that are classified as suitable for all age audiences, all other class movies are strictly inspected and edited. Additionally, movies that can be detrimental to the interests or dignity of the country are banned, meaning that players are limited in areas where they can succeed, especially for foreign players. Based on analysis above, there is moderate threat of new entrants (Ibid).

Competitive rivalry

There are many players in the market both large companies and small. However, the diverse audience means that there are many genres and content in which the firms can compete therefore the rivalry is limited resulting in moderate overall rivalry. The larger players in the market tend to consolidate through acquisitions and mergers, this can alter competitive landscape significantly

(Marketline, 2019). In addition, foreign film makers have to compete among themselves for a right to show their movies in China, as the country only allows 35 foreign movies per year to be shown. Making to the list can radically change the overall film performance because China's market accounts for nearly a quarter of revenues generated (Zeitchik, 2019).

China's market is dominated by local firms representing 62% of the total box office. The leading market players are usually large firms with a similar business model. Many large Chinese players are media conglomerates operating in many industries such as music, television and internet (Marketline, 2019) such as Hengdian World Studios, China Film Group Corporation (Kaiman, 2018), Baidu (Chinese version of google), Wanda (largest cinema multiplex in China), Tencent (Marketline, 2019). In terms of the box office sales, the best performers are China Film Group Corporation that produced "The Wandering Earth" (2019) and Chengdu Coco Cartoon that produced "Ne Zha" (2019), the combined box office in China reached over \$1.3 billion (Zeitchik, 2019) in the industry that is projected to reach over \$10 billion at the end of 2019 (Marketline, 2019).

What Alibaba does in this industry?

Alibaba has entered movie production business in 2014 by acquiring China Vision Media (Grazani, 2018), its movie "Dying to survive" (2018) has earned \$433 million and is the 8th all-time most grossing movie in China (statista.com, 2020). However, Alibaba's business in movie and entertainment business is not limited to film production, it also has online ticketing app TaoPiaoPiao and serves as a promotional partner with its online video streaming platform Youku Toudu , which also signed licencing agreement with Netflix in 2019 (Marketline, 2019). Both TiaoPiaoPiao and Youku Toudu have strong competitors in their markets. The main competitor for TiaoPiaoPiao is Maoyan (Tencent's ticketing app), while Youku Toudu rival and market leader is iQIYI, owned by Baidu (Frater, 2015). Furthermore, Alibaba pictures is also cooperating with Hollywood companies to create content that would be interesting for international audience (Woo, 2016).

Industry key success factors

Differently from industries discussed before, the are no specific factors that can directly translate into competitive advantage as factors such as large-scale production capacity not necessarily

translates to revenues. The success in the industry depends on firms' ability to produce content which will be liked by large audience.

3. FIRM ANALYSIS

3.1 Strategy Analysis

One of the key issues with digital conglomerates is that traditional theories such as Resource-Based-View developed by Barney (1991) and Knowledge-Based-View introduced by Grant (1996), is that they fail to capture all interdependencies among the firm. Barney (1991) states that right combination of resources gives a firm a sustained competitive advantage, yet the analytical framework deals with one resource at a time. While according to Grant (1996) the tacit, difficult to imitate knowledge that makes the industry leaders, however the knowledge required varies based on industry and the theory is vague in pinpointing how to create that knowledge. Therefore, in my analysis of a firm strategy I would like to use the combination of Christensen Theory of Network Externalities (2004) and the Aggregator Theory, proposed by Thompson (2015, 2017). Aggregator Theory can be seen as an extension of Theory of Network externalities, although theories have differences, they are similar in context of application.

3.2 Theory of Network Externalities

The network externality is defined as the change in benefit, that an agent receives from consuming a good when the number of consumers of the same good changes (ref from eco). The value which can be received by consumer can be twofold: autarky value, the value received from consuming a good even if there are no other users; and synchronization value, which is the additional benefit received from ability to interact with other users (Liebowitz, S.; Margolis E., 1997). The theory of Network Externalities only considers the synchronization value. In attempt to reconcile definition difference between this theory and traditional economics, Liebowitz and Margolis (1994), made a distinction between network effects (positive) and network externality (negative), thus network externality is then the owner of network effects fails to internalize them (Liebowitz, S.; Margolis E., 1997).

According the theory, network effects can be direct, such as increase in profit when more goods are sold and indirect "market mediated effects" such as lower prices of complementary goods due to the larger market. The internalization of these effects has different economic consequences. Indirect effects should not be internalized as they are pecuniary in nature and do not result in losses when
uninternalized, while they do inflict loses if internalized. What differentiates network effect and network externality is whether a firm is able to internalize the additional benefit for a user when other users join the network. Therefore, there is no limit to network size in case of network effects and all networks are too small (Liebowitz, S.; Margolis E., 1997).

Network effects, that increase value to the consumer when markets grow, impacts the network owner similarly as reaching economies of scale. If we assume that firms offer similar but not completely comparable networks, and that network effects can only be reached among comparable networks, the firm with larger market share will eventually become natural monopoly, as the advantage will be widening forever. However, the network effects are not a sufficient condition for monopoly-type results, if average production costs exhibit increasing or constant returns to scale or if no production costs exist, when the firm will become monopoly. If, on the other hand, the production costs exhibit decreasing returns to scale, the network effects will be overwhelmed by production costs and competition between incompatible networks will be possible (Liebowitz, S.; Margolis E., 1997).

One should be careful, however when using Network theory, if used without constrains theory leads to premature and inappropriate conclusions. Network value functions do have the limit and if size of the network can reach a point, where there is no additional benefit from larger network the competing networks can coexist. This is further supported by the argument that consumers are heterogeneous and the derived value from additional user may not be symmetrical (Ibid).

3.3 Aggregator Theory

In a traditional economic theory, the value chain can be subdivided into three parts: suppliers, distributors and consumers. In order to make superior profits, the firm has to either gain horizontal monopoly in one part or be able to integrate two parts in such a way that delivering vertical solution provides a competitive advantage. The era of digitalization has changed this, in presence of zero distribution costs for digital goods has eroded competitive advantage of integration with suppliers and zero transaction costs allows distributers to forward integrate with consumers at a scale. The consumers are now priority since the suppliers can be commoditized, thus the most important factor to determine the success of a digital company is the customer experience. Therefore, the companies that are able to provide superior customer experience will create a vicious cycle where customer experience brings new customers, who in turn bring new suppliers and the existence of more

suppliers brings new customers and this results in winner-take-all effects (Thompson, 2015). These companies are called aggregators, as they have managed to shift value from scarce resources distribution control to the abundant resource demand control (Thompson, 2017).

According to the theory, all aggregators have the following characteristics: direct relationship with users such as account-based or regular usage based; they have zero marginal costs for serving users, meaning that cost of goods sold (COGS) (can have high fixed costs), distribution costs and payment transaction costs are zero; and lastly they operate demand-driven multi-sided networks with decreasing user acquisition costs, meaning that once critical consumer mass has been reached the vicious cycle will begin and the cost of acquiring new consumer will decrease. This means that as the number of users and suppliers increase, it becomes very difficult for competitors to lure away users. If a company lacks any of these characteristics it can still be successful, but it will not be an aggregator (Thompson, 2017).

Based on their relationship with suppliers, aggregators can be classified into four groups: level 1, level 2, level 3 and super aggregator. Level 1 aggregators own the supply and their power is derived from the buyer power; thus, they take longer to build, and their power is unsteady in the short-run. Level 2 aggregator does not own the supply but incurs costs in bringing new suppliers, which limits the growth rate of a company. Level 3 aggregators neither own supply nor incur costs in acquiring or onboarding them. Super aggregators operate three-sided platforms with users, suppliers and advertisers and incur zero marginal costs on all of them (Thompson, 2017).

3.4 Assessment of Alibaba's Strategy

Based frameworks above, the company can have sustained competitive advantage and enjoy monopoly type effects, thus earn superior returns if it satisfies two conditions. First, it is able to capture the value of a user when the other users join the network, second, it is at least level 3 aggregator meaning that it incurs zero marginal costs in acquiring the supplier.

Since, one can easily argue that if firms enjoy network effects, they are also aggregators, I will start with Alibaba's cloud computing segment to show that it is not the case. Based on the industry analysis one of the key factors in succeeding in cloud computing business is trustworthiness. Thus, when the number of users increases, it increases the trust in services and thus brings the new customers and revenues, therefore a company is able to capture the value. Alibaba has a direct

relationship with the customer through service payment contracts and incurs zero marginal costs since servers and data centres are in place. However, the third condition is not satisfied because competition in cloud computing industry is fierce (see section pvz 2.6), especially for large multinational clients, therefore new customer acquisition costs are increasing as the number of users increases.

In contrast, Alibaba's movies and entertainment segment, except for Youku Toudu, does not exhibit network effects since value received by a consumer is autarky (we can enjoy movie alone). Youku Toudou, on the other hand, results in network effects since more users mean more content to watch and to comment on. Furthermore, it ads generate revenue, thus a company also captures value of the consumer. Youku Toudou has direct relationship with its monthly users, incurs zero marginal costs in serving extra users and user acquisition costs are diminishing as the number of users increase, therefore it is an aggregator. Even though Alibaba pictures produces some content to Youkou, the majority of its movies and TV series come from licencing fees, thus the more content it offers, the more users it can attract, this consequentially leads to increasing expenditure on content, therefore it is Level 1 aggregator. The type of aggregator explains why Youku Toudou has strong rivalry and why companies in this market compete to for consumers (to reach a critical mass and become the dominant platform) to the extent that they incur losses.

Lastly, I would like to analyse ecommerce segment. On its all ecommerce platforms Alibaba enjoys network effects since it captures part of the additional value of the new users joining the network. Through in its B2B and B2C platforms Alibaba captures the network effects since the more consumers results in more suppliers who pay Alibaba to be listed. The same can be said about its C2C platform, however, TaoBao not only exhibits network effects on its own, it also provides extra value to the other marketplaces since it redirects part of the flow to them. Furthermore, since Alibaba operates all possible platform types in ecommerce, it addresses the issue of consumer heterogeneity and shows that network effects can also be reached between not fully comparable networks. Even though TaoBao and Tmall compete between themselves for larger share in the market, the existence of one increases the value received by the consumer in other not only in terms of sellers but also in terms of trust.

Analogically to the segment analysis above, we see that ecommerce platforms have direct relationship with both users and suppliers, they incur no additional costs for serving additional user

or onboarding supplier, they have zero distribution costs (because the consumer and/or supplier pays for it), nor payment transaction cost. The ecommerce platform is by definition demand-driven multi-sided network, and it has decreasing user acquisition costs (once network becomes big enough), therefore it is an aggregator. Furthermore, since Alibaba ecommerce platforms do not own the supply, nor incur costs in attracting and hosting new suppliers it is Level 3 aggregator, however the question is whether it is a super aggregator.

To assess whether Alibaba's ecommerce is a super aggregator, let's look at the real-life example. Probably the most impressive example is the "Singles' day" (also known as 11/11) shopping event, created in 2009 by Alibaba to promote sales in the same way as Black Friday and Cyber Monday in the United states (Klebnikov, 2019). During this year's event, within 24h Alibaba's main trading platforms Tmall, Taobao and Aliexpress managed to sell merchandise worth \$38.4 billion, while Cainiao Network processed over 1.3 billion shipping orders (Kaplan, 2019). To put this in perspective, this year's combined gross merchandise value (GMV) of Prime, Thanks Giving, Black Friday and Cyber Monday reached \$27.2 billion (Kaplan, 2019), (McCormick, 2019). More than 178 000 Chinese brands and more than 22 000 foreign companies from nearly 80 countries have participated in the event (Kaplan, 2019). Many American brands such as Apple have received preorders exceeding \$14 million (Singh, 2019), while in total 299 brands have reached over \$14.3 million in GMV (Kaplan, 2019). So, let's see how Alibaba leverages all its business areas to achieve such impressive results.

All of us like discounts but Chinese consumer likes a good bargain so much that he would more likely to purchase a discounted good that costs \$300 with the initial price of \$600 than a good that costs \$80 with the initial value of \$100, as it offers better value for money (Zhang, 2018). Most of the companies operating in China know this and anticipate that the consumers will buy more high-value-added products during the sales, they start advertising future discounts in their listings on Alibaba's platforms well ahead. During this year's event nearly all strong brands also have ordered livestreaming, and customized adds from Alibaba.

Let's assume that I was looking for a new computer on Tmall few months prior the "Singles day" yet have not found what I like or can afford. If any computer distributor has ordered the targeted app, any time I log on to any of Alibaba's apps or platforms such TaoPiaoPiao because I want to see a movie or Youku Toudu because I want to watch something online, I will see an add referencing future discounts on computers offered by distributor who ordered the add. Furthermore, if I find

something, I like I can pre-order before event even starts so I can be sure that I get the item with discounted price. Whereas if my search history does not fall into any category of ordered targeted apps, I will see the general event add and the invitation to look around.

Based on analysis above, Alibaba's ecommerce can be seen as a multi-sided platform which connects suppliers, consumers and advertisers, as its advertisers are also its suppliers. Since Alibaba collects and stores all sales and customer search information (not against the law because it is crucial for business) in its own databases and also has the product listings with anticipated discount, by using its own AI applications it can target any individual consumer, in doing so it incurs zero marginal costs on acquiring advertisers and making advertisements, therefore it is a super aggregator.

3.5 Conclusion

Based on country analysis, it may seem that Alibaba's success is due to the favourable governmental policies that pose restraints on foreign firms thus essentially eliminating competition. However, we have seen that the global leaders such as Amazon and eBay have failed in China's market not because of the government. Furthermore, all local companies play according to the rules such as overseeing every online video content to make sure that it does comply with regulations. Even if the government helped Alibaba to develop in the early stages, the first mover advantage should have been competed away already. However, it is not the case, as company stays in the leader position and market share change can also be attributable to the new digital users in rural areas. By looking at the strategy analysis, we can see that indeed the superior performance comes from the good strategy. Furthermore, Alibaba has sustained competitive advantage and enjoy monopoly type effects because it not only captures the network effects it also a super aggregator in key area of operations.

By connecting all business segments into one ecosystem, Alibaba makes money on every single step; it charges annual fees for listing (that can be fully refunded if sales exceed a certain amount per year and seller has higher than 4.6 rating). The company also takes 2-5% commission fee on the final sale value. This charging system ensures that Alibaba generates cash even if a seller does not sell anything and creates incentives for companies to sell good quality goods with excellent customer service. Furthermore, Alibaba charges sellers for promotion, advertisements and the use of Cainiao Network for shipping (Tmall.com, 2015).

4. FINANCIAL ANALYSIS

So far, I have analysed and evaluated the environment and business strategy of Alibaba, however, even the best business models can fail if the company's financial situation is in jeopardy. Therefore, in this section I would like to analyse the financial health of Alibaba.

4.1 Quality of Financial Statements

Instead of annual reports the company provides quarterly reports followed by the whole year report. The financial data is reported according to the Generally Accepted Accounting Principles (GAAP); however, the company also reports non-GAAP measures: EBITDA and adjusted EBITDA. Alibaba reports adjusted EBITDA to show underlying performance because the company not only operates over many subsidiaries but also is expanding in terms of services and firms it hosts. Even though the organization of the reports is rather strange and difficult to find, I believe that reports are reliable. In the first quarter of 2019 Alibaba adopted ASU 2016-01, according to the new rule " the consolidation of the investee are required to be measured at fair value, with subsequent changes in fair value recognized in the income statement" (Alibaba Group, 2019). Due to this change, I will expect some irregularities in 2019 results.

4.2 Analytical Financial Statements

Since financial statements are influenced by the accounting policies, analytical income statements are prepared to separate operating accounting items from financial. Analytical statements better reflect economic value, furthermore analytical incomes statement feature non-GAAP accounting measures such as EBIT, EBITDA and also include NOPAT, which measures how much the company should have earned if it had no debt or income from acquired companies, thus better shows its profitability. Analytical Income Statement and Balance Sheet are given below and obtained from original Alibaba's statements (See Appendix 2-3).

4.3 Analytical Income Statement for years 2015-2019.

All values in the statements are given in millions Chinese yen (RMB). Alibaba's accounting year ends on the 31rst of March, thus results from 2015 are results from March the 31rst, 2014 to March the 31rst, 2015.

	2015	2016	2017	2018	2019
Revenue	76204	101143	158273	250266	376844
Cost of revenue	-23834	-34355	-59483	-107044	-206929
Gross Profit	52370	66788	98790	143222	169915
Product development expenses	-10658	-13788	-17060	-22754	-37435
Sales and marketing expenses	-8513	-11307	-16314	-27299	-39780
General and administrative exp.	-7800	-9205	-12239	-16241	-24889
EBITDA	25399	32488	53177	76928	67811
Amortization of intangible assets	-2089	-2931	-5,122	-7120	-10727
Impairment of goodwill, intangible assets	-175	-455	0	-494	0
EBIT	23135	29102	48055	69314	57084
estimated tax on EBIT	4592	3018	11028	12564	9820
NOPAT	18543	26084	37027	56750	47264
financial income (expenses) net	6705	50308	5888	26929	38916
net not op. other income	2486	2058	6086	4160	221
total aditional income	9191	52366	11974	31089	39137
tax on tot. aditional income	1824	5431	2748	5635	6733
tot. aditional income after tax	7367	46935	9226	25454	32404
Share of results of equity investees	-1590	-1730	-5027	-20792	566
Net income	24320	71289	41226	61412	80234
effective tax rate	19.85%	10.37%	22.95%	18.13%	17.20%

4.4 Analytical Balance Sheet 2015-2019

Classification of Income Statement items must match the classification of Balance Sheet items; therefore, the *other liabilities* item is classified as interest bearing financial liabilities to match the *other income* in the Income Statement. All values in the statements are given in millions Chinese yen (RMB). Alibaba's accounting year ends on the 31rst of March, thus results from 2015 are results from March 31, 2014 to March 31, 2015. Operating Invested capital (IC) is calculated by subtracting liabilities from assets, whereas in calculating financial IC financial assets are subtracted from financial liabilities. Since Alibaba has more financial assets than liabilities its Net Interest-Bearing Liabilities are negative.

	2015	2016	2017	2018	2019
Operating ASSETS					
Prepayments, receivables and other assets	12,978	17,028	29,060	43,228	58,590
Prepayments, receivables and other assets	4,085	6,007	8,051	16,897	28,018
Property and equipment, net	9,139	13,629	20,206	66,489	92,030
Land use rights	3,105	2,876	4,691	9,377	

Intangible assets	6,575	5,370	14,108	27,465	68,276
Goodwill	41,933	81,645	125,420	162,149	264,935
Total operating assets	77,815	126,555	201,536	325,605	511,849
OPERATING LIABILITIES					
Income tax payable	2,733	2,790	6,125	13,689	17,685
Accrued expenses, accounts payable and other liabilities	19,834	27,334	47,186	81,165	117,711
Merchant deposits	7,201	7,314	8,189	9,578	10,762
Deferred revenue and customer advances	7,914	10,297	15,052	22,297	30,795
Deferred revenue	445	418	641	993	1,467
Deferred tax liabilities	4,493	6,471	10,154	19,312	22,517
Total operating liabilities	42,620	54,624	87,347	147,034	200,937
Invested capital (operating)	35,195	71,931	114,189	178,571	310,912

	2015	2016	2017	2018	2019
FINANCIAL ASSETS					
Cash and cash equivalents	108,193	106,818	143,736	199,309	189,976
Short-term investments	14,148	4,700	3,011	6,086	3,262
Restricted cash and escrow receivables	2,297	1,346	2,655	3,417	8,518
Loan receivables	835	0	0	0	0
Investment securities	3,658	4,178	4,054	4,815	9,927
Investment in equity investees	33,877	91,461	120,368	139,700	84,454
Investment securities	14,611	29,392	31,452	38,192	157,090
Total Financial assets	177,619	237,895	305,276	391,519	453,227
FINANCIAL LIABILITIES					
Current bank borrowings	1,990	4,304	5,948	6,028	7,356
Current portion of unsecured notes	0	0	8,949	0	15,110
Escrow money payable	0	0	2,322	3,053	8,250
Non-current bank borrowings	1,609	1,871	30,959	34,153	35,427
Unsecured senior notes	48,994	51,596	45,876	85,372	0
Non-current unsecured senior notes	0	0	0	0	76,407
Other liabilities	2,150	2,166	1,290	2,045	6,187
Total Financial liabilities	54,743	59,937	95,344	130,651	148,737
NIBL	-14,683	-71,140	-66,196	-61,559	-114,514
Invested Capital Financing	-122,876	-177,958	-209,932	-260,868	-304,490
Total equity	158,071	249,889	324,121	439,439	615,402

4.5 Profitability analysis

Based on analytical statements, I have calculated several ratios used to measure the profitability of the company. From the table below we can see that profitability has declined over the period, with the steepest decline in 2019, however, as mentioned before this may be the result of a changed accounting rule. Overall, we can see the declining trend in terms of performance.

	2015	2016	2017	2018	2019
ROIC (EBIT/IC)	65.73%	40.46%	42.08%	38.82%	18.36%
PROFIT MARGIN	68.72%	66.03%	62.42%	57.23%	45.09%
EBITDA MARGIN	33.33%	32.12%	33.60%	30.74%	17.99%
EBIT MARGIN	30.36%	28.77%	30.36%	27.70%	15.15%
Turnover ratio, ATO	2.17	1.41	1.39	1.40	1.21
IC tied up in days	166	256	260	257	297
ROIC after tax (NOPAT/IC)	52.69%	36.26%	32.43%	31.78%	15.20%
EBIT MARGIN/profit margin	44.18%	43.57%	48.64%	48.40%	33.60%
ROE (after tax)	51.19%	43.98%	27.20%	32.35%	17.61%

From 2016 Alibaba reports revenue, EBITDA and income from its four segments, therefore, to get an insight of why its EBITDA margin has suddenly drop, I will look at the segments.

EBITDA margin	2016	2017	2018	2019
Company wise	32.1%	33.6%	30.7%	18.0%
Core commerce	62.9%	61.6%	53.3%	42.1%
Cloud computing	-41.5%	-7.1%	-6.0%	-4.7%
Digital media and entertainment	-45.6%	-44.4%	-42.5%	-65.6%
Innovation innitatives	-190.8%	-104.3%	-91.0%	-128.0%

From this table we can see that there are two reasons why Alibaba's EBITDA margin has dropped, first, its core commerce margin was decreasing over the period, which is normal given that the growth rate of the ecommerce market is decreasing both in China and globally, furthermore there is more competition in China's market (Pinduoduo was not fully developed in 2016). Second, Alibaba's secondary business areas have negative EBITDAs. Cloud computing margin is improving, the same cannot be said about the next two segments. However, Alibaba entered digital media and entertainment business recently and is still investing in creating infrastructure, for example, it signed licence agreement with Netflix in 2019 meaning that it has increased expenses, while revenue is not yet generated. Furthermore, the innovation and initiative segment is comprised

of many start-ups and it is not uncommon for a start-up to have negative EBITDA. On the other hand, at the current state the investors would be better off if the company disinfested units.

The following table illustrates EBITs of all segments as well as the unallocated EBIT, so we can see that positive operating profits of core commerce are offset by the other segments.

EBIT	2016	2017	2018	2019
Company wise	29102	48055	69314	57084
Core commerce	51153	74180	102743	109312
Cloud computing	-2605	-1681	-3085	-5508
Digital media and entertainment	-4112	-9882	-14140	-20046
Innovation innitatives	-7216	-6798	-6901	-11795
Unalocatted	-8118	-7764	-9303	-14879
Total loss generated form other busniness and unallocated	-22051	-26125	-33429	-52228
% tage of ecommerce	43%	35%	33%	48%

4.6 Growth analysis

The sustainable growth rate shows how at what rate a company can grow its revenues while maintaining its financial leverage (financial risk stays the same). Sustainable growth rate can be calculated by using formula below:

$$g = \left[ROIC + (ROIC - NBC) * \frac{NIBL}{E}\right] * (1 - PO)$$

, where NBC is net borrowing cost after tax, NIBL is net interest-bearing liabilities; and PO is dividend pay-out ratio. Since Alibaba does not pay any dividends, the pay-out ratio in equation above is 0 and the sustainable growth rate is equal to the return on equity (Petersen, C.; Plenborg, T; Kinserdal, F., 2017), namely:

$$g = \left[ROIC + (ROIC - NBC) * \frac{NIBL}{Equity}\right] = ROE$$

Alibaba's sustainable growth rate for the years 2015 - 2019:

	2015	2016	2017	2018	2019
Net Interesst bearing debt (NIBL)	-14,683	-71,140	-66,196	-61,559	-114,514
net financial expense	-6,705	-50,308	-5,888	-26,929	-38,916
Effective tax rate	19.85%	10.37%	22.95%	18.13%	17.20%
Borrowing cost before tax	45.67%	70.72%	8.89%	43.75%	33.98%

NBC after tax	36.60%	63.38%	6.85%	35.82%	28.14%
Total equity	158,071	249,889	324,121	439,439	615,402
NOPAT	18,543	26,084	37,027	56,750	47,264
Invested capital (operating)	35,195	71,931	114,189	178,571	310,912
ROIC after tax	52.69%	36.26%	32.43%	31.78%	15.20%
Sustainable revenue growth rate, g	51.19%	43.98%	27.20%	32.35%	17.61%

in comparison, the actual revenue growth rate in the same period is

Year	2015	2016	2017	2018	2019
Growth rate	45.14%	32.73%	56.48%	58.12%	50.58%

which is much higher during the last 3 years, therefore the question is whether that growth actually creates value? To answer this question, one can calculate the weighted average cost of capital (WACC) and calculate the Economic value added (EVA), also called the economic profit or above normal profit.

<u>WACC</u>

WACC is calculated by the following formula:

$$WACC = \frac{NIBL}{NIBL + MVE} * r_d * (1 - t) + \frac{MVE}{NIBL + MVE} * r_e$$

Where NINL is the market value of interest-bearing liabilities, MVE market value of equity, r_d interest rate on net interest-bearing liabilities, r_e shareholders required rate of return and t is the marginal tax rate (Petersen, C.; Plenborg, T; Kinserdal, F., 2017).

Alibaba pays its taxes in China where income tax can vary depending on how important the sector is to the Chinese economy, the highest corporate tax is 25%, while the lowest tax rate is 15% (ref), given that Alibaba's average effective tax rate is nearly 18% and the majority of its business no (is no) longer belongs to the supported industries (ecommerce + movies and entertainment), it is safe to assume that Alibaba's marginal tax rate is 25%.

Required return on equity and required return on debt

The required rate of return on equity will be calculated using Capital Asset Pricing Model (CAMP). According to the model:

$$r_E = r_f + \beta * (r_M - r_f), \quad where \quad \beta = \frac{Cov(r_M, r_{stock})}{Var(r_M)}$$

Where r_M is the expected return on market portfolio, r_f is the risk-free rate and β is a systematic risk measure, it shows how the stock price moves based on market movement. Based on calculations below, 1% increase or decrease in the monthly market return, will lead to corresponding increase or decrease of 2.27% in stock returns.

The market return is calculated from monthly S&P 500 index taken from Yahoo.finance.com, the data range 2014/09/01-2019/09/01, this frame was chosen to start when the first monthly return of Alibaba stock was available. Furthermore, since in 2015 was the mass share sell off, all the market indexes suffered losses therefore required return on equity for 2015 is negative and will be omitted in the calculations, thus the calculations of EVA will be from 2016. Beta is calculated by regression by using monthly Alibaba and S&P 500 returns for the same period. The risk-free rate is the 10year zero-coupon rate for the US bonds obtained from the Central European bank, reasons to the US bonds instead of China's are that that they are less risky, Alibaba's stock is trading on NYSE, and the beta is also calculated on S&P 500 index.

The required return on debt, will be calculated using values from the analytical Balance Sheet and Income Statement, using formula:

	2015	2016	2017	2018	2019	Avg 16-19
Market return	-2.65%	12.93%	16.19%	15.66%	4.24%	
Beta	2.27					
Risk-free	1.97%					
Required return on equity	<mark>-8.52%</mark>	26.85%	34.25%	33.05%	7.13%	25.32%
Required return on debt	5.46%	28.27%	2.80%	10.32%	12.78%	13.54%
NIBL	14,683	71,140	66,196	61,559	114,514	
Equity	158,071	249,889	324,121	439,439	615,402	
Marginal tax rate	25.00%					
WACC		25.60%	28.80%	29.94%	7.52%	22.96%

~ _	Net financial expenses
r_d –	NIBL

*calculations use book value instead of market value due to authors limitations in determining market value of negative debt, the author is well aware that the results can be very inaccurate.

EVA

Using calculations from above we can calculate EVA based on formula:

	2015	2016	2017	2018	2019
ROIC after tax	52.69%	36.26%	32.43%	31.78%	15.20%
WACC		25.60%	28.80%	29.94%	7.52%
spread		10.66%	3.63%	1.84%	7.69%
IC		71,931	114,189	178,571	310,912
EVA		7,671	4,143	3,285	23,898
Stock price in \$	83.24	79.03	107.83	183.54	182.45

 $EVA = (ROIC_{after tax} - WACC) * Invested capital$

Alibaba's EVA stays positive, however EVA's were decreasing until 2019, when the adaptation of a new rule was implemented. Overall, by expanding at such a rapid pace Alibaba still manages to generate positive economic value.

4.7 Liquidity analysis

Liquidity analysis is an important factor for valuing companies because lack of funds may restrict management's manoeuvre and limit the opportunities to exploit profitable investments or lead to dispose business units at significant discount. Furthermore, lack of funds may also increase financing costs and lead to the suspension of payments. Both short term (usually within a year) and long-term liquidity are defined as the firm's ability to meet its financial obligations within respective terms. Firm's liquidity can be analysed by calculating financial ratios. However, some of the major weaknesses are that they are based on historical data and are backward looking and that they are less useful without a proper benchmark. In case of Alibaba, the only firm that can be compared is Amazon, as the scopes of firms and business areas are similar, however they both differ in one key aspect, Amazon holds inventory while Alibaba does not, therefore their ratios will be different. For this reason, I will focus on ratio development over time.

4.7.1 Short-term liquidity

Most commonly used ratios measuring short-term liquidity risk are current ratio and quick ratio, though they are very similar, the quick ratio is more conservative as it only measures the most liquid assets, however, since the company does not have inventory and only the restricted cash and escrow these ratios will be very similar, thus I will only use current ratio:

 $Current\ ratio = \frac{current\ assets}{current\ liabilities}$,

If a company has current or quick ratio of less than 1 it has fewer current assets than current liabilities meaning that a company's ability to pay its short-term obligations is questionable. The development of Alibaba's current ratio:

	2015	2016	2017	2018	2019
current ratio	3.5821	2.57634	1.9464	1.89128	1.30146

We can see that the current ratio is above 1, therefore the company is able to meet its short-term financial obligations, however the ratio is quickly decreasing meaning that Alibaba has increased its financial risk over time. However, in comparison Amazon's current ratio in the same period varies from 1.12 to 1.01 (ref), which shows that the company is more stable but also riskier as well.

4.7.2 Solvency analysis

To assess Alibaba's solvency, I will use the following ratios: debt to equity, debt to assets and interest coverage ratio. Debt to equity shows the level of financial leverage company uses, if the ratio is rising the company has to pay higher interest expenses and in the long run it may increase the cost of raising more debt. Debt to assets ratio measures what percentage of firms' assets are being financed by debt, consequently the higher ratio indicates higher financial risk. Interest coverage ratio measures a firms' ability to cover its' interest expenses as they came due. The formulas used are presented below:

$$Debt \ to \ equity = \frac{Total \ debt}{Total \ equity}; \ Debt \ to \ assets = \frac{Total \ debt}{Total \ assets}$$
$$Interest \ coverage \ ratio = \frac{EBIT}{Interest \ expense}$$

(Petersen, C.; Plenborg, T; Kinserdal, F., 2017) .The following table summarizes Alibaba's ratio development over time.

	2015	2016	2017	2018	2019	Average
Debt to equity	0.62	0.46	0.56	0.63	0.57	0.57
Debt to assets	0.38	0.31	0.36	0.39	0.36	0.36
Interst coverage ratio	8.41	14.95	17.99	19.44	11.00	14.36

Since Alibaba operates in many industries using industry average as a benchmark will not provide much information, therefore more useful benchmark is the overall company average. From the table above we can see that Allibaba's current (2019) debt to equity and debt to assets ratios are the same

as the period average, therefore this level of leverage and debt financing is normal for the company. However, even though the company earns more than enough to cover its interests, the current (2019) interest coverage ratio is well below its own average and it shows a steep decline over the last year. This may indicate that in the future it might be difficult to cover interests, on the other hand, the ratio is not low enough to cause major concerns regarding its ability to pay.

4.8 Common size analysis and Indexing

4.8.1 Common size analysis

Common size analysis scales each Income statement item as percentage of revenue, by comparing different years we can see how the company is developing. From the table below we can see that from 2015 to 2019 Alibaba's gross profit has decreased significantly, this is attributable to increased competition in the market, while the rest of the expenses combined increased from 35% to just over 40% during the same period.

	2015	2016	2017	2018	2019
Revenue	100%	100%	100%	100%	100%
Cost of revenue	-31.28%	-33.97%	-37.58%	-42.77%	-54.91%
Gross Profit	68.72%	66.03%	62.42%	57.23%	45.09%
Product development expenses	-13.99%	-13.63%	-10.78%	-6.04%	-14.96%
Sales and marketing expenses	-11.17%	-11.18%	-10.31%	-10.91%	-15.90%
General and administrative expenses	-10.24%	-9.10%	-7.73%	-6.49%	-9.95%
EBITDA	33.33%	32.12%	33.60%	30.74%	27.10%
Amortization of intangible assets	-2.74%	-2.90%	-3.24%	-2.84%	-4.29%
Impairment of goodwill & intang. as.	-0.23%	-0.45%	0.00%	-0.20%	0.00%
EBIT	30.36%	28.77%	30.36%	27.70%	22.81%
estimated tax on EBIT	6.03%	2.98%	6.97%	5.02%	3.92%
NOPAT	24.33%	25.79%	23.39%	22.68%	18.89%

4.8.2 Indexing-trend analysis

Indexing analysis is used to compare how much each item has grown over the years, by taking 2015 as a reference year (see the table below), I can see that the cost of revenue has grown nearly two times faster than the revenue, while the rest of the items seem to grow in proportion. Therefore, the biggest challenge for Alibaba seems to control the cost of revenue.

	2015	2016	2017	2018	2019
Revenue	100%	133%	208%	328%	495%
Cost of revenue	100%	144%	250%	449%	868%

Gross Profit	100%	128%	189%	273%	324%
Product development expenses	100%	129%	160%	213%	351%
Sales and marketing expenses	100%	133%	192%	321%	467%
General and administrative expenses	100%	118%	157%	208%	319%
EBITDA	100%	128%	209%	303%	267%
Amortization of intangible assets	100%	140%	245%	341%	513%
Impairment of goodwill & intang. as.	100%	260%	0%	282%	0%
EBIT	100%	126%	208%	300%	247%
estimated tax on EBIT	100%	66%	240%	274%	214%
NOPAT	100%	141%	200%	306%	255%

5.1 FORECASTING

In this part, I will focus on developing forecast which later will be used to evaluate Alibaba. Before making forecast, I will need to estimate which value drivers are important and have significant impact on a firm's performance.

5.1 Value drivers

Traditional value drivers include revenue, EBITDA-margin, depreciation rate, tax rate, investments in working capital and investments in non-current assets. Based on all analysis in previous chapters, the well-being of Alibaba depends on the number of active users on its platforms, which translates that the most important factor driving performance is revenue. Furthermore, based on the financial analysis it EBITDA margin also contributes in determining the performance.

First of all, I would like to say that forecasting is a difficult task, especially with long time horizon and even experienced analysts given the same information can give different forecasts. In the following paragraphs expected estimates are given based on past performance.

5.1.1 Revenue growth

In the period of 2015-2019 Alibaba's revenue has growth at CAGR of 37.67%, which is higher than any of the industries in which it operates. Based on industry analyses the fastest growing industry is ecommerce, both in global and in China's market terms. Furthermore, China's market is driving global ecommerce market growth. Alibaba's revenue grew by more than 50% in 2019, while China's market grew 30.9% (corresponding year is 2018 due to Alibaba's year-end), which is nearly twice as fast. However, reasonably speaking a firm cannot grow faster than the industry

forever. In addition, China's ecommerce market is forecasted to grow only 18%, while the global ecommerce market by 14.9% in 2023. Therefore, I will assume that in terminal value (2030) Alibaba's growth will stabilize and will be close to the global market growth rate in 2023, that is 14.9% and I will work backward taking the global forecasted growth in 2022 and assigning it to Alibaba's growth in E10 (2029), global growth in 2021 to E9 (2028), and I will forecast that in 2027 Alibaba's growth rate will reach that of China's in 2023, that is 18% from then I will continue in the same manner until 2023 (E4) when I expect Alibaba to catch up with forecast for China in 2019, that is 27.3%. When in 2022 I believe that revenue will grow by 30% and during the closest E1, E2 I expect that the revenue will grow by 40% and 35% respectively (see table with forecasted values)

5.1.2 Tax rate

During the forecasted period I expect that the effective tax rate will be like the average effective tax rate during 2015-2016, that is 17.7%. Since the company undergoes many investments some of them will be subsidized, thus effectively lowering the 25% marginal tax. Furthermore, since during the period in stake Alibaba's effective tax rate varied from as low as 10.37% to as high as 22.95%, I believe that it is reasonable assumption.

5.1.3 WACC

I also assume that WACC will stay the same over the whole forecasted period and will be equal to the average WACC between 2016 and 2019, that is 22.96%. Reasons behind this assumption is that the future risk-free rate is not likely to deviate much from the current one, Alibaba maintains its capital structure, Chinese government is unlikely to increase taxes in the forecast future since it is concerned about growing economy. Furthermore, the beta was estimated by using 5-year data and is likely to remain stable.

5.1.4 EBITDA margin

Based on common size analysis, I expect that Alibaba's EBITDA margin will be the average of EBITDAs for the period 2015-2019 and will be equal to 29.56% of the revenue. Rationale behind choosing this value is that Alibaba's EBITDA margin is the most stable over time, therefore it is natural to believe that in the future it will do the same.

5.1.5. IC

The invested capital during the period grew at CAGR of 55%. However, if I forecasted that it would (will) continue to grow at the same rate, it would surpass revenue in 2025 which is quite unreasonable assumption, based on the fact that IC for Alibaba accounts for approximately 80% of

the revenue value during 2015-2019, therefore I have lowered the growth rate to keep the trend (see the Forecast summary table).

		,									
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	TV
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenue											
growth	40.00%	35.00%	30%	27.3%	24.3%	21.3%	19%	18%	17.1%	15.6%	14.9%
IC											
growth											
rate	55.00%	50.00%	45.00%	40.00%	35.00%	20.00%	20.00%	20.00%	10.00%	10.00%	10.00%

5.1.6 Forecast summary table

EBITDA margin	29.56%	stable
Amortization and Impairment as % of		
revenue	3.38%	stable
effective tax rate	17.70%	stable
WACC	22.96%	stable
IC	55%	stable

5.3. 10-Year Pro Forma Income statement

Tables below show the pro forma income statement for the next 10 years. All the calculated values look reasonable and not out of line, and we can see that even with lower revenue growth rate, NOPAT increases which is in line with historical data.

	E1	E2	E3	E4	E5	E6
year	2020	2021	2022	2023	2024	2025
Revenue	527582	712235	925906	1178677.97	1465096.71	1777162.31
EBITDA	155953	210537	273698	348417.21	433082.59	525329.18
Am. & imper.	17832	24074	31296	39839.32	49520.27	60068.0861
EBIT	138121	186463	242402	308577.89	383562.32	465261.09
tax on ebit	24447	33004	42905	54618.29	67890.53	82351.21
NOPAT	113673	153459	199497	253959.61	315671.79	382909.88

	E7	E8	E9	E10	TV
year	2026	2027	2028	2029	2030
Revenue	2114823	2495491	2884788	3334815	3831702
EBITDA	625142	737667	852743	985771	1132651
Am. & imper.	71481	84347.6	97505.8	112717	129512
EBIT	553661	653320	755237	873055	1003140

tax on ebit	97997.9	115638	133677	154531	177556
NOPAT	455663	537682	621560	718524	825584

6.1 VALUATION

Having done all the analysis in previous sections, I can finally evaluate the company and calculate the intrinsic value of the stock. There are many valuation models, but they fall into four large categories: present value approach, relative valuation (multiples), the asset-based approach and contingent claim valuation. The most popular among analysts are present value approach and relative valuation. However, multiples valuation is not suitable to evaluate Alibaba because it requires to compare similar companies in terms of industries, size and capital structure and as mentioned before Alibaba differs from its competitors. Therefore, I will choose the present value approach, which can be done either directly calculating the equity value or indirectly by first, calculating the enterprise value and subtracting the NIBL to arrive at the equity value. Since all present value models are derived from dividend discount model, they should give the same estimates. For this reason, I will use the EVA model because it is user friendly and its output is understandable (ref. knyga).

6.1.1 The EVA model

In the EVA model the first value is determined as the sum of initial capital and all present values of EVA's. The model can be either single stage if we know the exact date when the firm is supposed to finish its life, or a two-stage model which treats a firm as ongoing concern. Since Alibaba's aim is to live at least 102 years and forecasting such a long horizon even remotely precisely is impossible, I will use the two-stage model:

$$Enterprise \ value = IC_0 + \sum_{t=1}^n \frac{EVA_t}{(1 + WACC)^t} + \frac{EVA_{n+1}}{WACC - g} * \frac{1}{(1 + WACC)^n}$$

Where g is the expected growth rate in EVA. Based on the pro forma income statement and projected growth in IC, I will set up a model, the average value will of IC from 2018 and 2019, will be taken as initial capital to normalize NOPAT. ROIC is calculated by dividing NOPAT by IC (Petersen, C.; Plenborg, T; Kinserdal, F., 2017). The growth rate in EVA at terminal period is assumed to be 5%.

	E1	E2	E3	E4	E5	E6
--	----	----	----	----	----	----

	2020	2021	2022	2023	2024	2025
NOPAT	113673.5	153459.2	199496.9	253959.6	315671.8	382909.9
IC	244741.5	379349.3	569024.0	825084.8	1155118.7	1559410.2
ROIC	46.45%	40.45%	35.06%	30.78%	27.33%	24.55%
WACC	22.96%					
spread	23.49%	17.49%	12.10%	7.82%	4.37%	1.59%
EVA	26697.74	26845.02	24138.12	19859.18	13788.80	6106.60
PV of EVA	21712.54	17755.63	12984.10	8687.72	4905.77	1766.92
	E7	E8	E9	E10	TV	
	2026	2027	2028	2029	2030	
NOPAT	455662.8	537682.1	621560.5	718523.9	825583.9	
IC	1871292.3	2245550.7	2694660.9	2964127.0	3260539.7	
ROIC	24.35%	23.94%	23.07%	24.24%	25.32%	
WACC						
spread	1.39%	0.98%	0.11%	1.28%	2.36%	
EVA	6334.46	5292.56	661.15	9201.83	19487.65	
PV of EVA	1490.61	1012.87	102.90	1164.76	2006.12	

Sum PV of EVA	73589.94	
IC initial	244741.50	
Enterprise Value	318331.44	
NIBL	-114514.00	
Equity value	432845.44	million RMB
number of shares outstanding	2613	million
Share price	165.65	RMB
1 ADS=8 shares	185.53	\$

I have calculated that the price of one ordinary share is equal to 165.65 RMB, current RMB to USD exchange rate is 0.14, therefore price is \$23.2. But in the stock exchange ADS are being traded and according to Alibaba the price of 1ADS is equal to the price of 8 ordinary shares, thus the price of ADS=\$185.53, based on historical market returns, Alibaba's ADS were trading for \$182.45 on the 1rst of April in 2019 (ref yahoo finance). Therefore, since the intrinsic value of the stock is higher than the trading price, I would recommend buying Alibaba's ADS.

6.2 DISCUSSION

The findings of this thesis highly depend on assumptions in forecasting and interpretation of financial data. For example, the revenue growth forecasted can be considered pessimistic (is

pessimistic) and may not reflect the real future growth. In addition, long-term forecasts based on past data tend to be inaccurate since the smallest change in WACC or in growth rate can change the results dramatically. On the other hand, both China's and global ecommerce markets are expected to slow down and the internet penetration rate is moving towards advanced economies. Furthermore, since in calculating certain measures the book values instead of market values were used, the obtained results may not be reliable and distorted.

Even though the intrinsic value is higher than the value obtained in the market, whether to buy stock or to sell depends whether one believes that he is in the bull market or in the bear market. If you believe that we are living in the bull market when the stock should be a good investment, however if you believe that we are in the bear market or approaching to the bear market due to the rising tensions between the US and China, then it would be better not to invest in Alibaba despite its potential since situation can deteriorate rapidly.

The analysis could have been done differently, for example, instead of focusing on the main ecommerce segment and supplementing analysis with information about other segments, by equally focusing on all segments and deriving measures that incorporate all sectors. However, the theory is lacking on how to calculate the interdependencies between unsimilar industries and how the interdependencies can be translated into the profits. The lack of theory is understandable as we are only now starting to gauge the power of digital conglomerates by analysing their business models and potential. In addition, one could argue that company analysis without peer group may be not as reliable, however, these companies are called unicorns for a reason they all have unique business models and different approaches toward development. Therefore, comparing one to the other would be like comparing apples to oranges.

Furthermore, in this Thesis the power of Chinese government is neglected mainly to the M. Porter's view about the government as a six force, he acknowledges that government shapes competition by creating barriers for foreign companies to enter and operate in the market, however it is not the government that produces the successful firms. While this may hold true in Sweden or Denmark, it does not hold in China as companies are chosen to become national champions, industries protected and market developing firms are subsidized. Therefore, if China's focus changes to opening fully for the world or focus the economic growth on other sectors, companies may suffer. This may very well explain why Alibaba is doing poorly in the overseas markets.

6.3 CONCLUSION

To answer the research question "What is the fair theoretical value of Alibaba stock?" one should understand how to value the digital conglomerates, that operate in different industries all around the globe. The author has undertaken country, industry, strategy and financial analyses. However, due to the complexity of the firm country analysis was supplemented by global factors, whereas industry analysis of ecommerce and cloud computing was done on a global scale and supplemented by Chinese market factors. Alibaba's strategy was analysed by looking at interdependencies among its business units and showing that integrated, data-driven ecosystems can reinforce core business due to synergies and network effects. However, financial analysis has shown that despite competitive advantage and good financial position, the increasing competition is eroding profit margins.

Based on the analysis, 10-year forecast was made and fair theoretical value of the stock was calculated using EVA model, the results show that the fair value exceeded the market value of the stock on 1rst of April in 2019 by more than \$3, thus indicating that it is a good buy. However, since the forecast was made based on historical financial performance the results are indicative, and investor should choose based on his beliefs and preferences.

Appendix 1 ALIBABA MARKETS

Country	Year of entr y	Market share or position in the market	Issues/ Successes encountered
US	2014 (IPO)	<1%	Cultural distance & Strong established competitors, distrust towards Alibaba (counterfeit goods). (Balding, 2017)
China	1999	Cloud computing market share 47.3% (Chapel, 2019) Alibaba leads retail e- commerce sales in China holding 55.9% share of sales. (Blazyte, 2019)	Dominant on the Chinese market. Alibabas closest competitor JD.com is far behind in a second place with a 16.7% market share. (Gupta, 2019)
Brazil	2014	AliExpress is one of the most popular cross-border e- comerce platforms in Brazil (Huaxia, 2019) Alibaba Cloud, will be offering its services in Brazil. UOL Diveo a Brazilian cloud computing firm has been chosen as its channel partner and will be representing AliCloud in Brazil. (Mari, 2019)	Initial hurdles stemming from logistics and product authenticity – have since been overcome and rival Amazon in Brazil in terms of user traffic (Reuters, 2017)

India	2010	UCWeb mobile internet software technology and application services provider is purchased by Alibaba, UC Browser holds 40% of market share and is most popular web browser in India. Alibaba with Ant Financial own 40% of Paytm - India's largest mobile payments company. Through Paytm Alibaba gained control of mobile payment market that led to diversifying other investments in logistics, entertainment, media, e- commerce, web services, on- demand delivery and gaming. (Cbinsights, 2018)	Competition from Flipkart, Amazon. Due to lack of consumer base Alibaba is delaying entering Indian market as independent e-commerce business (Trefis Team, 2016). Indian Government has ordered a restriction on shipments from Chinese e- commerce platforms including AliExpress, that are exploiting country's regulation loopholes and selling goods marked as gifts to avoid customs duties. (Long, 2019)
Turkey	2016	In 2016 AliExpress was 5th with 3.03% market share, Competitor sahibinden.com is market leader with 13.43% (slideshare.net, 2016) Alibaba invested in Turkish online clothing company Trendyol. (Kynge, 2019)	n/a
Pakistan	2017	Daraz a Pakistan e-commerce retail company is acquired by Alibaba. (Business-standard.com, 2018) Among Pakistan websites Daraz.pk is ranked 14th in the country as of December 2019. (similarweb.com, 2019)	Alibaba fully acquired DARAZ group in 2018 (The Nation, 2018). Very low internet penetration (18%) is future challenge (Khan, 2018)
Israel	2017	R&D center	Entered through the acquisition of Visualead (Solomon, 2017)

Italy	2014	Alibaba Group Office	In 2016 AliExpress was one of the most downloaded apps (ecommercenews.eu, 2017)
Russia	2015	AliExpress was the most popular website In 2016 (Tretyak, 2017) Together, Alibaba and JD control over 65% of the Russian ecommerce market share (Egorova, 2015)	Chinese e-commerce retailers do not have to pay taxes or fees In Russia (Tretyak, 2017). Due to customs issues AliExpress had to suspend delivery of goods In 2017 (Tass, 2017)
Japan	2007	n/a	Rakuten and Amazon is Strong competitors in the market (Rotenberg, 2018), Alibaba Japan operates as a subsidiary of SoftBank (bloomberg.com, 2017). Alibaba is bringing its payment systems to Japanese market (asia.nikkei.com, 2017)
Korea	2015	n/a	Both Soft Bank and Alibaba has stakes in Korean e-commerce company Coupang, which has accumulated massive debt (theinvestor.co.kr, 2017)
Australia	2017 offic e laun ch	Alibaba is 3 rd largest website for Australian products. Largest is Amazon (23%), second eBay (13%), Alibaba (9%) (Australia Post, 2019)	Logistics is a key challenge in Australian market, Alibaba is planning to implement drone delivery system (Pocock, 2017)
Bangladesh	2018	 DARAZ group acquired by Alibaba. (The Daily Star, 2018) Daraz BD is number one shoping websites in Bangladesh with a wide selection of electronics, fashion and home appliances. (Hossain, 2019) 	n/a
Germany	2015	Alibaba Group Office	n/a

ASEAN Countries through Lazada acquisition	2016	Market leader in the Region (acommerce.asia, 2017)	Initial acquisition of Lazada in 2016, Alibaba has since increased their ownership stake from 51% to 83% (Russel, 2017). The Acquired company Lazada is the leading e- commerce firm in Thailand, granting Alibaba a leading position (Aseanup, 2018). Lazada faces competition form local players only in Indonesia market (acommerce.asia, 2017)
France	2015	Alibaba Group Office	
UK	2015	Alibaba Group Office In 2017 two data centres was opened by Alibaba in London. (Morrison, 2018) In 2018 two availability zones opened to expand Alibaba Cloud's presence in Europe. (Alibabagroup, 2018)	n/a
Netherlands	2016	Alibaba Group Office	n/a

Appendix 2 ALIBABA GROUP HOLDING LIMITED UNAUDITED CONSOLIDATED INCOME STATEMENTS

	Year ended March 31,							
	2019	2018	2017	2016	2015	2014		
		RMB (in millions, except per share data)						
Revenue	376,844	250,266	158,273	101,143	76,204	52,504		
Cost of revenue	(206,929)	(107,044)	(59,483)	(34,355)	(23,834)	(13,369)		

Product development expenses	(37,435)	(22,754)	(17,060)	(13,788)	(10,658)	(5,093)
Sales and marketing expenses	(39,780)	(27,299)	(16,314)	(11,307)	(8,513)	(4,545)
General and administrative expenses	(24,889)	(16,241)	(12,239)	(9,205)	(7,800)	(4,218)
Amortization of intangible assets	(10,727)	(7,120)	(5,122)	(2,931)	(2,089)	(315)
Impairment of goodwill (and intangible assets)		(494)		(455)	(175)	(44)
Income from operations	57,084	69,314	48,055	29,102	23,135	24,920
Interest and investment income, net	44,106	30,495	8,559	52,254	9,455	1,648
Interest expense	(5,190)	(3,566)	(2,671)	(1,946)	(2,750)	(2,195)
Other income, net	221	4,160	6,086	2,058	2,486	2,429
Income before income tax and share of results of equity investees	96,221	100,403	60,029	81,468	32,326	26,802
Income tax expenses	(16,553)	(18,199)	(13,776)	(8,449)	(6,416)	(3,196)
Share of results of equity investees	566	(20,792)	(5,027)	(1,730)	(1,590)	(203)
Net income	80,234	61,412	41,226	71,289	24,320	23,403
Net loss attributable to noncontrolling interests	7,652	2,681	2,449	171	(59)	(88)
Net income attributable to Alibaba Group Holding Limited	87,886	64,093	_	_	24,261	23,315
Accretion of Convertible Preference Shares					(15)	(31)

Dividends accrued on Convertible Preference Shares					(97)	(208)
Accretion of mezzanine equity	(286)	(108)		_	_	
Net income attributable to ordinary shareholders	87,600	63,985	43,675	71,460	24,149	23,076

Appendix 3 ALIBABA GROUP HOLDING LIMITED UNAUDITED CONSOLIDATED BALANCE SHEETS

	Year ended March 31,							
	2014	2015	2016	2017	2018	2019		
	RMB	RMB	RMB	RMB	RMB	RMB		
		(in millions)						
ASSETS								
Current assets:								
Cash and cash equivalents	33,045	108,193	106,818	143,736	199,309	189,976		
Short-term investments	10,587	14,148	4,700	3,011	6,086	3,262		
Restricted cash and escrow receivables	4,921	2,297	1,346	2,655	3,417	8,518		
Loan receivables	13,159	835						
Investment securities	1,442	3,658	4,178	4,054	4,815	9,927		

Prepayments, receivables and other assets	4,679	12,978	17,028	29,060	43,228	58,590
Total current assets	67,833	142,109	134,070	182,516	256,855	270,273
Investment in equity investees	17,666	33,877	91,461	120,368	139,700	84,454
Investment securities	3,023	14,611	29,392	31,452	38,192	157,090
Prepayments, receivables and other assets	2,087	4,085	6,007	8,051	16,897	28,018
Property and equipment, net	5,581	9,139	13,629	20,206	66,489	92,030
Land use rights	1,660	3,105	2,876	4,691	9,377	_
Intangible assets	1,906	6,575	5,370	14,108	27,465	68,276
Goodwill	11,793	41,933	81,645	125,420	162,149	264,935
Total assets	111,549	255,434	364,450	506,812	717,124	965,076
Liabilities, Mezzanine Equity and Shareholders' Equity						
Current liabilities:						
Current bank borrowings	1,100	1,990	4,304	5,948	6,028	7,356
Secured borrowings	9,264					
Current portion of unsecured notes				8,949		15,110
Income tax payable	1,267	2,733	2,790	6,125	13,689	17,685
Escrow money payable	2,659			2,322	3,053	8,250
Accrued expenses, accounts payable and other liabilities	11,887	19,834	27,334	47,186	81,165	117,711

Merchant deposits	4,711	7,201	7,314	8,189	9,578	10,762
Deferred revenue and customer advances	6,496	7,914	10,297	15,052	22,297	30,795
Total current liabilities	37,384	39,672	52,039	93,771	135,810	207,669
Deferred revenue	428	445	418	641	993	1,467
Deferred tax liabilities	2,136	4,493	6,471	10,154	19,312	22,517
Non-current bank borrowings	30,711	1,609	1,871	30,959	34,153	35,427
Unsecured senior notes		48,994	51,596	45,876	85,372	
Non-current unsecured senior notes	_	_	_			76,407
Other liabilities	72	2,150	2,166	1,290	2,045	6,187
Total liabilities	70,731	97,363	114,561	182,691	277,685	349,674
Commitments and contingencies						
MEZZANINE EQUITY:			350	2,992	3,001	6,819
Convertible Preference Shares	10,284					
Others	117	658				
Total mezzanine equity	10,401	658	350	2,992	3,001	6,819
ALIBABA GROUP HOLDING LIMITED SHAREHOLDERS' EQUITY:						

Ordinary shares, US\$0.000025 par value; 2,797,400,000 and 4,000,000,000 shares authorized; 2,226,810,660 and 2,495,499,036			1	1	1	1
2015, respectively	1	1				
Additional paid-in capital	27,043	117,142	132,206	164,585	186,764	231,783
Treasury shares at cost			-	(2,823)	(2,233)	
Restructuring reserve		(1,152)	(888)	(624)	(361)	(97)
Subscription receivables	(540)	(411)	(172)	(63)	(163)	(49)
Statutory reserves	2,474	2,715	3,244	4,080	4,378	5,068
Accumulated other comprehensive income	(823)	2,302	3,844	5,085	5,083	(2,335)
Retained earnings	1,183	24,842	78,752	108,558	172,353	257,886
Total Alibaba Group Holding Limited shareholders' equity	29,338	145,439	216,987	278,799	365,822	492,257
Noncontrolling interests	1,079	11,974	32,552	42,330	70,616	116,326
Total equity	30,417	157,413	249,539	321,129	436,438	608,583
Total liabilities, mezzanine equity and equity	111,549	255,434	364,450	506,812	717,124	965,076

Appendix 4 ALIBABA GROUP HOLDING LIMITED UNAUDITED CONSOLIDATED BALANCE SHEETS

	2016	2017	2018	2019			
	RMB (in millions)						
Core commerce							
Revenue	92,335	133,880	214,020	323,400			
EBITA	58,036	82,432	114,100	136,167			
Income	51,153	74,180	102,743	109,312			
Cloud computing							
Revenue	3,019	6,663	13,390	24,702			
EBITA	(1,252)	(476)	(799)	(1,158)			
Income	(2,605)	(1,681)	(3,085)	(5,508)			
Digital media and entertainment							
Revenue	3,972	14,733	19,564	24,077			
EBITA	(1,810)	(6,542)	(8,305)	(15,796)			
Income	(4,112)	(9,882)	(14,140)	(20,046)			
Innovation initiatives and others							
Revenue	1,817	2,997	3,292	4,665			
EBITA	(3,467)	(3,125)	(2,996)	(5,971)			
Income	(7,216)	(6,798)	(6,901)	(11,795)			

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