1. Describe Alibaba’s business model and explain the role of automation in enabling it. (15%).

Being one of the world’s biggest IPO, Alibaba strive to “foster the development of an open, coordinated, prosperous e-commerce ecosystem” (2). Thus, they are a global organization that allow products to be purchased online and transported to any part of the world. Some say Alibaba is similar to eBay’s online auctions model where they create a community of buyers and sellers and use action-style process to set sales price, however, although Alibaba’s core system is creating online purchasing platforms, they do not have a broker between purchasers and merchants. Instead, they let the sellers to set the price and negotiate with the buyers (<https://www.ncrypted.net/blog/how-does-alibaba-work-insights-into-business-model-and-revenue-analysis/>). For example, one of Alibaba’s biggest site, Taobao demonstrates this strategy. Taobao is the highest earning company under Alibaba with over 617 million monthly active users. However, instead of using similar business model like Ebay, Taobao is for small vendors. Furthermore, Taobao does not charge commission fees on transactions or even posting on the web, instead, the vendors can pay to place their product higher in the search results (https://www.ncrypted.net/blog/how-does-alibaba-work-insights-into-business-model-and-revenue-analysis/). Another big business under Alibaba is Tmall. Unlike Taobao, Tmall is for big, branded companies such as Gap and Apple. It targets China’s growing middle class (<https://www.investopedia.com/articles/investing/121714/how-does-alibaba-make-money-simple-guide.asp>). Unlike Taobao, Tmall charges the big companies a yearly membership fee (<https://www.investopedia.com/articles/investing/121714/how-does-alibaba-make-money-simple-guide.asp>). To correspond with Alibaba’s big e-commerce industry, Alibaba also has a online payment system similar to PayPal called Alipay. Customers using Taobao and Tmall can use Alipay to purchase their products. Lastly, Alibaba also has other services such as Youku and Tudou that are video streaming services. Hence, Alibaba focuses their business intensely on the online e-commerce business, like what their vision said, they want to make sure their platform “provided all the resources…that an online business would need to succeed” (2).

Alibaba invests in 7 research lab to focus on AI and machine learning (<https://www.forbes.com/sites/bernardmarr/2018/07/23/the-amazing-ways-chinese-tech-giant-alibaba-uses-artificial-intelligence-and-machine-learning/#4adb789f117a>)

* Tmall Smart Selection: This AI-powered algorithm backed by deep learning and natural language processing helps recommend products to shoppers and then communicates to the retailers to increase inventory to keep up with the demand.
* Dian Xiaomi: This AI-powered chatbot can understand more than[90 percent of customer’s queries](http://www.scmp.com/tech/innovation/article/2119359/alibaba-lets-ai-robots-and-drones-do-heavy-lifting-singles-day) according to Alibaba and serves more than 3.5 million users a day. The latest version of the chatbot can understand a customer’s emotion and can prioritize and alert human customer service agents to intervene.
* Robots to pack: drones to deliver: More than 200 robots in automated warehouses can process 1 million shipments each day. Once the robots received the orders on Singles' Day, they packaged and shipped the goods, and, in some cases, their efficiency allowed same-day shipment. Alibaba also used drones for some deliveries.

This helps Alibaba to make $25 billion in Singles’ Day in 2017 alone, which gives them a bigger scale.

<https://www.forbes.com/sites/bernardmarr/2018/07/23/the-amazing-ways-chinese-tech-giant-alibaba-uses-artificial-intelligence-and-machine-learning/#4adb789f117a>

In order to make sure they can control all the platforms and perform business more efficiently, Alibaba uses smart business, which means using machine learning to develop different algorithms to make important decisions. Specifically, Alibaba uses data from the markets to develop competitive strategies and sales efforts, which allow them to learn more about customer habits and uncover developing trends (https://www.datameer.com/blog/three-ways-chinese-industries-use-big-data/). According to the article from Ming Zeng, most “operational decisions are made by machines, allow companies to adapt…to changing market conditions and customer preferences, gaining tremendous competitive advantage over traditional businesses” (3-4). In order to achieve this, the data scientists at Alibaba creates probabilistic prediction models which uses huge collections of data to produce better decisions in real time, which is the basis for business decisions. Thus, concludes Zeng, “machine learning is more than a technological innovation; it will transform the way business is conducted as human decision making is increasingly replaced by algorithmic output” (4). For example, for Ant Finance to determine who they should give loans to, they use a machine learning algorithm. Their algorithms evaluate how well a business is performing by look at transaction data, its competitive offerings, and whether its partner has high credit scores (4). Using these data, Ant’s algorithms analyze and evolve in real time to decide who to give loans to and improve their quality of decision. To reach the high level of automation, Alibaba captures live data with each customer interaction to feed to the predictive models, then they build these models to replicate how human make decisions, which they can then apply to optimize business dynamics (6-7).

1. **Inbound Logistics** - involve relationships with suppliers and include all the activities required to receive, store, and disseminate inputs.

Alibaba does not make its own products, instead, they connect suppliers directly to buyers using services such as Taobao and Tmall. Once the buyer decides to purchase the product, the supplier can then decide to use one of Alibaba’s partner shipping to ship the product or contact their own delivery services depending on the price and location. If the supplier chooses one of Alibaba shipping service, they can fill out the form with order number and ship their product. Alibaba has good relationship with 14 major delivery services who delivers 5 million packages. In May 2013, Alibaba formed a joint venture with five major express delivery companies in China known as China Joint Logistics to improve the delivery service. Once the product is sent, it’s similar to a parcel service. The shipment is collected and sorted at service center, then the shipment is sent on plane or trucks to the destination’s local service center, all while the buyer can track the service. Then, the shipment is sorted again and delivered by the local drivers.

1. **Operations** - are all the activities required to transform inputs into outputs (products and services).
2. **Outbound Logistics** - include all the activities required to collect, store, and distribute the output.

The shipments are often delivered to buyer’s home. Once the drivers reach the buyer’s destination, they require a signature to confirm the buyer received the package and give them the shipment. If the buyer is not home, the drivers often contact them by calling or texting. If the buyer does not pick up, the driver often come back later since leaving packages out in the open is not safe.

1. **Marketing and Sales** - activities inform buyers about products and services, induce buyers to purchase them, and facilitate their purchase.

Alibaba allows sellers to purchase search result that make them appear first in searches, thus allowing sellers to promote their products. Aside from attracting buyers for sellers, Alibaba also attracts its own customers by advertising. One of the biggest advertisement for Alibaba is by using viral promotion that uses customers to promote the service through means such as word of mouth and friend recommendations. Alibaba also advertises through social media such as Weibo, which is the biggest social media platforms used in China. For example, before each year’s “Singles Day” sell, Alibaba often display various promotions and sells for different brands on social media to attract buyers.

1. **Service** - includes all the activities required to keep the product or service working effectively for the buyer after it is sold and delivered.

After a product is delivered, the customer can still communicate with the sellers to return or exchange products. They can also leave comments of the product on the website for other customers.

1. Does Alibaba demonstrate operational effectiveness or strategic positioning? Why? (10%)

MING ZENG**,** the chief strategy officer at Alibaba: The point is there’s no direct comparison in the Western world

Alibaba is a good example. It is more networked than most retailers in the United States. Amazon, for instance, owns a lot of stock, even though it sells a lot from third party sellers, it does its own warehousing distribution. It’s vertically integrating that way too – for instance, by having its own employees or own contractors deliver packages. But Alibaba is different in the sense that it is working with a lot of partners to do many of the things that Amazon does by itself.

MING ZENG: One of the most important reasons for this is everything was growing so fast, there’s no way we can provide all the service that is necessary to do the retailing business online. Secondly, we actually believe in the power of an open ecosystem – that working with others can be more productive in many, many scenarios. The more we build the open system, the more we benefit, and then the faster the ecosystem grows and we become more inclined to this new approach.

-with their AI chatbox

-with their partnership with delivery systems

1. IS triangle

Info: Chief Technology Officer Jeff Zhang points out Alibaba is able to draw extensive data on shopping habits not only from shopping websites but also geo-location apps, financial services, social media and scores of other sources to help better serve customers and drive efficient merchant operations. Alibaba servers currently store a staggering 1,000 [petabytes](https://en.wikipedia.org/wiki/Petabyte) of data. “We want to leverage this [data] to enable personalization, to power search, security, customer service—in all of these areas we are providing support through our data products,” he said.

Jack Ma: “Large-scale computing and data are the father and mother of artificial intelligence” (<https://www.alizila.com/wp-content/uploads/2017/06/Alibaba_AI_infographic.jpg>)

Alibaba built one of world’s largest computer servers to run its e-commerce systems with an operating system that can process 175,000 transactions per second.

Alibaba has 500 million active users across its websites, which is a huge amount of data that can be analyzed by AI programs in real time, leading to increasingly accurate predictions

Smart Product Search and Recommendation: Alibaba’s software uses real-time data to create predictions of what the customer want based on previous purchases, online browsing, comments, and content consumption

Pervasive Personalization: Merchants on Tmall and Taobao can personalize their virtual storefront and websites for different visitors, offering real-time tailored product recommendations based on purchase histories, age, gender, geographic locations, etc. (6.7 million personalized shopping pages were generated on Taobao and Tmall last year during the Singles Day sale)(20% higher conversion rate on personalized pages during Singles Day compared to non-personalized pages)

Smart customer service: Ali Assistant chatbot that acts as customer service and personal shopping assistant, it can help 95% of customer service enquiries

Smart Supply Chain: uses AI to help merchants to forecast product demand, manage inventory, determine the right product to offer and choose appropriate pricing by analyzing historical and real-time data, seasonal variations, regional variations, and consumer preferences. Trying to implement digital shelf price tag that wirelessly connect to a physical store’s data system to allow merchants to change price quickly according to actual demand. “digitalize offline retial environment”

<https://www.alizila.com/wp-content/uploads/2017/06/Alibaba_AI_infographic.jpg>

<https://www.alizila.com/this-is-how-alibabas-technology-drives-business/>

Alibaba’s AI advantage, he noted, “is that we have a lot of customers on a big platform.” With information constantly streaming in, in real time, “that’s all data we use to continuously train our systems and so the systems are becoming increasingly intelligent.”

Business strategy: making an e-commerce ecosystem

Organization strategy:

86,000+ employees

At Yunqi Xonference 2018, Alibaba announced partnership with Intel to collaborate more on cloud computing (<https://venturebeat.com/2018/09/20/intel-and-alibaba-announce-cloud-partnerships-at-yunqi-conference/>)

Partnership with Cainiao: Smart Logistics: Alibaba uses Cainiao’s technology to determine fastest/most-cost-efficient delivery routes, making 42 million deliveries a day and a 30% reduction in travel distances

1. Apply Porter's Five Forces framework to analyze Alibaba’s competitive strategy based on the information provided in the case and other available information about the relevant industry (globally or in Asia). Your discussion must clearly analyze each of the five forces and also identify how Alibaba has used (and could use) IS to gain a competitive advantage. (30%)

Geography (global, China), a particular component of their business model

Brand, economy of scale, switching cost, distribution channel, vertical integration, network effect

Must address all 5 forces, up to you to decide if they are doing well or at risk at these 5 forces

Industry rivalry – integrated component, vertical integration

Threat of entry – their brand and scale is so big that is hard for smaller companies to join, network effect, economy of scale

Threat of substitutes – instead of going to a physical mall or renting clothes, because Alibaba has c2c so it’s very cheap

There a

re always substitute service for Netflix such as iTunes and YouTube Red. To prevent

threats from other firms, Netflix has its exclusive contents to make themselves stand out from the

rest. In this way, viewers who want to watch specific, Netflix exclusive

TV shows have to

continue to subscribe to Netflix. Furthermore, unlike other firms who offer mix pricings such as

premium or pay

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per

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view, Netflix only charges its customer one single monthly fee. This

ensured its viewers that they will always be able to w

atch the best quality videos without all the

extra money they have to pay, thus making itself unique from other substitutes. Lastly, Netflix

has the best customer ratings. After the Qwikster incident, Netflix had more positive rating than

its peers, includ

ing potential substitutes such as Amazon, Apple, and Google.

Bargaining power of buyers – buyers can choose to go to other platforms, but switching cost is high because they put money in Alipay, have their recommendations…

Bargaining power of suppliers. – distribution channel: Alibaba partners with many

Although there are many streaming services, the

number of media provider is limited. Thus, the

firms have to compete to gain streaming rights, which increased the cost of streaming license

notably. To avoid competition and the increased costs, Netflix began to make their own original

content to stream.

With successes such as House of Cards and Orange is the New Black, Netflix

gained more viewers which gave them more profits and an ability to rely less on other media

providers.