Scientific Bulletin of Politehnica University of Timisoara, Romania

Transactions on ENGINEERING AND MANAGEMENT

Vol. 2, Issue 1, 2016

A Study on Identifying the eCommerce Players and Business Model

Adelin TRUSCULESCU[15], Christian MUTHLER[16]

Abstract – The aim of the paper is to analyze the eCommerce industry development in order to create the theoretical base for the business valuation process, in the case of the eCommerce industry (particularly refer to the online retail industry). Considering this research approach, the most important part of a valuation base and drivers analysis is to identify the relevant companies and by a detailed understanding of their business model, to recognize which companies can be compared to each other. The presented study's conclusions will underline important issues for the companies' valuation process.

Keywords: eCommerce, industry, analysis, drivers, business model, retail, marketplace.

I. INTRODUCTION

1. Brief history of the e-commerce industry

In addition to being an important new distribution channel for businesses [56] with a global target audience, compared to a local one in traditional retail, and proving convince and transparency to consumers [5], the eCommerce industry represents an interesting case study of an industry which developed to reach a certain level of maturity in less than 30 years by taking fully advantage of a new technology, the Internet.

The first eCommerce transaction happened back in the early 1970s, when students using ARPANET accounts at Stanford University "*engaged in a commercial transaction with their counterparts at Massachussetts Institute of Technology*" [32]. Ironically, "*students used the network to quietly arrange the sale of an undetermined amount of marijuana*" [32, 39]. ARPANET was the precursor the Internet, developed by the United States Advanced Research Projects Agency (ARPA), and initially involved connecting four universities with the aim of sharing computer resources [42]. The electronic exchange of information in the 1970s was facilitated by the development of the Electronic Data Interchange (EDI) in the 1960s by the United States transportation industry. As the name says, the EDI facilitated the electronic exchange of information between different computer systems, replacing the traditional way of mailing and faxing of documents employed until then by trading partners [34, 53].

The predecessor of today's consumer focused eCommerce was the TV and telephone shopping system invented by Michael Aldrich, and English inventor and entrepreneur in 1979 [34, 51]. His invention consisted of a modified television which was connected via the telephone line to a real-time multi-user computer capable of processing transactions. The system was mainly sold to businesses to be used for Business-to-Business (B2B) transactions [51].

In 1981, Thomson Holidays UK was the first B2B online shopping system to be installed and to go live. In 1982, Minitel, the predecessor of the Internet connected computer was introduced in France. Minitel allowed the users to use online banking and book travel reservations via phone lines. 9 million devices were installed in France, with an estimated 25 million users [44].

The first B2C online shopping system, the Gateshead SIS/Tesco, became active in 1984 with the first order being placed May 1984 [6, 61]. In April 1984, CompuServe launched the first comprehensive eCommerce service in the United States and Canada, the Electronic Mall [37].

In 1987, SWREG (nowadays part of Digital River MyCommerce) was founded and represented the first electronic store for software [40]. In 1989, Peapod, the first online grocery store and the world's first e-commerce only company launched [38].

Another very important technical development which enabled the online commerce as we know it was the first web browser developed by Tim Berners-Lee on a NeXT computer in 1990, called WorldWideWeb [55]. Later the browser was renamed Nexus in order to avoid confusion with the information space called the "*World Wide Web*". **Error! Reference source not found.**] shows the first web browser.

[15] Politehnica University of Timisoara, Faculty of Management in Production and Transportation, 14 Remus str., 300191 Timisoara, Romania, e-mail: adelin.trusculescu@student.upt.ro

[16] goetzpartners Corporate Finance GmbH, Munich, Germany, e-mail: Christian.Muthler@goetzpartners.com

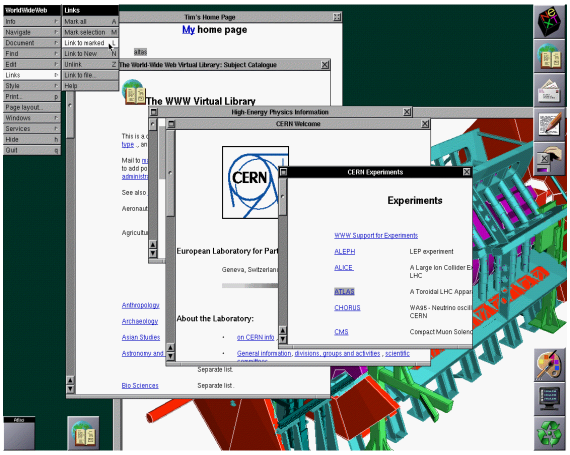

Fig. 1. The WorldWideWeb [55]

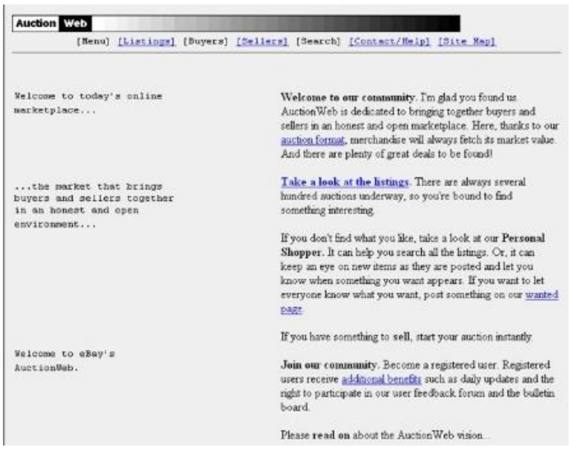

Fig. 2. ebay.com in 1995 [50]

Fig. 3. amazon.com in 1995 [4, 54]

In 1992, Charles Stack, a lawyer who became a software developer opened the first online book store, Books Stack Unlimited (www.books.com), 3 years before Jeff Bezos launched Amazon.com [54]. In 1994, Netscape released the Navigator web browser which supported HTML 2 functionalities and some HTML 3 functionalities [8]. Furthermore, Netscape adopted the Secure Sockets Layer (SSL) protocol which enabled a way of transmitting information over the Internet in a secured way and hence enabled the processing of transactions over the Internet [13].

In 1994, Ipswitch IMail Server becomes the first software to be sold online as well as the first software to be delivered via the Internet, fact which was enabled by a partnership between Ipswitch and OpenMarket [22]. The following year, many traditional retailer such as WHSmith [58] and Interflora [20] launched their online shopping services. In the same year, Stanford Federal Credit Union became the first financial institution to offer online financial services [49].

In 1995, Jeff Mezos launched Amazon [4] and Pierre Omidyar launched AuctionWeb [19], renamed later to eBay, two of the companies which later shaped the eCommerce industry. Even though, these two companies have significantly extended their business model over time, the business model with which they started were significantly different. While Amazon was happy to take over inventory risk, eBay was from the beginning an auction website that acted as a platform between individuals willing to exchange or sell / buy goods. These two different business models are still very relevant today, as companies assuming inventory risk are looked at as retails while marketplaces are looked at as a platform.

Fig. 22 and Figure 3 show Amazon's and ebay's websites in 1995 and implicitly the very simple offering that started an entire eCommerce revolution.

In 1999, Alibaba, the global wholesale marketplace was established by its 18 founders, led by Jack Ma. During the same year, the company launched a China based marketplace (known as 1688.com) addressing the Chinese domestic market. During the same year, Alibaba managed to raise USD 5m from a group of investors [2]. Nowadays, having surpassed even Walmart, Alibaba has become the largest retail company in the world with yearly gross merchandise value of nearly USD 500bn [11].

Following the early successes of many eCommerce companies, many entrepreneurs and investors rushed into this industry and hence created the "*dot-com*" bubble [48]. Two of the largest and most well-known companies that went bankrupt during the dot-com bubble are Pets.com and Webvan. Pets.com was an online pet food and supplies retailer, while Webvan was an online grocery retailer [16]. Both companies failed because of their efforts to grow very quickly and absorb a large market share by running deep losses. Pets.com received a total funding of c. USD 300m [52] while Webvan raised during the IPO alone USD 375m [57]. To understand how absurd some of these companies were valued, it is useful to look at the Webvan IPO which after the first day of trading was valued at c. USB 6bn despite having less than USD 5m in revenue [47].

Following the dot-com bubble, investors were more sceptic of the potential of eCommerce companies and these in turn were forced to show profits. Alibaba for example became cash flow positive for the year in December 2002 [2] while Amazon posted the first yearly profits in 2014, for the year 2013 [60].

Despite the dot-com bubble causing a significant skepticism in the eCommerce market, many additional well-known eCommerce shops such as Groupon in 2008 [17, 18] and Zulily in 2010 [36] launched over the following years. Furthermore, the industry started to consolidate with many sizable acquisitions, e.g.:

- In July 2009, Amazon acquired Zappos, an online shoe retailer, for USD 928m with the ultimate goal to share know-how [27];
- In November 2010, Amazon acquired Diapers.com (and other companies part of Quidsi), an online baby focused retailer, for USD 540m [45];
- In January 2007, eBay acquired StubHub, a marketplace for event tickets, for USD 310m [7].

2. The size and development of the ecommerce industry

Nowadays, the eCommerce industry comprises 650,000 online stores (only including the ones generating annual sales of over USD 1,000) [41] or 110,000 (including only the ones "*generating revenue of meaningful scale*") [35] depending on which source is consulted and sales of over USD 1.6 trillion [12] highlighting the importance of the industry. Figures 4 and Figure 5 show the size and expected development of the eCommernce industry until 2019. eMarketer expects the overall global eCommerce market (excludes travel and event tickets) to surpass USD 2tn in 2016. By 2019, the industry is expected to surpass USD 3.5tn.

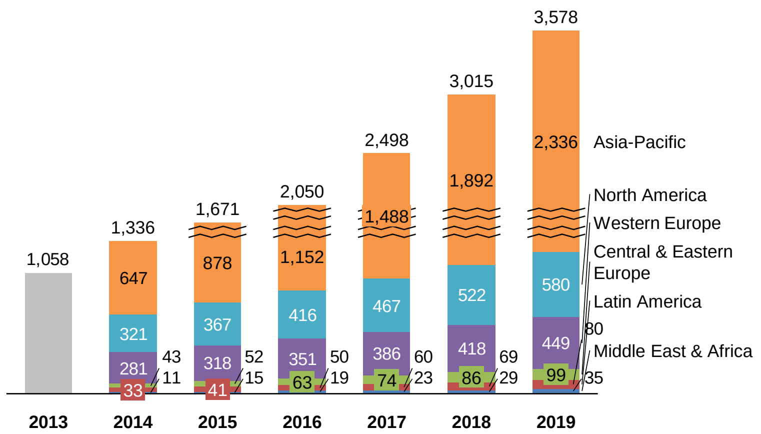

Fig. 4. Retail eCommerce sales by region in USD bn [12]

Growth rates by region

2014	2015	2016	2017	2018	2019	
	36%	31%	29%	27%	23%	Asia-Pacific
	14%	13%	12%	12%	11%	North America
	13%	11%	10%	8%	7%	Western Europe
	23%	19%	18%	16%	15%	Central & Eastern Eur.
	23%	22%	20%	15%	16%	Latin America
	28%	27%	25%	23%	21%	Middle East & Africa
26%	25%	23%	22%	21%	19%	Total

Region share

2014	2015	2016	2017	2018	2019	
48%	53%	56%	60%	63%	65%	Asia-Pacific
24%	22%	20%	19%	17%	16%	North America
21%	19%	17%	15%	14%	13%	Western Europe
3%	3%	3%	3%	3%	3%	Central & Eastern Eur.
2%	2%	2%	2%	2%	2%	Latin America
1%	1%	1%	1%	1%	1%	Middle East & Africa
100%	100%	100%	100%	100%	100%	Total

Fig. 5. Retail eCommerce sales growth rates by region and region shares [12]

When analyzing the geographical split of the global eCommerce industry, one can see that the Asia-Pacific region already makes up for over 50% of the industry. Furthermore, due to overproportioned growth this region will represent 65% of the entire industry by 2019. When comparing growth rates, one can see that Asia-Pacific is growing with a growth rate of nearly 30% per annum over this period, while other regions that represented the key eCommerce markets in the past, North American and Western Europe, are growing with 10 to 13% per annum, with Western Europe's growth rate dipping to 7% in 2019. These trends will not only shape the future of the eCommerce industry, but need to be kept in mind while analyzing the valuation basis and drivers of the eCommerce industry, as different growth prospects across geographies can yield different results.

To fully understand the size and importance of the eCommerce industry, it helps to compare it with the overall size of the total retail industry as well as to look at the number of digital buyers that are purchasing online.

When looking at the retail industry as whole, one can observe that in 2015, eCommerce accounted only for 7.4% of the retail industry, however, it is expected that it will make up nearly 13% of the overall retail industry by 2019. This enormous development comes primarily from an unproportioned growth of the eCommerce industry compared to the entire retail industry. The eCommerce industry is expected to grow between 2016 and 2019 on average 21.0% per annum, while the entire retail industry (including eCommerce) is expected to grow on average 5.5% per annum. The "*other channels*" portion of the retail industry, mainly store sales, is expected to grow at an average of 4.0% with a minimum expected growth rate in 2019 of 3.6%. These figures not only show the overall importance of the eCommerce industry, but also the growing importance relative to the retail industry as a whole. It also shows that the preferred channels over which people buy switch from the traditional retail to the online retail. Fig. 6 shows a quick overview of the mentioned figures.

Furthermore, when analyzing the total number of digital buyers (number of people that buy online), once can see huge increase over the coming years. The total number of buyer is expected to grow from nearly 1.5bn in 2015 to nearly 2.1bn in 2016, an increase of c. 600m additional buyers. To put this number in perspective, it is useful to compare it to the entire population of the entire European Union, which is only c. 500m people according to latest Eurostat statistics. In addition to the growing number of online shoppers, the average amounts spent by these shopper is also expected to grow significantly from USD 1,143 in 2015 to USD 1,730 in 2019, highlighting the willingness of shoppers to purchase more and more online compared to other channels. Fig.7 shows a quick overview of the total global number of digital buyers and the global average sales per buyer.

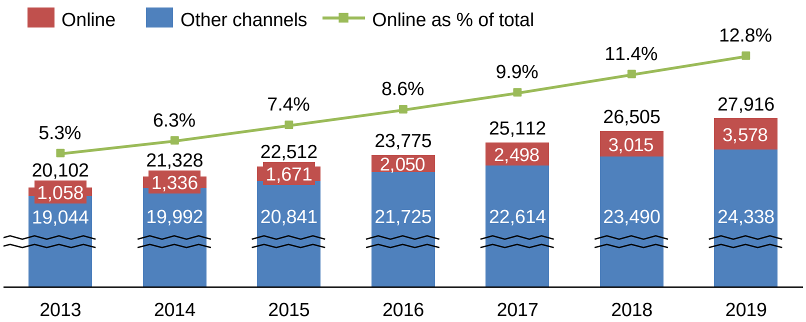

Fig. 6. Total retail sales worldwide by channel [12]

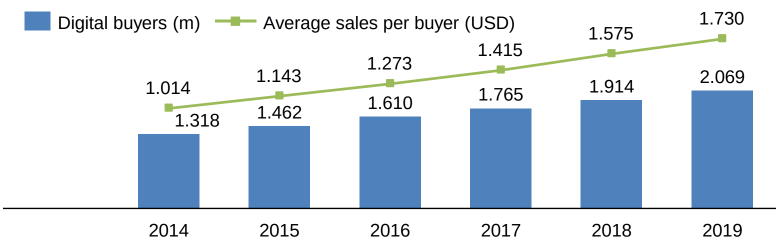

Fig. 7. Total number of digital buyers and average sales per buyer [12]

Overall, the growing importance of the eCommerce industry is undisputed, however, the decreasing growth rates give away the fact that the industry is approaching a certain level of maturity. As industries mature, the valuation basis and drivers of companies in this industry are also expected to shift. Generally, as an industry matures, profitability is becoming increasingly important for investors and hence the valuation basis and drivers also should go in this direction.

3. Overview of some reasons for increasing the importance of the eCommerce industry

According to a study done by the Susan Lee in 2013, the three pillars which helped eCommerce reach its current state are: low prices, technology and bottom up experiments [30]. Lee not only acknowledges the level of maturity that the industry has achieved, but also explains how these pillars will change in the foreseeable future and makes a few recommendations.

Lee tackles the first pillar by saying that "*low prices played a key role in establishing online brands and accelerating market penetration, but they have also left retailers with an oversimplified value proposition: 'price, price, price'*" and suggests that in the future retailers might have to reconsider their value proposition (such as free shipping) compared to just offering the best price as market demands are changing [30].

The statement might imply that some of the price pressure experienced by most eCommerce players today might partially be lifted in the future helping implicitly margins. From a valuation perspective this trend favors very large players like Amazon which "*enjoys economies of scale far beyond […] online* *competition*" [23] as they can achieve significant economies of scale while expanding their overall offer.

An important aspect which should also be taken in account when comparing a price focused strategy with a value proposition strategy is the extreme price transparency in eCommerce. Today, with the help of the price comparison websites, it is very simple to compare prices across many online shops. The online retail industry faces previously unseen level of price transparency. While buyers will likely buy from knowns online shops, having a significantly higher price will likely deter the buyer to a competitor.

A study done by the company Blackhawk Engagement Solutions concluded among others that "*price has the greatest influence on millennials' purchase decisions above all other factors, including quality, brand, store and availability*" [15]. Price sensitivity translates in the valuation of eCommerce companies in the classic growth / profitability trade-off. By offering lower prices, an online retailer can grow relatively easily, however, it will be less profitable. On the other side, higher prices improve profitability at the cost of achieving less growth and usually also giving up market share.

The second and third pillars are addressed by Lee with the explanation that "*it's about selling, not technological sophistication*" and "*it's about top down transformation, not bottom-up experimentation*" [30] implying that the eCommerce industry will have to embrace the key typical skill of traditional brick-and-mortar stores of focusing on selling products rather than continuously focusing on improving their technology and that retailers need to embrace these changes from the top of the company instead of just focusing on small improvements.

Despite the importance of these pillars and transformations, they can be difficulty incorporated in eCommerce valuation trends. In addition to the already mentioned pillars, Timothy Laseter and Elliot Rabinovich describe two additional ones in their book "*Internet Retail Operations*".

These two additional pillars are convenience and selection [28]. While these two additional pillars are implied by Lee's value proposition pillars, they are worth mentioning as both have tremendously helped building up the eCommerce industry. Amazon for example has built up its initial business on the long-tail offering of books (very high selection) and convenience (continuous focus on fast delivery times and other convenience items like "*one-click*" ordering)

II. THE RESEARCH APPROACH ON IDENTIFYING ECOMMERCE PLAYERS AND BUSINESS MODELS

In this chapter there will be created the theoretical base for the business valuation process, in the case of the eCommerce industry (particularly refer to the online retail industry). Considering this research objective (for the future approaches), the most important part of a valuation base and drivers analysis is to identify the relevant companies and by a detailed understanding of their business model, to recognize which companies can be compared to each other. Those companies need to operate in the same industry, face similar trends and market environment, as well as use similar account standards and practices.

1. Companies included in the study

The goal of the presented study is to cover all publicly listed companies in the goods based eCommerce industry, independently of the particular business model of the individual companies and their dominant geography. Consequently, traditional generalist players as well as well as focused players and players generating commission as opposed to revenues are included.

The further segmentation of the companies into inventory based companies and platform based companies will happen at a later stage. The goal of this section is to identify all relevant eCommerce players independently of business model or data availability and relevance. In order to ensure that all relevant companies are identified, a wide range of sources have been consulted:

- *FactSet*: a financial information database offered by FactSet Research Systems Inc. based in Norwalk, United States. The database offers financial information and analytical software for investment professionals [14] and is one the four comprehensive databases available worldwide. In order to find relevant companies, the general and universal screening function has been used together with relevant industry filters;
- *Altium Digital, Media & Internet Monitor from Q1 2016*: This a publication of Altium Capital, a German M&A Advisor which offers on a quarterly basis and update on the "*global market data, sector valuation and M&A activity*" [3];
- *William Blair Internet & Digital Media Insights from January 2015*: Similarly to the Altium Digital, Media & Internet Monitor, this publication offers "*overview, analysis, and trends in the Internet & digital media industry*" [59];
- *The 2014 Top 500 Online Retailers Guide* published by Internet Retailer, a well-regarded industry publisher that publishes yearly reports on the global and regional eCommerce markets [21];
- A wide range of own presentations, analyses and valuations prepared over the last 5 years.

In Appendix 1 is shown an overview of all companies included in the study, the year of incorporation, the country of the headquarters as well as a short description of the business.

After identifying and briefly understanding all companies within eCommerce environment, it is important to determine which companies can be compared with each other by analyzing their business model in detail.

2. Company segmentation and comparability

a. eCommerce business models: Traditional segmentations

In order to understand the best way of segmenting companies, it is important to firstly understand the typical business models in eCommerce. The traditional ways of classifying eCommerce companies are based on the type of goods sold and on the nature of the participants [24]. As nowadays there a limited number of pure-play shops focusing only one type of goods (excluding fashion shops) the classification by types of goods loses its relevance. The second traditional classification, the one based on the nature of the participants is still relevant, however, even in this case the historically clearly defined boarders are fading away as more businesses are entering different models. Amazon is very good example of a company that started in the Business-to-Consumer segment and increasingly became a platform which enables other businesses to sell to consumers as well.

The classification of eCommerce companies by the nature of the participants is presented in the following (see details in Table 1):

- *Business to Business eCommerce (B2B)*: a type of eCommerce in which a company sells to another company goods and services which the buying company uses to produces other goods and services. The drivers and key application of B2B eCommerce are: procurement optimization, partner management and order fulfillment [26]. In eCommerce, the concept of B2B is often used together with the concept of lead generation [31]. One of the first companies that monetized this type of business was Alibaba which was helping Chinese manufacturers to sell their products to foreign buyers.
- *Business to Consumer eCommerce (B2C):* a type of business in which a business sells goods and services directly to the end consumer. This is the most common type of eCommerce for the average online buyer. Usually eCommerce is used as a synonym with B2C eCommerce. This type of eCommerce is also very comparable to the traditional retail industry in which a customer would enter a physical shop in order to buy a good or a service.
- *Consumer to Business eCommerce (C2B):* a type of business in which consumers sell products and services to businesses. Despite this type of eCommerce business sounding counterintuitive, the Internet has enabled consumers to explain businesses what type of goods and services they would like to purchase and allows business to bid for the "*business*" [24]. A few examples include freelancing websites such as TaskRabbit, where the end-user posts jobs that he needs to fulfilled, job-boards where the future employee posts its credentials and allows companies to "*bid*" for his services or "*cash for gold*" type business in which consumers sells its products (gold) to a business in order to enable the business to use it and make money as well [31].
- *Consumer to Consumer eCommerce (C2C):* a type of business in which consumers sell to other consumers products and services. In this case the online retails acts only as a platform between consumers. The example which most often comes in mind when discussing this type of eCommerce is eBay. eBay is sometimes also called a C2B2C type of eCommerce (Consumer to Business to Consumer) [24]. Dating platforms or websites like Etsy which enables consumers to sell own produced goods could also be regarded as examples of C2C eCommerce [31].

One type of eCommerce that is not covered in this classification and that is becoming increasingly relevant is *B2B2C Ecommerce (Business to Business to Consumer).* This type of eCommerce is strongly linked with the increasing attractiveness of marketplaces. The platform provider or the first B, is hoping to acquire more customers at once rather than acquiring individual customers while providing services to an intermediate B (middle B) [25].

The platform provided by the first B is built to be consumer friendly and ultimately targets consumers. This type of eCommerce, can be compared to the healthcare industry which provide marketing materials and samples to doctors (intermediate B) in order to ultimately sell their products to the end consumer [10]. The company that deliberately developed this type eCommerce, and is well known for its B2B2C business model is Rakuten. Rakuten is providing a type of virtual Mall in which resellers can sell their products via own shop-in-shops. Furthermore, Rakuten's business model has not stopped with the development of the platform and also started offering consumer finance and payment services [62].

A very structured and modern, however, very theoretical eCommerce business model segmentation is provided by Laudon and Traver in their Textbook "*E-Commerce 20*14" where they segment eCommerce business in "*B2C business models*", "*B2B business models*" and "*business models in emerging e-commerce areas*" and then further segment the categories in numerous sub-categories [29]. It is important, however, to notice that Laudon and Traver's definition of eCommerce is significantly farther reaching and is fairly synonym with the wider term of online business rather than retail-like eCommerce. It also includes many categories which arguably are too remote from eCommerce in order to be included in such as a classification.

Table 1. eCommerce business models (synthesis from [29])

Model	***Variation***	***Example***	***Description***	***Revenue model***
B2C Business Models				
Portal	Horizontal/ General	Yahoo	Integrated package of content and content-search (e.g. news, e-mail, music, video)	Advertising, subscriptions, transaction fees
	Vertical/ Specialized	Sailnet	Services and products to specialized marketplaces, focused on product groups	Advertising, subscriptions, transaction fees
	Search	Google	Focuses on offering search services	Advertising, affiliate referral
E-tailer	Virtual Merchant	Amazon	Online version of retail store	Sales of goods
	Bricks-and-Clicks	Walmart.com	Online distribution channel for a company that also has physical stores	Sales of goods
	Catalogue Merchant	LLBean.com	Online version of direct mail catalogue	Sales of goods
	Manufacturer-Direct	Dell.com	Manufacturer uses online channel to sell direct to customer	Sales of goods
Content Provider		WSJ.com CNN.com	Information and entertainment providers such as newspapers and sports sites, and other online sources	Advertising, subscriptions, affiliate referral fees
Transaction Broker		E*Trade Expedia	Processors of online sales transactions, such as stockbrokers and travel agents	Transaction fees
Market Creator		eBay Priceline	Businesses using the Internet to create markets bringing buyers and sellers together	Transaction fees
Service Provider		VisaNow.com	Companies selling a service, rather than a product	Sales of services
Community Provider		Facebook, Twitter	Sites where individuals with common interests (or social) networks can come together and "*meet*" online	Advertising, subscription, affiliate referral fees
B2B Business Models - Net Marketplace				
E-distributor		Grainger.com	Online version of retail and wholesale store, supply maintenance, repair, operation goods	Sales of goods
E-procurement		Ariba Perfect Comm.	Creator of digital markets where sellers and buyers transact for indirect inputs	Market-making fees; SCM and fulfilment services
Exchange		OceanConnect ChemConnect	Independently owned vertical digital marketplace for direct inputs	Transaction fees
Industry Consortium		Exostar, Quadrem	Industry-owned vertical digital market open to select suppliers	Transaction fees
B2B Business Models - Private Industrial Network				
Single Firm		Wal-Mart	Company-owned network that coordinates supply chains with a limited set of partners	Cost supported by owner in exchange for efficiencies
Industry-wide		1 SYNC Agentrics	Industry-owned network that sets standards, coordinates supply and logistics	Cost supported by owner in exchange for efficiencies
Business models in emerging eCommerce areas				
Consumer-to-consumer		eBay	Helps consumers connect with other consumers to conduct business	Transaction fees
Peer-to-peer		The Pirate Bay	Technology enabling consumers to share files and services online	Subscriptions, advertising, transaction fees
M-commerce		eBay Mobile, PayPal, Mobile	Extending business applications using wireless technology	Sales of goods and services

Laudon and Traver's eCommerce business segmentation has arguably also a few short comings and incompatibilities regarding the overall industry definitions, the companies included and their clustering which need to be analyzed before using this model as an input for the own developed segmentation of the eCommerce companies. The following short comings have been identified:

Overall eCommerce definition: Laudon and Traver use a very wide reaching definition of eCommerce which contrary to perceiving eCommerce as a purely online retail of goods and services industry perceives it as the wider reaching term of online business which often also includes the online portion of other industries such as online banking and software that uses the Internet as a medium of exchange of information. While this wider definition is not incorrect, it is only to an extent compatible with the goal of the study of analyzing online retailers

Inclusion of arguably unrelated categories: The model includes categories such as eProcurement, single firm and industry wide industrial private networks and peer-to-peer exchanges. While the eProcurement industry uses the Internet as medium of exchange of information, and sometimes also helps initiate or settle transactions, it is usually regarded as a software solution and is usually analyzed together with software peers instead of eCommerce peers (e.g. Enterprise Resources Planning software, Supply Chain Management software, Spent Management software, Product Life Cycle Management software). While the examples provided are correct: Ariba and Perfect Commerce, they only confirm the impartibility. A similar argument can be made for the single firm and industry wide industrial private networks. While these networks can facilitate transactions, they are usually software solutions. Last but not least, the inclusion of peer-to-peer exchanges is odd, particularly with the example The Pirate Bay, as these networks usually do not generate significant revenues for any of the parties. Networks such as Usenet, which generates revenues, should be regarded as B2C service as the files are centrally hosted and users pay to certain company a usage fee in order to gain access to these files

Exclusion of certain related categories: Considering that the authors have used a fairly wide-reaching definition, and included categories such as eProcurement and Private Industrial Networks, other categories with similar distribution models (via Internet) should have been included. Most eProcurement companies use a Software as a Service (SaaS) delivery model implying that all other SaaS providers should have been included. SaaS is at the end of the day a sale of a service via the Internet. Furthermore, other categories such as online banking and payment providers which have become over time a stand-alone industry were excluded. While it could be argued that they are included under "*Transaction Broker*", they represent a completely different service compared to online stock brokers and online booking agencies and face completely unrelated competitive environments and supply chain dynamics. Another example of a segment that has been excluded is the B2B2C segment (discussed earlier in the chapter) which is arguably different that both B2B and B2C eCommerce business model.

Treating C2C models and mCommerce models as emerging eCommerce areas: The C2C based eCommerce model existed for as long as most of the other categories and started with the incorporation of eBay in 1995. Hence, this model is far away from being emerging. Last but not least, mCommerce, in addition to have also existed for long time, it is nowadays part of each of the other categories. Most online businesses, independently if they are selling goods, services or simply providing content have a well-defined mobile strategy and a fast growing mobile audience.

b. eCommerce business models: Retailer vs. Marketplace

While analyzing the various classifications of eCommerce business models, one can observe that a separation made consistently is the one between classical B2C business model and marketplaces / platforms. When applying this idea to the companies on which this study is focusing – online retailing businesses – it is very clear that the very top level segmentation needs to be between companies that assume inventory risk and companies that do not assume inventory risk.

The segmentation based on inventory risk is also motivated by the different accounting standards applicable to the Internet retailers compared to marketplaces. The main difference between the applicable accounting standards is based in the different revenue recognition methods [33]. While today, the international accounting standard board and other important local accounting regulation bodies have defined clear guidelines regarding what can be recognized as revenue, historically, companies had a lot more flexibility regarding this.

During the previously mentioned dot com bubble, as companies where trying to raise money to finance growth, valuations were purely based on revenues as all eCommerce companies were still loss-making. In order to receive the highest possible valuation, many eCommerce companies – including some marketplaces – were trying to report the highest possible revenues [46]. Hence, many marketplaces, despite not actually owning the item being sold and acting only as a match-maker, were reporting as revenue the total value of the product being sold or gross revenue (Gross Merchandise Value) as revenue.

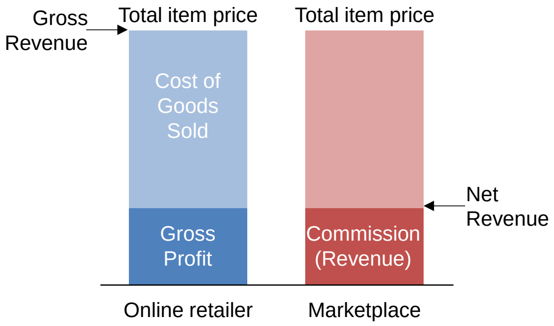

Fig. 8. Revenue recognition [33]

Fig. 88 shows at a glance the difference between gross and net revenue. Gross revenue is defined as "*the income generated by a company through sales of* *goods, without any kind of deduction taken into consideration*" while the net revenue is "*used to define a commission-only revenue model*" [33]. Online retailers report gross revenue as revenue wile marketplaces report only the commission they receive from the seller as revenue.

To put this into perspective, it is helpful to compare online retailer to a traditional retailer. A normal traditional retailer would purchase a good, put it on its shelves (inventory) and sell it for a higher price at a later point in time. Hence, the ultimate sales price to the consumer would be recognized as revenue, while the cost at which the good was purchased initially would be recognized as Costs of Good Sold. Online retailers like Amazon (excluding 3rd party sales) have exactly the same business practices like a traditional retailer. On the other hand, marketplaces like eBay or similar platform based business model only act as a platform between seller and buyer and never own the product themselves. In this case, the revenue recognized is only the commission received by the platform from the seller for intermediating the transaction.

The criteria required in order to report gross revenue as defined by the Emerging Issues Task Force (EITF), an organization formed by the Financial Accounting Standards Board to help with emerging financial reporting issues in a timely manner, are as follows [33]:

- The shop is the primary obligor in the arrangement;
- The shop has general inventory risk;
- The shop has the ability to determine the price as which it sells the product;
- The shop changes the product or performs part of the service;
- The shop has discretion in supplier selection;
- The shop has physical loss inventory risk;
- The shop has credit risk.

While the criteria required in order to report net revenues are the following ones [33]:

- The ultimate supplier is the primary obligor in the arrangement;
- The amount the marketplace owner earns per transaction is fixed (absolute or percentagewise);
- The ultimate supplier has credit risk.

These clearly defined criteria, together with a few highly publicized cases of platforms reporting gross revenues, helped the eCommerce industry have a more uniform way of reporting financials. One of the most well-known companies that had to change its revenue accounting method was Groupon. Groupon is in the daily deal business of selling discounted experiences and goods offered by local businesses (e.g. shops, restaurants). In 2011, as the company was preparing to go public, it had to restate its financials, to report net revenues instead of gross revenues causing it to more than halve its reported revenues [9].

While segmenting companies into online retailers with inventory risk and online retailer without inventory risk, one needs to keep in mind that several eCommerce players have developed and are developing their own marketplaces (e.g. Amazon, who also sells 3rd party products), classical marketplaces like Groupon take more and more inventory risk as they can achieve higher margins with sometimes "direct revenue" accounting for 50% of sales [17, 18], and new hybrid type business such as shopping clubs have been developed. Sometimes, even traditional retailers such as Staples which have a well-developed online distribution strategy are entering the marketplace segment [43].

3. The segmentation approach for the companies included in the study

This sub-chapter will take the companies identified previous in chapter 1 and the eCommerce business models identified and analyzed in chapter 2 and try to identify similar companies and to segment these in such a manner that their valuation basis and drivers can be analyzed and conclusions be drown in regards to the entire sub-industry. This chapter will also try to identify and eliminate eCommerce companies that do not fit in these sub-industries and are part of conglomerates of eCommerce companies without a clear revenue split between revenue with inventory risk and revenue without inventory risk.

Appendix 2 shows the segmentation of all companies identified previous in chapter 1. Based on their business model, all companies have been classified as eCommerce with inventory risk or eCommerce without inventory risk. Three companies (Qliro, Rocket Internet and Start Today) have been identified as unfit for the analysis as their reporting is not transparent enough to allow segmentation.

III. CONCLUSION

The article has presented a deep analysis of the eCommerce industry based on public information from different databases and from companies' web pages. This has conducted to fully understand the size and importance of the eCommerce industry, and it has support the comparison with the overall size of the total retail industry as well as the overview of the digital buyers' number that are purchasing online.

Despite being a relatively young sector, the eCommerce sector has reached a certain maturity stage, with valuations in segment increasingly based on expected operating profitability. Furthermore, with the development of the sector, the valuation drivers (key operating performance indicators) shift from revenue growth to gross profitability or operating profitability

Overall the presented study has underlined that, the growing importance of the eCommerce industry is undisputed, however, the decreasing growth rates give away the fact that the industry is approaching a certain level of maturity. As industries mature, the valuation basis and drivers of companies in this industry are also expected to shift. Generally, as an industry matures, profitability is becoming increasingly important for investors and hence the valuation basis and drivers also go in this direction.

In addition, the research pointed out that the most important part of a valuation base and drivers analysis is to identify relevant companies and by a detailed understanding of their business model, in order to recognize which companies can be compared to each other. Companies need to operate in the same industry, face similar trends and market environment, as well as use similar account standards and practices.

The goal of the presented study was to cover all publicly listed companies in the goods based eCommerce industry, independently of the particular business model of the individual companies and their dominant geography. Consequently, traditional generalist players as well as focused players and players generating commission as opposed to revenues were considered in the research. The further segmentation and comparison of the companies into inventory based companies and platform based companies was presented in a later stage. The goal of this research section was to identify all relevant eCommerce players independently of business model or data availability and relevance.

While there were analyzed various classifications of eCommerce business models, it has been observed that a separation made consistently is the one between classical B2C business model and marketplaces / platforms. When applying this idea to the companies on which this study was focusing – online retailing businesses – it was very clear that the very top level segmentation needs to be between companies that assume inventory risk and companies that do not assume inventory risk.

In conclusion, the research findings are especially important to the numerous entrepreneurs in the eCommerce sector that are looking to sell their companies and which could face the challenge of having to implement a major strategic shift before starting a sales process and implicitly selling the company at a high business valuation.

Future researches will analyses (through simple and multivariate regression analysis) the current revenue and operating profitability based valuation levels of some companies in the global eCommerce sector against several key operating performance indicators.

REFERENCES

[1] Alibaba Group. (2016). *History and Milestones - 1999*. Retrived from Alibaba Group: http://www.alibabagroup.com/en/about/history?year=1999

[2] Alibaba Group. (2016). *History and Milestones - 1999*. Retrived from Alibaba Group: http://www.alibabagroup.com/en/about/history?year=2002

[3] Altium. (2016). *Altium Digital, Media & Internet Monitor Q1 2016.* Altium. Retrived from http://www.altiumcapital.com/content/uploads/2016/04/AltiumOnlineMonitor_2016_Q1_FINAL.pdf

[4] Amazon. (2015, March 01). *Amazon Media Room: History & Timeline*. Retrived from Amazon: http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-corporateTimeline

[5] Anwyn, T. (2013, October 28). *Five reasons eCommerce should be important to your business.* Retrived from businessreviewusa.com: http://www.businessreviewusa.com/marketing/4356/Five-reasons-eCommerce-should-be-important-to-your-business

[6] Archive, T. M. (1982). *Videotex Communication.* Retrived from The Michael Aldrich Archive: http://www.aldricharchive.com/papers/1982/Videotex%20Communications%20Dec'82.pdf

[7] Arrington, M. (January, 2007 10). *It's Official – eBay is Buying StubHub For $310 million*. Retrived from Techcrunch: http://techcrunch.com/2007/01/10/its-official-ebay-is-buying-stubhub-for-310-million/

[8] Blooberry. (2005). *Netscape Navigator*. Retrived from Blooberry: http://www.blooberry.com/indexdot/history/netscape.htm

[9] De La Merced, M. J., & Rusli, E. M. (2011, September 23). *Accounting Change Cuts Groupon's Revenue*. Retrived from Dealbook.nytimes.com: http://dealbook.nytimes.com/2011/09/23/groupon-changes-its-revenue-accounting/

[10] Dodge Communications. (2014, November 20). *B2B2C perspective: Keeping the consumer top of mind*. Retrived from Dodgecommunications.com: http://www.dodgecommunications.com/blog/b2b2c-perspective-keeping-the-consumer-top-of-mind-in-marketing

[11] Durden, T. (2016, June 04). *Alibaba Surpasses Walmart As Largest Retail Company In The World*. Retrived from Zero Hedge: http://www.zerohedge.com/news/2016-04-06/alibaba-surpasses-walmart-largest-retail-company-world

[12] eMarketer. (2016). *Worldwide retail ecommerce sales: eMarketer's updated estimates and forecast through 2019.* New York: eMarketer. Retrived from http://www.emarketer.com/public_media/docs/eMarketer_eTailWest2016_Worldwide_ECommerce_Report.pdf

[13] Evsslcertificate. (2016). *History of SSL Certificate*. Retrived from Evsslcertificate: https://www.evsslcertificate.com/ssl/ssl-history.html

[14] FactSet Research Systems Inc. (2016, May). FactSet Software and Database. Norwalk, United States: FactSet Research Systems Inc.

[15] Gasca, P. (2015, December 07). *8 Shopping Habits of Millennials All Retailers Need to Know About*. Retrived from Entrepreneur.com: https://www.entrepreneur.com/article/253582

[16] Goldman, D. (2010, March 10). *10 big dot.com flops*. Retrived from CNN Money: http://money.cnn.com/galleries/2010/technology/1003/gallery.dot_com_busts/index.html

[17] Groupon. (2016, February 09). *2015 Form 10-K*. Retrived from groupon.com: http://investor.groupon.com/secfiling.cfm?filingID=1490281-16-87

[18] Groupon. (2016). *The History of Groupon*. Retrived from Groupon Works: https://www.grouponworks.com/articles/groupon/overview/company-history/the-history-of-groupon/

[19] Hsiao, A. (2015, March 01). *How Did eBay Start?* Retrived from about.com: http://ebay.about.com/od/ebaylifestyle/a/el_history.htm

[20] Interflora. (2016). *About Interflora*. Retrived from Interflora: https://www.interflora.se/en/about-interflora

[21] Internet Retailer. (2014). *Top 500 Guide.* Internet Retailer. Preluat pe April 01, 2016

[22] Ipswitch IMail Server. (2016). *IMail Server*. Retrived from IMail Server Timeline: http://www.imailserver.com/company/timeline/
[23] Jordan, J. (2013, October 24). *How to compete with Amazon*. Retrived from Fortune.com: http://fortune.com/2013/10/24/how-to-compete-with-amazon/
[24] Khurana, A. (2014, December 15). *Understanding the Different Types of Ecommerce Businesses*. Retrived from About.com: http://ecommerce.about.com/od/eCommerce-Basics/a/Types-Of-Ecommerce.htm
[25] Khurana, A. (2015, August 29). *B2B2C Ecommerce*. Retrived from About.com: http://ecommerce.about.com/od/eCommerce-Basics/fl/B2B2C-Ecommerce.htm
[26] Khurana, A. (2015, December 15). *Business to Business Ecommerce Is Big Business*. Retrived from About.com: http://ecommerce.about.com/od/eCommerce-Trends-and-Issues/a/Business-To-Business-Ecommerce.htm
[27] Lacy, S. (2009, July 22). *Amazon Buys Zappos; The Price is $928m., not $847m.* Retrived from Techcrunch.com: http://techcrunch.com/2009/07/22/amazon-buys-zappos/
[28] Laseter, T. M., & Rabinovich, E. (2012). *Internet Retail Operations - Integrating Theory and Practice for Managers.* Boca Raton: CRC Press - CRC Press.
[29] Laudon, K. C., & Traver, C. (2013). *E-Commerce 2014 (10th Edition).* Pearson.
[30] Lee, S. (2013). *It's time for e-commerce to grow up: New guiding principles and tools that will help retailers resolve this coming-of-age conflict.* Boston: Simon-Kucher & Partners. Retrived from https://www.simon-kucher.com/sites/default/files/its_time_for_e-commerce_to_grow_up_najwazniejsze_wnioski_simon-kucher.pdf
[31] Mallikarjunan, S. (2014, March 14). *Beyond B2C: A Primer on 4 Different Ecommerce Business Models*. Retrived from blog.hubspot.com: http://blog.hubspot.com/marketing/primer-ecommerce-business-models#sm.0001asxrh1n3ied1xj61lupd47ayb
[32] Markoff, J. (2006). *What the Dormouse Said: How the Sixties Counterculture Shaped the Personal Computer Industry.* New York: Penguin Books. Retrived from https://books.google.de/books/about/What_the_Dormouse_Said.html?id=cTyfxP-g2IIC&redir_esc=y
[33] Merchantry. (2012). *Special Report - Revenue regonition from an online marketplace.* Merchantry. Retrived from https://merchantry.com/wp-content/uploads/2012/04/RevenueRecognition.pdf
[34] Miva. (2011, October 26). *The History Of Ecommerce: How Did It All Begin?* Retrived from Miva: https://www.miva.com/blog/the-history-of-ecommerce-how-did-it-all-begin/
[35] Moore, R. J. (2014, June 18). *How Many Ecommerce Companies Are There?* Retrived from The Data Point by RJMetrics: https://blog.rjmetrics.com/2014/06/18/how-many-ecommerce-companies-are-there/
[36] Nasdaq. (2016). *ZULILY, INC. (ZU) IPO*. Retrived from Nasdaq: http://www.nasdaq.com/markets/ipos/company/zulily-inc-817798-73687
[37] Online Today. (1984, April). Electronic Shopping Mall. *Online Today*. Retrived from http://www.gsbrown.org/compuserve/electronic-mall-1984-04/
[38] Peapod. (2016). *Our Company*. Retrived from Peapod: https://www.peapod.com/site/companyPages/our-company-overview.jsp
[39] Power, M. (2013, April 19). *Online highs are old as the net: the first e-commerce was a drugs deal*. Retrived from The Guardian: https://www.theguardian.com/science/2013/apr/19/online-high-net-drugs-deal
[40] QualityUnit. (2016). *What is SWREG?* Retrived from QualityUnit: https://support.qualityunit.com/259162-What-is-SWREG-
[41] Rachamim, O. (2014, December 04). *How many online stores are there in the world?* Retrived from Internetretailer.com: https://www.internetretailer.com/commentary/2014/12/04/how-many-online-stores-are-there-world
[42] Rouse, M. (2008, May). *SearchNetworking*. Retrived from DEFINITION: ARPANET: http://searchnetworking.techtarget.com/definition/ARPANET
[43] Rueter, T. (2013, December 23). *E-retailers join the marketplace race*. Retrived from Internetretailer.com: https://www.internetretailer.com/2013/12/30/e-retailers-join-marketplace-race
[44] Schofield, H. (2012, June 26). *Minitel: The rise and fall of the France-wide web*. Retrived from BBC: http://www.bbc.com/news/magazine-18610692
[45] Schonfeld, E. (2010, November 06). *Amazon Buys A Lot of Diapers.com For $540 Million*. Retrived from Techcrunch.com: http://techcrunch.com/2010/11/06/amazon-buys-diapers-com-540-million/
[46] Selling, T. (2014, October 16). *Gross versus Net Presentation: The First of Many Revenue Recognition Debacles to Come?* Retrived from Accountingonion.com: http://accountingonion.com/2014/10/gross-versus-net-presentation-of-revenue-the-first-of-many-revenue-recognition-debacles-to-come.html
[47] Simpson, S. (2010, December 13). *Webvan And Other IPO Epic Failures*. Retrived from Forbes: http://www.forbes.com/sites/greatspeculations/2010/12/13/the-biggest-ipo-flops/#19a36ec0201c
[48] Smith, K. (2016). *History of the Dot-Com Bubble Burst and How to Avoid Another*. Retrived from Money Crashers: http://www.moneycrashers.com/dot-com-bubble-burst/
[49] Stanford Federal Credit Union. (1995, June 21). *Stanford Federal Credit Union Pioneers Online Financial Services*. Retrived from Free Online Library: http://www.thefreelibrary.com/Stanford+Federal+Credit+Union+Pioneers+Online+Financial+Services.-a017104850
[50] Swallow, E. (2010, August 07). *10 Entertaining eBay Facts You Might Not Know*. Retrived from Mashable: http://mashable.com/2010/08/07/ebay-facts/#F7jp8jzNjsqR
[51] The Michael Aldrich Archive. (2011). *Internet Online Shopping*. Retrived from The Michael Aldrich Archive: http://www.aldricharchive.com/internet_online_shopping.html
[52] Tjan, A., & Fu, A. (2015, March 31). *It's a Boom, Not a Bubble*. Retrived from CBInsights: https://www.cbinsights.com/blog/tech-bubble-boom/
[53] TrueCommerce. (2016). *A Brief History of EDI*. Retrived from TrueCommerce: https://www.truecommerce.com/resources/what-is-edi/edi-history
[54] van Schewick, B. (2010). *Internet Architecture and Innovation.* MIT Press.
[55] W3. (2016). *Tim Berners-Lee: The WorldWideWeb browser*. Retrived from W3: https://www.w3.org/People/Berners-Lee/WorldWideWeb.html
[56] Webb, K. L. (2002, March 10). Managing channels of distribution in the age of electronic commerce. *Industrial Marketing Management, 31*, 95 - 102. Retrived from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.582.2261&rep=rep1&type=pdf
[57] Webvan. (1999, November 4). *Webvan IPO prospectus*. Retrived from Edgar: http://edgar.sec.gov/Archives/edgar/data/1092657/000089161899004914/0000891618-99-004914.txt
[58] WHSmith. (2015, April). *Online Shopping Started in the UK 20 Years Ago Today – at WHSmith*. Retrived from WHSmith: http://blog.whsmith.co.uk/online-shopping-started-in-the-uk-20-years-ago-today-at-whsmith/

[59] William B. (2015). *Internet & Digital Media Insights.* William Blair. Retrived from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwjQ4o_Lp-PMAhUH1xQKHe-_BLUQFgguMAI&url=https%3A%2F%2Fwww.williamblair.com%2F~%2Fmedia%2FDownloads%2FEmarketing%2F2015%2FIB%2FIDM_2015_01.pdf&usg=AFQjCNHIn_EQN9rWOmVOz7WoMImtn6lImg&s

[60] Wingfield, N. (2004, January 28). *Amazon Reports Annual Net Profit For the First Time*. Retrived from The Wall Street Journal: http://www.wsj.com/articles/SB107523879334513159

[61] Winterman, D., & Kelly, J. (2013, September 16). *Online shopping: The pensioner who pioneered a home shopping revolution*. Retrived from BBC: http://www.bbc.com/news/magazine-24091393

[62] Yarow, J. (2012, March 26). *How Japan's Biggest E-Commerce Company Plans To Take Over The World*. Retrived from Businessinsider.com: http://www.businessinsider.com/how-japans-biggest-e-commerce-company-plans-to-take-over-the-world-2012-3?IR=T

APPENDIX 1 - Overview of all companies considered for the study

Company	***Year***	***Country***	***Company description***
1-800-FLOWERS.COM	1976	United States	1-800-FLOWERS.COM is an online florist and gift shop. The company operates in three segments: consumer floral, gourmet food and gift baskets and BloomNet Wire Service. It operates through various brands and online shops.
Alibaba	1999	China	Alibaba was one of the first business-to-business platform in China aiming to connect Chinese manufacturers with buyers abroad. Over time, the company developed additional consumer-to-consumer and business-to-consumer branches as well as cloud services and a payment service. Marketplaces represent the highest portion of Alibaba's revenues.
Amazon.com	1994	United States	Amazon, despite firstly focusing on books, it was one of the first generalist online retailers. Following retail, Amazon expanded into several new areas including cloud services, 3rd party seller services allowing 3rd parties to sell on the Amazon platform, selling and renting of digital good and AmazonPrime subscription services (free shipping, video, music etc.).
AO World	2000	United Kingdom	AO World is a specialized retailer of major household appliances such as fridges and washing machines. It operates under the segments: online retailing UK and online retailing Europe (excluding UK).
ASOS	2000	United Kingdom	ASOS.com is a specialized online fashion and beauty retailer. It offers branded and own label products.
Banzai	2007	Italy	Banzai is a specialized online retailer of technology products and digital content publisher. The company has two business segments: eCommerce and vertical content. The eCommerce segment sells domestic appliances, clothing products, accessories, and household products while the vertical content segment publishes websites, web magazines, advertisements, and applications.
Blue Nile	1999	United States	Blue Nile is specialized online retailer of diamonds and fine jewelry. It also offers in depth educational materials and various tools. The core business segment if the engagement category.
boohoo.com	2006	United Kingdom	boohoo.com is a specialized online retailer of clothing. The company designs, sources, markets and sells own brand clothing, shoes and accessories. It targets 16-24 year old consumers globally.
Cnova	2014	Nether-lands	Cnova is a specialized online retailer focusing on electronics. Insiders own over 90% of the shares and consequently have control. The company operates through two segments: Cdiscount and Cnova Brazil. Cdiscount sales of consumer products mainly through Cdiscount.com while Cnova Brazil sells consumer goods through various shops in Brazil.
Cogobuy Group	2000	China	Cogobuy is a specialized online retailer and marketplace focusing on the electronics manufacturing industry in China.
Delticom	1999	Germany	Delticom is a specialized online retailer of tires, car parts and car related accessories. It has two segments including eCommerce and wholesale. It sells a wide range of tires other related products for car, truck and other vehicles. It also has a few ultra-specialized shops such as a motorcycle focused shop.
eBay	1995	United States	eBay was the first consumer-to-consumer, action style online platform. With time, the company also developed its business-to-consumer segment and added additional features such as "*Buy It Now*" functionality. Furthermore, the company invested fairly successful in various other marketplaces and online classifieds platform.
E-Commerce China Dangdang	1999	China	E-Commerce China Dangdang a relatively generalist online retailer present primarily in China. The company's main distribution channel is dangdang.com which sells books, audio-visual products and consumer electronics among other media products and general merchandise.
Etsy	2005	United States	Etsy is a consumer-to-consumer specialized eCommerce platform focused on handmade, vintage and unique items.

Groupon	2008	United States	Groupon is a local commerce marketplace that connects merchants to consumers by offering goods and services at a discount. The company is present in North America, EMEA and the Rest of World. It operates its business under three categories: Local Deals, Groupon Goods and Groupon Getaways. The company is increasingly also expanding into sale of goods.
JD.com	1998	China	JD.com is a relatively generalist online retailer focusing on electronics and general merchandise. The company's main distribution geography is China.
Jumei	2010	China	Jumei is a specialized online retailer focusing on beauty products. Its product offerings include cosmetics, skin care, make-up and body care.
LightInThe Box	2008	China	LightInTheBox is a relatively generalist online retailer. Its products include apparels, electronics, home and garden products, accessories and gadgets.
Mercado Libre	1999	Argentina	MercadoLibre is mainly a consumer-to-consumer, action style online platform in South America. The company also offers business-to-consumer type services. It provides users a mechanism for buying, selling and paying as well as collecting e-commerce transactions.
MySale	2007	Australia	MySale Group is a members only and flash sales focused eCommerce platform. It sells products of well-known and emerging brands offered for sale to its members for a limited-time period and typically at a significant discount to the brand recommended retail price.
Ocado	2000	United Kingdom	Ocado is a specialized online grocery supermarket. It also offers the Ocado Smart Platform providing grocery end-to-end electronic commerce and fulfilment services.
Oponeo.pl	1999	Poland	Oponeo.pl is a specialized retailer of tires, rims, and other automotive products. It offers tires for cars, trucks, and utility vehicles, steel and alloy rims among other products.
Overstock .com	1997	United States	Overstock.com relatively generalist closeout merchandise focused online retailer. It offers a broad range of products including furniture, housewares, jewelry apparel and accessories, electronics and sporting goods. The company operates through two segments: direct business and partner business.
PetMed Express	1996	United States	PetMed Express a specialized online retailer providing prescription and non-prescription pet medications, health products and supplies for pets. Main distribution channel includes online, national television and direct mail/print advertising.
Qliro	1936	Sweden	Qliro is a group of eCommerce businesses in Northern Europe. It operates through the following segments: CDON, Nelly, Gymgrossisten, Tretti, Lekmer and Qliro Payment Solution. CDON is conducted through the CDON.com shop and also includes a marketplace. Nelly, Gymgrossisten, Tretti, Lekmer are conducted through own web and physical shops while the Qliro Payment Solution is a service offering customers to pay by invoice or instalment.
Rakuten	1997	Japan	Rakuten is a business-to-business-to-consumer platform. It operates 3 segments: Internet Services, Internet Finance, and Others. The Internet Services segment deals with advertising and content sales in Internet shopping malls and various e-commerce sites. The Internet Finance segment handles banking, credit card services and electronic money businesses.
Rocket Internet	2007	Germany	Rocket Internet is a holding company, which engages identifying and building Internet business models. It operates through the following sectors: Electronic Commerce (eCommerce), Marketplaces, Financial Technology, and Travel. Some of the largest eCommerce companies held by Rocket include eCommerce players such as HelloFresh and home24.
SRP	2010	France	SRP Group is French shopping clung focusing on fashion items and beauty products. It sells products of well-known and emerging brands offered for sale to its members for a limited-time period and typically at a significant discount to the brand recommended retail price.
Start Today	1998	Japan	Start Today is a relatively specialized online retailer focusing on fashion. In addition to its own shops, mainly ZOZOTOWN, Start Today also offers a platform in which 3rd party sellers can sell their products on ZOZOTOWN.
Trade Me	2011	New Zealand	Trade Me is mainly a consumer-to-consumer, action style online platform in New Zealand. It operates online marketplaces, classifieds, travel, accommodation and online dating sites. The company has three segments: General items, Classifieds, and Other. The General Items segment focuses on online marketplaces for goods and services.
U.S. Auto Parts Network	1995	United States	U.S. Auto Parts Network is a specialized online retailer focusing on aftermarket parts and repair information. The company operates through two segments: USAutoParts and AutoMD. The USAutoParts segment runs the web shop while AutoMD engages help users identify and compare car repair shops. Products sold include body parts, engine parts, performance parts and accessories.

Vipshops	2008	China	VipShop is a Chinese flash sales eCommerce platform similar to the Western shopping clubs. It offers fashion products, apparel, sportswear, cosmetic goods, home and lifestyle products, luxury goods among others.
Wayfair	2002	United States	Wayfair is specialized online retailer of home furnishing. It offers a home furnishings and decor across all styles and price points through 5 different brands.
windeln.de	2010	Germany	windeln.de is a specialized online retailer of baby and children's products. It operates through the following segments: German shop, international shops, and shopping clubs. The company generates a large portion of its revenues in Asia.
YOOX Net APorter	2000	Italy	YOOX Net-A-Porter is a specialized online retailer of fashion products. The company has operates through 2 segments: multi-brand and mono-brand. The multi-brand segment includes multi-brand online while the mono-brand segment exclusive design online stores.
Zalando	2008	Germany	Zalando is a specialized online retailer of shoes and fashion apparels. The company's product range includes apparel, shoes and accessories for women, men and children.
zooplus	1999	Germany	zooplus is a specialized online retailer of pet supplies such as foods and accessories. The company also offers free content and information, veterinary and other animal-related advice, and discussion forums and blogs. The company also offers pet food subscriptions.
Sources: FactSet (FactSet Research Systems Inc, 2016), Company websites and financial reporting, and Reuters			

APPENDIX 2 - Segmentation of companies included in the study

Company	***Inv. % COGS***	***Gross Marin***	***Comment***	***Category***
1-800-FLOWERS .COM	10.8%	42.1%	Classical online retailer of flowers	eComm. with inventory risk
Alibaba	0.0%	65.8%	B2B marketplace	eComm. without inventory risk
Amazon.com	14.0%	33.5%	Generalist online retailer	eComm. with inventory risk
AO World	8.6%	19.4%	Specialized online retailer of electronics	eComm. with inventory risk
ASOS	31.1%	49.8%	Specialized online retailer of fashion	eComm. with inventory risk
Banzai	8.2%	8.7%	Specialized online retailer of electronics	eComm. with inventory risk
Blue Nile	10.8%	19.2%	Specialized online retailer of jewelry	eComm. with inventory risk
boohoo.com	21.5%	61.3%	Specialized online retailer of fashion	eComm. with inventory risk
Cnova	12.7%	5.7%	Specialized online retailer of electronics	eComm. with inventory risk
Cogobuy Group	7.9%	7.2%	Over 90% of revenue from classic online retailing of electronics	eComm. with inventory risk
Delticom	14.4%	21.4%	Specialized online retailer of tires and car parts	eComm. with inventory risk
eBay	0.0%	74.8%	C2C marketplace	eComm. without inventory risk
E-Commerce China Dangdang	38.5%	18.7%	Relatively generalist online retailer	eComm. with inventory risk
Etsy	0.0%	71.2%	C2C marketplace	eComm. without inventory risk
Groupon	3.7%	51.6%	Local commerce market-place, however >50% of revenue direct sales	eComm. with inventory risk
JD.com	13.1%	12.6%	Specialized online retailer of electronics	eComm. with inventory risk
Jumei	28.9%	40.2%	Specialized online retailer of beauty products	eComm. with inventory risk
LightInTheBox	4.7%	38.7%	Relatively generalist online retailer	eComm. with inventory risk
MercadoLibre	0.0%	71.6%	C2C marketplace	eComm. without inventory risk
MySale	16.4%	19.6%	Members only shopping club with inventory risk	eComm. with inventory risk
Ocado	4.3%	33.1%	Specialized online retailer of groceries	eComm. with inventory risk
Oponeo.pl	9.6%	16.3%	Specialized online retailer of tires and car parts	eComm. with inventory risk

Overstock.com	2.4%	18.7%	Specialized online retailer of electronics	eComm. with inventory risk
PetMed Express	16.3%	33.3%	Specialized online retailer of pet drugs	eComm. with inventory risk
Qliro	15.3%	14.2%	A group of eCommerce businesses; unclear revenue split between marketplace and direct sales	To be excluded
Rakuten	0.0%	83.1%	A group of eCommerce businesses however 50% of revenues are platform based revenues	eComm. without inventory risk
Rocket Internet	12.3%	-3.2%	A group of eCommerce businesses; unclear revenue split between marketplace and direct sales	To be excluded
SRP	24.8%	42.0%	Members only shopping club with inventory risk	eComm. with inventory risk
Start Today	17.2%	92.4%	A specialized online retailer of fashion; unclear revenue split between marketplace and direct sales	To be excluded
Trade Me	0.0%	81.1%	C2C marketplace	eComm. without inventory risk
U.S. Auto Parts Network	23.3%	28.6%	Specialized online retailer of car parts	eComm. with inventory risk
Vipshops	20.8%	25.2%	Online retailer and shopping club	eComm. with inventory risk
Wayfair	2.0%	25.2%	Specialized online retailer of home furnishing	eComm. with inventory risk
windeln.de	14.2%	23.1%	Specialized online retailer of baby products	eComm. with inventory risk
YOOX Net APorter	66.2%	35.8%	Specialized online retailer of fashion products	eComm. with inventory risk
Zalando	28.2%	43.5%	Specialized online retailer of fashion	eComm. with inventory risk
zooplus	17.8%	23.7%	Specialized online retailer of pet supplies	eComm. with inventory risk

eComm = eCommerce
Inv. % COGS = Inventory as percentage of Cost of Goods Sold
Both, Inventory as percentage of Cost of Goods Sold and Gross Margin are based on the 2014 end-year annualized financials
Source: FactSet, Company Information (website and financials), own research