# E-Commerce Industry Write-Up

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**Industry Overview:**

E-commerce is a broad term that refers to the buying and selling of goods over the internet. While B2B and B2C have predominantly been the biggest sectors of e-commerce, C2C business models have gained popularity over the years, driven by large companies like eBay, Etsy, and Taobao. Overall, e-commerce has experienced a major area of growth over the past few years, as many businesses have had to rely on online sales to survive through 2020 and 2021. As online platforms have become more convenient, a growing number of consumers are increasingly relying on online shopping for their needs, evident by the 12.24% projected CAGR of e-commerce. Segment drivers include innovations in supply chain technology (emerging markets include supply chain visibility platforms and airspace management and infrastructure), social media commerce, and digital payment options.

**Primary Subsectors:**

B2C refers to the consumer-facing segment of e-commerce that refers to the internet transaction of goods and services between the business and the private consumer. Although B2C e-commerce often refers to online retail, it also acts as an umbrella term that encompasses online marketplaces and D2C e-commerce. Globally, Asia has the largest B2C e-commerce market, primarily because of China's Alibaba Group, which is one of the biggest online marketplaces globally. E-commerce is also composed of many segments, from consumer electronics to furniture to personal care products. But most significantly, online channels have been performing extraordinarily well in the fashion segment, where it is forecasted to reach one trillion US dollars worldwide by 2023.

B2C is very closely related to another sector, C2C. Industry leaders in the C2C space include eBay, Etsy, or TaoBao (Alibaba) as well as auction websites like Craigslist. In recent years, the most popular C2C platforms were those specializing in selling or reselling fashion items, especially to younger generations. An example of this is Depop, which is an app that allows millions of sellers and resellers to set up a store and connect customers. B2B e-commerce refers to digital commerce between businesses at the level of manufacturers, wholesalers, and retailers. In terms of gross merchandise value, B2B e-commerce sales in Asia rank first in the world. Specifically, the value of B2B e-commerce transactions in China alone underwent a fourfold increase between 2012 and 2020. All purchases made by businesses in a B2B model are often segmented under the wholesale and manufacturing segment. In fact, online channels make up 70 percent of all shipments in the manufacturing sector.

**History of E-commerce:**

The history of this industry is linked to the history of the internet, with changes and innovations within the E-commerce industry only following trends in internet development.

Relevant history starts in the 1960's, when the Electronic Data Interchange was created, which is a system that facilitated the computer-to-computer exchange of documents and information. The predecessor of e-commerce, teleshopping was also invented by Michael Aldrich from Redifon Computers in 1979. This was when one connected a modified domestic television to a real-time transaction processing computer via telephone line, so one could order from the comfort of their own home. However, from 1982 on, changes began to take place at shortening intervals. Minitel, a videotex online service, became accessible through phone lines, and facilitated online purchases. In 1995, Amazon sold their first book and eBay was founded, marking the advent of an era of strife competition in the e-commerce space.

From then on, innovation only ballooned, with the introduction of household names like PayPal and Zappos, and more incumbent ones like Ritomteca and Yahoo Stores. By now, most consumers were aware of and open to the idea of online shopping, and most internet users were definitely starting to pick it up, with 70% of internet users making online purchases between 1995 and 2005.

The market definitely wasn't considered mature at this point, but changes were happening so quickly that within the next decade, the competitive scene and industry trends started looking like those of today. Between 2005 and 2012, the first ever mobile sale was initiated, Apple's iTunes store was launched, Cyber Monday became a term in the common psyche, and FaceBook began selling ads, diversifying the channels through which e-commerce could operate and redefining the idea of e-commerce past just "selling a physical good or service on the internet."

By this time, the industry was very well penetrated in the US market. Online B2C sales surpassed 1 trillion USD in 2014, and there were approximately 4.2 eCommerce companies, though most of these were smaller companies that used big sites like Amazon and eBay to reach customers.

The E-Commerce industry is a great example of how something very niche can very much balloon into something ingrained in the US consumer psyche in a very little time.

**<u>Future of Industry:</u>**

Mobile commerce (m-commerce), the process of buying and selling goods through wireless handheld devices, is projected to be one of the greatest trends in the e-commerce industry. Some examples of m-commerce include browser-based purchasing, in-app purchasing, virtual marketplace apps (e.g. Amazon, eBay), and digital wallets (e.g. Apple Pay, Google Pay). In 2021, U.S. retail m-commerce sales reached $359.32 billion, and its share of retail sales will double by 2025, which will narrow the gap between mobile and desktop applications. This represented an increase of 15.2% over 2020. By 2025, retail e-commerce sales is projected to more than double to reach $728.28 billion and account for 44.2% of retail ecommerce sales in the US. The fact that Amazon Shopping was the most used app in 2021 highlights this trajectory.

One prominent trend within the m-commerce space is social commerce. After all, with shoppable posts on platforms like Instagram and Facebook, consumers are able to explore and purchase products online solely on these social media apps. Another trend that is emerging is omnichannel shopping. After all, because mobile commerce is emerging as another potential channel, shoppers today are obtaining their info between different channels (e.g. mobile website, within an app, an online store, and a physical store). Such a trend will require merchants to be more engaging with their customers and provide them a smooth and personalized experience, regardless of what platform they are on.

Buy Now Pay Later (BNPL) is also another growing trend in the e-commerce space. Specifically, the appeal of spreading out payments and avoiding interest payments has led many consumers, especially Gen Zers, to embrace BNPL options. BNPL often leads to high spending because customers feel empowered to spend more since their payments are being distributed over a longer period of time. BNPL also often leads to higher conversion rate because it keeps shoppers from bearing the total cost at checkout, leading them to be loyal customers.

## **KPIs within the Industry**:

Metrics within the E-commerce industry are significantly easier to track than other industries due to the complete digitization of data within this industry. Most companies gravitate towards the same handful of metrics, the most prominent being the sales conversion rate, average order value, customer acquisition costs, returning customer rate, and the bounce rate. The sales conversion rate is generally seen as the most important metric, and is essentially the proportion of visitors to the website that make a purchase. The formula looks something like this: CVR = (# of purchases/# of sessions) x 100. The average E-commerce conversion rate is 5.2%, though it does vary based on specific marketplaces and company offerings. Generally, conversion rates are expected to remain steady or increase over time. Average order value is widely regarded as the second most important metric—it tells you the average amount customers are spending on your company in one order. AOV = total revenue/total number of orders; this metric can also be slightly altered to AOPC, which is revenue per customer. This metric is important because it helps gauge revenue and create realistic goals for companies. The average AOV in E-commerce is approximately $106.89, though again, this varies greatly based on company offerings. Customer acquisition costs is another big metric—it tells you how much it costs, on average, to get a new customer. This typically tests how effective a company's marketing efforts are. The equation for CAC is CAC=amount spent on marketing/# of new customers. The average CAC is $45 for E-commerce companies. This metric can be further expanded on to transform into the LTV:CAC ratio, which is the lifetime value of a customer versus its acquisition costs. In E-commerce, this ratio is relatively low, with an average of a 2:1 ratio. The returning customer rate is another large metric, as it tests how loyal your customers are. It is the proportion of customers that have made more than one purchase on one's website. It tests how enticing the actual offerings of the company are, as well as how well the website is designed. The average e-commerce company sees an RCR of between 20% and 30%. Finally, the bounce rate is a metric that is key to understanding how engaging one's website or offering is—it measures the proportion of visitors that look at a website without taking any action. A higher bounce rate may be due to industry, offerings, or the design of the website. The average bounce rate is between 20% and 45%, which is a large spread; however, it does depend on the specific company's offering.

## **Startup #1: Cazoo**:

Cazoo is a fully integrated delivery-based used car marketplace. Based in London, UK, it is one of Europe's fastest growing digital businesses, growing 100% YoY in deliveries with a total funding raised of $2 billion, but a current enterprise value of 677.12 million. Cazoo works to redefine what a consumer thinks a used car business is. Because the market is very fragmented and mostly physical, consumers typically profile used car companies as small and opaque, and with few options. However, Cazoo prioritizes diversity of offering, better quality, transparency, convenience, and piece of mind. They source, purchase, and repair cars before they sell them, which ensures proper vetting of quality. Consumers can purchase, finance, or even subscribe to a car completely online, with delivery in just 72 hours.

Key performance indicators denoted in their 2021 20-F Investor's Presentation included CAC, bounce rate, and average monthly unique users, as well as units sold and total Gross Profit per Unit. The average CAC was 2,170 Euros, and they boasted a newly inflected Gross Profit per Unit of 480 Euros per unit. Though this still implies negative margins, the overall trend of GPU is promising, given that their net GPU in 2020 was -238 Euros. Their average monthly unique visitors was 762,982, and their bounce rate was 42.44%.

Cazoo is a good example of a promising startup that grew too unsustainably and had operating costs that were too high, and thus struggled with maintaining valuation past their SPAC-merger IPO. In 2021, they managed to just squeeze out a positive gross profit of 24 million Euros, but that was quickly dwarfed by their 329,590,000 Euro operating costs, which were approximately 50% of all revenues. Their EBT has been roughly 5x-ing in the wrong direction in the two years post-IPO due to misallocation of cash.

**Startup #2: Instacart:**

Instacart is an online grocery delivery and pickup service that is both B2B and B2C. It offers itself as an e-commerce platform for grocery chains (a fair comparison would be Amazon and smaller stores within the website). The company's competitive edges lie in its technological supremacy, vast network of both suppliers and customers, and a lack of a need for inventory. Instacart received $2.6 billion in total funding, and has been turning a profit since April of 2020, with a valuation of $39 billion.

As Instacart is not publicly traded, there is significantly less information available on its KPIs. However, we still know its bounce rate—44.30%, its active users—9.6 million, and its number of "shoppers", or delivery workers—600,000.

**Startup #3: Italist:**

Italist is a startup that sells luxury goods at a steep discount by taking advantage of foreign exchange rates and lower luxury pricing in Italy. A very small company, it has received $1.1 million in total funding so far. Its yearly revenue is roughly 18 million USD, which gives it an approximate valuation of 100.8 million using a 5.6 EV/Revenue multiplier, which is a conservative read of the industry average. Its competitive edges include lower premiums and its existence in a rapidly growing luxury market, which has a CAGR of 5.4% from 2022 to 2027 and an estimated 419 billion in revenue by 2027.

Italist's sales conversion rate is 1.6%, average order value is $618, CAC is $105, returning customer rate is 36%, and the bounce rate is 47%. The lower sales conversion rates but higher AOV, CAC, and RCR may be due to the startup's nature as a luxury goods provider—people are more likely to window shop for luxury goods, but actual buyers will spend more money and are likely to return, especially if the company has significantly lower prices. Customer acquisition rates, specifically, may be higher because it takes more advertising to get a customer interested enough to purchase expensive products, especially in such a competitive industry.

**Venture Capital Activity:**

There has been a general uptrend in the average value of a deal in the last 6 years, increasing from an average of 14.3 million dollars to 28.7 million dollars. The total amount of deals, on the other hand, has dropped drastically, as VC firms have cited both growing caution of macroeconomic factors (like reduced/flatlining customer discretionary spending), and an increasing wariness of e-commerce startups due to a number of unicorns (like Cazoo) that fell flat after a few years of operations.