Sumantra Chattopadhyay [redacted]

Prof. Christopher Crawford

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PESTEL Analysis

Political

- Criticism over the market size of major e-commerce players has prompted legislators to analyze the situation and deliberate if new laws and regulations are necessary to constrain potentially monopolistic powers
- E-commerce firms from foreign countries, especially China, are a talking point for US and US-allied politicians in terms of competition and human rights issues

Economic

- Steady growth in US per capita disposable income over the last five years (2016-2021) has helped keep e-commerce sales strong because consumers have more income to spend. Per capita disposable income in the US has risen by an annualized rate of 2.7% from 2016 to 2021 (Thomas, 2021).
- Wage growth for the industry, especially for lower-skilled workers employed by major e-commerce players who maintain their own network of warehouses, over the last 5 years has been an annualized rate of 12.9% (*E-commerce sales.*2021). Wage growth for the next 5 years through 2026 is forecasted to be an annualized rate of 9.4% (Thomas, 2021).

Sociocultural

- Social norms about buying more products online have resulted in e-commerce consistently comprising an increasing percentage of all retail sales in the US. Pre-pandemic in Q4 2019, e-commerce comprised 11.3% of US retail sales, and in Q3 2021, it comprised 13%.
- The fallout of COVID has greatly increased the percentage of customers using e-commerce as a safe and quick way to shop for items they would have instead bought in person.

Technological

- Given the importance of mobile transactions for e-commerce sites, the increasing number of mobile internet connections across the globe will enable more e-commerce sales. "By the end of 2020, 51% of the world's population – just over 4 billion people – were using mobile internet, an increase of 225 million since the end of 2019," and this was the first time ever (*The state of mobile internet connectivity report 2021.*2021).
- US internet traffic volume (from all types of devices) increased at an annualized rate of 23.5% from 2016 to 2021, further driving e-commerce sales (Thomas, 2021).

Environmental

- Expanding warehouses dedicated to fulfilling e-commerce orders require developing on new land, challenging the industry to be sustainable while supporting consumer demand
- The power usage related to ordering on and maintaining e-commerce sites has increased as e-commerce itself has grown in importance to the economy. The industry must monitor its power usage if it wants to be sustainably minded.

Legal

- Laws and regulations impacting large e-commerce regarding their market power concentration may impact the industry overall by allowing smaller companies to grow

- Changing labor regulations for hourly wages and workforce conditions stemming from concerns during the pandemic may make it more expensive for companies to hire workers and support their growth

Porter's Five Forces Analysis

Threat of New Entrants

- Threat is high
- Low barriers to entry from decreasing costs of cloud infrastructure to host and support websites, and also from companies making it easier to create e-commerce sites without knowing much about coding (Thomas, 2021).
- Lack of product differentiation between traditional brick-and-mortar retailers and e-commerce sites due to plentiful inventory suppliers, though long-established relationships with suppliers and companies in the industry may offer credit and pricing advantages.

Bargaining Power of Suppliers

- Threat is low
- There are plenty of suppliers that provide diverse products to e-commerce companies. According to IBISWorld, "product differentiation between a traditional retailer and an online retailer is typically nonexistent because products for brick-and-mortar stores and online stores can be sourced from the exact same suppliers" (Thomas, 2021).

Bargaining Power of Buyers

- Threat is low
- Buyers of products from e-commerce sites are usually individual consumers, though businesses comprise a significant part of sales as well. Individual consumers usually have little bargaining power because their individual spending makes up a very small percentage of the e-commerce industry's revenue.

Threat of Substitute Products

- Threat is moderate
- Switching costs between e-commerce and traditional retail industries are low. Consumers can fairly easily go to a physical store to buy many of the products they want rather than buying from e-commerce sites.
- However, the diversity of product offerings online and the convenience of having them shipped to the consumer is likely the single highest switching cost to substitute products such as physical retail stores.

Rivalry Among Firms in the Industry

- Threat is high
- There are many firms in the industry, and no one firm has a majority market share. Though Amazon.com comprised 22.9% of the US e-commerce industry market share in 2021, making it the industry leader, the top 3 largest companies after Amazon, such as Walmart, Apple, and eBay, comprise 10.3% of the market share. This smaller breakdown of market

share ensures strong and robust competition among firms in the industry, encouraging innovation but also keeping prices low (Thomas, 2021).

Which forces are the strongest and which are the weakest?
The threat of new entrants and rivalry among firms in the industry are the strongest forces. The presence of many e-commerce companies (though most of them are very small in size) ensures that consumers have many options in the market. This competition drives down price (good for consumers) and promotes innovation to deliver more valuable products to consumers. Rivalry among firms is also strong because of low barriers to entry driven by increased services for web hosting, search engine optimization, and other tools that cost much less than before, along with a lack of product differentiation for most of the industry.

The bargaining power of suppliers and buyers is low given the vast number of participants in the e-commerce industry. Any given supplier or buyer does not possess the size to pressure the e-commerce industry.

Is this an attractive industry? Why or why not?
Given the low barriers to entry and existing intense rivalry between existing firms in the industry, but also given the low bargaining power of suppliers and of buyers, together with a moderate threat of substitute products, the e-commerce industry is attractive for new entrants who have a solid digital infrastructure and supplier relationships to implement a strategy to set them apart from the numerous other competitors.

Measuring Key Success Factors

The following are key success factors for the e-commerce industry:

a. *Ability to control stock on hand*
   Having enough quantity of each product that is demanded by consumers, including the ability to deliver it to the customer in a reasonable time

b. *Ability to quickly adopt new technology*
   Being able to quickly implement security fixes, adopt best practices in terms of efficiency of maintaining sites and apps, maintain an attractive site and app design to attract customers, use the latest, most efficient warehouse management systems, etc.

c. *Provision of superior after-sales service*
   Being able to handle customer returns, address product fraud and counterfeiting concerns, handle recalls, process warranties, etc.

d. *Having a loyal customer base*
   Being able to keep customers engaged on the site / app so that they keep buying new products from the same e-commerce company

These key success factors can be measured as follows.

Ability to control stock on hand

Measure—inventory turnover, which is the cost of goods sold divided by the average inventory for the period being measured. Inventory turnover shows how efficiently a company uses its inventory to generate sales.

- If the inventory turnover is high, then the company is efficiently generating sales from its inventory
- If the inventory turnover is low, then the company is not efficiently generating sales from its inventory

Ability to quickly adopt new technology

Measure—the number of days it takes for the company to implement security fixes after they are released

Measure—the number of bugs that exist in the company's website and apps, based on consumer complaints and internal software audits

Measure—the web / app traffic before a redesign is released and comparing that increase to web / app traffic that remains after different time periods have passed after the redesign (ex: after 1 day, 1 week, 1 month, and 1 year). Subtract the traffic for a given time period after a redesign from the traffic for the same duration before the redesign

- If the differential is 0 or negative, then more traffic has visited the site / app than before the redesign and this traffic is remaining consistent. This can indicate more engagement.
- If the differential is positive, then less traffic has visited the site / app than before the redesign and this traffic is remaining consistent. This can indicate less engagement.

Provision of superior after-sales service

Measure—the number of days it takes for a customer to successfully return the item they wish to return to the e-commerce company and receive a refund or store credit; the % of returns made

Having a loyal customer base

Measure—the percentage of revenue that is generated by customers who have placed previous orders with the company

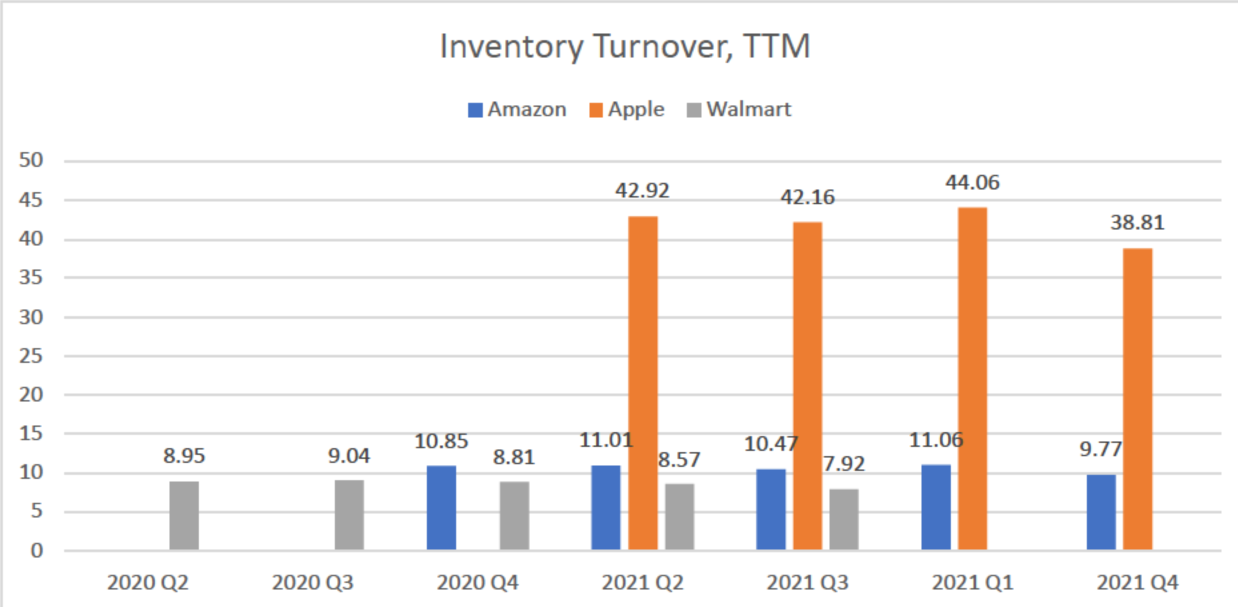
Industry Averages for Key Success Factors & Amazon's Performance

Ability to control stock on hand

- *Comparing Amazon to the top 2 other companies by market share* (Amazon com inc

  inventory turnover ratio (COS).2022; Apple inc inventory turnover ratio (COS).2022;

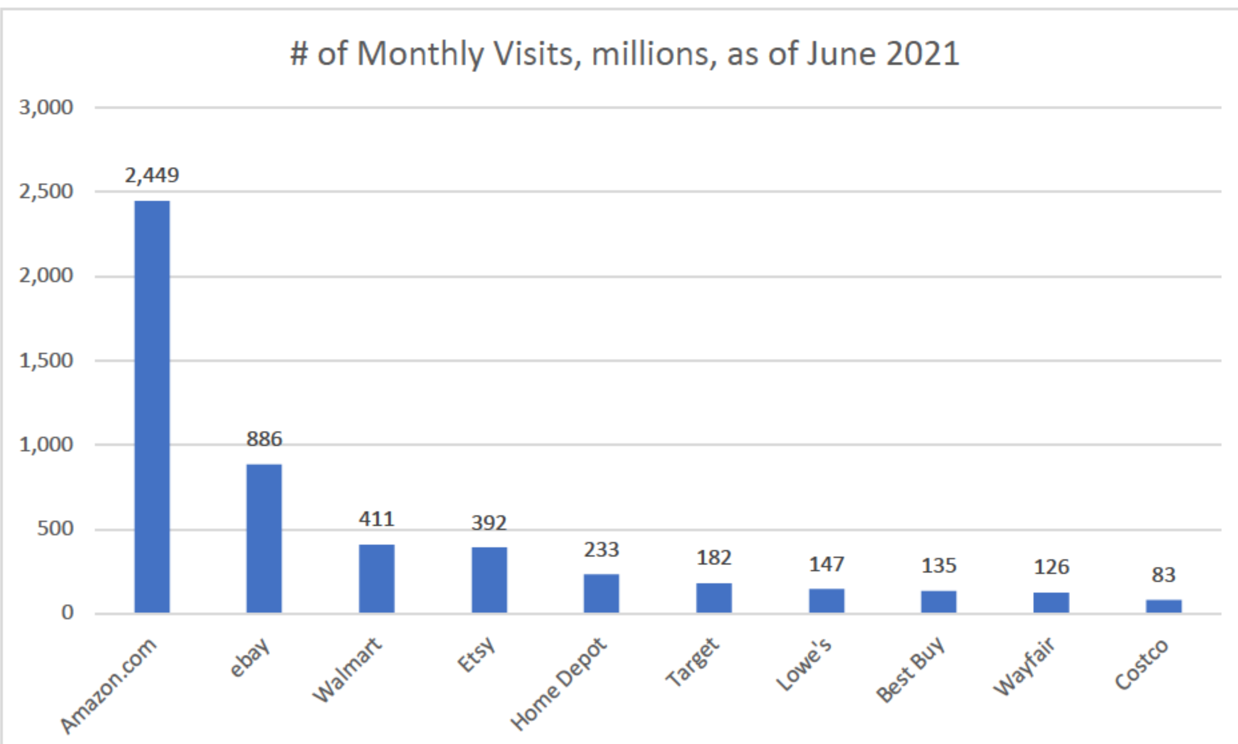
  Walmart inc inventory turnover ratio (COS).2022)



Ability to quickly adopt new technology

- *Comparing Amazon to major e-commerce sites by web traffic (imperfect data availability)*

  (Chevalier, 2021b)



Provision of superior after-sales service

- *Industry average*: 20% (Dopson, 2021)

- *Amazon average, 2021*: 0.496%

  Amazon's average was calculated by dividing the final allowances for returns in 2021 by net product sales in 2021, as disclosed in the 10-K annual report for Amazon's fiscal year 2021 (*Amazon.com, inc. annual report for 2021.*2022).

Having a loyal customer base

- *Industry average, 2020*: 27% (Trever, 2021)

- *Amazon average for Prime, Q1 2020:* 70% (Chevalier, 2021a)

VRIN Analysis

Distribution network & delivery fleet

- **Valuable**
  - Fast, reliable delivery to most zip codes in the US and around the world are partially the reasons why many customers buy from Amazon. This resource and the ability of Amazon to harness it adds tremendous value through strong sales growth and customer retention.
- **Rare**
  - Though other major e-commerce companies have their own distribution networks, Amazon is unique in that it has and is further expanding a full delivery fleet including planes, trucks, and vans from warehouse to end-customer distribution
  - Other e-commerce companies usually depend on shipping carriers like UPS, FedEx, and USPS to handle delivery to the customer
- **Costly to imitate**
  - E-commerce companies need to grow to a massive scale to be able to handle the operational burdens of managing a company's own distribution network and delivery fleet, including hiring on a large scale to support this expansion
- **Nonsubstitutable**
  - There are substitutes for Amazon's homegrown delivery fleet in terms of using a common shipping carrier. However, the homegrown fleet enables greater control over operations that cannot be replicated with regular carriers.
- **Competitive Advantage?**
  - Though not fully nonsubstitutable, Amazon's distribution network and delivery fleet provide a competitive advantage for the company by satisfying the other criteria in the VRIN framework.

Tight integration with AWS to manage MIS and other processes

- **Valuable**
  - AWS allows Amazon access to its own massive scale of cloud infrastructure to efficiently run any analytical workload, any new machine learning initiative, and other initiatives like that.
  - These initiatives allow Amazon to constantly improve its operations, driving down costs for customers, attracting new customers and sales.
- **Rare**
  - Outside of a few tech companies that have major cloud infrastructure, it is somewhat rare for other e-commerce companies to use the full scale of the cloud to make their MIS and other systems more efficient. Though public clouds like AWS, Google, and Microsoft Azure help many companies transition to the cloud, a company owning its own cloud would offer the most amount of control.
- **Costly to imitate**
  - Using public cloud services is much cheaper than building a cloud, but for the maximum benefit, building a cloud system from scratch would require high investment in physical assets (data centers) and intangible assets (like intellectual property to run the cloud).
- **Nonsubstitutable**
  - There are substitutes for cloud infrastructure (utilizing either public cloud services or building a private cloud)
- **Competitive Advantage?**
  - AWS provides Amazon with a moderate competitive advantage because the company can control its own cloud infrastructure to provide efficient solutions to keep improving the customer experience and add value. However, other competitors can utilize cheap cloud infrastructure to enhance their operations as well.

Value Chain Analysis

Support Functions

Finance

- Net product and services sales (almost $470 billion in FY 2021), generating $46.3 billion in cash from operating activities for the firm to use for other purposes like expansion (*Amazon.com, inc. annual report for 2021.*2022).
- Inventory turnover in the low double-digits for Amazon indicate effective conversion of inventories to sales

Human Resources

- Allegedly poor working conditions at Amazon warehouses, as reported by current and former employees detract from any value provided by Amazon's HR activities
- Numerous employee complaints (from the retail and warehousing side of Amazon, not AWS) resulted in an annual turnover rate of 150% in 2021 (Kelly, 2021).

Management Information Systems

- Amazon is transforming its warehouses to be faster and more efficient, using its AWS infrastructure and machine learning algorithm (*Amazon.com, inc. value chain analysis.*2022).
- Using tracking & analytics software, Amazon maintains a rich database of customer information that it uses to entice repeat business and promote its own services like Prime.

Value Chain Activities

Supply-Chain Management

- The company offers third-party sellers Amazon fulfillment centers for sellers to store their goods and use Amazon's robust delivery network to deliver third-party goods to customers
- Fulfillment by Amazon option adds value to customers by reducing delivery uncertainties

Operations

- Amazon has synergies in owning several services like AWS, Prime Video, Music, etc. that can be bundled together to provide extra value for customers, keeping them in the Amazon ecosystem
- Energy sourced from various third-party suppliers can be produced in-house, giving Amazon greater control over its energy supply, especially in increasing sustainability

Distribution

- Major fulfillment centers strategically located close to major population hubs and smaller fulfillment centers ensure consistently fast delivery for big and small communities alike
- Switching from using traditional shipping carriers like UPS, FedEx, and USPS to using its own delivery fleet, Amazon has more control over its distribution methods and how they are used to better serve customers

Marketing & Sales

- Aggressive marketing offers customers a wide range of products and services for a lower cost, fast delivery, and good customer service
- Amazon spent $32.6 billion on marketing expenses in FY 2021, 6.93% of the company's net sales (*Amazon.com, inc. annual report for 2021.*2022).

Follow-Up Service

- "The firm is consistently ranked top of American Customer Satisfaction Index (ACSI) and UK Customer Satisfaction Index (UKCSI). Amazon claims it is seeking to be "the Earth's most customer centric company" and is efficient in dealing with customer returns" (*Amazon.com, inc. value chain analysis.*2022).

- Increasing physical presence through the company's acquisition and expansion of Whole Foods increases touch-points with customers and provides better service opportunities

SWOT Analysis

Threats

- Highly competitive environment with more traditional brick-and-mortar companies transitioning to e-commerce. Leveraging their existing brands and strong customer loyalty but simply moving to a digital format, these companies may pose a threat to Amazon who has strong customer retention but no brand association / loyalty the same way a company like Louis Vuitton may have.
- Governments across the world are increasing their scrutiny of big companies like Amazon who have control over large industries due to their size. Potential new laws and regulations could result in Amazon being broken up into smaller entities, lowering synergies between them and impacting the bottom line. Labor regulations are also a potential threat.

Opportunities

- Taking advantage of the forecasted increase in e-commerce growth, Amazon should expand its product and service offerings to cater to more customers interested in the e-commerce experience.
- The "online retail sector in the US is forecast to reach US$636.1 billion in 2023. Online pureplay was the leading mode of sales in the US retail sector, accounting for a 53.3% share, while multi-channel retail accounted for the remaining 46.7%. The US accounts for about 72.6% of the global online retail sector value" (*Amazon.com inc. SWOT analysis.*2022).

Weaknesses

- Though the company has strong revenue growth each year, "it depends on the US for [the] majority of its revenue. In FY2020, the company generated 68.3% of the revenue from the US" (*Amazon.com inc. SWOT analysis.*2022). This geographic risk can expose the company to potential US-specific events in terms of regulation, environmental disasters, economic recessions, and other developments.
- The company's increasing liabilities to fund investments reduces liquidity, potentially putting Amazon in a more leveraged position that makes it more sensitive to external factors.
- Employee dissatisfaction and turnover, especially at the retail operations (Amazon.com) level result in volatile internal culture and can hold the company back from expanding

Strengths

- Expansive distribution network and delivery fleet ensure timely delivery of a wide variety of products to consumers (as mentioned in the VRIN analysis)
- Amazon has a diverse customer base, not only relying on individual consumers making e-commerce purchases, but also sellers of products, developers and business customers on AWS.
- Strong, steady revenue growth YoY. In FY 2021, the company experienced 18% YoY growth in net sales (*Amazon.com, inc. annual report for 2021.*2022). “In FY2020, the company generated revenue of US$386,064 million as against US$280,522 million in FY2019, with an annual growth of 37.6%” (*Amazon.com inc. SWOT analysis.*2022).

Primary Strategic Issue of Amazon

Amazon is a strong company, with many metrics indicating it is an industry leader. However, its main strategic issue is the company’s poor handling of employee complaints, employee management, and ensuring safe working conditions, especially on the “frontlines” in warehouses and the distribution network. Failing to address these issues results in a toxic workplace culture that can fester and demotivate employees to work in a productive manner. If the problem continues to grow, then Amazon might face challenges in finding employees to keep up with its growth and result in shipping and order processing delays for customers.

Potential Recommendations

- **Establish a clear, tiered compensation and benefits guide for employees, paying for performance**
  - Clear communication regarding compensation and benefits including what is required to achieve higher levels of pay and benefits will motivate employees to be more productive, help the company, and be rewarded for it
- **Establish clear rules for workplace safety and monitor how closely they are followed, including establishing an anonymous hotline for internal reporting of violations**
  - This recommendation protects employees by ensuring they understand what they can expect from the company, and having hard records of any potential safety violations
  - This recommendation also protects the company by ensuring there are hard records to challenge potentially fraudulent claims by employees and the internal hotline allows the company to investigate matters internally, saving bad publicity
- **Outsource HR operations to an external company**
  - Amazon will be able to save time, money, and effort by outsourcing a part of its value chain support activities that detracts value, at least regarding its retail operations

- The external company would have better processes in place to capture employee complaints and address them efficiently, ensuring that Amazon's culture is improved, employee satisfaction increases, and employee turnover decreases.

In retrospect, Amazon is in a strong position compared to its industry peers but can benefit from strengthening its employee relations, especially in its retail operations. The best way to achieve this is to hire an external HR consulting firm that Amazon can outsource to. The company will implement best practices to ensure that Amazon employees are in a safe work environment, receive sufficient pay for performance, and can have their complaints heard and addressed in an efficient manner. Employee satisfaction and performance will increase, further strengthening Amazon from the inside. By implementing this recommendation, Amazon will keep growing and continue to outperform its industry peers.

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