

E-Commerce and the Entertainment Industry

A Research Paper Submitted to the Department of Engineering and Society

Presented to the Faculty of the School of Engineering and Applied Science
University of Virginia • Charlottesville, Virginia

In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science, School of Engineering

Vivian Pham

Spring 2020

On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

Advisor

Richard D. Jacques, Ph.D., Department of Engineering and Society

Abstract

Much of humanity's accomplishments are mirrored through the evolution of technology. Throughout the years since the origins of technology, society has become increasingly dependent on technology and its application to everyday tasks. This thesis will analyze the impact that e-Commerce has on the entertainment industry. Using the Actor-Network Theory, this thesis will discuss the many components of technology, specifically e-Commerce, that have changed and influenced how the world of entertainment works. A case study will be performed on the bankruptcy of the major brick-and-mortar store, Blockbuster, to see the negative impact that e-Commerce has on the entertainment industry. Through an in-depth look at the origins of e-Commerce and how it has grown to have an immense impact on society, this thesis will describe the impact of technology on the different sectors of entertainment.

Introduction

The retail market was faced with monumental growth with the rising development of electronic commerce, or e-Commerce. E-Commerce provided another avenue for consumers to purchase goods and services. In 2015, more than ten percent of all retail transactions in the United States were attributed to e-Commerce (“From Storefronts to Search Engines: A History of E-Commerce”, 2016). In years following 2015, e-Commerce has had a consistent rising share in the retail market as seen in Figure 1.

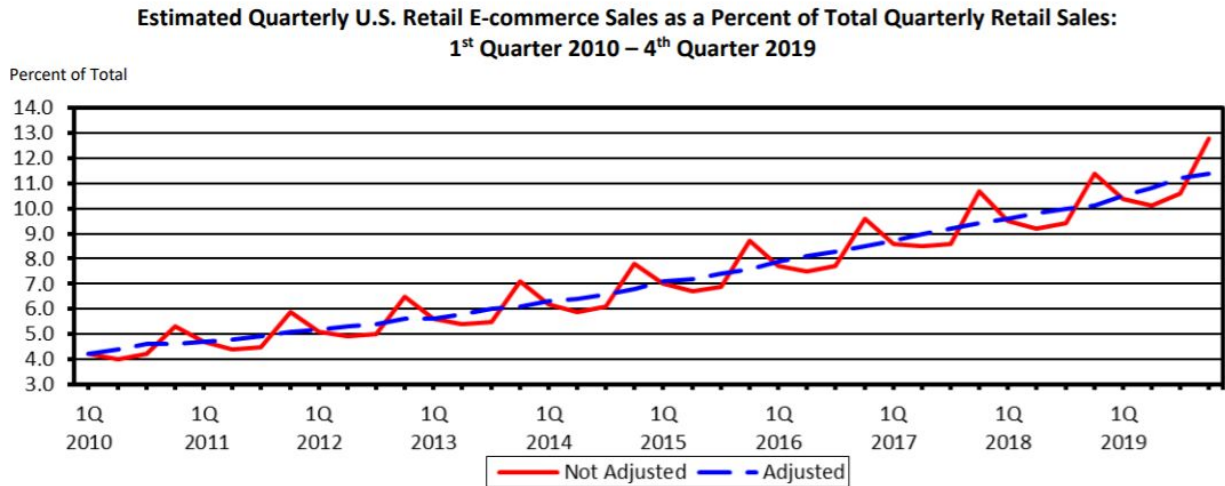


Figure 1: U.S. Retail E-commerce Sales as a Percentage of Total Quarterly Retail Sales. (U.S. Census Bureau).

In February 2020, the U.S. Census Bureau announced that the estimate of U.S. retail e-Commerce sales for the fourth quarter of 2019 was \$158 billion, an increase of 2.6 percent from the previous quarter (U.S. Census Bureau). Compared to 2018, total e-Commerce sales for 2019 were estimated at \$601.7 billion, an increase of 14.9 percent (U.S. Census Bureau). E-Commerce sales in 2019 accounted for 11 percent of total sales in the retail market (U.S.

Census Bureau). With the growth of e-Commerce comes more influence it may have over the retail sector.

Another field we can see the strong influence of e-Commerce in is the entertainment industry. The amount of e-Commerce startups in entertainment have risen due to the development of new technologies that allow everyday activities to be more digitized. Additionally, the rising disposable income levels have allowed consumers to divulge in more media and entertainment services available (“Convergence of E-commerce & Media and Entertainment Sectors”, 2019). This change has led to the rise of media and entertainment as top sub sectors within e-Commerce.

Throughout this paper, I will analyze the relationship between e-Commerce and the entertainment industry. I will describe the positive aspects of the relationship while contrasting them with the negatives that also occur in this relationship. I will utilize the Actor-Network theory to highlight key components of e-Commerce that have an effect on entertainment. In this paper, I argue that e-Commerce has a strong impact on the entertainment industry through its utilization of the growing popularity of technology in society.

Part 1: E-Commerce having a positive impact on the entertainment industry

E-commerce companies within the entertainment industry from the creation of content to its distribution and consumption to consumers (“Convergence of E-commerce & Media and Entertainment Sectors”, 2019). These companies are low in number but have found immense success, reflected in their investments. In 2018, investments for e-Commerce companies were recorded at \$2 billion while the number of deals was less than 25 (“Convergence of E-commerce & Media and Entertainment Sectors”, 2019). This shows that companies within this sector value

quality over quantity, pouring their funds into businesses they believe will flourish. Existing businesses in the entertainment industry have also embedded e-Commerce technology into their business models in an attempt to add value for the consumer (Kendall and Kendall, 2001). In this section, I describe the positive results that emerged from the relationship between e-Commerce and the entertainment industry.

Increasing Ticket Sales

Prior to the widespread use of the internet to purchase event tickets, consumers typically scanned through newspapers to get information on movie showtimes. They would then call ahead to reserve a ticket or go straight to the box office in order to purchase their tickets. As e-Commerce began to make its way into the retail market, two third-party ticketing websites, Fandango and MovieTickets.com, emerged to play a critical role in the movie industry. These websites offered the movie industry the ability to aggregate showtimes and ticket purchasing for movie theaters. They soon began to form a monopoly, being unrivaled since movie theaters saw little need to develop their own in-house ticketing solutions (Pahle and Loria, 2019). Fandango's chief commercial officer, Kevin Shepela, said "We super-serve more than 60 million moviegoers per month with the world's leading online mobile movie discovery and ticketing tools". With such a widespread reach on the moviegoer demographic, movie ticketing websites have become even more popular in society. Studies show that more audiences are choosing to buy movie tickets online instead of in person (McNary, 2019). In fact, online movie ticket purchases increased by 18.7 percent in 2018 while box office purchases fell by 5.4 percent. Online ticketing currently accounts for around 25 percent of all tickets purchased (McNary, 2019). Compared to people who purchase their tickets in person, online ticket buyers were 1.7 times more likely to

visit the theaters in groups of two or more (Mendelson, 2019). Studies have also shown that moviegoers who purchase their tickets online are more likely to purchase concessions and upgrade to premium seating (Mendelson, 2019). As a whole, this shows that the existence of e-Commerce applications allow the movie industry to amass more revenue. As various chains of movie theaters begin to create their own ticket purchasing applications, creating more competition within the movie ticketing industry, we will see a rise in online ticketing.

The Convenience Factor of E-Commerce

From the consumer's point of view, e-Commerce provides an additional way to purchase goods and services. This method can also be connected to the entertainment industry, specifically movies. E-Commerce has allowed for ease of access for consumers who wish to purchase tickets in advance for a movie showing. Fandango and MovieTickets.com initially started off as websites people could access to purchase their tickets. As technology has continued developing over the years, mobile applications geared toward selling tickets have also gained popularity (Pahle and Loria, 2019). Movie theater companies have begun creating their own applications to independently sell tickets as well. E-Commerce has made it easier for consumers to find showtimes and purchase their tickets through a variety of digital platforms. With the widespread availability of mobile applications, consumers are able to purchase tickets wherever they are at any time of day. Fandango has 70 percent of their customers browsing movies and purchasing tickets from their mobile devices (Pahle and Rifkin, 2019). With such a massive proportion of users coming from the mobile applications, these ticketing services have increased their development efforts to create new mobile innovations that make the ticket buying process easier and more enjoyable (Pahle and Rifkin, 2019). Movie theaters have begun incentivizing the use of

their applications to purchase tickets by implementing a rewards system (Mendelson, 2019). The rewards system encourages consumers to purchase more items, earning points in return that they can redeem for certain items in the movie theater. E-Commerce makes purchasing items simple, as this can be done at any time of day from the palm of your hand. With the growing digitization of society, this aspect of e-Commerce makes it appealing to the modern consumer.

Part 2: E-Commerce and its negative effects on entertainment

While it can be argued that e-Commerce has positively contributed to the entertainment industry, there are a few drawbacks that come with its rising influence in the retail market. E-Commerce has the potential to wipe out existing brick-and-mortar companies due to its rapid adaptation to technological changes. Companies that want to stay relevant and competitive should take a note of the key components that e-Commerce gets right (Wallace, 2019). This section will discuss e-Commerce's battle with existing companies in the entertainment industry.

Blockbuster's Downfall

The story of Blockbuster, a national movie-rental chain, shows the significant impact that e-Commerce had on the entertainment industry. At its peak in 2004, Blockbuster made 6 billion dollars in revenue. However, just a short 6 years later, the company filed for bankruptcy (Tyler, 2017). In a way, the rise of e-Commerce can be attributed to the failure of the movie rental company. Subscription services such as Netflix began to challenge Blockbuster's business model. In its initial days, Netflix was a DVD by-mail subscription service (Davis and Higgins). At this time, Blockbuster was strictly a brick-and-mortar company that dominated the video rental business. Blockbuster ignored the innovations that Netflix was beginning to implement, believing that the profit margins and markets were not as attractive as its established business

model (Tyler, 2017). Additionally, pursuing this new business model would mean a dramatic shift from what Blockbuster has built over the years. These factors solidified Blockbuster's decision to remain a brick-and-mortar operation. By the time Blockbuster adopted the new innovation of a mail subscription service, Netflix had already made a significant cut into the market, taking away from the company's customer base (Davis and Higgins). Blockbuster's failure to adapt to the rapid changes in the retail industry caused by e-Commerce ultimately led to its demise. As seen in Figure 2, Netflix's steady rise gave way to the bankruptcy of Blockbuster.

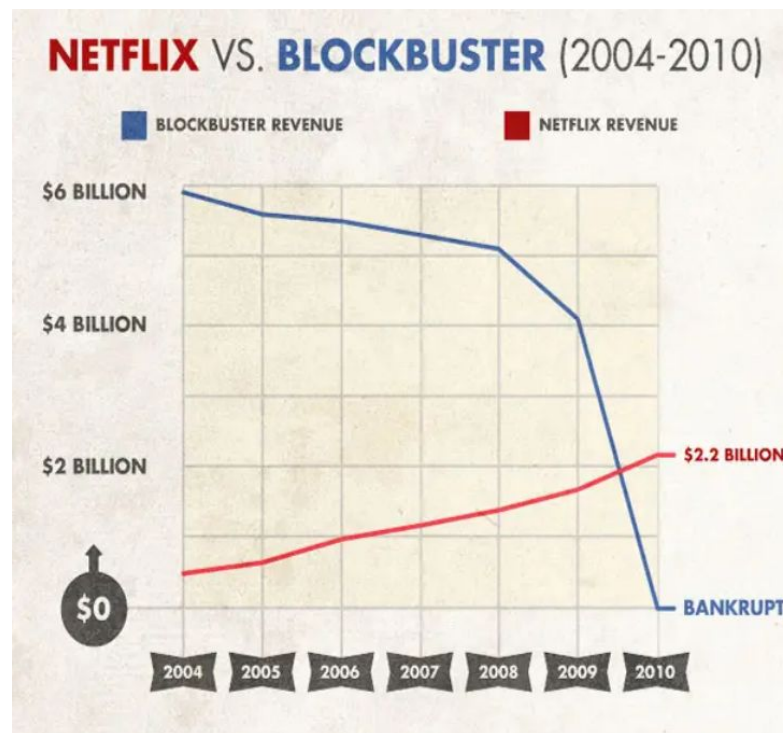


Figure 2: Netflix's growth compared to Blockbuster's downfall (O'Neill, 2011).

Netflix started as an entertainment company in the US, specializing in providing streaming media and video-on-demand online and through DVDs sent by mail (Mandal, Diroma, and Jain, 2017). Netflix's growth has not been attributed to a single business model. The

company's method of customer acquisition and retention has varied over its entire lifetime (Mandal, Diroma, and Jain, 2017). This is one factor that makes e-Commerce companies different from their brick-and-mortar counterparts, since stores like Blockbuster do not have the means to continually test multiple business models.

Cable Television and Cord-Cutting

The rise of Netflix disrupted more than just the brick-and-mortar movie rental business. It led to a cultural revolution, creating a new world where many households ceased to use cable television. In its beginnings, Netflix was simply a DVD-by-mail business. As the company grew, it transformed into a streaming platform where users could view movies and television shows to their pleasure. Netflix's newest endeavor is its own original programming, which looks very similar to premium cable programming (Osur, 2016). In her dissertation, Osur states that, "Netflix now competes as much with the broadcast and cable networks as it does with the Blockbusters and HMVs of the rental and purchase industries." Netflix's competition with Blockbuster can be compared to its competition with networks. The streaming service allows customers to view a variety of television shows and movies to their pleasure. Again, the convenience factor of e-Commerce comes into play, giving Netflix an advantage over cable networks, which have scheduled viewing times for specific shows. Many other online streaming companies are attempting to follow in Netflix's footsteps, including Hulu and Youtube. With so many options, a customer could choose to subscribe to multiple of these streaming services. In total, the price paid will be cheaper than a cable network subscription. Cord-cutters, or households who decide to cancel their cable subscription, have been increasing year-by-year. In 2018, 90.3 million U.S. households subscribed to cable or satellite television. This number

dropped by almost 4 million the next year to 86.5 million, and is continually expected to drop even further in coming years (“Cord Cutting Statistics for 2020). Figure 3 shows the projected amount of households who don’t pay for cable television compared to households who do not pay for cable television.

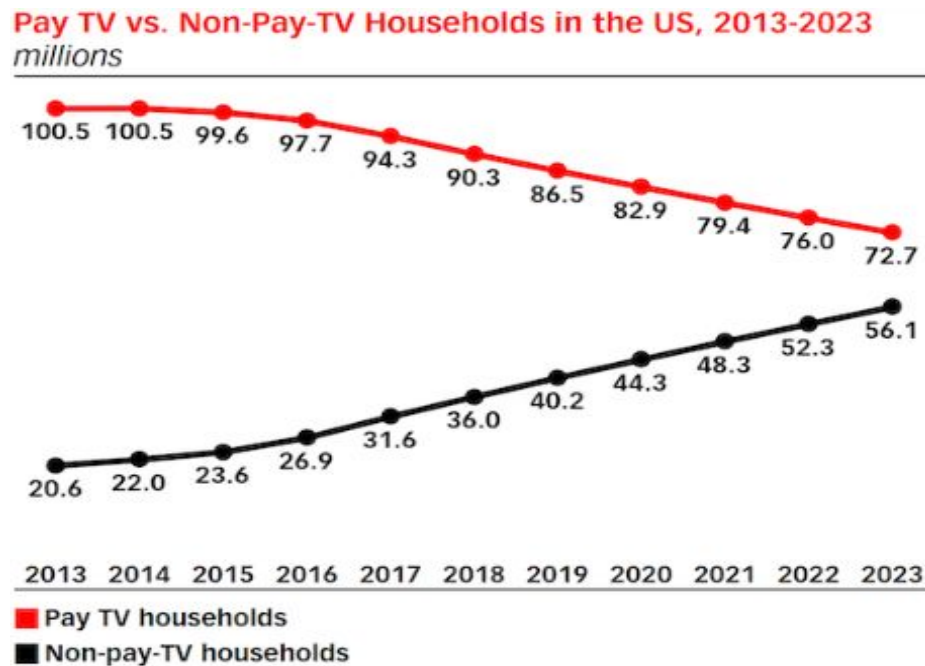


Figure 3: Pay-TV households vs. Non-pay-TV households in the United States (“Cord Cutting Statistics for 2020”).

In addition to cord-cutting households, cable networks are losing business from a key demographic: the millennials. Growing up in the age of technology, millennials have chosen not to purchase a cable service when they enter the workforce (“Cord Cutting Statistics for 2020”).

CD sales - Spotify

E-Commerce also had an impact on music, specifically the sales aspect of the music industry. In the 90s and early 2000s, physical tapings were the main source for listening to music (Hesmondhalgh and Meier, 2018). In 2000, the United States grossed over \$12 billion in annual

sales of recordings, which include CDs, cassettes, and vinyl records (Fox, 2004). In later years, the music industry saw a drop of 2.6% in music sales and a massive decrease in CD sales by 36% (Fox, 2004). One of the biggest factors contributing to this change is the availability of music to be downloaded from the Internet. Studies showed that by 2001, an estimated 30 million American adults had downloaded music online (Fox, 2004). Music continued to be downloaded online until 2008, when Spotify debuted a unique and legal way to stream and listen to a collection of music. Spotify's business model revolves around letting customers listen to music without having to own the singles themselves. The subscription service provides an advertisement-free experience along with additional features such as unlimited skips through playlists. Downloadable music and music subscription services led to a redistribution of power from major record companies to music consumers and artists (Hesmondhalgh and Meier, 2018). The movement away from physical CDs was just the beginning of society's journey toward digitization.

Actor-Network Theory

The Actor-Network Theory framework can be used to analyze the relationship between e-Commerce and entertainment. The bulk of the network involves technology, specifically computer technology, online payment systems, and specialized programs within each industry. We can also look toward e-Commerce companies as a major actor in this network, as they provide the applications that consumers will interact with within the network. Lastly, the consumer is an important actor, as they are the ones indulging in the e-Commerce systems, allowing companies to gain revenue. A summary of the actors and their relationships to e-Commerce and entertainment can be found in Figure 4.

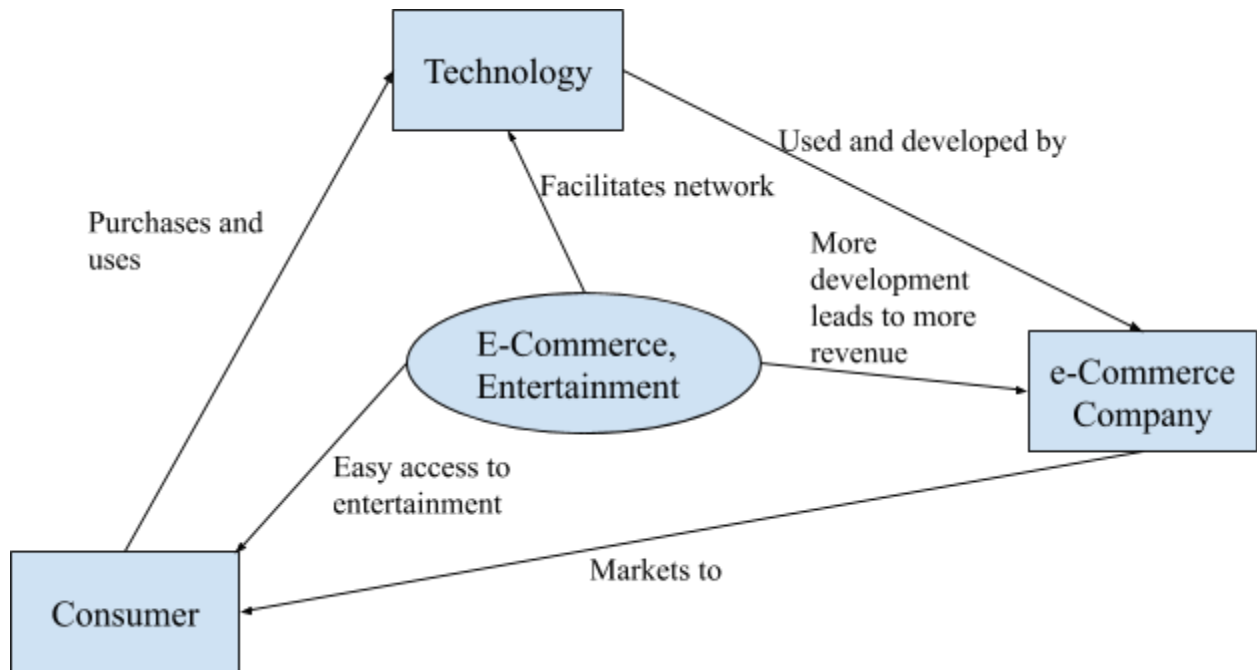


Figure 4: Actor-Network Theory Framework Summary (Created by author).

Technology paved the way for the existence and eventual success of e-Commerce within the entertainment industry. The invention of the Internet was soon followed by e-Commerce technology. E-Commerce became conceivable in 1991 when the internet was allowed to be used for business purposes (What is the History of the Ecommerce Platform? – An Overview, 2020). However, e-Commerce did not become widely used until the late 2000s. In 2003, just over 20 percent of Americans had broadband in their homes (What is the History of the Ecommerce Platform? – An Overview, 2020). This does not necessarily mean that these Americans were accessing the internet to shop. The 2010s were considered the world’s first “computerized age” (What is the History of the Ecommerce Platform? – An Overview, 2020). This is the period where computer as well as mobile phone usage became a norm among society. Only at this point would it be possible for e-Commerce to grow and amass a huge influence on the retail market and entertainment industry.

E-Commerce companies are also major players in the network. Notable ones discussed in this thesis are Netflix and Spotify. More e-Commerce startups are emerging as new technologies allow for society to become more digitized (“Convergence of E-commerce & Media and Entertainment Sectors”, 2019). These startups are paving the way to digitize societal activities such as watching television and listening to music. No matter what sector of entertainment an e-Commerce company caters to, the common link between them all is the use of the internet. Ebay's acquisition of PayPal in 2002 meant consumers were less afraid of the level of security involved in online transactions (What is the History of the Ecommerce Platform? – An Overview, 2020). Following this transaction, e-Commerce companies were able to grow and network across multiple markets.

The consumer plays a major role in the e-Commerce and entertainment network. Most of the decisions a consumer makes will have a direct impact on the success of a company in the long run. Therefore, the companies must learn how to market their product in order to gain a client base. Factors that explain why people choose to shop or do business online can be summarized into four categories: convenience, information, available products and services, and cost and time efficiency (Katawetawaraks and Wang, 2011). Convenience is a factor that was addressed earlier. Katawetawaraks and Wang refer to the research of The Tech Faq, which states that 58 percent of consumers chose to shop online because they had the ability to shop after typical business hours. 61 percent of respondents preferred to shop online as it allowed them to avoid crowds and long lines (Katawetawaraks and Wang, 2011). The convenience factor of e-Commerce is something that typical brick-and-mortar businesses cannot compete with, providing continual access to goods and services online. Another reason why consumers choose

to shop online is the abundance of information provided. They are able to view all available options at once, rather than having to walk through a physical store in order to touch and feel the product or service they are looking for. Websites also provide product reviews by other customers, giving them even more information to help them make a decision to purchase (Katawetawaraks and Wang, 2011). E-Commerce has another advantage in that it provides a wide variety of products and services that consumers can choose from. Lastly, e-Commerce provides the consumer with more savings on cost and time. For e-Commerce businesses in the entertainment industry, they should be able to utilize these factors in order to gain and retain new customers. Understanding the motivations that lead consumers to buy online will allow businesses to better market themselves.

Conclusion

Throughout this paper, I discuss the relationship between e-Commerce and the entertainment industry, diving deeper into the positive and negative aspects that have resulted. E-Commerce has acted like an extension of existing companies in the entertainment industry, providing another means of purchasing tickets. This allows the businesses to gain more revenue through multiple sources. Additionally, I argue that e-Commerce has made shopping much more convenient, as mobile applications are accessible from the palm of our hands. Taking a look at the negatives, I touch upon Netflix and Blockbuster, showing how Netflix was able to embrace and adapt to technological changes while Blockbuster lagged behind, which eventually led to its downfall. Additionally, I discuss how the rise of subscription streaming programs led to an increase in cord-cutting among American households. A similar pattern exists for CD sales, as

more consumers are using subscription programs instead of purchasing physical copies of albums.

The use of the Actor-Network Theory allowed for a deeper analysis of the inner workings of the e-Commerce and entertainment network. Technology is clearly an important factor, as the core of e-Commerce relies on it. E-Commerce companies and startups took advantage of the change in society as it turned toward technology to complete daily activities. I took a deeper look at the role of the consumer within this network, focusing on what motivates them to turn to the internet to do their shopping. This analysis can be applied to the e-Commerce businesses working in entertainment as they will know what is needed to grow their consumer base. Using the Actor-Network Theory, I can see how each actor in the network interacts with others. I conclude that e-Commerce and the entertainment industry are very closely entwined, resulting in both positive and negative effects to the entertainment industry.

References

- Convergence of E-commerce & Media and Entertainment Sectors. (2019, November 13). Retrieved from <https://hexgn.com/convergence-of-e-commerce-media-and-entertainment-sectors/>
- Cord Cutting Statistics for 2020. (n.d.). Retrieved from <https://nocable.org/learn/cable-tv-cord-cutting-statistics>
- Davis, Todd and Higgins, John (2013). A Blockbuster Failure: How an Outdated Business Model Destroyed a Giant. Chapter 11, Bankruptcy Case Studies. Retrieved from http://trace.tennessee.edu/utk_studlawbankruptcy/11
- Fox, Mark. (2004). E-commerce Business Models for the Music Industry. *Popular Music and Society*, 27, 201-220. 10.1080/03007760410001685831.
- From Storefronts to Search Engines: A History of E-Commerce. (2016, July 28). Retrieved from <https://online.csp.edu/blog/business/history-of-ecommerce>
- Hesmondhalgh, David and Meier, Leslie (2018) What the digitalisation of music tells us about capitalism, culture and the power of the information technology sector, *Information, Communication & Society*, 21:11, 1555-1570, DOI: 10.1080/1369118X.2017.1340498
- Katawetawaraks, C., & Wang, C. L. (2011). Online Shopper Behavior: Influences of Online Shopping Decision. *Asian Journal of Business Research*, 1(2). doi: 10.14707/ajbr.110012
- Kendall, Julie E. and Kendall, Kenneth E. (2001) A Paradoxically Peaceful Coexistence Between Commerce and eCommerce. *Journal of Information Technology Theory and Application (JITTA)*: Vol. 3 : Iss. 4 , Article 3.
- Mandal, G. K., Diroma, F., & Jain, R. (2017). Netflix: An In-Depth Study of their Proactive & Adaptive Strategies to Drive Growth and Deal with Issues of Net-Neutrality & Digital Equity. *IRA-International Journal of Management & Social Sciences (ISSN 2455-2267)*, 8(2), 152. doi: 10.21013/jmss.v8.n2.p3
- McNary, D. (2019, March 11). Audiences Bought More Movie Tickets Online in 2018. Retrieved from <https://variety.com/2019/film/news/online-movie-tickets-1203160642/>

- Mendelson, S. (2019, March 12). More Moviegoers Buying More Of Their Tickets Online, Study Shows. Retrieved from <https://www.forbes.com/sites/scottmendelson/2019/03/11/more-moviegoers-buying-more-of-their-tickets-online-study-shows/#5d6f37f14003>
- O'Neill, M. (2011). Retrieved from <https://www.businessinsider.com/how-netflix-bankrupted-and-destroyed-blockbuster-info-graphic-2011-3>
- Osur, L. (2016). Netflix and the Development of the Internet Television Network. Retrieved from <https://surface.syr.edu/etd/448>
- Pahle, R., & Loria, D. (2019, September 26). The Digital Box Office: How E-Commerce Is Impacting the Movie Theater Business. Retrieved from <https://www.boxofficepro.com/digital-ticketing-movie-theaters-ecommerce/>
- Pahle, R., & Rifkin, J. (2019, August 5). Fandango Movie Ticket Sales Increase 63% in 1st Quarter of 2016 as Company Expands with New Mobile Innovations and Ticketing on Flixster and Rotten Tomatoes. Retrieved from <https://www.boxofficepro.com/fandango-movie-ticket-sales-increase-63-in-1st-quarter-of-2016-as-company-expands-with-new-mobile-innovations-and-ticketing-on-flixster-and-rotten-tomatoes/>
- Tyler. (2017, February 2). Blockbuster: It's Failure and Lessons to Digital Transformers. Retrieved from <https://digital.hbs.edu/platform-digit/submission/blockbuster-its-failure-and-lessons-to-digital-transformers/>.
- U.S. Census Bureau (2020). Quarterly Retail E-Commerce Sales: 4th Quart 2019. Retrieved from https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf
- Wallace, F. (2019, May 22). E Commerce: Disrupting The Film Industry?. Retrieved from <https://battleroyalewithcheese.com/2019/05/how-e-commerce-is-disrupting-the-film-industry/>
- What is the History of the Ecommerce Platform? – An Overview. (2020, February 22). Retrieved from <https://www.builderfly.com/what-is-the-history-of-the-ecommerce-platform-an-overview>