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HOW ONE COMPANY DISRUPTED THE WHOLE INDUSTRY

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Abstract

The way internet changes organizations and their structures have been visible to the eye for a while now. Digitization does not only change companies but also challenges their whole existence, constantly pushing them to prove themselves. The concept of digital disruption can be a sign of an end for the traditional companies which do not adapt fast enough.

Our paper focuses on the identification of factors that could foretell the future of a company by analyzing the case of Netflix and Blockbuster. Examining the factors of disruptive innovation theory, project life cycle and technological life cycle our findings revealed how Netflix revolutionized the film industry itself over the years, as well as what Blockbuster lacked and ultimately required in order to survive. Furthermore, our paper looks beyond Netflix's AI solutions to reveal a glimpse of what is to come.

Keywords:

Digitization, Disruptive innovation, Innovation, Netflix vs Blockbuster, Film production and distribution

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Glossary

Artificial Intelligence (AI)

Machines that simulate human intelligence and are programmed to think like humans and mimic their actions are referred to be artificial intelligence (Frankenfield, 2020).

Big Data

Large, diverse sets of information that grow at ever-increasing base, which often come from multiple sources and in multiple formats are known as Big Data (Segal, 2019). The relationship between different type of data is reviewed by data analysts that determine whether a correlation exists, which can then turn it into actionable information (Ibid.).

Cache

Cache stores recently used information for quick access in later usage (techterms.com, 2013). Computers can incorporate several different types of caching in order to improve the performance and run more efficiently (Ibid.).

CineMatch

CineMatch is Netflix's web algorithm which processes information from the database and determines which movies/videos would a customer like (Wilson and Crawford, n.d.). The algorithm examines the movie ratings, a current queue of movies, movies which the customer already saw (and did not rate), combined rations of all Netflix users.

Free trial

A product or a service that is offered to potential customers for free for a certain period of time (Cambridge English Dictionary, n.d.). The meaning of this offer is to let the customer try the product before he invests money in it (buys it) to see if he likes it or not.

Machine learning

A field of artificial intelligence, machine learning, is a concept that a computer program can learn and adapt to new data without human interference (Frankenfield, 2018).

Netflix ecosystem

An ecosystem is a network of actors that help each other to survive and thrive (Wieringa, 2019). Netflix ecosystem consists of studios, consumers, investors, Netflix itself, platforms, and competitors.

Proxy

A proxy server is a gateway between the user and the internet. It is an intermediary server separating end users from the websites they browse (Petters, 2020). These servers provide different levels of functionality, security and privacy.

Recommender Systems Algorithms

Machine learning algorithms in recommender systems are providing suggestions for users by utilizing historical interactions and other attributes (Kordík, 2018). Large scale recommender systems are used in the video-on-demand, retail or music streaming (Ibid.).

VPN

Is a Virtual Private Network, which enables the user to create a secure connection to another network over the internet (How-to-Greek, 2019). This type of connection can be used to access region-restricted websites, shield the browsing activity, etc.

Word-of-mouth recommendation

Word-of-mouth advertising is one of the most credible forms of advertising because the person puts their reputation on the line they make the recommendation with nothing to gain (Entrepreneur, n.d.).

Introduction

In order to describe the current period of time in the history of commerce, you might come across the word “unique”. It is so, because of the significant transformation of traditional methods of production that are being replaced by new virtual ones almost on a daily basis (Frank, Röhrig and Pring, 2014). The ideas that were perceived as a fantasy or vision a few decades ago now dominate the market. Except for introducing revolutionary ideas, e-business also changed our customer perceptions and expectations. Walking the aisles in Magasin or Jysk feels inefficient or impersonal after buying goods at Amazon. Waiting on a call to talk to some institutions, having to renew a passport or filling out any paperwork feels like we are stepping back to our parents’ world. One of many effects that technology-led companies had on our lives is that for many, the in-person has become impersonal and the virtual so intimate (Ibid.). In order to understand and explain why does the shift happens when successful companies continue to make the choices that drove their company’s success, we need to research the roots of the phenomenon called digital disruption.

The classical scenario of the effect of digital disruption applied to any market might sound like a cautionary tale of the modern age. The story begins with a successful company that does all the “right” things, like asking its customers about their wants and needs regarding new technology, hears them when they say no and continues to do the business as usual (Gans, 2016). The company prefers not to enter unknown waters because it is scary and dangerous for the business they are used to. However, by doing the “right” thing, the market leader misses its boat and the story twists. New technology is introduced by a new company or a start-up and the company is known for its tradition and success fails to adjust (Ibid.). The phenomenon of digital disruption had entered the stories of many thriving companies (Ibid.). Some people might see it just as a “camera thing” in case of Sony and Kodak, a “book thing” in case of Amazon and Borders, a “mobile phone thing” in case of Apple and Nokia or a “movie rental thing” in case of Netflix and Blockbuster (Frank, Röhrig and Pring, 2014). However, all of these stories have the same pattern, each of these industries was facing disruption and some companies did not manage to react accordingly. Hence, not fulfilling customer expectations cost them success and in some cases, the whole business.

Over the past decade, 5 technology-led companies have collectively generated more than $4 trillion of market value (GmbH, 2020). Amazon, Apple, Facebook, Google and Netflix managed to modify customer expectations and established new operating models by introducing new technologies. In the process, the prior industry leaders, such as Nokia, Motorola, Borders, Blockbuster and Tower Records, lost on average around 90% of their 2003 enterprise value (Ibid.). Thus, it is clear that the tremendous value migration that was forceful or final for the prior leaders was caused by the disruption made by the other set of the company (Ibid.).

One exemplary case of the effect of digital disruption is how Netflix changed the movie rental industry. When Netflix launched its initial service in 1997, it was not appealing to most of Blockbuster's customers (Christensen, Raynor and McDonald, 2015). Their movie rental delivery service via U.S. post had an exclusively online interface and a large inventory of movies, but it did not offer the comfort and expediency that customers found in Blockbuster's stores (Ibid.). Netflix still found its audience in the early adopters of DVD players, and online shoppers (Ibid.). Hence, during these years, Blockbuster and Netflix were not competing, because they filled different needs and had different target groups (Ibid.). However, new inventions allowed Netflix to shift its service to streaming the movies over the Internet and their on-demand, low-price, high-quality approach attracted the Blockbuster's core audience, which caused Blockbuster's collapse (Ibid.). One of the main reasons why incumbents like Blockbuster was not able to counterattack the disrupter, is because disruption is often a slow process and the company did not react effectively to the trajectory that Netflix was prior to their release of upgraded service (Ibid.). The case of Netflix and Blockbuster shows digital disruption in its true light, full of generality and complexity, as a real eye-opener for successful companies.

Problem Formulation

The field of digital disruption is heavily studied, yet there is no general answer to the questions why does it occur or how can we predict it. One proven aspect of digital disruption is that digital tools and platforms reduce costs, so disruption might occur at any level, big or small, and in any industry (McQuivey, 2013). Our interest is in researching how could the case of Netflix and Blockbuster be used for the edification of the digital disruption to other companies and industries.

The paradoxical reality of disruption in the case of the video is that instead of being replaced, the video business is getting much bigger (Ibid.). Hence, digital disruption does not always shrink industries, it might expand them (Ibid.). Movie production and movie rental companies are now a shadow of their former selves. But at the same time, more people have access to movies at more times on more platforms and devices than ever before. More individuals are engaged in creating movies and there is so much more content to watch. When digital tools enter an industry, it creates more of everything (Ibid.).

However, for some incumbents, it is too difficult to develop a coherent and proactive strategy to react to new opportunities brought by online services. One of those companies is Blockbuster. In 2004, Blockbuster and its 9000 stores dominated the movie rental market in multiple countries and it only took it two decades to achieve it (Gans, 2016). By 2010, it was forced out of the market that was radically changing, which made Blockbuster file for bankruptcy with its number of outlets shrinking to just a third of its peak number (Ibid.). On the other hand, Netflix, established in 1997, was just a DVD-by-mail company before the Internet came (Ibid.). A couple of years after, in 2000, Netflix even offered Blockbuster to buy them for a mere $50 million (Ibid.). At that time leadership in Blockbuster did not see Netflix as an opportunity or a thread, which made them pass the offer. Currently, in 2020, Netflix is worth over $15 billion dollars (Forbes, 2020). Netflix's strategy of redefining how content is provided to customers implied a new value chain structure, which completely aligns with the definition of the business model innovator (Salvador, Simon, Benghozi, 2019).

Netflix did not absolutely overtake and replace the traditional way of doing business, but it caused the reinvention of the movie rental industry (Ibid.). As Blockbuster founder David Cook said,

"*It didn't have to be this way. They [Blockbuster] let technology eat them up*."
(Frank, M., Röhrig, P. and Pring, B., 2014).

Our research question is therefore focused on the phenomenon of digital disruption, specifically on the case of Blockbuster and Netflix. We aim to answer what caused this phenomenon to happen, how it influenced the activities of the companies and what can other companies do in order to avoid being disrupted. The research question is:

How the digital disruptive innovation of Netflix impacted the lifespan of Blockbuster?

The video production market has experienced a grand shift in recent years. Today video content includes memes, adverts, music videos and Netflix series, which can be accessed at any time through connected mobile devices everywhere their holders go (Monaci, 2016). One of the greatest influencers and disruptors of traditional video content production are new web players - SVOD (Subscription Video On Demand) platforms (Ibid.). These players, Netflix, Hulu and Amazon with Amazon Instant Video, are strongly connected to ICT (Information and Communication Technology) assets, which gave them a secure position on the market (Ibid.). The consolidated position on the web allows them to monitor and manage online markets without excluding possible developments in traditional distribution channels, e.g. cinemas or pay television (Ibid.). These SVOD platforms caused a revolution in video production, which completely redesigned the market and caused a failure of multiple other platforms. Our first sub-question therefore is:

How did Netflix's digital disruptive innovation influence traditional ways of doing business performed by Blockbuster?

Many successful companies, such as Blockbuster, believed that their strategic and tactical positions on the market meant that they were immune to the changes happening around them (Frank, Röhrig and Pring, 2014). They underestimated the power of trends and assumed that the disruption others were suffering in the form of digitalization would not affect them and their industry (Ibid.). However, their industries were not different. Digitalization causes a

value migration not only in highly technology-related fields but in everything else, too (Ibid.). Whether you are choosing the right hospital for your surgery, the right bank for your savings or the right video distributor for your tonight's movie. In all cases, the digitalization level of the company you are going to choose is a criterion to consider even though the products or services might be the same (Ibid.). Hence, if a company neglects to wrap their widgets with digits, to build a digital business ecosystem, it risks being vanished by a company that will use the technology and data it has access. Netflix used both data and technology it had available to provide a personalized experience for the viewers, which influenced the lifespan of other video distributors. Thus, our second sub-question is related to Netflix's digital innovations and their effects:

How did the innovations introduced by Netflix influenced the conditions for surviving on a market as a video distributor?

Our third sub-question is connected to one of the key strategic factors that Netflix uses in order to assure the loyalty of the community, which is targeting unique and personalized content by using AI (Magnotta, 2020). Currently, Netflix is one of the top ten leading companies in AI research and its application (Ibid.). Netflix does so in order to use AI and machine learning for analyzing large datasets to learn specific behaviours, which is allowing computers to recognize patterns and learn new actions without being explicitly programmed (Ibid.). Nowadays, AI is helping Netflix to match content with the audience more effectively (Ibid.). They use algorithms based on neural networks to learn and classify users' preferences (Ibid.), which is why Netflix can recommend you just the right movie for your Sunday evening. Except using AI for personalized content, it can be used for writing scripts or editing movies, which might be the innovation that could change the video production industry once again. In consideration of massive investments in AI that Netflix is doing and the all-purpose usage machine learning and AI has, we would like to focus on researching how does this innovation influences Netflix's company and what are the prospects of using this technology in Netflix services in the future. Hence, our third sub-question is:

How does the usage of AI impact the lifespan of Netflix?

Literature review

Disruptive innovation

To begin with, the term disruptive innovation started to be used by Christensen in the mid '90s (Bower & Christensen 1995, Christensen 1997, Christensen & Raynor 2003). Ever since then, digital disruption started to be the topic of discussion. For example, Brown (2003), sees it as something that changes social practices and the way we live. Furthermore, based on Vesti, H., Rosenstand, C. A. F., & Gertsen, F. (2018), digital disruption refers to disruptive processes, e.g. digital services or products, powered up by digitalization, consumed by digital users. Lettice and Thomond (2002), see it as "*A successfully exploited product, service or business model that significantly transforms the demand and needs of an existing market and disrupts its former key players*". Assink (2006), seems to agree with the definition, however adding a finishing sentence where digital disruption creates whole new business practice or market with significant societal impact. Another explanation is in the eyes of innovation management where digital disruption is faced as the next future change over the course of 2-5 years with strategies and business models (Ibid.). Moreover, it is associated with digital transformation, industry 4.0, or digital technologies with potency to cause disruption. Despite all other definitions, Christensen's view seems to cover it all: "*Disruption describes a process whereby a smaller company with fewer resources is able to successfully challenge established incumbent business*." (Christensen et. al. 2015). Even though there are many explanations and corrections on what digital disruption really is, Vesti, H., Rosenstand, C. A. F., & Gertsen, F. (2018), in their digital disruption literature project, claim that there is no academical definition for digital disruption, only an association with an unclear definition.

In fact, digital disruption covers all industrial sectors healthcare, logistics, retail, service and information, production, and entertainment industries, etc. Moreover even, governmental, political, economic, social, and cultural areas.

In comparison, digital disruption and traditional market disruption have been compared in the "*Characterizing digital disruption in the general theory of disruptive innovation*" by Haase, Louise Møller; Gertsen, Frank; Johansen, Stine Schmieg; Rosenstand, Claus Andreas Foss in 2017. In the traditional disruption, the role is simple, establish a new value chain by creating

innovation. However, in digital disruption the purpose is different. Digital disruption servers as a mere mediator between digital suppliers and users/customers, rearranging existing value chain, e.g. recombining existing solutions. When it comes to the organizational structures, traditional disruption often includes independent organizations competing against each other. However, digital disruption prefers collaboration and interdependencies. Their business models also differ. Digital disruption takes a slice of the value and creates engaging customer/user interaction in an exploiting, mutually beneficial. Whereas, traditional disruption is about finding niches in the market. In the case of Netflix and Blockbuster, the speed of digital diffusion prevailed. Since digital disruption is all about exploiting digital channels, fast penetration of the market is essential. As for the traditional method, the speed is often restrained due to logistics, pointing into slow market penetration.

Innovator's dilemma

Moreover, Christensen (2016: 99) pointed out not every innovation has to be disruptive, so how can managers actually determine and control the upcoming changes? In Christensen's innovator's dilemma, five principles were outlined to help answer that question.

1) Resource dependence (the basis for investments, discovering potential market segments)
2) Growth conditions (decisions based on immediate profitability)
3) Failure as a step towards success (launching a product/service needs to be inexpensive and flexible in order to lower the risk of failure)
4) Organizational capabilities,
5) A distinction between technology supply and market demand
(Christensen, 2016: 99)

The innovator's dilemma talks about how to spot the weaknesses within an organization and creating an organization which capabilities align with its customers rather than prevent the work of other innovators. Gilbert and Bower (Lundgaard, S. S., & Rosenstand, C. A. F. 2019), point out that, the way how digital disruption is framed can determine whether a new business is a threat or an opportunity. Moreover, Markides and Charitou argue that keeping two business units separated can lead to a miss on a possible alliance between them.

Skog, Sandberg, and Wimelius (2018) proposed a definition of digital disruption as a rapidly unfolding process for value creation recombining resources or creating new ones. And so recognizing the core of innovation in restructuring processes. The aim of their study was to explore how and why digital disruption occurs for future actors. Their findings show, that strategies must be adapted to new challenges. Focal companies may experience critical changes in strategies, which may interfere with investment choices. Once digital disruption arises, it brings both challenges and opportunities. It may also push actors and repurpose the logic and create a new digital disruption process. Interestingly, companies must prepare that during these challenges a possibility of managing dilemmas such as cannibalization of previously successful businesses.

Disruption and value proposition

Furthermore, Stewart, Schatz, and Khare see digitalization as something beyond a simple work improvement, but rather something challenging why organizations exist and what values they propose. An understanding of what digital disruption is can decide on whether the company survives or not. Their findings suggest, that low complexity organizations with low levels of digitalization are initial targets for digital disruption. They have divided disruption into two levels, the first-order and second-order disruptions (Skog, Sandberg and Wimelius, 2018). First-order disruptions occur after digitization of a product or service providing enhanced value proposition such as reduced cost of operations, enhanced service to customers and improved performance of companies in the sector. Second-order disruptions occur when the business model of a particular good or service is destabilized, and a new business model emerges to displace it - causing rendering of networks, values and investments and rethinking of value propositions. Based on this, they have proposed a framework to determine in which areas a risk can occur, emphasizing it is important to ask the right questions.

Leadership

Another article by professor Stonehouse and doctor in economics Konina presents what impact did digital disruption have on different business spheres. They have concluded that in order to succeed in digitalization, companies need to reorganize their organizational structures from the hierarchal down to the network-based agile teams. The main concern is put on the decision-maker - CEO, who should possess modern qualities such as informed decision making, fast execution, hyper-awareness, advanced knowledge of digital tools (Stonehouse and Konina, 2020). As they see, the main problems of digitalization are usually lacked skills in order to determine the correct digitalization strategy; difficulty finding the right high-tech skills; lack of willingness to cannibalize existing revenue and business models; lack of trust in digitalization.

Independent film distribution and digital technologies

Article by Keith Kehoe and John Mateer (2015) further argues how digital technologies disrupted independent film distribution in the UK. As they figured, business is shifting from a supply-led to a demand-led market. With Porter's value chain framework, they continue to describe the interconnected value-creating activities during a company's lifetime (developing, manufacturing, delivering and supporting the product, supplier activities and customers). What they found out, was that there are two ways how digital technologies affect the value chain of film distribution. Firstly, a changing relationship with a new type of consumer (active audience), and secondly, the opportunity to explore new business models which this technology facilitates. Overall, the environment became increasingly challenging due to changing economics and the decline of home video. It is also challenging the traditional distribution periods ("exploitation windows" - exclusive periods of time within specific market regions to enable repeated commercial exploitation of a film's intellectual property rights in order to maximize revenue (Ibid.) in a way which doubts their relevance in this time. However, the film distribution is still at an early stage of adapting and adopting new technologies with one unanswered question - the economic viability of new distribution models.

Hypotheses

1.) Traditional ways of video production and distribution were revolutionized by Netflix and its digital innovations.

2.) Delayed implementation of innovative means successfully utilized by Netflix failed for Blockbuster

3.) Netflix's strategy for causing next digital disruption of the video distribution industry is based on extensive Big Data research and application of AI-related solutions.

Theoretical framework

The theoretical framework will conduct three concepts: disruptive innovation theory examining how proactiveness reshapes market trends; project life cycle will present stages of company development (from initiation to destruction), while technological life cycle - stages of technology development.

Disruptive innovation theory

The commencement of disruptive innovation theory was in the early 90s when American academist Clayton Christensen investigated technology development curves and found out differences between traditional and innovative establishments of production.

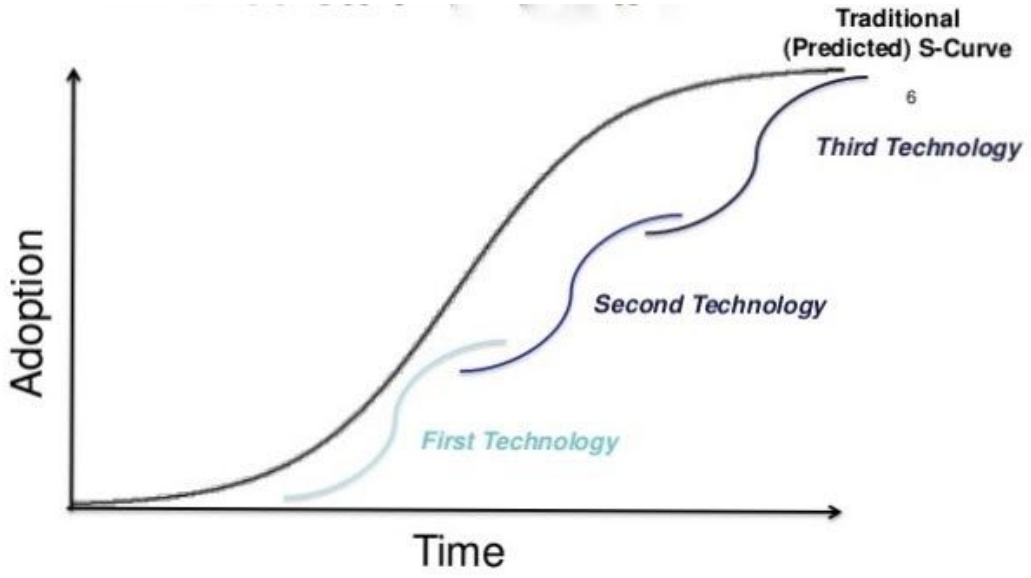

Figure 1. S-curve development (Christensen, 1992).

As Christensen noticed, over time traditional technologies require more time and effort to improve performance, while, in contrast, new technologies adoption takes significantly less time to adjust and increase improvements. Indeed, according to Figure 1, while developing one traditional technology, simultaneously several innovative technological decisions can be established which generate ever-growing performance. The curves portrayed the situation within the market of already existing businesses and new entrants: Christensen was trying to uncover what kind of effect new entrants have in the market, how it changes incumbent entities and vice versa (Rosenstand, et al., 2019).

According to Christensen, disruptive technologies can be referred to as any newly occurred technological solutions that provide distinctive values from the mainstream (traditional) technologies (Yu and Hang, 2010). Christensen portrayed the process by drawing lines representing the progression of technological development of both disruptive innovations and mainstream devices. In the early development stages, disruptive technologies are inferior in comparison to mainstream technologies, which already conduct to loyal mainstream customers. Production based on disruptive technologies can serve so-called low-demanding customer groups who value nonstandard performance. Later on, constantly evolving and developing technologies reach the main focal point by when disruptive innovations can sufficiently serve and satisfy mainstream customers. However, traditional technologies keep evolving too, but as it is usually concerned with large amounts of production, it ends up over-serving customers who over time change values and lose interest in the previously praised technological solutions. This process is when disruptive innovation occurs - when new innovative technology, started as inferior to mainstream technology, developed to the point of serving mainstream customers and replacing traditional technologies (Ibid.). The model of disruptive innovation is represented in Figure 2.

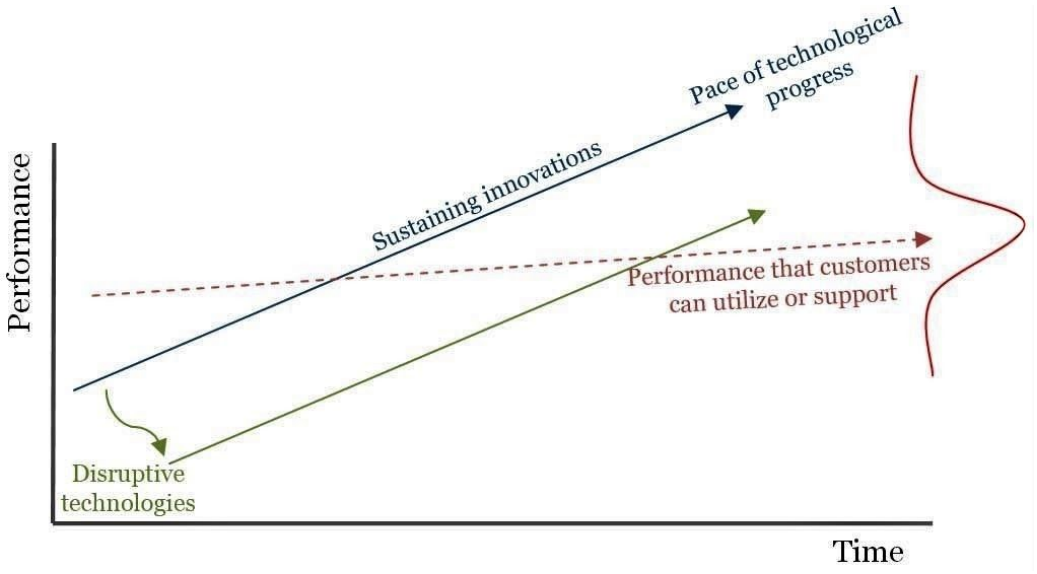

Figure 2. The disruptive innovation model (Christensen, 2003)

Subsequently, Christensen and Raynor (2003) in the book *'The Innovator's Solution'* replaced the term *'disruptive technology'* to *'disruptive innovation'* thus broadening the comprehension of disruption phenomena. Many adherents of Christensen's concepts attempted to enhance and thoroughly explain key elements of disruptive innovation theory.

According to Adner (2002) claims, the primary causes why mainstream customers rely on such innovations is the decreasing utility gained from sustaining technologies, the shift of the values towards new inventions and affordable prices. An exceptionally significant contribution was made by Govindarajan and Kopalle (2006), who determined specific measurements of disruptive innovation: low-end and high-end disruptions. Low-end disruptions are recognized by low prices and target to over-served customers while high-end disruptions offer sufficiently higher-priced production. To understand this phenomenon, they have used the example of cellular phone implementation. Back when it was introduced, only the corporate executives preferred a new, portable and convenient device regardless of the high price. Meanwhile, mainstream customers were still utilizing land-line phones since they relied on reliability, costs, and coverage. However, over time, the cellular phone was developed in a way it could offer proficient coverage for a suitable price for mainstream customers, which was the cause of disruption (Yu and Hang, 2010). Govindarajan and Kopalle (2006) also made several measurements of how people rely on disruptive innovations and, therefore, they have emphasized four steps: 1) an inferior against traditional attributes, 2) offering new values to attract a new segment of customers, 3) lowering prices, 4) infiltrating in the market from niche to mainstream (Ibid.).

Following the model of disruptive innovation theory and key elements of comprehension of how it does work, we will be able to implement concepts into our project to answer the main research questions. With Christensen's linear disruptive innovation model, we will be capable to identify the shift of mainstream customers - from mainstream market shark Blockbuster to fresh startup Netflix - and what were the causes behind it. Moreover, following Christensen's linear model of disruption development rates and duration to adjustment, we will estimate the time dimension when the disruptor outweighs and overtakes the incumbent's role in the market, specifically orientating on the main Blockbuster and Netflix clash case. The theory will let us thoroughly examine how Netflix infiltrated itself into the major market by four-step measurement executed by Govindarajan and Kopalle.

Project life cycle theory

As the Project Management Institute (2013) stated *'a project is a temporary endeavour to create a unique product, service or result'*. Every organization is seeking to produce something that would be different than any other commodities in the market - new or improved. However, the term *'temporary'* accentuates that projects occur within the finite time frame - they have both starting and, eventually, ending point (Turner, 2007: 527).

Based on this, we have implemented a project life cycle theory to examine Blockbuster's and Netflix's management cycles - from initial development to closure (if reached the last stage). Moreover, there are several stages companies go through in between initiation and destruction. Researchers identify different numbers of stages, thus Gardiner's (2005) suggestion of four stages life cycle appears to be the most appropriate in this case: initiation and definition, planning, execution and control, and closure (Turner, 2007: 529). Nevertheless, stages can be affected by every unique organization, e.g. regulatory framework or shaped by the industry they work within, however, a generic stage model can be applied in principle to every project (PMI, 2013: 38). Indeed, each of the stages will be briefly described in the following sections.

First stage - initiation and definition. In this stage, it is necessary to identify opportunities or problems of the market to estimate the feasibility of the project. Companies have to clarify goals, sort out legal requirements, contracts in order to commit the beginning of the business (Turner, 2007: 536).

Second stage - planning. During planning processes, it is crucial to identify the means to achieve project goals. In this stage companies schedule work and resources, set up target groups and define tools and techniques to establish the project (Ibid.).

Third stage - execution and control. Execution associates with the project's set up and start up. It considers internal processes - arranging and motivating staff, communicating strategies. Control stage requires attentive tracking of the processes of the company to assure that plans are executed. Any changes within the company or the whole market are constantly considered and implemented if needed (Ibid.: 537).

Lastly, the fourth stage - closure. It refers to the process of winding down activities, finalizing documentation, statements, disbanding resources, etc. In principle, this stage reveals the end

of the company - shutting down production or service provision, summing up outcomes and examining what went well and what failed (Ibid.: 537).

When considering our research, the project life cycle theory can be applied to both Blockbuster and Netflix - as Turner (2007) outlined the theory explains nearly every enterprise from its starting point to the shutdown. Taking Blockbuster, we will examine the stages the company went through: the initiation - what goals did the company set, what was the market situation back then and what opportunities it provided; planning stage to analyze the means company employed to achieve goals; execution and planning stage will uncover what activities were ongoing in the company, how it was changing within the company and if it was shaping the market overall; while last stage examination will provide with the understanding of what were the causes of Blockbuster's destruction. Netflix case analysis will be slightly different as it is still ongoing: we will outline the market situation they started in, to figure out whether there were any challenges or rather opportunities; then we will move on emphasizing the purpose of Netflix and how it was sought. Simultaneously, the AI practices Netflix is implementing will be analyzed to perceive future possibilities for the company.

Technological Life Cycle

The Product Life Cycle concept can be applied at various levels, from a single model or specific product to the life cycle of a whole industry or the life cycle of a product form, like technological life cycle (Hollensen, 2015: 411). Technological life cycle, or TLC, is a life cycle of a total product category or technology, which usually presents multiple product life cycles under one technology life cycle (Ibid.). Application of TLC model on product form, specific product or specific technology of a product, involves an analysis of definable groups of direct and close competitors as well as core technologies related to the product (Ibid.). These attributes of the technological life cycle make the model more stable and easier to identify and analyze (Ibid.).

TLC has five main stages that all are identified by different features (Dalum, Pedersen and Villumsen, 2002: 4). During the introduction phase, the product faces high uncertainty about technologies and markets and a high risk of sunk costs (Ibid.).

In the second phase, early development, dynamics of the market accelerates and even though the technology is still costly and the market is uncertain, the technological trajectory is already rising (Ibid.). The next stage, full development is determined by stabilized market dynamics as well as standardized product and process innovations (Ibid.). In the maturity stage, market structures are stabilized and a possible technological revitalization might arise (Ibid.). Lastly, the decline stage is characterized by a contraction of the market, rationalization and exit strategies (Ibid.) of the video rental industry changed based on Netflix's technological innovations.

Since our project is focused on disruptive innovation presented by Netflix, technological life cycle model is applicable in multiple events related to the development of the technology of the studied company. With TLC we can examine how the life cycle of the video rental industry changed based on Netflix's technological innovations. Technological life cycle will be used for analyzing the Netflix's subscription model as well as the application of AI-related solutions to the existing video distributing services.

Methodology

To define what methodology is, Somekh and Lewin (2005: 346) summed it up as a rule creating process of principles, theories, and values defining an approach to research. Meaning that not only the plan of doing the research is the key, but also the approach, data and many other criteria that have to be taken into consideration.

In order to understand how each part of this section fits with the other, we decided to use the Honeycomb of Research Methodology. The reason being is, that most of the research methodologies apply a linear style of thinking (Wilson, 2013: 7). The linear style of thinking presents a lot of research methodologies which showcase a structure points in a specific order which a researcher may not necessarily consider well structured (Ibid.). This is why the Honeycomb Research Methodology fits well into this research, as it not only shows the structure points but also considers that the researcher's thought process is not always linear.
This method consists of six key elements (Ibid.: 8):

1. Research philosophy
2. Research approach
3. Research strategy
4. Research design
5. Data collection
6. Data analysis techniques

These will be the bullet points you can find in our methodology section.

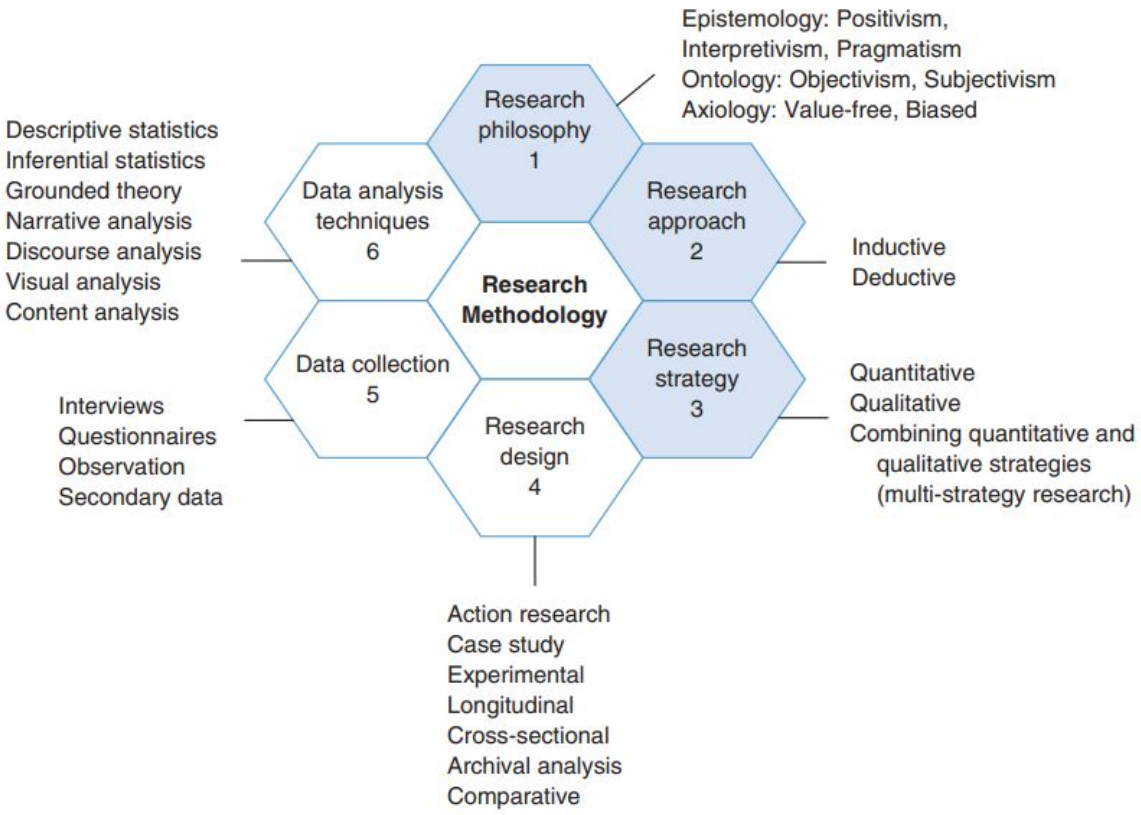

Figure 3. Honeycomb Research Methodology (2005:8)

Research philosophy

An understanding of philosophy is essential as it shows how we approach our research. Mark Easterby-Smith (Ibid.) explains why should understanding of philosophy be emphasized. Firstly, it helps to clarify the research design by taking into consideration a type of data required as well as how it is gathered and interpreted. What is more, the knowledge of philosophy can help recognize different types of designs and determine which would fit best. Lastly, after identifying the design a researcher needs to adapt it according to principles of different knowledge structures (Ibid.). Overall, philosophy lets us think about our own roles as researchers.

Critical rationalism

The school of critical rationalism has been centred around Karl R. Popper in the 19th century (DIIS, 2011). This approach is characterized by the "*trial and error*" method, which is applicable in all scientific disciplines (Ibid.). When a researcher finds himself in a problematic situation theory is proposed to solve the problem. What is more, Popper suggests that the efforts should be focused on displaying the falseness of the theory which is certain to create new inquiries that we can approach, however, with increased knowledge (Ibid.).

Musgrave (Encyclopedia, n.d.), on the other hand, points out that one cannot both use and criticize theories at the same time. Rationality comes from cooperation - criticizing shouldn't focus on theories but rather follow social rules. Meaning, that theories should be used to falsify statements and not otherwise. He claims, that no evidence can justify whether theory shows the truth or not. If a researcher believes in the theory then it is justified, not by claim. In our case, we have chosen theories which might not be true, however, they can be justified throughout our research and hence they are applicable. As this philosophy enables us to be critical to ourselves, we will apply our rationalism whilst analysing the case. Furthermore, knowledge and truth are said to be objective, they exist independently of social mediation or perception of an individual (DIIS, 2011), which means they are value-free. As our research takes data mainly from past events, we strive to stay as distance ourselves from the data to maximize its reliability. Moreover, to question the answers we acquire can raise us getting closer to the truth and so this approach seems to be well fit for our purposes.

Research approach

In accordance with Egholm (2014: 71), the starting point of critical rationalism is upon deduction, where hypotheses arise from the well-known theories and have to be falsified through empirical research. Essentially, the deductive approach arose from Popper, as he rejected the notion that knowledge arrives from pure sense experience, but rather from observations that are theory-based - *'it is a net to catch the world: rationalize, explain, and master it'* (Popper in Egholm, 2014: 79). There are certain ways to execute a deductive approach model: a suitable set of theories is determined, thereafter the examination, proper hypotheses are established, though it is essential to formulate them in a scientific manner, i.e. that they could be rejected in the final. Afterwards, there is an investigation: logical forms of theories are applied concerning the gathered data to come up with results of the research. In the final, research results are summed up and tested towards hypotheses to either reject them or approve (Popper, 1992: 10). Thus, the deductive approach moves from a general rule (theory) to a more specific statement (observation), and hence the outcomes of the data analysis reveal whether the concepts of the theory approve or decline made hypotheses (Egholm, 2014: 80).

Research strategy

In relation with our research approach, deductive thinking is concerned with developing hypotheses based on existing theory, and then design a research strategy to suitable to test these hypotheses (Wilson, 2013: 36). This type of research is associated with the quantitative type of strategy. However, as our research depended on the historical facts of the situation we decided to include both the quantitative and the qualitative data.

Research design

Case study

Bryman (2016: 60), presents a case study as an in-depth detailed analysis of a single case organization. Its main purpose is to understand the phenomena for its actions (Ibid.). As recommended (Bryman, 2016: 62), we will describe the conditions and circumstances which would portray the situation and highlight how important the context of the phenomenon is.

To understand what a case study is, Yin (Wilson, 2013: 137) explains that a case represents an inquiry that investigates a contemporary phenomenon within its real-life context, while the boundaries between phenomenon and context are not evident. In our research, we strive to understand the process and situation which led Blockbuster's downfall by identifying variables that impacted it.

Strategy	Form of Research Question	Requires Control of Behavioral Events?	Focuses on Contemporary Events?
Experiment	how, why?	Yes	Yes
Survey	who, what, where, how many, how much?	No	Yes
Archival analysis	who, what, where, how many, how much?	No	Yes/No
History	how, why?	No	No
Case study	how, why?	No	Yes

Figure 4. Research strategy (Yin 2003)

Firstly, by reflecting on Yin's research division we have formed a research question that would reflect the problematic of our research. Moreover, while Yin introduces three types of case studies (exploratory, descriptive, and explanatory) (Ibid.), our paper fits into the explanatory area. Our reasoning is, that the data we need in order to explore the situation span over the years, thus our research is happening over time and the explanatory design is the way to go (Ibid.). Further factors, for example, our research question, focus on the "How" rather than other forms.

Data collection

Data, raw materials of research, makes data collection and methods used in relation to it one of the key points in any research (Bryman, 2016: 10). Data collection is based on gathering relevant data about the studied subject, which can be then interpreted and refined into conclusions (Walliman, 2011: 83). Even though we are surrounded by data every day from multiple sources, like the Internet, television or newspapers, a collection of data for research purposes is usually not very straightforward (Ibid.). In order to apply the most effective and appropriate methods of data collection, we had to consider various methods of acquiring both primary and secondary qualitative data and selecting the most suitable ones for our research.

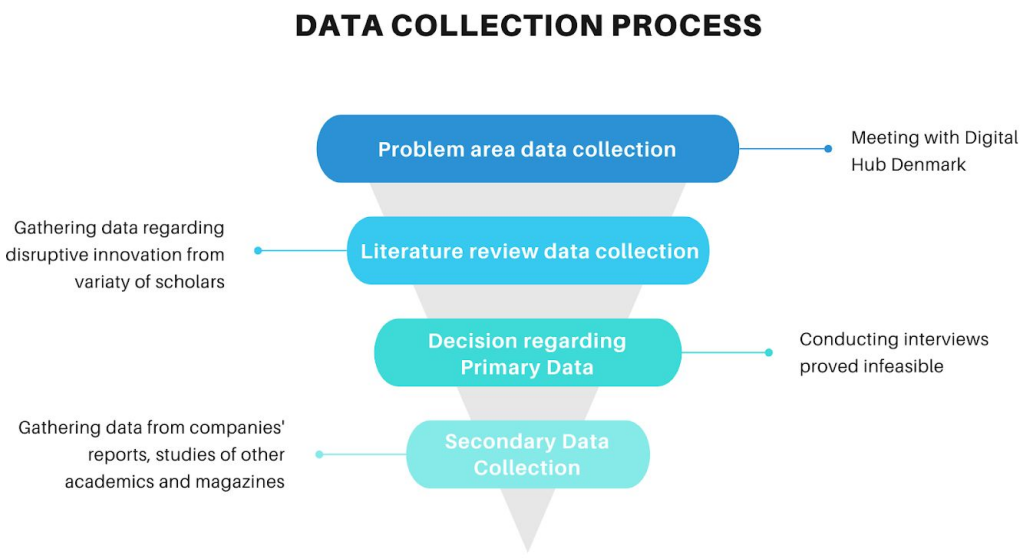

Figure 5. Data collection process

Data leading to the problem formulation

When we decided to focus on digital disruption phenomenon, we firstly contacted an organization Digital Hub Denmark, which focuses on supporting and strengthening the digital growth environment in Denmark, for getting more information about digitalization in general. During our meeting with Claus Rosenstand, professor at Aalborg University and an employee of Digital Hub Denmark, we came across digital innovation theory and learned about different cases when one company with digital innovation disrupted whole industry, so-called

digital disruption phenomenon. For the continuation of the study, we examined accessible studies, articles and books regarding various cases of digital disruption.

We decided to examine Netflix and Blockbuster case since it is oftentimes regarded as an ideal digital disruption example. Another reason for selecting this case was Netflix's extensive investments into AI-related solutions, which are potentially capable of rapidly and efficiently improving products, companies and whole industries. Thus, during our decision-making process regarding our case study subject, we also considered that these innovations might be Netflix's opportunity of causing another digital disruption.

Data collection of literature review

Subsequently, we have made our literature review based on data explaining innovator's dilemma, disruptive innovation and its attributes - value proposition and leadership and lastly, digital technologies in video distribution. Our data sources came from studies of various scholars, including articles from Clayton Christensen, a professor at Harvard Business University, who is said to be the founder of digital disruption theory (Dillon, 2020), as well as articles and books from Claus Rosenstand, a professor at Aalborg University, whose significant part of the research is concerning digital disruption (Aalborg Universitet, 2020). We also used researchers of academics from different areas, like the article from Skog, D., Sandberg, J. and Wimelius, H., who all are researchers at Umeå University's Department of Informatics. We then formulated our hypotheses based on these findings.

Primary data

After completing the literature review, we discussed collecting qualitative primary data, in the form of interviews, which would be subject-specific. Collecting primary data should only be done if the data is required in order to investigate the research problem (Walliman, 2011: 88). Since our research analyzes the roles of two companies in a past event and the current and future innovations of one of the companies, we thought of conducting interviews with experts in fields of digital disruption research and AI and Big Data. However, gathering the data about the innovations and their potential of becoming the next digital disruptors of the video distribution industry became infeasible since all of our questions could have only be answered by multiple Netflix's employees from their research and development centres as

well as business centres and it might even require access to confidential information. Hence, we decided to only collect accessible secondary data from Blockbuster's and Netflix's reports, other researchers' studies and online available information from Netflix's website and its employees.

Secondary data

Collecting secondary data is always a must in social science research (Walliman, 2011: 83). Utilizing existing data is a viable option for researchers who may have limited time or resources (Johnston, 2014: 619). While some studies use them as background and to gain an idea of the current theories and ideas, other studies, for example, historical studies, rely greatly on secondary data for the whole project (Ibid.: 84).

In our project, we only collected secondary data, since as in most historical studies, primary data was not available and we found secondary data to be sufficient for answering the research question and for falsifying the hypotheses. In order to secure the reliability of our findings, we used diverse sources of information. Our sources varied in fields of study, ranging from the law sector, which examined Blockbuster failure as a bankruptcy case study, and management field, that focused on business model evolution of Blockbuster and Netflix, to communication department, which exposed "The Netflix Effect" and analyzed Netflix as a definitive media company of the 21st century. Furthermore, we used different articles as data sources from reliable newspapers and magazines like The Washington Times, New York Times, Forbes, Business Insider or International Business Times. Lastly, for ensuring the credibility of data analyzed we used information published by companies themselves in a form of Blockbuster's and Netflix's reports from the year 2002 to 2019. We also used other data sources for analyzing Netflix's innovations that the company made available, like the Netflix Research website, Netflix Investors web page or Netflix TechBlog. For understanding Netflix's strategies, we used some information from Netflix's employees, like the article about how Netflix makes its algorithms reliable by Justin Basilico, Research/Engineering Director at Netflix.

One of the main disadvantages of using solely secondary data sources is that the secondary researcher did not participate in the data collection process and does not know how the data were gathered (Johnston, 2014: 625). However, in our research, we endeavoured to only use

reliable and credible data by using companies' own publications and other peer-reviewed data sources.

Qualitative content analysis

The technique of content analysis, which we decided to use in our research, has roots in the study of mass communication, but over the decades' researchers from many fields, including management, political science or sociology have used content analysis. Content analysis has many definitions that reflect its historical development (White and Marsh, 2006). In our study, we accept a broad-based definition by Krippendorff (2004), who says that content analysis is

"a research technique for making replicable and valid inferences from texts to the contexts of their use" (Krippendorff, 2004, p. 18).

Application of content analysis allowed us to use the rules of inference, to move from the text to context and to the research question (White and Marsh, 2006). Hence, after analysing our collected data, reports, articles and studies, our sub-questions were answered, which led to answering the research question.

In order to have a "truth value" in qualitative content analysis, four criteria have to be met; credibility, transferability, dependability, and confirmability (Ibid.). We aimed to fulfil the credibility aspect by only gathering data that reflected all the important factors that our research question contained. For making the findings applicable from one context to another, thus fulfilling the transferability, we conducted the reliability test. Dependability factor addresses that replicability is stability after discounting the conscious, unpredictable but rational changes in findings during the repetition of study. Lastly, the conformability criterion is met if data support the conclusion. Regarding our study, we believe that the collected data provided useful evidence for testing hypotheses and answering research questions and the conceptual consistency between observation and conclusion was met as well as the rest of the criteria.

Reliability

Wilson (2013: 145) describes reliability as a measurement to estimate to what extent the outcomes of the research are stable and consistent. The research is considered to be reliable when it is repeatable, meaning if analysis, made under the constant circumstances, will provide the same results. Essentially, the main purpose of reliability is to decrease occurring errors and biases, thus to approach reliability test it is suggested to conduct strong case study data collection to broaden the knowledge of the research problem-related aspects (history, behaviours, facts, etc.); make a formal preview of the collected database to directly access to research evidence without glancing to reports, and maintain the chain of evidence, i.e. to create a track for external observers from research question formulation to the conclusion (Ibid.: 147).

Validity

Validity is concerned about ensuring the relation between the research object and research means: it measures how precisely chosen methods investigate the problem. Wilson (2013: 149) argue that in order to obtain validity, it is needed to define operational measurements, more precisely, to ascertain that collected literature findings accurately reflect on the main research object. Valid research outcomes can be generalized to a broader extent, for instance, when analyzing the general concept. When there is a lack of validity, findings of the analysis cannot be carried out further than the initial research (Ibid.).

Delimitations & Limitations

Limitations

The condition that influenced the data collection, decision-making processes and writing of the project was the situation in which it was written. During the time of writing the project, a global COVID-19 pandemic occurred causing global social and economic disruption, which also influenced the writing of this project. Our data sources became limited by only using accessible data and not collaborating with an organization focusing on the studied subject - Digital Hub Denmark. Because of the situation, the process of writing the project was mostly done remotely and group meetings were only conducted digitally.

Also, the project has been done without any contact with the Netflix, Inc. or Blockbuster LLC. This happened due to the limits of time, resources and accessibility. However, both companies are public, hence, the direct contact might prove to be pointless since most of the accessible non-confidential information is available on the Internet.

Delimitations

In our research, we have only focused on two theories, disruptive innovation theory and project life cycle theory, and applied one of the possible philosophies of science, critical rationalism. If the past events were studied from a different angle and focus was other than on the digital disruption phenomenon, the findings might differ. The project is also bounded by its business perspective, however, the multidisciplinary study could have been done if the case was examined by another academic discipline, like sociology, economics or communication.

Another boundary we set was focusing only on two companies and their relation, but if we considered more companies in the video distribution industry or more cases of companies from different fields that might have experienced digital disruption, it would have influenced the research greatly. The reason for not making broader research or comparative case study was its time-consuming factor as well as resource constraint.

Lastly, when analyzing Netflix's potential in causing another digital disruption, only its AI-related innovations had been studied. Hence, if we incorporated other innovations introduced by the company, a more complex conclusion could have been made.
All of these decisions of setting the boundaries for the research were made with the intention of acquiring the most relevant and reliable findings.

Analysis

Home entertainment industry environment prior to 2000

The history of the home entertainment industry starts in the 1970s when the first home video rental store was opened in Los Angeles and movies in VHS format were for the first time released by contemporary movie studios (Ciccone, 2017). In 1985 David Cook founded Blockbuster and in one year the company went public (Ibid.). In the 1980s, major video stores created the Video Software Dealers Association that aimed to defend retailers' rights under U.S. copyright law to rent movies (Ibid.). A few years later, in 1988, Blockbuster became the top video retailer in the U.S. with $200 million in revenue and more than 500 stores (Ibid.). However, the rise of the Internet in the 1990s and 2000s rapidly created new markets and physical rental stores bean struggling to compete with streaming and mailing platforms (Davis and Higgins, 2013).

Before the Internet had changed the world, the movie distribution had six major "windows of the exhibition" (pbs.org, n.d.). The first premiere was in theatres and stayed there for two weeks or two months and sometimes even for twelve months (Ibid.). The theatrical release used to be the most important stage in the lifecycle of a movie, since it was the most profitable window for the studios and the reviews impacted its performance on other platforms (Ibid.).

However, according to September 2000 research report by an international investment bank ABN Amro, the second platform in the movie distribution chain, worldwide video rentals and sales outperformed theatres and accounted for 46 per cent of the total wholesale revenue for a released movie, while global box office only accounted for 26 per cent (Ibid.). Annual video rental revenues exceeded the theatrical box office receipt for the first time back in 1998 (Ciccone, 2017). During this time, the home video window was protected for about six weeks, meaning that the only place where consumers could rent or buy the movie was on video or DVD (pbs.org, n.d.). In the home-video industry, consumers' demand for most rentals peaked in the first three weeks of the availability and then it dropped off rapidly (Ibid.). This was one of the reasons why movie distributors, video rental shops, relied on an

unorthodox revenue stream, late fees, which boosted companies' earnings and even became their largest profit generator (Ibid.).

In 2000, the home-video market was booming. According to Randy Hargrove from Blockbuster "DVD has been the fastest-growing commercial electronic in history" (The Washington Times, 2003). 90 per cent more movies and music videos were shipped, than in 1999 (pbs.org, n.d.). According to Ernst & Young's report of the DVD Entertainment Group, 182 million movies and music videos were shipped in 2000 and consumer spending on video was about $20 billion, while movie ticket sales accounted for only one-third of that amount, $7.5 billion (Ibid.).

Once the exclusive home-video window closed, studio films were made available on pay-per-view (PPV) venues, on cable and satellite TV systems (Ibid.). However, windows at this point were not "exclusive", because the film was always available on video after its initial availability. After the PPV window expires, the movie was then shown on premium cable channels like Showtime or HBO (Ibid.). Later on, after approximately 18 months that the movie was available on premium cable, it appeared on network television for one or two runs (Ibid.). Finally, the movie then goes into syndication, which means that it appears on other network televisions or a cable network than in the original network and cable television window.

Blockbuster

In this section, we will present Blockbuster Inc., according to measurements of the project life cycle theory to analyze the rise of the enterprise, determining purposes, means, and outcomes. The analysis will start with the year 1985 when Blockbuster was established, means and strategies will be discussed to perceive how the company by the time of late 90s became one of the market giants with respectively 9000 video rental shops in the US, 84 000 employees worldwide, 65 million registered customers, and approximately 5,9 billion dollars profits, and ending with 2010 when Blockbuster's activities were shut down permanently (Ash, 2020).

Initiation

Following the project life cycle, the first stage entails the initiation. At this stage, enterprises consider market opportunities and try to identify precocious problems, if there are any (Turner, 2007).

Back in the mid-80s, when film rental production was engaged to the videocassette recorder (VCR) industry, to become a part of such a market, enterprises had to step up with solutions to provide a wider range of products, differentiating than competitors. Indeed, the initial founder of video rental shops & demand movies supplier Blockbuster - David Cook was just the right person: software programming skills and comprehension of databases allowed to make extensive movie offers and greater values in comparison to local competitors (Greenberg, 2008: 128). Cook was studying the potential of video stores and hence perceived the phenomena of people wants - movies, independently their release date, i.e. people wished to easily get access to films which are no longer presented in movie theatres, therefore he realized that the well-franchised chain could grow up to 1500 stores across the country (Ash, 2020). Cook estimated the opportunities of the contemporary market, thus he was capable to take advantage of the situation and come up with the most lucrative solutions. The first video rental store of Blockbuster was opened in Dallas on October 19, 1985, and according to Cook, was astonishingly successful as it was already overcrowded. The distinctive aspect back then was a huge range of tapes Blockbuster could offer to its customers - on the first day, the store had over 8000 tapes covering 6500 titles (Ibid.).

Planning

As the project life cycle theory outlines, the second stage includes processes of planning, defining target groups, setting goals, and means to achieve them (Turner, 2007).

The target group of Blockbuster is not specifically determined, however, the company emphasized customer relation management (CRM) strategy that concerns to build relationships with specific segments to maintain highly valued customers (Blockbuster, 2004). Customer segmentation benefited the company in several aspects: first, interactions through direct marketing communication channels refined efficiency and effectiveness of both traditional (direct mails) and non-traditional (emails) communication tools; second, CRM strategies implementation enhanced store visits and customers' retention rates, which

consequently increased business activities (Ibid.). However, Acton (2010; 2011) argued that certain target groups of Blockbuster customers can be distinguished: generally, the products they served were aimed at movie watchers and video game enthusiasts. Considering demographic features, the primary focus aimed at lower-middle-class customers as they preferred rental over purchase and were directly involved in the management development processes, while upper-class customers selected buying movies or games.

Having goals is a necessity to define the main focus areas of the business. The primary concern of Blockbuster was to increase the profitability of the retail business though to attain the main goal, they set a number of sub-objectives: 1) inventory investments (store designs according to location, etc.); 2) increase of the average selling price; 3) reduce expenditures by leveraging advertisements by film studios and direct marketing tools; 4) enhance labour productivity in domestic stores (Blockbuster, 2004; 2005).

Moving on, as essential as goals determination is defining means. From the beginning of Blockbuster, it was perceived that concentration to customers will enable effective operations, increase profitability, and development of innovation (Blockbuster, 2004). It is often argued that Blockbuster was providing not only everyday-watch movies but either experience. The company employed special features, for instance, design of the store aligned to bookstores - tapes were displayed on shelves so customers themselves could pick whichever movie they wanted. Magnetic sensors on movie and game tapes was a new solution to discourage theft. Moreover, unlike the competitors, they came up with an innovative barcode system allowing to track up to 10 000 video home system (VHS) cassettes, meanwhile, other companies could only track about 100 of VHSs (Ash, 2020).

Blockbuster accentuated the role of various customer reach channels, including both traditional (direct mails) and, later on, non-traditional (emails) means. The company made major investments in advertisement campaigns - approximately 250 million dollars were spent on advertising in 2002, of which 203.3 million in the United States and approximately 47 million dollars outside the country (Blockbuster, 2004; 2005).

Later on, technological advances in the market impelled the development of Blockbuster communication channels. In 2004, the company launched its website *blockbuster.com* that granted users information about ongoing movies, games, special offers, subscriptions,

and suggestions according to the user's evaluation of selected movies. Monthly subscribers were permitted to explore massive arrays of newly released movies and already known collections and order deliveries of the best ones. This was deliberated as a splendid alternative for users who faces difficulties with store locations (Blockbuster, 2006).

Extending competition encouraged Blockbuster to employ several alternative tools to attract customers: video vending machines, located in supermarkets, convenience shops, and pharmacies let customers purchase highly-discounted movies and games. Vending machines were considered more entertaining than profitable (Ibid.).

The company was offering disposable DVDs that allowed unlimited amounts of movie previews for a certain period and afterwards became unplayable. Subsequently, Blockbuster started download-to-burn DVDs program, enabling users to purchase and download movies and games content through Internet platforms into their personal devices (Ibid.).

Execution and Control

In accordance with Turner (2007), the execution and control stage focuses on establishing strategies, executing business activities and marketing processes, observing, and implementing changes within the company.

Throughout time, Blockbuster initiated several strategic activities to enhance retail business. Ever since Netflix introduced an unlimited preview of selected movies for a monthly subscription, to keep on a track Blockbuster launched the same principle-based subscription program: customers purchase Blockbuster movie pass™ that allows in-store borrowing unlimited amount of chosen movies or games to a certain period. By 2004, the subscription program covered 25% of Blockbuster locations in the US and gathered more than 2 million subscribers (Blockbuster, 2004; 2005).

Great focus was dedicated to the development of movie and game trading concepts. It enabled users of Blockbuster to trade either new or used DVDs and games in exchange for discount offers or merchandise. The company recognized that the broader flexibility of the retail product gathers more customers, consequently improving movie and game retail business and increasing profit. The concept was sufficiently fast-growing - for instance, the game trading model increased the gross profit of 240 million dollars by the year 2006

(Blockbuster, 2004; 2005; 2006). Despite the new concepts, the company was attempting to re-develop old features to improve customer satisfaction. As is known, the system within Blockbuster stores was relatively simple - customers pick up whichever movie they want to see, pay at the checkout, and afterwards had to return the cassette before the rental deadline to avoid receipts of late fees (Ash, 2020). Late fees were concerned as one of the main profit sources - at the time when Blockbuster value peaked to 3 billion dollars, 800 million were collected out from late fees, however, the customer satisfaction rates were vulnerable since the majority were discontented with the additional 40 dollars payment if the product was returned slightly after the deadline (Ibid.). During the time of 2004-2005, the company implemented a special *'no late fees program'* to eliminate customers' complaints in movie rental experience, and, simultaneously, produce differentiating services in comparison to competitors (Blockbuster, 2005; 2006). The annual reports of Blockbuster did not record the outcomes of the program, rather kept outlining the significance to both the company and its users. Indeed, there were accusations for false advertisements as the company kept collecting late fees even after the policy implementation (Advameg Inc., 2020).

Moving on to internal management processes, the chief executive post of Blockbuster was not constantly evolving though whenever there was a replacement, it brought changes. As mentioned above, Blockbuster was founded by David Cook, who initiated the opening of the first video rental store in the US in 1985. After the bust of his oil and gas company in Texas, Cook utilized his analytical and computer software skills to investigate the video rental field. He comprehended the fragmentation - most of the rental stores were modest family businesses with merely a few selections of former hits. The establishment of a new chain of film rental stores required huge investments since disruptors were charged 70 dollars per tape, thus Cook sold his oil and gas company to commence Blockbuster activities. One year after the initial store opening, Cook deducted over 6 million dollars to set a distribution centre to enhance further development of the business and new stores expansion, however, during the same year the press released numerous of controversial articles of Cook's management skills, outlining the bust of the previous company, which, consequently had a negative impact on company’s reliability rates and profit - Blockbuster summed up the year 1986 with a record of 3 million dollars loss (Advameg Inc., 2020).

Later years, Cook sold one-third of the company to stakeholders, resulting in a change of CEO post - Wayne Huizenga, one of the investors, took the chief manager's role. The primary difference between Cook and Huizenga was their comprehension of the company's future: Cook saw the growth through franchising and selling Blockbuster's computer system to individual enterprises, meanwhile, Huizenga sought to expand growth through the ownership of the stores (Ibid.). Huizenga's main goal was to make Blockbuster a dominant player in the rental industry by opening new and franchising purchased former competitors' stores. Under Huizenga's management, sales were increasing rapidly: at the end of the year 1987, Blockbuster corporated 133 stores and had the fifth-biggest video retail chain with a profit growth from 7 to 43 million dollars (Ibid.). New Blockbuster stores were opening every 17 hours (Moran, 2018), therefore after 3 years of the first store launch, there were already 400 locations nationwide. Nevertheless, the constant emergence of new technological devices, e.g. cable television, made Huizenga feel threatened, concerning the Blockbuster video-in-store model, thus to escape the possible shack, the company was sold to Viacom for 8 billion dollars in 1994. Viacom was known as the proprietor of extensive channels of cable television and film production (Nickelodeon, MTV, Comedy Central). Ownership of well-recognized brands seemed to assure stability, however, after two years Blockbuster's value decreased twice (Ash, 2020).

Closure

The fourth stage of the theory reflects on the destruction process of the company. The presence of business entities is various, though regardless of the sales volume, brand or profitability, eventually, all companies come to an ending stage where outcomes and consequences are summed up and generally discussed (Turner, 2007).

At the beginning of 2010, Blockbuster incurred precarious profit losses: in comparison with the revenue of the year 2004 that peaked to 6 billion dollars, summed profits of 2010 were solely 3.2 billion, as well as indebtedness of nearly one billion dollars. The increasingly competitive environment within the market negatively affected business operations and raised awareness of future perspectives (Blockbuster, 2010). On July 1, 2010, Blockbuster was delisted from the New York Stock Exchange, and, finally, at the end of the same month, on

July 23 signed the bankruptcy file (Blockbuster, 2011). In August 2010, Blockbuster had approximately 1 billion dollars in total assets and 1,5 billion dollars in total debt (Davis and Higgins, 2013). After announcing the bankruptcy, remaining Blockbuster assets were sold to the television broadcasting company 'Dish Network'. The company was aiming to recover Blockbuster's brand and continue rivalry against Netflix, however, as the primary Blockbuster's competitor had already gathered massive amounts of users, 'Dish' was incapable of restoring previous features, thus the plans were dropped. In 2013, it was decided to shut down the remaining stores in the US and decline rent-by-mail services. Ironically, the last movie, rented at a Blockbuster store, was *'This is the end'* by Seth Rogen. (Harress, 2013).

The dramatic end for Blockbuster was caused by ignorance for the ever-changing technological environment and implementation of out-dated strategies. When executives of Blockbuster were concerned about expanding chain of stores nationwide, Netflix founder Reed Hastings was releasing DVD deliveries by mail programs, and while Blockbuster was catching up with the same initiative, Netflix launched monthly online subscription offers for unlimited previews. In 2001, Blockbuster had a contract with Enron for online video-on-demand service establishment. The platform was created and successfully tested with customers, however, Blockbuster top-management was too focused on physical stores and their lucrative profits, therefore the video rental company cancelled the contract and stepped out of the possibly first major video streaming development (Ash, 2020). Essential to mention that if Blockbuster would have made the opposite decision 20 years ago, its destiny may have differed. In 2000, Reed Hastings offered the company to buy Netflix for 50 million dollars. That year, Blockbuster obtained massive 800 million dollars profit gain after collecting late fees, however, to the management, the price of Netflix's proposition seemed to be overestimated, thus Blockbuster decline the purchase (Harress, 2013). Now, Netflix counts up to 20 billion dollars in revenue and more than 165 million active subscribers (Netflix, 2019), meanwhile, on July 31, 2019, the last Australian Blockbuster store was permanently shut down, leaving the store located in Bend, Oregon as the only Blockbuster store in the world (Porter, 2019).

Home entertainment industry environment prior to Netflix

The video distribution market had dramatically changed in the 1990s and 2000s the same as all other forms of entertainment (Lusted, 2012). When the world got digital, people started listening to music differently, read magazines, books and newspapers in different forms and all in all, the entertainment became easier to access and more immediate, sometimes nearly instantly available (Ibid.).

One of the first innovations that attempted to change the process, by distributing the video to the consumer instead of the consumer coming to the video distributor was Murphy's Express. A Californian video store founded by John and Joann McMahon innovated their services by having drivers that delivered videocassettes to customers' homes (McDonald and Smith-Rowsey, 2016: 7). Despite its prescience, the small, bright and hyper-local business had to close in 1994 as the competing media options and various logistical roadblocks outgrew them (Ibid.).

Shortly after, when more and more people were starting to own computers and were getting online, Stuart Skorman founded Reel, a dotcom that combined a recommendation system "Reel Genius" with the convenience of home delivery (Ibid.). The Internet boom changed the environment as well as the consumer's behaviour. Many consumers that wanted to watch a movie at home no longer wanted to drive back and forth to a video store. In 1998, Skorman sold Reel.com to Hollywood video for $100,000,000 (Ibid.). However, the logistics of Reel.com were unconsidered and the cost of mailing VHS tapes turned out to be too costly, which resulted in the shut down of the Reel.com branch in 2000 (Ibid.).

Learning from the mistakes of others, Blockbuster Video saw the $100 million loss of Hollywood Video as evidence that online rentals and sales were not worth the trouble and it continued in its traditional model (Ibid.). These events paved a way for Netflix in one sense, which launched in 1997 and fastly changed the traditional home video rental market (Ibid.: 27). Unlike all of its competitors, Netflix made a foundational decision to rent and sell DVDs only (Ibid.).

For a person to get a movie from Netflix, he simply needed to visit the Netflix website, create an account and make a list of movies he wanted to watch (Lusted, 2012). Netflix then mailed the first movie on the list to the customer and also included a postage-paid envelope (Ibid.). The customer then mailed the movie back to Netflix, which sent him the next movie from the customer's list (Ibid.). Hence, Netflix subscribers had a continuous supply of the movies they wished for. Netflix also offered to its customers to put on their lists movies that were not released yet and once they were available, Netflix shipped them out (Ibid.). This unique service offered customers to skip waiting in the queue for a cinema ticket or a VHS cassette, always provided them one of the movies they wished to watch and offered them access to movies sooner than anyone else.

Netflix was aware of its assets and aimed to keep its customers happy and active in using the company's services. Hence, Netflix had to provide sufficient services to satisfy the needs of all types of customers. According to its co-founder Reed Hastings, three groups of people were Netflix' users, "One group likes the convenience of free home delivery, the movie buffs want access to the widest section of, say, French New Wave or Bollywood movies and the bargain hunters want to watch 10 or more movies for 18 bucks a month." (Ibid.).

Hastings and Randolph, founders of Netflix, wanted to exploit the power of the Internet and revolutionize the traditional home video rental market (Ciccone, 2017). They achieved it by launching the world's first online DVD rental service in the U.S., collaborating with Amazon.com, where customers were redirected for buying the movies they have already seen and most importantly by launching their subscription model (Ibid.).

To sum up, the movie distribution environment used to be quite stable and organized. However, people's wants to access any video from anywhere while using any device disrupted the whole structure and traditional ways of video distribution. Internet infrastructure provided an answer to these needs and made transporting video traffic possible in a cost-effective manner without compromising the quality of experience (Paul, 2011). In a matter of a few years, a successful business in a home entertainment industry changed from a local video rental store to a website with innovative architectures, clever algorithms and compression techniques for distributing video across networks (Ibid.).

Netflix

Netflix had started back in 1997 as an idea of renting and selling DVDs over the internet by Reed Hastings and Marc Randolph (Netflix, 2019). Hastings, stumbled upon the idea when he paid $40 fine after returning an overdue videotape of Apollo 13. Nowadays, Netflix's revenue reaches above $20 billion whilst more than $19 billion comes from streaming. What is more, Netflix's assets estimate at around $33 billion, and so with over 100 000 titles in the library, Netflix is one of the main video streaming platforms today (Netflix, 2019).

Gap in the market

Netflix's history goes back to 1997 when Reed Hastings found himself paying a $40 fine to Blockbuster's rental service. This fine was a catalyst for Hastings to realize the inconvenience of going back and forth to DVD rentals and so the first idea of Netflix was born. Netflix's premise was to becomes the greatest DVD mail service (Netflix, 2009). Hastings was aware of the convenience Netflix offers, moreover when combined with the selected library of more than 14,500 titles Netflix had a competitive advantage distinguishing the company from the traditional vide rental outlets (Netflix, 2002). With Netflix's proprietary system on its website, the customer could get to movies which he did not even have to know about. By the end of 2002 (Ibid.), a visible comfort of using the internet opened new doors for video rental service and so the idea of internet streaming started to take shape in 2004 (Netflix, 2004). Netflix did maintain a successful record by innovative practices however, it also became dependent on a few external technologies (to watch Netflix on TV a customer needs an internet cable). To ensure that the customer would get to watch Netflix anytime anywhere, they have put an extra effort to make it available on various devices (gaming consoles, DVD and Blu-ray players, streaming players, TV) (McDonald and Smith-Rowsey, 2016: 241). As the internet became Netflix's way how to get to the world, it also brought new regulations. Media (film/TV) has been licensed on a region-by-region basis, while platforms are licensed separately (Ibid.). These regulations also bring exclusivity - competitive advantage of getting to regions that can be off-limits for other platforms. To get to unavailable platforms, users use VPNs, for example, the user from China wants to watch Netflix so he uses the VPN to connect to a USA network (his network gets labelled as

American) and gains the ability to access the platform. This way, VPNs became a rising problem for Netflix, because right holders pressure an implementation of technical measures in order to detect and block these proxy users. Moreover, piracy-based video offerings bring a new thread to paid video streaming and/or paid video distribution generally (Ibid.). When the means of distribution become offered for free Netflix and other streaming/video renting platforms can expect a negative impact on the business. As the business is as competitive as prone to change the internet doesn't offer just the possibility of reaching a wide audience but also options to access pirated content or even entertainment videos (Netflix, 2019). And so, Netflix as a DVD rental/streaming service is highly dependent on the attraction and retention of users, so the marketing of brand and product awareness plays a big role. If Netflix fails to bring in new users or keep the current users attracted, the company's bills may overweight its earnings as in every business. To avoid such an end, Netflix invests an extensive part of its earnings into online advertising (online campaigns, banners, etc.) and other channels (influencer marketing, Amazon, etc.) to offer free trial through their platforms (Netflix, 2002). In 2009 (Netflix, 2009), Netflix's CEO stated the same primary goal to be the greatest internet movie service.

In conclusion, we can see that Netflix filled in the gap by offering DVDs delivery right to the door, expansive DVD library, and internet streaming. By being able to offer comfort and affordable price point, along with personalized recommendation system CineMatch Netflix had prevailed advantageous for now.

Strategy

Netflix's means to achieve its goals and outdo the problems of the market will be portrayed here. From 2002 Netflix started to implement its proprietary system for personalizing movie recommendations for each subscriber. They have developed it by utilizing a rating system which builds up a profile of each person's movie interests and dislikes to optimize a DVD recommendation. The idea was, to dismiss the original recommending system based on someone else's' movie taste and instead provide the truly personalized movie selection for each user (Netflix, 2002). Furthermore, Netflix's value proposition is their library and customer comes first (as most of their user attraction comes from personal referrals) (Netflix, 2004). In 2004 (Ibid.), Netflix's main means of customer satisfaction was to enhance the

subscriber experience and their operating efficiency. They have automated the process of tracking and routing of their titles, meaning that they continuously monitored, tested and ideally improved the efficiency of distribution and processing the inventory management system. Moreover, when it comes to title acquisition, Netflix was/is aware they need to build relationships with the film entertainment providers in order to increase their "*originals*" (Ibid.) (movies/series available only at Netflix) as it is a factor which attracts new users and helps to keep the current users. Moreover, Netflix started to offer its service across all the platforms to broaden its distribution. In 2006, they have realized that there are vast amounts of platforms which can serve as new means of reaching the audience and be at reach not only on TV (Netflix, 2006). Moreover, as Netflix's service is offered through their website, they often improve its functionality by boosting the value-added features (networking feature or queue management). By 2008 (Netflix, 2008), they decided to innovate further and implement online streaming of movies, which meant investing in their website, content, distribution and customer care. For example, they need to keep their website optimized and user friendly as they want people to spend more time on their website, navigate across it easily and raise their interest in other website features. As streaming started to appear attractive to customers, they have invested more in content and by the end of 2008 Netflix operated with 12 000 movie and TV choices (Ibid.). Next milestone to achieve was to stream content without any commercial interruption (Ibid.). We assume that every customer can get irritated by being interrupted during a movie and so eliminating this factor could make Netflix even more attractive. Lastly, to achieve their goal, Netflix promotes their service by various marketing programs including online promotions, TV or radio advertising, package inserts, direct main or promotions with third parties (for example, Amazon) (Ibid.). They also engage consumer electronic companies, which are Netflix's partners, to offer free trials and generate new subscribers for their service. This way the customers can try Netflix for a few days for free and decide whether they want to stick with it. What is more, the initial target group of subscribers in 1998 was predominantly middle class technically oriented male. The period has changed quite a bit and the new Netflix target group consists of women (Ibid.). As women take more than half of their subscribers, they have also found out that the economical status (household income) is half of what it used to be in 2000.

In conclusion, nowadays Netflix's means to be the leading film distributor is highly dependent on optimizing their recommendation system so users utilize Netflix's library as much as possible. Moreover, with their experience, they gained by increasing efficiency in delivering DVDs to doors Netflix knows that current streaming service requires steady internet servers in order to deliver an excellent loading speed for the users. What is more, Netflix puts attention on their website to increase the value-added features for their customers. Furthermore, preserving the relationships with film providers is an essential way how Netflix grows its library - the bigger the library, the bigger chance there is the content customer wants to see. While offering a big selection of content is surely important, Netflix made sure it is available to the customer through any platform there currently is, as well as invest a big portion of money into marketing and awareness. Lastly, when talking about subscribers, the target group has changed quite a bit over the years and women started to become the majority, with lower income than before. They also appear to be serving a low-end disruption as their services aimed at middle-class households - now the household incomes appear to be even lower.

Innovation

Netflix became one of the top streaming services over the years with considerable adjustments to market changes within the company itself (Tom's Guide, 2020). Their vision was to change the way how people access and view the movies, and so they themselves had to keep up with the ever-changing market. During the DVD movie rentals, Netflix shipped more than two and a half million DVDs a week (Netflix, 2019). By adjusting to the market's needs they have created an innovative approach that kept customer's attention. Moreover, by targeting the right audience at the beginning (tech-savvy) they have introduced a niche service that later started to transformed into a standard (along with the target group). Furthermore, by constantly communicating previous & current strategies and financial state through annual reports they have established a reliable profile among the public.

Future

During a project's lifetime, leaders have to examine what went well and what has failed. Netflix had received a positive reaction after their door-to-door DVDs rental service, by spotting the inconvenience of self-delivery Netflix created a comfortable way for people to rent movies. In 2005 (Netflix, 2005), they have adjusted their price point from $19.99 to $17.99 as the way how competitors can actually outdo Netflix is by offering the same or relatively close the same service for less. They have noticed and prioritized the ability to consistently provide subscribers with value and quality experience when they select, receive, view and return titles as well as provide accurate recommendations through their system (Ibid.). Netflix did come across criticism for slow delivery, poor value service, competitors being better at providing value or experience, and customer service not being at a satisfactory level (Ibid.). Netflix has since then invested in resolving these issues and even taking them to another level. By 2009 (Netflix, 2009), Netflix become highly rated in online retail customer satisfaction by independent surveys (Nielsen Online) and all of the ten consecutive surveys conducted by ForeSee/FGI Research. Intellectual property is a hazard Netflix cannot avoid and so they have admitted they encounter disputes over rights and obligations concerning intellectual property. Since then, they have invested in copyright and trademarks and patents (McDonald and Smith-Rowsey, 2016: 82). however, the company still cannot promise there will not be any further issues with new content. Since the investment into streaming content, the subscriber viewing and positive word-of-mouth have increased and so continuous service improvements enhanced member satisfaction and retention. Moreover, their "*internet on every screen*" electronic ecosystem has broadened over time to increase the type of devices capable of streaming content from Netflix (Netflix, 2012). Lastly, the overall adoption of internet TV caused stagnation in subscribers of cable and satellite paid TV, while the use of DVR has climbed (Ibid.). Because of this, Netflix has taken upon the chance to implement downloading titles for offline viewing.

Nowadays, Netflix looks at its 167 million paid streaming members in over 190 countries who utilize the freedom of watching anything anywhere on any internet-connected screen (Netflix, 2019). Since 2007 (Netflix, 2012), Netflix developed an ecosystem for

internet-connected screens and added an increasing amount of content. Overall, Netflix has been innovative over time while reflecting and listening to their customers. As Netflix's earnings highly depend on customer satisfaction, it is essential they implement the right matters at the right time. Netflix has also helped to battle piracy by streaming the content for a monthly subscription fee instead of making the customer pay for each title. As Christensen pointed out, new technologies take less time to adjust and increase improvements than any traditional technology. Netflix proved to fast with generating solutions and their implementation as well as self-reflection.

External environmental implications

According to conventional wisdom, Netflix Inc.'s business model was only supposed to work unless and until a recession hit (Lachapelle, 2020). However, because of the global coronavirus pandemic that hit the world, we are currently in the stay-at-home recession, which influenced Netflix's number of subscription, which has more than doubled the amount analysts expected (Ibid.). People worldwide sought ways for entertainment during the lockdowns and therefore Netflix reached a record and attained nearly 16 million of new paid subscribers in three months, which was well above 7 million company had expected (Ibid.). Although Netflix's base grew on a remarkable pace, the company is not expecting this to last. Company's executives have stated that in the second half of the year they expect

"viewing to decline and membership growth to decelerate as home confinement ends, which we hope is soon" (Ahmed, 2020).

According to our findings, Netflix has a strong position on a video distribution market and with the global pandemic and upcoming social and economic crisis, its model is expected to last and the company is expected to be one of the least impacted media companies by COVID-19. It is so because their business is a near-perfect fit for a population that is in lockdown. Hence, an option for further research about the company could be regarding how they dealt with the situation, how they will sustain the growth and if there is an option of another digital disruption coming because of the special circumstances.

A lost opportunity

During Netflix's beginnings in 1997, Blockbuster was the undeniable leader of the video rental industry (Forbes, 2014). With Antioco at the lead, the company flourished however, nowadays the case of Blockbuster and Netflix is taken as an exemplary case study to reveal the functions of hidden networks to avoid Blockbuster's downfall. While Netflix's method was more of an extension of video renting service with few obvious disadvantages at the time - people were not so used to the internet and so without a retail location it was hard to raise awareness of the service, moreover receiving DVDs by mail lacked speed in the beginning (which was fixed later by adding more warehouses), Hastings approached Blockbuster to sell Netflix for $50 million (plus Netflix would run Blockbuster's online services) (Ibid.). It is understandable that with thousands of retail locations, millions of customers, marketing budgets and successful operations Blockbuster dominated the competitors. Blockbuster did not accept Netflix's offer (Ibid.). Even though Blockbuster was a tremendous player, the company had a weakness Antioco was not aware of. The company earned a big portion of money from late fees - a penalization of their customers. Whilst Netflix offered its customers to watch content as long as they wanted with minimal travelling required (they just had to send it). In 2004 Blockbuster launched an online DVD rental platform reaching 2 million subscribers by 2006 (Ibid.). By Netflix's convenient service, Blockbuster had to alter its business model. However, after Antioco left the company in 2007 the online platform idea had to be abandoned (Ibid.). Furthermore, in 2010 Blockbuster filed for bankruptcy with $1 billion in losses (Ibid.).

So, in the beginning, Netflix faced a lot of uncertainties as a rather niche start-up business. Since people were not used to using the internet in their everyday life, Blockbuster had understandable doubt of closing a deal with Netflix. Moreover, the idea of sending the DVDs by mail was rather a comfortable solution however, as penalty fees became a source of income for Blockbuster, Netflix would eliminate the need for them. However, as we pointed out, Netflix attracted its customers by a word-of-mouth recommendation and as they were aware of, marketing played a big role in their business - the more people knew about them, the better the business got. Netflix's service could be obtained by not leaving the house and

so it became very convenient for the customers. Furthermore, as every introduction phase, Netflix had its loss factor in net income but quickly recovered in 2003.

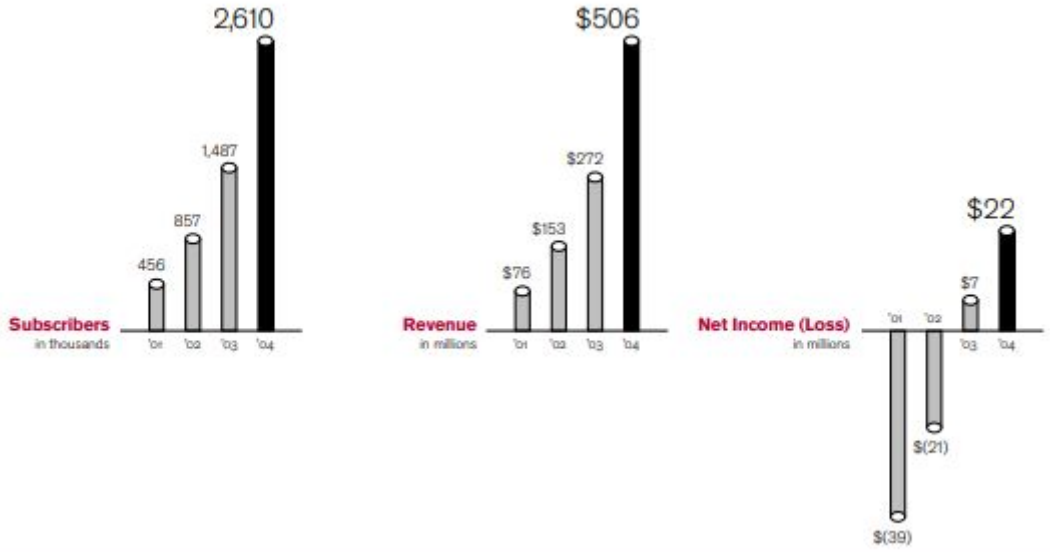

Figure 6. Netflix performance measurements (Netflix, 2005)

As we have portrayed, video rental market had accelerated over the years, even more, when the customers started to become more prone to using the internet. Further optimizations needed to be made to keep the product lucrative to new customers, otherwise, it would be deemed to be abandoned. It appears that Blockbuster failed at the maturity stage as it took the company too long to realize the possibility of further innovation. It seems that Blockbuster's leaders failed to comprehend a niche idea that took the market by a storm, moreover, it failed to construct a network that would execute the online renting platform idea as well.

To reflect on Govindarajan and Kopalle, Netflix firstly starred seemingly as a high-end disruption due to their target audience because by reaching out to tech-oriented people with relatively high income they failed to see that most of their subscribers have actually way lower household earnings. Therefore, we can say that Netflix was a low-end disruption with low prices (Blockbuster charged $5 per single title, while Netflix charged $19.99 for a month of whatever you wanted to watch). At first, Netflix would have seemed to be inferior as a new service towards the more traditional Blockbuster, however, by offering new values and opportunities to customers (and knowing how much they depend on the customer), it outgrew

Blockbuster rapidly. As out theory mentioned, mainstream customers tend to rely on innovations of traditional services mainly due to decrease of utility from current technologies (since a lot of new technologies which are created are not really practical or useful, customers tend to stick with what already works), values which the company provides, and of course the price. The price point has also been lowered probably due to local market changes (taxes or inflations) (Netflix, n.d.).

Next digital disruption - Netflix's AI-related solutions

Introduction

The current trend of digitalization is expected to change the future of every company and transform it into a tech company (Ciccone, 2017: 91). The same services will be delivered in new ways and businesses that will not adjust will probably end up being disrupted. History of Blockbuster and Netflix proves that every business should understand and adopt these tools and the phenomena, otherwise it might not be able to keep up with the speed of its competitors (Ibid.).

One of Netflix's strengths was and still is their access to customers' data, which enabled them to build a customer-centric business and provide personalized service for each customer (Ibid.). Back in 2013, Joris Evers, the company's director of global corporate communications, claimed that

"There are 33 million different versions of Netflix" (Carr, 2013).

At that point, Netflix had 33 million subscribers (Ibid.).

As digital innovation theory suggests, while a company is developing one traditional technology, several innovative technological decisions can be established (Rosenstand, et al., 2019). In Netflix case, it is keeping the subscription model and their own production, while adding AI-related solutions. Netflix invests heavily in machine learning research in many areas in order to innovate the products and their distribution (Netflix Research, n.d.). Main research areas are connected to the personalization of content, optimizing their production and advertising (Ibid.).

According to the project life cycle theory, every company aims to produce something that would be different than any commodities in the market (Turner, 2007: 529). Netflix has already managed to do it in past by being the world's first online DVD rental service and becoming leading entertainment distribution service, but to keep its leading position, it is still trying to change the way we watch television (Adalian, 2018). Netflix operates on a quite simple principle, long understood by tech giants like Amazon or Facebook:

"Growth generates growth, which generates more growth" (Ibid.).

In Netflix case, when the company adds more content, the company gets new subscribers and existing ones watch Netflix for more hours (Ibid.). When they spend more time watching, the company has access to more data on their viewing habits, which enables Netflix to improve its future programming (Ibid.). Ted Sarandos, Netflix's chief content officer explained the logic by saying

"*More shows, more watching; more watching, more subscriptions; more subscriptions, more revenue; more revenue, more content*" (Ibid.).

So far this approach worked spectacularly well. Netflix went from 33 million subscribers in 2013 to 125 million after their first own production of "*House of Cards*" series and by the predictions of Wall Street analysts the company is expected to get 200 million subscribers by the end of 2020 and 300 million by the end of 2028 (Ibid.). The current number shows that Netflix got more than 15 million new subscribers during the first quarter of 2020 and has more than 182 million paying streaming subscribers in total worldwide (Number of Netflix subscribers 2020 | Statista, 2020).

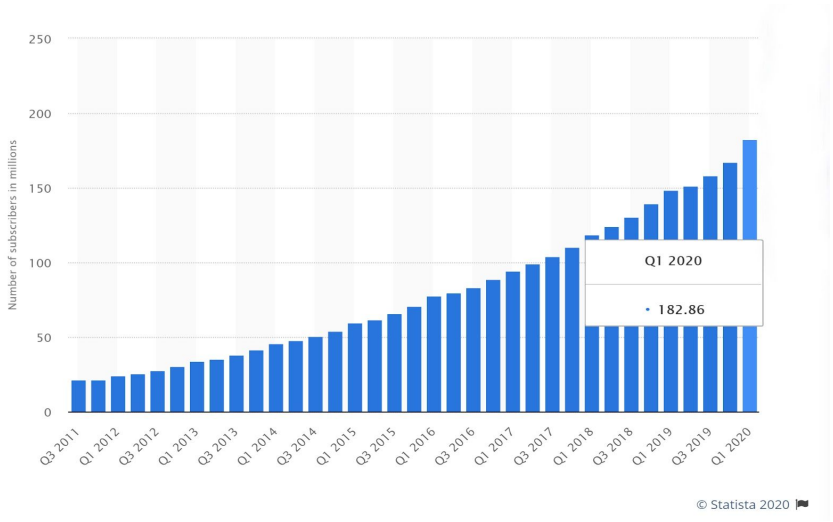

Figure 7. Number of Netflix subscribers worldwide from 2011 to 2020 - in millions (Statista, 2020)

While aiming to maintain its members and attract more subscribers, Netflix is competing with many forms of entertainment, like linear networks, pay-per-view content, video gaming, web browsing or video piracy (Netflix Investors, 2020). All of these forms are improving and Netflix strives to win more of members' "moments of truth", which are the moments when a member can choose to relax or share the experience with friends or family, but he chooses Netflix instead.

Hence, in order to keep its leading position and lure many "*moments of truth,*" the company needs to develop new technological solutions that would provide distinctive values from the traditional technologies, so-called disruptive technologies. To analyze the potential of AI-related solutions in becoming a disruptive technology, we will analyze Netflix's innovations by mainly using the project life cycle model and partly technological life cycle model.

Initiation

During the initiation stage of the product life cycle, companies often clarify their current and future business goals (Turner, 2007: 536). In the case of AI-related innovations of Netflix's current products, subscription to their streaming services and own movie production,

the initiation stage of the PLC model allows us to examine what are Netflix's goals with the current innovations and what business problems are AI-related solutions aiming to solve.

Historically, personalization has been the most well-known area, where machine learning powers Netflix's recommendation algorithms (Netflix Research, n.d.). The basic idea behind the most well-known feature of Netflix is that users who watch Movie A are likely to watch Movie B. The business problem that this feature aims to solve is to keep viewers engaged and make them continue in the monthly subscription for a longer period (Yu, 2019). To solve this problem Netflix uses large-scale precise data about the watching history of users with similar tastes to recommend the movies they might be interested in watching next (Ibid.).

Another way of how Netflix aims to keep viewers active on the platform and encourage them in continuing in the subscription is by using thousands of video frames from an existing movie for generating a personalized thumbnail that would have the highest likelihood of resulting in a click (Ibid.). These calculations are based on what you have previously clicked on and what other viewers with similar viewing history clicked on.

Moreover, Netflix uses AI-related solutions for optimizing its production of original movies and TV shows in Netflix's rapidly growing studio (Netflix Research, n.d.). In order to be time-effective, data can help to optimize scheduling according to actors and crew availability (Yu, 2019). These data can also help during movie production for being cost-effective and sustaining budget for venues, flight and hotel costs (Ibid.). Lastly, data are used for location scouting by analyzing the production scene requirements, like day versus night shots or likelihood of weather event risk in a location, and then suggest where and when best to shoot a movie set (Ibid.). In this case, Netflix applies more of a data science optimization rather than a machine learning model, which makes predictions based on past data (Ibid.).

After the movie is made, quality control checks need to be done, which for example check when sync of subtitles to sound and movement are off (Ibid.). These checks are time-intensive and laborious processes when done manually, so using historical data for post-production makes checks more efficient (Ibid.).

Lastly, machine learning also enables Netflix to optimize video and audio encoding and to decide when to cache regional servers for faster load times during expected peak demand.

It is highly important for Netflix business purposes to predict bandwidth usage as its in-house Content Delivery Network accounts for more than a third of North American internet traffic (Netflix Research, n.d.).

Planning

The planning processes of the PLC model underline the importance of identification of the means used for achieving project goals (Turner, 2007: 536). Many presume that the company's vaunted algorithm is where the decision-making process starts, because of the company's Silicon Valley roots (Adalian, 2018). However, as Sarandos, Netflix's chief content officer, and Holland, Netflix's vice-president of original content, explain, they downplay the role that data plays at almost every opportunity (Ibid.).

"*You have to be very cautious not to get caught in the math because you'll end up making the same thing over and over again*," Sarandos says (Ibid.).

Data that Netflix gathered are just a representation of the past, but Netflix does not base their decisions solely on them (Ibid.).

According to Barmack, head of the company's international-originals team, there are three buckets that influence a decision,

"The data, the art, and the regional sensitivity" (Ibid.).

Hence, the means used for achieving project goals do not just include many different algorithmic approaches, but also consider the values of art and loyalty to the customer's vision.

So if Netflix produces a successful show like the Spanish crime thriller *La Casa de Papel* (known in the United States as *Money Heist*), which is primarily popular in non-English speaking countries and lacks the attention in the U.S., United Kingdom and Canada, Barmack and his team need to consider more than the data they have in order to decide if the show could be remade in an English-speaking country (Ibid.). Decision-makers need to consider sensitivity, so the show would not lose its status and keep the audience interested while bringing the data into the decision and finding another way of repurposing the themes of the show in English-speaking countries. In the end, Barmack found a solution in the show's

co-creator Álex Pina's idea, who suggested that every season should be more dramatic, which would lead to taking the show to the U.S., where the same crew would steal from Fort Knox, a place where is a large portion of the United States' official gold reserves (Ibid.).

Even though Netflix uses other than data-related means for making decisions and achieving their goals, machine learning is still one of the main tools for improving subscriber's experience and optimizing the service end-to-end (Netflix Research, n.d.). Netflix uses machine learning in many areas, where they prototype, design, implement, evaluate and produce models and algorithms through both offline experiments and A/B testing (Ibid.). In order to display how these algorithms work, we take an example of applying a new algorithm in Netflix's recommendation system.

Traditionally, Netflix used to introduce new technology-related means for solving business problems by gathering an extensive set of data about its viewers, then running a new machine learning algorithm against the current production system through A/B test (Netflix TechBlog, 2017). Randomly picked members in group A got the current production experience while members in group B got the new algorithm (Ibid.). If engagement with Netflix got higher in group B, Netflix released a new algorithm for the whole population (Ibid.). However, as illustrated below, this approach might cause regret, which means that over a longer period of time, it will not maintain a better experience for members (Ibid.).

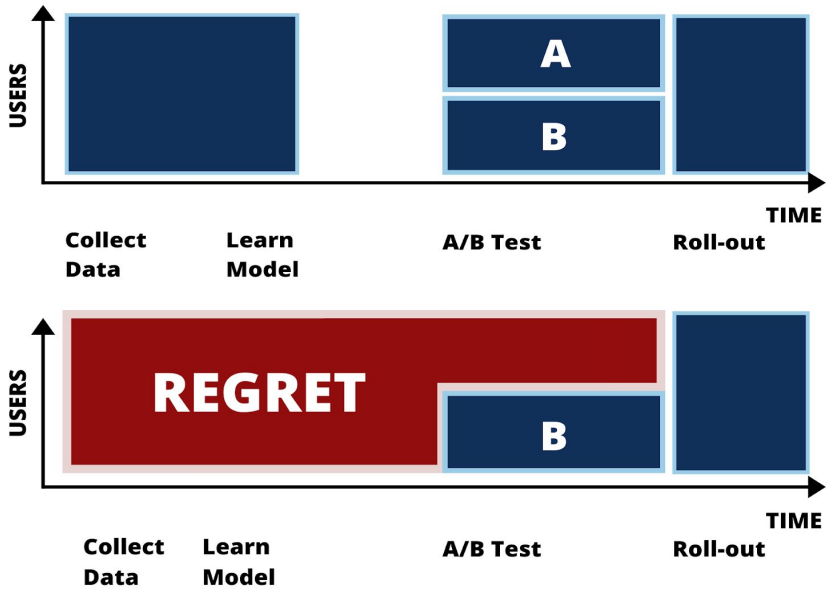

Figure 8. Batch Learning Model (Netflix TechBlog, 2017)

To avoid this regret, Netflix introduced a new approach, online machine learning (Ibid.). For artwork personalization, Netflix applies specific online learning framework, bandit learning, which firstly unifies population of hypotheses, then chooses a random hypothesis '*h*', acts according to '*h*' and observes outcome and re-weights the hypothesis, then it chooses another hypothesis 'h_2' and repeats the process (Basilico, 2017). This machine learning solution is used for selecting images that would achieve project goals. Since Netflix expects different members to react differently to the images, this tool can be enhanced when using large data sets to create contextual bandits for personalizing images. We can depict how bandit learning would recommend a contextual personalized thumbnail on an example of Good Will Hunting movie. If viewer A watched many romantic movies, Netflix will recommend this viewer next movie, Good Will Hunting, displaying Matt Damon and Minnie Driver on a thumbnail (Netflix TechBlog, 2017). Whereas, if viewer B watched many comedy movies, he might get a recommendation for the same movie as viewer A, but with an artwork containing a well-known comedian, Robin Williams (Ibid.).

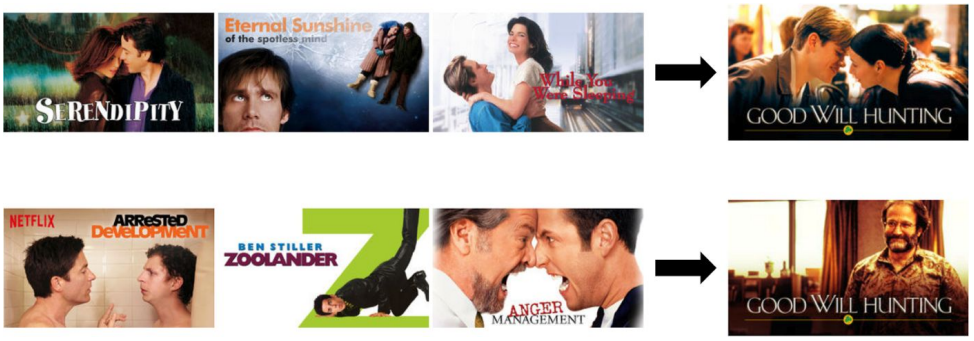

Figure 9. Contextual bandits to personalize images (Netflix TechBlog, 2017)

Considering the data that Netflix has available about a viewer, including his ratings, searches, dates when the movie was watched, on which device it was watched, when was the program paused, what the viewer rewatched and where is the viewer located, Netflix has incredible power in recommending the right movie for keeping the engagement of its subscribers as well as using this data for pre-production, production and post-production of movies according to gathered data (Yu, 2019). By applying Big Data and machine learning just into its recommendation system, Netflix can influence about 80% of the content streamed (Ibid.). All in all, as the company estimates, its algorithms save Netflix about $1 billion a year in value from customer retention (Ibid.).

Execution and control

The third stage of the PLC model, execution and control, is associated with the project's set up (Turner, 2007: 536). According to the technological life cycle, this stage, full development, has standardized market dynamics and product and process innovations (Dalum, Pedersen and Villumsen, 2002: 4). When analyzing the full development stage of Netflix's AI-related solutions, we focus on how are these innovations, powered by means defined above, arranged and controlled.

Netflix started gathering data more than a decade ago, when they were a DVD service company, by asking its customers for their age and gender and recommending them shows based on this information (Adalian, 2018). After a couple of years, Netflix VP of product Todd Yellin found out that age and gender were far less reliable in predicting future DVD requests than user's past viewing history (Ibid.). Currently, if a customer hits a play button once, it tells Netflix more information than if the company knew that you are a 34-year old woman or 71-year old man (Ibid.).

So instead of tracking age or what country the viewer lives in, Netflix puts together a 360-degree profile of each user and classifies the user into one of the 2000 microclusters that each Netflix user falls into (Ibid.). While it is not a direct parallel, Netflix's version of the demographic ratings, so-called taste communities, are essential for the company for making sure that their production is resonating with the groups of viewers coveted by advertisers (Ibid.).

Used in advertising, recommendations, optimization of the production or improving streaming quality. Big Data is unquestionably part of the Netflix DNA and the key to all of these attributes that are vital for Netflix's business purposes. According to Holland, Netflix's vice president of original content, Netflix applies findings from Big Data even when a big star or producer walks into their building with an undeniable pitch (Ibid.). Usage of internal subscriber data is not that different from the traditional way TV network uses its data, however, Netflix's large data sets allow it to be vastly more precise, which gives the company an enormous competitive advantage. According to this data, Netflix can predict how large

its audience might be for a specific show or a movie and also to reveal which areas and genres are opportunistic (Ibid.).

Closure

The last stage of a product life cycle is usually closure or by technological life cycle, a decline stage (Dalum, Pedersen and Villumsen, 2002: 4). This stage is characterized by the shrinking of the market, consecutive adoption of exit strategies by a company, which results at the end of the product or specific innovation (Turner, 2007: 537). The life cycle of Netflix's technology, its AI-related innovations, are not expected to reach the process of winding down activities, the closure, since data science insights are one of the main means that the company uses for constant improvement.

Furthermore, Netflix does not just use the algorithms it has available, but continually develops new ways of utilizing the accessible data for business purposes. For example, regarding their main AI-related area, personalization, Netflix plans to develop new algorithms that would handle cold-start by personalizing new titles and images as quickly as possible by using techniques from computer vision, which would be able to acquire, process, analyze and understand digital images as the human visual system does (Netflix TechBlog, 2017). Another opportunity is extending this personalization approach across other types of artwork and evidence that influence customer behaviour, such as synopses, metadata and trailers (Ibid.). Lastly, in order to optimize personalization feature, Netflix also needs to work with artists and designers to develop ways for using visually descriptive language that would make the title more compelling and personalizable (Ibid.).

Netflix's innovations in connection to digital disruption

In order to determine whether Netflix's AI-related innovations are the next digital disruption of video distribution, we need to analyze described innovations in relation to disruptive innovation theory.

According to Christensen, founder of the theory, traditional technologies require more time and effort to improve the performance, while new technologies can rapidly adjust and

increase performance (Rosenstand, et al., 2019). Thus, there are two types of innovation: sustaining and disruptive (Ciccone, 2017).

Disruptive technology is a new technological solution that provides distinctive values from traditional technology (Rosenstand, et al., 2019). Usually, disruptive innovation comes from needs that exist in niche markets, that are neglected by current market offerings (Ciccone, 2017). Netflix's innovations are technological solutions that provide values for the company in a form of large data sets that can be used for the creation of distinctive values for customers than the traditional technology offers, since its machine learning engine can predict wants and needs of a customer better than traditional broadcasting companies do.

Application of disruptive innovation might make the company appear as if it is doing everything wrong because the company is dedicating resources to niche and unproven opportunities, which results in temporary losses, but it is a winning strategy for the future improvement (Ibid.). Disruptive innovation is not concerned about maintaining the traditional performance key indicators, but rather, it looks into the future of the company (Ibid.). In practice, when disruptive technology emerges, it usually only serves low-demanding customers that value non-standard performance and later on, when it is fully developed, it becomes capable of satisfying mainstream customers (Rosenstand, et al., 2019). Netflix's application of AI-related solutions did not experience the temporary losses that are expected to arise when applying disruptive innovation. Also, most of the innovations are related to the current stage of Netflix, for improving its recommendation system, catalogue and movie production-related issues and aim to serve all the customers, not just a low-demanding part of them.

On the other hand, sustaining innovation improves products based on feedback from past and current customers (Ciccone, 2017). It reduces defects and aims to make the product more powerful, while disruptive innovation always leads to lower performance and makes the product less effective (Ibid.). While sustaining innovation has positive short-term effects as satisfies customers' needs, it might bring the company to failure in the future (Ibid.). Netflix's AI-related innovations are mainly focused on the improvement of the existing products of the company, like movie catalogues or personalized recommendations and their

purpose is to satisfy customer needs of recommending desired movies, offering high streaming quality and personalizing the movie catalogue according to the viewer.

The core of the innovator's dilemma is choosing whether is innovation sustaining or disruptive. As outlined above, Netflix's innovations have attributes of both types of innovation. However, these solutions are coming from a market insider, since Netflix is a leader of the movie streaming world, they are focused on satisfying current customer's needs and evaluated according to traditional performance key indicators, which is sustaining and maximizing the number of subscribers. Hence, Netflix's innovations can be defined as sustaining innovation.

Discussion

With our findings, we have come to discuss our hypotheses from the beginning of this research. As our paper addressed quite a number of situations we shall talk discuss each hypothesis separately.

For our first hypothesis, the traditional ways of video production and distribution have changed significantly. Digitization brought new access to watching visual content, which automatically raised the demand for it. Therefore, new means of production were needed in order to satisfy this demand. For instance, the digitization supported the independent indie movies production however, it also gave access to more affordable ways of producing animated content. Thus, we have a few reasons why. Firstly, the traditional ways of video production and distribution changed because of Netflix who invested in innovation of their methods. As we revealed, one of the main sectors into which Netflix invests is the production sector. Because of its AI implementations, Netflix found a way how to supply high-quality movies for a low cost. As their method of utilizing the data, they gathered helps them to understand what their audience wants they can use the data for pre-production, production, or post-production processes. Therefore, when looking back, we can confirm the first part of our hypothesis to be true, as other companies did not use their data with such high profiling of their audience.

Furthermore, content distribution is another topic we had assumptions about. As content distribution came hand in hand with the new value proposition of Netflix (convenient door-to-door delivery, optimized website for delivery), one could simply point fingers at them. However, to further elaborate, as digitization and the rising comfort of using the internet came Netflix was just the first one to adapt. Digitization offered the tools to everyone and Netflix could be just to company with the vision to do it. Companies such as HBO were on the market for a while and they had the same capacity (even bigger than Netflix as a start-up) but perhaps they lacked the innovation spirit. Netflix did indeed revolutionized the production and distribution and thus changed the traditional ways however, the technology was there for everyone. The way Netflix utilized its methods and analyzed the market made it succeed and bring new ways to the film market.

With the second hypothesis, we were assuming that initiatives Netflix began, did not work for Blockbuster since the company belated their implementation. As we presented in the first analysis section when Blockbuster was established, the video distribution industry relied on a relatively new VHS concept, therefore the company managed to adapt to the market trends and overtake leader's role while offering variety and volume to its customers.

The company's bureaucracy believed in the sustainability of the retail model, thus the analysts and managers proposing inventive technological solutions were incapable to persuade the top-management. As the analysis findings outlined, the founder of Blockbuster David Cook was trying to foresee online perspectives, while Wayne Huizenga believed in physical store efficiency. Consequently, Cook left, and Huizenga was implementing the retail chain model, simultaneously counting rapidly growing revenues without realization of the possible burst. Initial research of peer-reviewed sources led us to Markides and Charitou statement about Innovator's Dilemma - they emphasized the possible occurrence of the missed alliance if business units are separated. Essentially, Blockbuster and Netflix were participants of the same video distribution market, however, at first, companies did not intercept each other's roles, contrary were proposing different models. Konina and Stonehouse discussed the causes of digitalization failure, thus as the main issue, they identified a lack of skills and trust towards disruptive innovation appropriation to the business.

When Netflix initiated streaming service, Blockbuster was mainly concerned with investments into traditional technologies to maintain its primary model, and once the company decided to adopt innovation, it was too late to achieve the same outcomes as the core competitor. On the other hand, the beginning of the video rental in-store model was highly profitable, thus the initial investment into the new model or alliance with inventive concepts based company meant uncertainty. We can argue, that over-estimated confidence of the management, reliance on the traditional model, and ignorance of prospects streaming provides were the causes of delayed implementation of innovative disruptive solutions, that later on, impacted the company's collapse.

To test our third hypothesis, we had to discover whether Netflix's Big Data and AI-related solutions have the potential of becoming the next digital disruptor of the video distribution industry.

As we outlined in the last part of the analysis, digital disruption is a new technological solution, which only finds a small base of supporters and it cannot serve a large audience right away. The application of developed Netflix's AI-related solutions reduces defects and makes the company more powerful, which can be observed on the growing number of subscribers. Also, since their innovations were applied to existing products and systems. The extensive investments the company made were more focused on sustaining its leading position on the movie distribution market and upgrading their products and software, rather than disrupting the traditional way of doing business.

Hence, same as other well-established companies, Netflix prioritized innovating their current technology instead of facing high-switching costs, incurring losses and creating distinctive values for their customers. Thus, Netflix's AI-related innovations are a sustaining innovation and we do not expect it to become the next digital disruptor of the industry. However, we have only analyzed the innovations that were already developed or the ones that the company publicly referred to developing. So even though the AI-related innovations that were examined are not expected to become digital disruptors, Netflix might develop disruptive digital innovations in confidentiality, which will once again reshape the video distribution and production market.

Conclusion

In the following section, we will briefly sum up theoretical and methodological tools that contributed to answering our main inquiry of digital innovation impact on initial market incumbents, particularly concerning the case of Blockbuster and Netflix.

Our research idea arose from the meeting with Digital Hub Denmark professor Claus Rosenstand and his presentation of digital disruptive innovations that are currently re-establishing various areas, from robotics and VR to food production or forest fire prevention systems. We gained an understanding of the phenomena of how new technologies are reshaping people's habits, however, our focus was drawn to find out the position of traditional technologies and their survival through changing market trends. Further research on the subject led us to the concrete case of Blockbuster and Netflix. We discovered that before Netflix's emergence, Blockbuster was the leader of the video rental industry, however, the movie streaming era started by Netflix impacted destruction of the former giant. After the general discussion of the case, we raised a question of how was the presence of Blockbuster challenged when Netflix began implementing innovations of online streaming, hence it became the main focal point of our inquiry. The research question was followed by several sub-questions considering the threat, Netflix caused to traditional video distribution industry, initiatives, that helped Netflix to outweigh incumbent competitors and its ongoing practices to improve the viewer's experience.

Initially, we examined dozen of researches, scientific articles, and literature projects to obtain ground knowledge and get more perspectives on the main subject. Later, according to findings from prior researches, a theoretical framework was built, conducting disruptive innovation and project life cycle (PLC) theories. Disruptive innovation theory granted us with knowledge of how new entrants consolidate in the market and over time outweigh mainstream business authorities, while PLC let us comprehend the phenomena of enterprises lifespan from the initiation to closure. The research methodology was structured according to the honeycomb model that provides the researcher with greater flexibility, in comparison with the strict linear model structure. Subsequently, we had to determine research philosophy, therefore as we were not striking to interpret events, rather explain the causes of the case, we selected critical rationalism - value-free philosophy, claiming the probability of theories,

meaning that knowledge is continually fulfilled, thus it proposes many decisions to an inquiry. Deductive approach guided us when formulating hypotheses: after examination of the theories and collected literature, we developed three hypotheses, which, later on, have been tested according to the research findings. Then, as reliability and validity measurements suggest, the researcher has to conduct a proper database to present the set of sources used to analyze the topic. Lastly, we reflected upon the limitation and delimitation factors of the research.

Moving on, the following will provide answers to the main research question, as well as sub-questions. The first sub-question sought to understand *how did Netflix's digital disruptive innovation influence traditional ways of doing business performed by Blockbuster.*
According to research findings, Blockbuster was based on video rental in-store principle, while Netflix started as a company, providing DVDs by mail deliveries. Blockbuster was considered as a market giant, serving mainstream customers and Netflix was a niche, mainly utilized by low-demanding customers. However, once Netflix introduced an online streaming service, a prosperous Blockbuster business model was threatened, since mainstream customers began slowly shift to a convenient innovation. Thus, to adjust to a market change, Blockbuster implemented the website, based on the same principles as Netflix's. Nevertheless, the video rental in-store model was not rejected, in contrast, managers of Blockbuster believed that the traditional way is more profitable than innovative, therefore were investing more into opening new stores than developing online streaming service.

The second sub-question was concerned about *how did the innovations introduced by Netflix influenced the conditions for surviving on a market as a video distributor.*

The distinctive feature of Netflix was its concern to provide an affordable service that would include a wide range of movie choices and comfort for customers. As the findings revealed, Netflix delivered DVDs by mail, from door to door, even though the company received criticism for late deliveries or poor customer service, the model was still highly appreciated as it was convenient - customers did not have to leave the house to get a DVD. Moreover, Netflix was constantly investing to resolve customer satisfaction issues, therefore, later on, the company introduced innovative online streaming service thus reshaping the market trends of the video distribution industry.

The third sub-question intended to answer *how does the usage of AI impact the lifespan of Netflix.*

As the data analysis revealed, Netflix makes heavy investments into AI practices to grant personalized content to the platform's users, consequently maintaining customer retention and boosting numbers of monthly subscriptions; and refine their original production of series and movies. As the PLC theory outlines, every enterprise eventually arrives at the closure stage when the company's activities are shut down, nevertheless, the AI implementation in Netflix's business model contributes to foresee prospects to improve business performance thus enhancing the company's lifespan duration.

Finally, the main research question considered *how the digital disruptive innovation of Netflix impacted the lifespan of Blockbuster.*

As the research findings revealed, when Netflix was established, Blockbuster was already a giant company with massive revenues plus both companies performed distinctively - Blockbuster was based on video rental in-store while Netflix delivered DVDs by mail, hence the lifespan of Blockbuster was not affected. However, Netflix's managers were always thinking ahead and executed innovative strategies reshaping the market and customers' preferences, meanwhile, Blockbuster management got trapped in the momentary pursuit of profitability without measuring prospects and threats on time. Top-management of Blockbuster was underestimating perspectives of online streaming, as they saw store business as the main source of profit. Even when Netflix suggested to sell their company to Blockbuster, managers rejected the offer due to neglect and ignorance of innovation. Eventually, when Netflix released its video streaming online service, attracting millions of subscribers, Blockbuster's prosperity and leader's role were in danger. Even though the company tried to implement the same online streaming initiative as the core competitor, late and insufficient response did not rescue Blockbuster, contrary led to the fourth stage of PLC. Just like the initial founder of Blockbuster David Cook summed up,

''It didn't have to be this way. They [Blockbuster] let technology eat them up''

(Frank, M., Röhrig, P. and Pring, B., 2014).

Further research

As for the future, our research problematics could be approached from various other standpoints. By focusing solely on value proposition a deeper understanding of Netflix's strategy and Blockbuster insufficiency could reveal a pattern for future decision making. Moreover, research about Netflix's structure would be another way how to pinpoint certain steps and perhaps draw a framework for decision-makers. Lastly, as lack of business intelligence and analyses was one of the findings, a thorough look at customer behaviour, market analysis, and perhaps even sampling done (if one can get to such data) could unveil practices other businesses can learn from.

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