# Erasmus University Rotterdam

# **Erasmus School of Economics**

Bachelor Thesis: International Bachelor of Economics and Business Economics

# "Digital video streaming service market in the Netherlands"

What is the impact of service attributes on consumer preference in the digital video streaming industry in the Netherlands?

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#### Abstract

The entrance of various online video streaming services such as Netflix, Amazon Prime Video, or Disney Plus has marked a new era in which consumers have changed the way they use media browsing. Academic literature suggest that attributes are one of the main factors that influence customers' purchase decisions between different digital streaming platforms. Thus, using a choice-based conjoint analysis, this research will further analyze the research question: "What is the impact of service attributes on consumer preference in the digital video streaming industry in the Netherlands?". The outcomes from the literature review stated that attributes such as price would negatively influence consumers' choice, whereas more content, originals, and screens available would thrive consumers to subscribe to a platform. The results retrieved from the survey and interviews emphasize a significant negative effect of subscription price and content on consumers' utility whereas brand, originals and screen features positively affect consumers' willingness to subscribe. However, the effect of originals and screen feature is insignificant and price, and content depend on the age groups and whether a consumer is subscribed or not. Based on the utility preferences of respondents, the most preferred package was Disney Plus with a low price and number of contents, which also has the maximum number of screens available and originals. If this package would be introduced in the market, the market share of the existing packages would decrease. These results suggest that the combination of various attributes can have a big impact on consumer's purchase decisions thus, marketeers should understand these preferences and plan their marketing strategy accordingly.

# Chapter 1: Introduction

## 1.1 Video streaming industry: Netflix, Amazon Prime, and Disney Plus

The video streaming industry has gained a lot of attention the past decade with the entrance of subscription video on demand (SVOD) such as Netflix, Hulu, Disney Plus, Amazon Prime Video, shifting the consumer preferences regarding media browsing. According to Kim, Merrill, Collins, and Yang, (2021) after the COVID-19 lockdown, media consumption, social media and TV usage skyrocketed especially from the young age group. Due to this factor, many platforms entered a very tough competition and started bringing new innovative features in the market and more content in terms of movies and TV shows. Even before the pandemic started, between 2015-2016, the number of original series productions of these video streaming platforms increased from 46 to 93, hence, showing a big interest in this industry compared to other forms of media consumption (Wayne, 2018). In 2008, there were only 5 million subscribers to Netflix and Hulu but after a while the number continued to distribute fast to 100 million to other platforms such as Amazon Prime, Hulu, Disney Plus and HBO (Mulla, 2022). The growing number of contents on each platform and the parallel increase in consumer interest also toughened the competition between each other and changing the consumer preference. Thus, for marketeers it is fundamental to understand what attributes affecting consumers' choice would retain existing customers and gain new ones through new strategies and planning. Momentarily, Netflix and Amazon Prime Video hold the first place in terms of global market share with around 180 million subscribers combined (Wayne, 2018). Although Disney Plus is fairly a new platform in the market, launched in November 2019, it reached more than 60 million subscribers and slowly started distributing its reach globally as well, which posed a threat to Netflix's popularity (Vlassis, 2021). The main difference between the two is that Disney Plus' movie content is also presented in theatres such as the premiere of Marvel movies, whereas Netflix only screens its originals through its network.

These platforms have gained a global reach including USA, Europe, Asia, Middle East, and Africa, expanding their audience, and changing their business plan and marketing strategy. Since countries have different cultures, lifestyles, and preferences, it is important to differentiate strategies when it comes to content, pricing strategy, and innovative features. Moreover, Allam and Chan-Olmsted (2021) analyse the impact that the market environment has on the state, and they conclude that the lack of copyrights laws is an important factor why the SVOD might be futile. Thus, it can be emphasized that it is very important to research the culture and a market environment before expanding. Moreover, attributes such as content, viewing options, price, and flexibility, should also be considered as they are the main factors that

incentivise consumers to subscribe. Overall, these are very important determinants that marketeers should take into consideration when developing marketing strategies and measuring the most important attributes that might have an impact on their sales.

#### 1.2 Social, scientific, and managerial relevance

There are a lot of research case studies about streaming services such as Netflix, Amazon Prime Video or Disney +, however research that relate attributes to the consumption behaviour has not been done yet especially for Netherlands. Song (2021) analysed the main comparative characteristics of Netflix and Amazon Prime Video in terms of their pricing strategy and personalized service, however, this research evaluates them in terms of consumer preference by using Utility Theory. This paper is socially relevant as the growth of the online streaming industry has disruptively increased and is transforming every second, thus, it is crucial to understand how consumer preference affects it (Raustiala & Sprigman, 2019). It is very important for consumers as well to understand their processes of decision-making, as this might have an impact in the marketing tools that companies use for different strategic reasons.

This thesis holds academic relevance as it brings value to the marketing-relevant topics and questions regarding the understanding of consumer preferences. Consumer behaviour is a large and broad topic that has been changing because of different innovative characteristics that affect the video streaming service as well (AI, machine learning). Thus, an understanding of consumer preference is needed to support the efficiency of models like the Utility Theory, and the effectiveness of choice-based Conjoint Analysis. Moreover, most of academic literature examine consumer behaviour and case studies for Netflix and Amazon Prime Video. However, research that analyses the impact that attributes have over consumer preference for streaming services has not been done yet.

Lastly, this thesis has managerial relevance in terms of how useful this paper can be for marketeers that work in companies and what marketing strategies they should use to attract as many consumers as they can. Consumer preference is one of the aspects that service firms value the most when they introduce new innovative attributes for a product or expanding their line. Moreover, consumer preferences are changing with time, so companies constantly have the need to follow new trends, external factors and change their strategies accordingly.

## 1.3 Problem definition and Research (sub) question

One of the biggest struggles for marketeers in the subscription video streaming market is the competition and the popularity of new innovative features when they are first introduced. In order to get more subscribers, they must understand consumer preference, what would make their platform more attractive or in this case what are the latest movie trends that their audience prefers the most. A way for marketers to achieve this is by analyzing the products or services' attribute importance. According to Van Ittersum, Pennings, Wansink and Van Trijp (2007) identifying products' importance of attributes is the key objective of marketing research. The concept of importance is explained in terms of change, which means that if there is a change in the perspective that one has for a product's attribute, there would be a change in the attitude towards the product as well (Jaccard, Brinberg, & Ackerman, 1986). In Netflix's case, the introduction of the new feature "Netflix Party", where subscribed customers can watch a movie or a show at the same time and communicate with each other through a chat function during the Covid-19 pandemic, increased the popularity and attracted many new customers. However, other platforms like Amazon Prime Video, Disney Plus, and Hulu also incorporated the synchronization extension which did not make Netflix special anymore. Thus, when competition is included, consumer preference is needed to be understood in combination with new innovative ideas. Attributes such as price or the amount of content that they contain are important factors that consumers must consider in order to subscribe to them, implying that they are one of the main determinants that affect their preferences. Having mentioned this problem that marketers have to face before constructing new marketing strategies, the main research question that this thesis will analyze is:

"What is the impact of service attributes on consumer preference in the digital video streaming industry in the Netherlands?"

To answer this main question, sub-questions are going to help deconstruct the main topic into several sectors which will reveal the impact of attributes on consumer preferences. The theoretical sub-questions will serve as background research to shed light on how the video streaming industry looks like and which are the main determinants that cause a change in consumer preferences. The theoretical sub-questions are:

- 1. Which service attributes affect consumer choices in the context of video streaming services?
- 2. What role do service attributes have in determining consumer preference in the context of video streaming services?

However, this research will also be empirical to collect verifiable evidence from a survey. The empirical sub-questions vary as follows:

- 3. Which attributes have a significant effect on consumer preference in the Dutch video streaming market?
- 4. What is the most important service attribute affecting consumer preference in the video streaming market in the Netherlands?
- 5. Which service attribute levels lead to more subscribers in the Dutch video streaming market?

#### 1.4 Ethical research issues and limitations

The main findings will be gathered through theoretical literature studies and empirical investigations, however, there are also limitations and ethical issues that concern this thesis. Firstly, the qualitative part of the research which is done through desk research, mainly literature review and structured interviews, gains more insights on the topic and deeper understanding on the most important attributes of video streaming platforms that might affect consumer purchase behaviors, attitudes, preferences, and values, which might be difficult to quantify in reality. However, there are limitations to such study in terms of reliability and validity. Reliability explains how far a test, or a survey will convey similar results in different scenarios whereas validity concerns the accuracy of the type of measurement that we are intended to use (Roberts, & Priest, 2006). Conducting structured interviews can firstly consume a lot of time and respondents are not given a lot of flexibility in their answers (Queirós, Faria, & Almeida, 2017). Furthermore, in terms of validity the questions designed might not fully grasp the depth of the topic analyzed. There are also ethical issues when it comes to structured interviews involving the process of transcription which sometimes it cannot translate the whole context of the interviewee's response (Kvale, & Brinkmann, 2007). Moreover, confidentiality is another ethical issue that affects the interviewees as a proper reliable ethical protocol was not taken before the respondents were interviewed.

Secondly quantitative research different from qualitative one, translates the human experiences into accurate and numerical results (Duffy, & Chenal, 2009). There are various limitations that follow this type of scientific data including validity and reliability. The sample chosen which represents the population of Netherlands is not very representative as only a small number of respondents supports the findings which can generalize the true results. Most of the respondents are friends, family and people in a similar circle which makes the sample concentrated. Moreover, the answers to the survey questions might not be truly valid as it depends on the external factors affecting the respondents when they answered the questions.

Furthermore, there might also be other control variables that might have an importance on respondent's utility but are not observed in the model. In terms of ethical issues, there are risks that bias might be involved considering that some respondents might have more knowledge as others on the topic referred.

#### 1.5 Research Structure

Figure 1.1 illustrated below represents the structure of the thesis in relation to each question and sub question that is analyzed in each part. The structure of this research will involve six main chapters: 1) introduction, 2) literature study, 3) research methodology, 4) results and analysis, 5) conclusions and recommendations and lastly 6) reflection on the research. This structure serves as a way to help the reader navigate each section of the paper with an explanation of their content.

Chapter 2 will try to answer the theoretical sub-questions of this thesis which are: 1)Which service attributes affect consumer choices in the context of video streaming services? and 2)What role do service attributes have in determining consumer preferences in the context of video streaming services? To answer these questions, various academic literature is investigated, and main findings are concluded. Based on these conclusion hypotheses are created to build a theoretical framework.

The aim of chapter 3 is to explain the methodology and tools used to collect the data, analyze it, produce results, and discuss how bias was prevented. Then, chapter 4 presents all the outcomes and results from the survey analysis giving an answer to the empirical questions. The sub questions associated with this chapter concern: 3) the significance of the main attributes in the context of digital video streaming services, 4)which attributes are the most important ones affecting consumer choice and 5) which attribute levels lead to more subscription in the Dutch video streaming market.

Chapter 5 offers the main conclusions and key findings from both the literature study and the empirical one and answers the main research question of the thesis. It is then followed by recommendations and limitation affecting the research conducted. Lastly, an overall critical reflection upon the literature study, the adopted research methodology and the outcomes is given followed by the main lessons that are learned through this process.

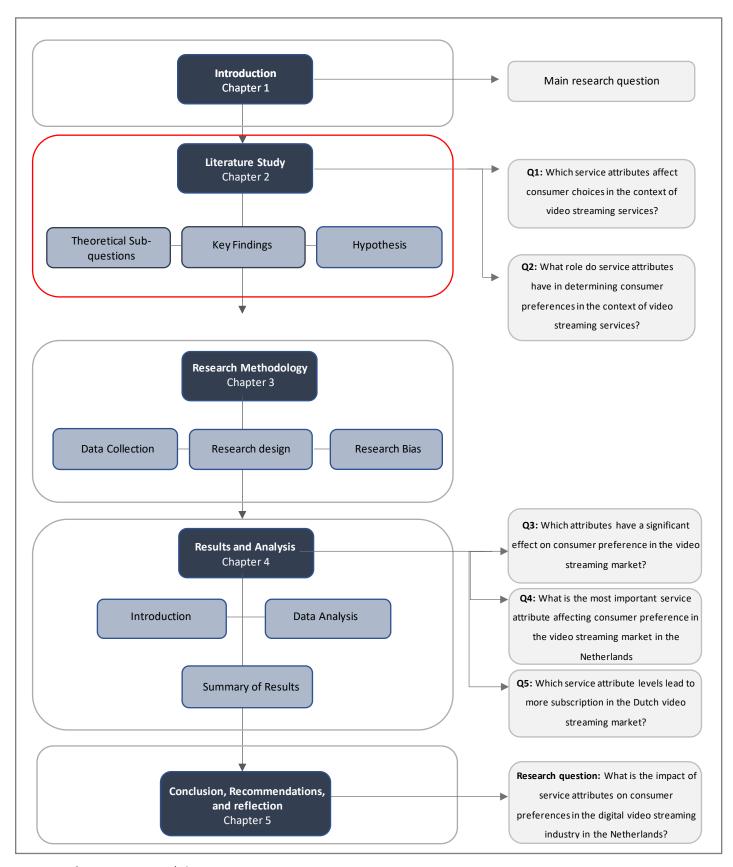


Figure 1.1: Research Structure

# Chapter 2: Literature Study

The second chapter considers prior research that has been made concerning the impact of service attributes on consumer choices in the context of video streaming services. Firstly, the main service attributes that affect consumer choice are going to be listed to further explore the determinants of consumer preference that incentivize them towards different decision-making. Secondly, the role of service attributes is going to be taken into consideration in terms of determining consumer preference for video streaming services. In this sector the importance of these attributes is going to be emphasized in consumer's decision to subscribe to these platforms. Both paragraphs are going to be supported by academic literature that analyze consumer choice and service attributes in more depth.

## 2.1 Theoretical Sub-questions

#### 2.1.1 Theoretical Sub-question #1

What role do service attributes have in determining consumer preference in the context of video streaming services?

To understand the role of service attributes in determining consumer preference, the concept of attributes and attribute-based approach and consumer preference must be clarified first. An attribute refers to a bundle of characteristics that make a product or service and the model that uses attributes explains individual choice as a whole process where consumers choose these bundles based on utility maximisation (Gwin, & Gwin, 2003). Thus, brands try to position themselves and build competitive advantage towards other companies based on product attributes. The attribute-based-approach conceptualizes assortment variety and predicts consumer's perceptions of assortment variety by examining attributes across products (Van Herpen, & Pieters, 2002). One of the methods to analyse consumer choice relative to attributes is choice-based conjoint analysis that focuses on consumer segmentation (Enneking, Neumann, & Henneberg, 2007). Hence, during decision making process when companies undergo new product development, they should carefully consider new attributes and what their impact on consumer preference will be to have a competitive advantage in the market (Yang, Fu, Chen, Xu & Yang, 2016). This approach can be applied to every type of market including the video streaming services where each attribute affects consumer choice in some form.

The industry of over-the top (OTT) services has changed over time, where each platform including Netflix, Amazon Prime Video, Hulu etc. have developed many features/attributes that they use to acquire new customers and increase sales in a competitive market. Kübler, Seifert, and Kandziora (2021) state

that if digital video streaming platforms (DSP) offer qualitative attributes such as content, they will inspire new customers to subscribe, by retaining existing customers, and will prevents users from switching to other competitors. Figure 2.1 displays all the changes that these DSPs have implanted from 2005 till 2019 in terms of introducing new innovative attributes in the market.

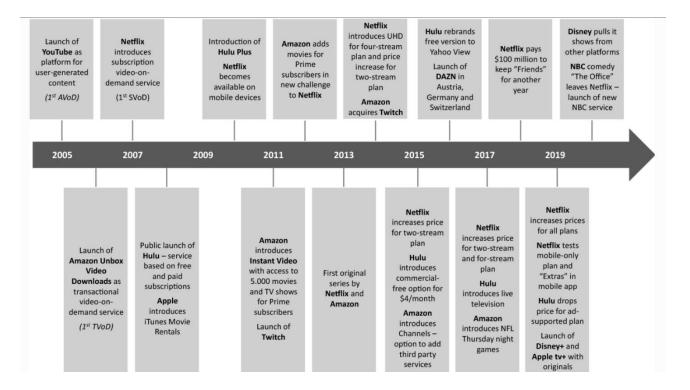


Figure 2.1: "The key events in the evolution of the market for digital platforms" (Kübler, Seifert, & Kandziora, 2021).

Notes: This image of a map is taken from the study conducted by Kübler, Seifert, and Kandziora, (2021) where they analyse the content valuations strategies for digital subscription platforms. In this image a timeframe from 2005 to 2019 is presented including some of the key changes that happened in each year to digital platforms such as Netflix, Hulu, Amazon Prime Video, Disney Plus regarding the introduction of new attributes.

From this figure, Netflix has been one of the most innovative companies in terms of introducing new attributes which has made them top leaders in the market. In 2018, Netflix paid \$100 million to keep the TV show "Friends" which is one of the most preferred shows amongst consumers, and in the same year they managed to generate \$15.79 billion in worldwide revenues which emphasizes how big of an impact attributes such as content have on sales and consumer choice in subscribing to these platforms. After each innovative attribute that Netflix imposed in their marketing strategy, other competitors followed the same pattern by also imposing similar attributes which then makes the decision-making

process harder for the consumers. Thus, companies can use innovative attributes to influence consumers' choice and acquire them.

It is usually considered that in most of the choice models, brand is the most important unit of analysis however, Fader, and Hardie (1996) state that consumers also evaluate the underlying attributes that describe each item. Thus, one can argue that to build an individual preference for a specific product or brand, attributes are the fundamental tool to make comparative evaluations. In the video streaming industry, the core factor in building a preference is the evaluation of their attributes. Thus, it is fundamental to further investigate which are the main attributes that would affect consumer's choice.

#### 2.1.2 Key Findings

The main role that attributes play in determining consumer preference relies in comparative and evaluative behaviour of consumers in terms of the specific brands' attributes. They form their preference and then their choice in terms of overall evaluation or comparison of brands' attributes (Mantel & Kardes, (1999). Companies use attributes as their main tool to be competitive in the market in the video streaming industry. The more innovative the attributes are within different brands, the more opportunity they have to change consumer's preferences and acquire them.

#### 2.1.3 Theoretical Sub-question #2

"Which service attributes affect consumer choices in the context of video streaming services?"

The market of video streaming services has been developing in the past decades and replacing the traditional cable-TV providers. One of the most popular forms of media consumption includes Subscription-based Video-on-Demand (SVoD) where consumers need to pay a certain subscription fee to use the services of the platform, namely Netflix or Amazon Prime Video (Mulla, 2022). This subscription service is the platforms' main source of income so retaining and reducing churn rates is one of the most fundamental marketing goals that they have. Thus, marketeers from video streaming companies should have a great understanding on consumers' decision-making processing in order to target audiences and create different segments according to their preferences. Koul, Ambekar, and Hudnurkar (2020) state in their study that consumers usually perceive value in video streaming platforms in terms of "quality" — what the customer earns from the service - and "cost" — the monetary value that they must incur to get the services. However, the concept "quality" might imply various attributes that might affect choice such as content, user experience and innovative features. Based on several studies some of the main attributes

that are found to have a certain positive effect on consumer preference are 1) price, 2) Content and originals and 3) flexibility and multiscreen experience.

#### 1) Price

Mulla (2022) analyses several factors that have an impact on the adoption of streaming platforms and the decision for consumers' choice behaviours. Two of the most important attributes that he mentions are price and content. Price is an important determinant that consumers consider and evaluate before purchasing a service or product. It also influences the adoption rate and engagement levels with video streaming services (Mulla, 2022). People usually decide to engage in streaming services if there is an affordable price for the service that they will get, otherwise high-price subscription offers would discourage them from purchasing. In a choice experiment, the attribute of price leads to a change in consumers' preferences in both scenarios; when it is just introduced as a variable and when it varies in different levels amongst other attributes (Carlsson, Frykblom, & Lagerkvist, 2007). These results convey that price as an attribute plays an important role in consumer choice and decision-making. However, consumers' choice is affected by the quality as well hence, the relationship of price-quality operates in a reciprocal manner (Erickson, & Johansson, 1985). In order to be willing to pay for a certain price, consumers need to make sure that a good service quality is included before purchase.

#### 2) Content and Originals

Another characteristic/attribute that serves the engagement of customers in streaming services is content. Since these platforms' purpose is to offer good quality movies, TV shows, documentaries that one can attain at any time of the day, it makes content a fundamental attribute that affects their choice. According to a study from Kim and Kim (2020), it was found that consumers were more likely to subscribe to platform that had a wide variety of content in terms of number and quality. Moreover, to support the claim that price and content are two of the most important attributes that affect consumer's choice in subscribing to streaming platforms, results from the interview conducted in this thesis also emphasized that price and content were key concepts that appeared in most of the answers when they were asked what the most important attributes are. In their research, Koul, Ambekar, and Hudnurkar (2020) accentuate that employing originals in their content services helps users distinguish their platform from other over-the-top services since there is an emerge competition within these services. Thus, to prevail a dense competition each OTT should successfully employ unique content including originals to acquire new costumers.

#### 3) Flexibility and multi-screen experience

Furthermore, Mulla (2022) also mentioned flexibility and multi-screen experience as factors that might influence consumer's decision making. The term flexibility consists in the ability for consumers to utilize the platforms' services instantly or in a time that they consider fit. Additionally, they can also restart watching a show or movie at the minute they stopped if they are subscribed to the platform. The multi-screen experience offers various options to users who want a convenient way to follow their favourite multimedia content on the go (Mulla, 2022). This feature consists of having 2 or more personalized screens where various users can utilize at the same time according to their own preference. Hence, multi-screen attribute can be considered important in terms of incentivising consumers to subscribe to a platform that serves them the most in accordance with the price as well.

#### 2.1.4 Key Findings

Several findings were introduced when answering the first theoretical question regarding the main attributes that affect consumer choices in the context of video streaming services. The main attributes highlighted by Mulla (2022) consist in 1) price, 2) content and originals, and 3) flexibility and multiscreen experience. One of the most important attributes that affect consumer choice is price however according to Erickson and Johansson (1985), it has a reciprocal relationship with quality of the service. This implies that quality is another attribute that a company should set their focus on. In the streaming video market, Koul, Ambekar, and Hudnurkar (2020) refer to quality as content, leading to the next main attribute that might influence choice. According to Kim et al. (2020) consumers were more willing to subscribe if the platform consisted in a variety of content making this attribute a fundamental aspect affecting choice.

Moreover, Koul, Ambekar, and Hudnurkar (2020) reinforced the fact that originals is also an important aspect that attract movie or TV show viewers into subscribing to platforms. Lastly, Mulla (2022) analysed two other attributes that might have an impact on decision-making which are flexibility and multichannel experience. These attributes give consumers an ease while using the services by having their personalized channel where they can watch content at any time of their preference and share it with other people. Overall, these attributes pertain in the decision-making process of consumer when they decide which brand they want to subscribe to. Thus, it is fundamental for marketeers to reach an understanding of consumers' preference on each attribute.

## 2.2 Summary of Key Findings

To understand the role of attributes in determining consumer preference, the concept of an attribute was explained merely as the main characteristics that make a product or a service. One of the main findings is that preference formation involves comparisons or evaluations in terms of a brands' attributes (Mantel & Kardes, (1999). In the video streaming market, attributes such as content are used to influence and inspire consumer's choice in subscribing to the platform, increasing companies' retention rates (Kübler, Seifert, & Kandziora, 2021). Companies also use attributes as a tool to gain competitive advantage in the market as consumer's preference over their platform can lead to more subscriptions and hence, income.

The main attributes that influence consumer choice according to several studies conducted are 1) price, 2) content and originals, and 3) flexibility and multiscreen experience. When comparing brands with each other, there is a reciprocal interaction between price and content since they are some of the most important attributes that characterize digital video streaming services. Moreover, originals were also considered to be an attractive attribute that affects consumer's decision-making when it comes to subscribing to a certain platform. Lastly multiscreen experience plays an important role in terms of having more flexibility to watch one's favorite shows and movies.

#### 2.3 Hypotheses

According to the main findings discussed about important attributes that mostly influence consumer preference hypothesis ca be created according to each. Firstly, based on the findings of various studies and the structured interview conducted, it can be concluded that the main attributes include brand, price, content, originals, and innovative feature such as multiscreen experience. However, it is important to conceptualize each attribute in terms of the effect that might impose on consumer preference. The levels of attributes are the main factor which influences the attribute importance (Wittink, Krishnamurthi, & Reibstein, 1990). Thus, to analyze the effect and the importance of the attributes, levels for each should be considered.

 Hypothesis #1: Price is going to have a significant negative effect on consumer preference for streaming services.

The first hypothesis consists of the first attribute which is the subscription price that various platforms have as a categorical variable (€9/month, €15/month, €20.month). From the findings, subscription price is said to be one of the most important attributes that influences consumer's choice thus, the results from

the choice model should be significant. From Carlsson, Frykblom, and Lagerkvist (2007) study it was concluded that people prefer an affordable price when it comes to subscribing to platforms thus, we can suggest a hypothesis that price has a negative effect on consumer's choice behaviour. Hence, the higher the price is, the less consumers will be likely to get a subscription in the platform.

- **Hypothesis #2**: Netflix is going to be the most preferred brand out of all platforms.

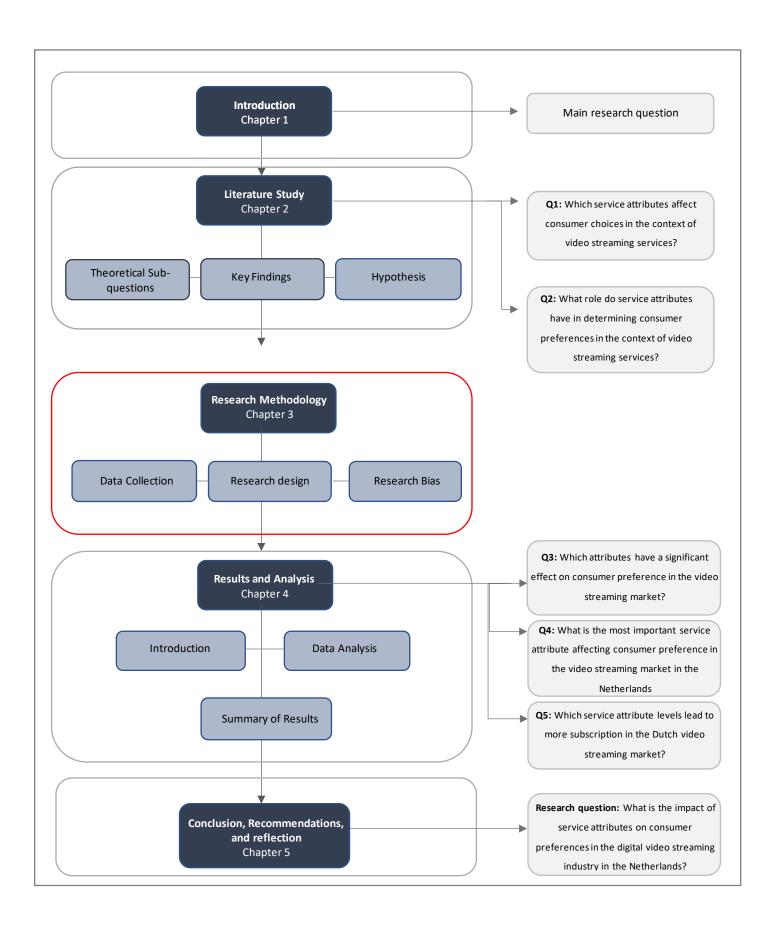
The second attribute consists of the brand. One of the most successful brands that have gained the highest subscription rates and the at the same time develop similar features with each other are: Netflix, Amazon Prime Video and Disney Plus. According to Wayne (2018) Netflix still holds the first place in the market as top leader. Moreover, Netflix is a pioneer in offering video streaming for a subscription fee which makes them quite successful. As it was mentioned before, the source of these platforms revenue is subscription rate and the amount of customer acquirement and if Netflix is one of the top leaders, this implies that Netflix is preferred amongst others. Building on this fact, the second hypothesis could state that Netflix is going to be considered the most important brand amongst other brands.

- **Hypothesis #3**: Content and having originals will have a significant positive effect on consumer preference.

Having a variety of content and originals played a crucial role in consumers decision-making as they enjoy variety. This variety can also broaden the chances that the services are going to meet one's preferences in movies, tv shows, or documentaries. Content is a categorical value with three levels, namely 3000+, 7000+, 15000+ and having originals is a dummy variable (Yes=1, No=0). From the literature study, Kim et al. (2020) concluded that consumers usually enjoy variety on their content when subscribing to these platforms and Koul, Ambekar, and Hudnurkar (2020) added that originals also play a positive role on customers preference. From these conclusions, another hypothesis can be drawn stating that having a large variety and originals in their package can lead to increased utility for the consumer.

- **Hypothesis #4**: Four screens are preferred to only three or one.

Lastly, multiscreen experience was also considered an important attribute by Mulla (2022) as the more flexibility and personalized channels one has, the more likely one will choose that platform that incorporates this feature. Regarding different platforms usually they offer 1-4 screens for each user. Thus, if there are 4 screens available, four consumers can utilize the services at the same time in one account. Since consumers according to Mulla (2022) prefer flexibility when they watch content on streaming platforms it can be argued that four screens are preferred to less.



# Chapter 3: Research Methodology

This research adopts a mixed methods approach as will be elaborated on below. Qualitative research mainly addresses questions regarding the understanding in depth the experiences of human's world which cannot be valued numerically (Fossey, Harvey, McDermott, & Davidson, 2002). Some examples of this type of research include focus groups, structured interviews, case study etc. Quantitative research concentrates in collecting and analysing structured data and can be expressed numerically (Goertzen, 2017). Examples of quantitative research methods are questionnaires, surveys, experiments etc. This research thesis consists of both qualitative and quantitative research methods, namely including a structured interview and a survey. The interview will serve to gain more in-depth insights about respondents' preferences on video streaming services and their attributes. Moreover, to analyse and give answer to the main research question, a survey is used with a target of 120 random respondents.

#### 3.1 Data collection

For this research thesis, data is collected through qualitative and quantitative methods namely a structured interviews and a survey. The data collected through the interviews was done through different methods including Zoom/WhatsApp calls and face to face interactions as well. This method was chosen because these applications make the communication easier between the interviewer and interviewee and more background about the main topic can be easily transmitted to them. Through this process, the chosen respondents had to answer a sum of 12 open-end questions regarding the digital video streaming platforms. The questions mainly concern the reasons why respondents think they subscribed to a certain platform, the willingness to pay for one and what the main attributes that make a platform attractive. The full interview questions and answers are presented in Appendix A, Table 1. To record all interviews, 1-2 weeks was needed approximately as each respondent had a different schedule time.

In terms of the survey, data was collected through Qualtrics XM, a software where users can build different surveys and share it with a certain audience. This method is chosen as Qualtrics is one of the easiest to use platform for survey creation. It includes a variety of questions including graphics, and the data can be easily downloaded for further analysis. Moreover, with this app, the survey conducted can be reached through computers, laptops, tablets, and phones. The link provided by Qualtrics XM was shared to friends, the university community, though social media and then to a random audience in other software such as Software Circle to randomize the sample. There are 16 multiple questions and a sample of 120 respondents in total. The survey questions are presented in Appendix B, Table 1. This data was collected in a span of 2-3 weeks.

#### 3.1.1 Socio-demographics of interview/ survey respondents

From the interviews conducted there is a sample of 12 Dutch residents that vary from ages 21-54 and are equally distributed in terms of gender. This sample was carefully selected to represent diversity in terms of opinions and experiences regarding their use of video streaming platforms. This also allows the avoidance of possible bias in the sample. Regarding the survey, there were 120 respondents in total all of which are residents of the Netherlands. This was a very important requirement when the link was shared as the research only concerns the market for video streaming platforms in the Netherlands. A more detailed representation of the socio-demographics of both the interview and survey is presented below:

Table 3.1: Socio-demographics of the interview and survey conducted.

	Interviews	Survey	
Gender			
Male	50%	39%	
Female	50%	61%	
Non-binary	0%	0%	
Age Group			
18-25 years old	42%	78%	
26- 35 years old	25%	10%	
36 -49	17%	8%	
50+ years old	17%	4%	
Occupation			
Student	33%	63%	
Employed	67%	36%	
Unemployed	0%	1%	
Retired	0%	0%	

Notes: the values are expressed in percentages and are calculated as the fraction of the number of males over the total number of samples for the category of males. The same calculation is conducted for all categories for both survey and interview. The values are rounded to a whole digit.

According to Table 3.1, there is an equality between genders for the sample to be more representative. Many of responders are between ages 18-25, whereas 42% and 25% of respondents belong in the age group of 26- 35 years old. Most of the interviewees are employed and only 33% are students. The sample of both interviews and survey come from the Netherlands or are residents of it since

this research thesis concerns the market of video streaming services in the Netherlands. From the answers of the interviews most of them are familiar with the concept of DSPs and already have a subscription to a certain platform mainly, Netflix, Amazon Prime Video or Disney Plus.

Regarding the survey, there is a domination of females with 61% of the sample. Most of the respondents are of age 18-25 years old and 63% of them are students. The representativeness in this case differs as the respondents are mainly random.

## 3.2 Research Design

#### 3.2.1 Choice-based conjoint analysis

This research thesis tries to analyse the impact that service attributes have on consumer preference in the video streaming market in the Netherlands. To view consumers' purchase behaviours, marketeers usually use Choice-based conjoint analysis. Choice-based conjoint analysis gives certain respondents a multiple set of concepts in terms of attributes (Chrzan, 1994). In other words, this type of experiment estimates the impact that different characteristics of a service or product have on consumers' purchasing behaviours or preference. The way this experiment works is by setting up the service profiles with a selection of attributes and asking them to indicate which profile they would prefer to purchase. Since the experiment is based on choice, the dependent variable represents the probability to purchase the service in this case, to subscribe to a platform or not. The dependent variable can also be described as the consumer's preference towards a set of attributes. Respondent would choose the profile sets that give them the highest "utility".

#### 3.2.2 Choice design

The choice design of this research thesis consists of several choice sets that give two main profiles. Each profile is determined by a subset of combinations of attribute levels. The attributes chosen for this research are **subscription price**, **content**, **originals**, **screen features** and **brand**. After analysing several literature studies, they supported the idea that price and content are the most important attributes which incentivise consumers to subscribe to a certain platform. According to prior qualitative research conducted from interviews, other attributes that were majorly mentioned as important included brand, having originals as content and being able to have multiple screen feature. For each attribute that is chosen, levels for each are created. Subscription price has three main levels including: €9/month, €15/month, and €20/month. The levels are chosen in terms of the real prices that exist in the market for different platforms combined with the answers from the sample interviews regarding their willingness to

pay for a subscription. Furthermore, similar reasoning was made for the attribute content. Its levels include 3000+, 7000+ and 15000+ numbers of content such as movies, TV shows, documentaries etc. Originals is dummy variable which take the value 1 if the platform involves originals in their content material and 0 when it does not. Screen feature represents the number of screens that a platform provides and has two levels: 1-2 screens and 4 screens. Lastly, brand is a variable that has 3 levels and include Netflix, Amazon Prime Video, and Disney Plus as they are one of the most successful platforms in the market. An example of a choice set is illustrated below in Figure 3.1 where respondents had to choose between 2 choices.



**Figure 3.1:** An illustration of a choice set used in the survey.

Notes: This is an example of one of the 10 choice sets used in the survey where respondents had to choose between choice 1 or choice 2. This helps conceive the data which will emphasize the preference and utility of respondents towards video streaming services.

In this choice experiment, combinations for the choice sets are created by using a fractional factorial design. This means that an orthogonal subset of some possible combinations of attribute levels are used. Orthogonality refers to the combined occurrence of attributes' different levels appearing in the design with frequencies equal to the multiplication of each individual marginal frequencies (Addelman, 1962). For a combination to be orthogonal there should not be a dominant choice which would produce an uninformative choice set. Moreover, level balance is assuring, meaning that each level of an attribute is presented with equal frequencies in the design. To create the fractional factorial design, JMP software is used which helps create an informative model. For this experiment there was no pilot study, however, the attribute levels were put in an order of preference so that the reference category is the most preferred level. The example of the design is shown in Appendix C, Figure 1 and 2 using the software JMP. The next step is to use all answers from the survey and analyse more in depth the preference towards each attribute and level that gives respondents the highest utility.

#### 3.2.3 Random Utility Theory

To understand the utility of respondents towards the attributes that better characterise video streaming services, random utility theory is used. Random utility theory is a method that describes discrete choice behaviour. According to Baltas and Doyle (2001), "utility maximisation is the objective of the decision process and leads to observed choice", meaning that consumers choose the products or services that give them maximum utility. To measure the utility of all choice options, a formula is used:

$$U_i = \beta X_i = \beta X_{i1} + \beta X_{i2} + \dots + \beta X_{in} + \varepsilon_i$$
 (1)

Firstly,  $U_j$  represents the utility of choice option j.  $X_j$  represents the independent variable of choice option j which is the sum of all attributes ( $x_{j1}, x_{j2} \dots x_{jn}$ ). The preference of each respondent for an attribute is determined by a vector  $\beta$  and  $\varepsilon_j$  is the random error of the utility of choice option j. In this choice experiment the equation that would represent the data for the video streaming service is:

$$U_{j} = \beta Price_{j1} + \beta Price_{j2} + \beta Content_{j1} + \beta Content_{j2} + \beta Originals_{j1} + \beta Screen Feature_{j1} + \beta Brand_{j1} + \beta Brand_{j2} + \varepsilon_{j}$$
 (2)

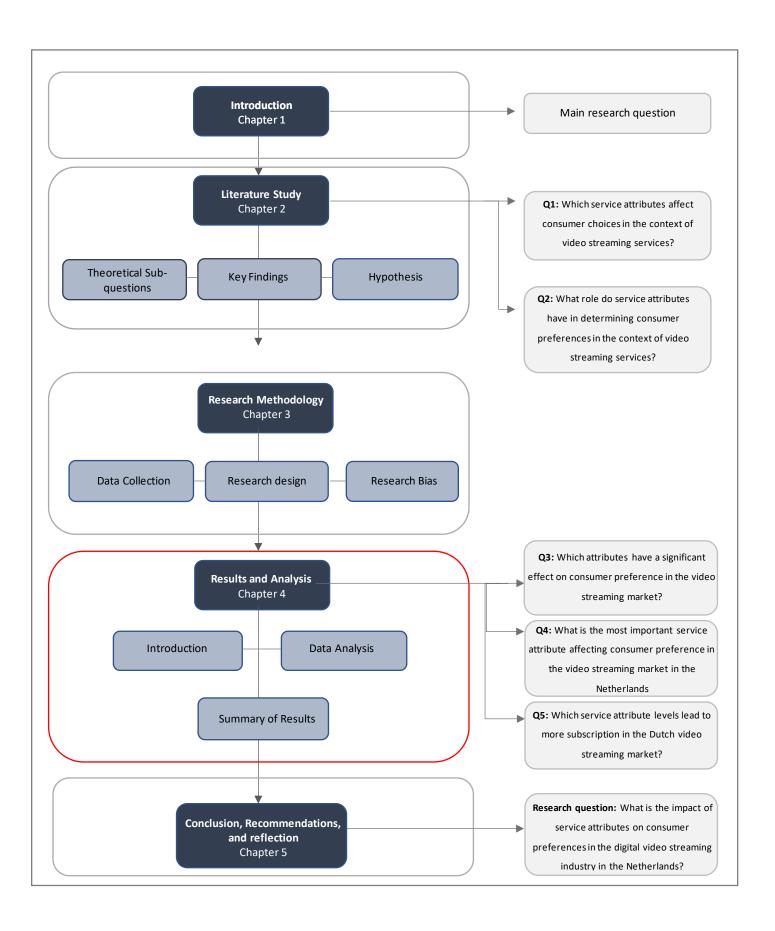
The parameter estimate will convey an increase or decrease in utility for an attribute level compared to the reference level. To analyse the impact of each attribute in the utility of consumers, several methods are going to be used. Firstly, the parameter estimates are going to be created with age groups as control variable to view the significance of each attribute into consumer preference through p-value. Secondly, the Likelihood Ratio Test will serve to analyse the interaction terms as well through Chi Squared test to see the difference between the observed and expected results. Moreover, utility profilers are going to be created to see the impact that each level of attribute has on consumers preference and compare them. Lastly, the final test that is going to be used is the effect marginals test. This test tells how changes in the independent variable affect the predicted value of the outcome (Mize, Doan, & Long, 2019). Overall, these tests will help answer the empirical questions of this research thesis regarding the impact of attributes and their levels on consumer preference.

#### 3.4 Researcher Bias

To make sure that the research methods do not give biased results, internal and external validity must be assured. The internal validity – the accuracy of the research methods and experiments - is assured by conducting an experiment through a survey which is randomized. In terms of external validity, the experiment should be as realistic as possible, meaning that the attribute levels should reflect real values that respondents can relate to before making a choice. This is assured in this research as the values for

each attribute are reflected from the real price setting of the platforms chosen in the market, mainly Netflix, Amazon Prime Video and Disney Plus. Moreover, the questions in the survey are constructed in a way that they avoid uncertainty and full information is given beforehand. To some extent, the sample is representative in terms of their backgrounds however, it is more concentrated at the young age which might fail to achieve full representativeness.

Lastly to make the choice experiment reliable, there are properties that should be assessed including level balance, orthogonality, and minimal overlap (Huber, & Zwerina, 1996). Level balance is assessed as all the levels of attributes analysed occur with an equal frequency when the choice design was created. At the same time, orthogonality is assured as the occurrence of any two levels of attributes are present in the choice design with frequencies equal to the product marginal frequencies. Moreover, minimal overlap is also assured as the attribute levels do not repeat itself in a choice set.



# Chapter 4: Results and analysis

This chapter will present the results retrieved by analyzing the data from the survey with the software JMP. The results gathered through the survey will try to answer the main empirical questions of the research and lead to a conclusion for the main research question. This will be done through different tests and analysis methods such as likelihood ratio test, effect marginals and utility profiler. Moreover, each hypothesis is going to be tested through these methods.

#### 4.1 Introduction

The main research question consists in analyzing the impact of different service attributes on consumer preference in the context of video streaming services. The main empirical questions stated in this research are:

- 3. Which attributes have a significant effect on consumer preference in the Dutch video streaming market?
- 4. What is the most important service attribute affecting consumer preference in the video streaming market in the Netherlands?
- 5. Which service attribute levels lead to more subscribers in the Dutch video streaming market?

From the survey conducted to analyze the importance of the attributes and attribute levels and their significance, 120 respondents were considered from the total of 139 as some of them did not finish the survey. Looking back at the literature study, it was concluded that one of the most important attributes that might affect consumers' choice in subscribing to a video streaming platform are subscription price, brand, content, originals, and screen availability. The results of the interview also emphasized similar concepts when they were asked about the most important attribute according to them. To further build a model with these attributes in correlation with respondent's utility, choice-based conjoint analysis is used. To do this, each attribute is given different levels corresponding to the answers from the interviews and the market for these platforms.

As mentioned, the utility was measured by using the formula (2). The  $\beta$ s are parameters that show the impact of each attribute on the utility of responders. Firstly, control variables are used in the formula to make the research more significant. By using control variables, internal validity is assured and confound variables do not influence the outcomes of the research. A confound variable is a variable that correlates with both the dependent and independent variables thus, not reflecting the actual results (Pourhoseingholi, Baghestani, & Vahedi, 2012). Some of the control variables included in the survey are

age group, gender, subscription (whether the respondent is subscribed to platform or not), status of employment and region where they reside in the Netherlands.

#### 4.2 Data Analysis

#### 4.1.1 Likelihood Ratio Test

To answer the first empirical question which consist of finding the attributes that have a significant effect on respondents' preference, the likelihood ratio test is used. The likelihood ratio test helps with determining the significance of each attribute and each interaction with the control variables. If the p-value for each attribute is less than 5%, then the effect on the utility of respondents is significant. To see which attribute's effect is significant, several models were created with all control variables and some with only interactions that are significant. The first model relies on the main attributes only without including the control variables. From Table 4.1, the attributes that show a significant effect on the utility of respondents of the survey are "subscription price", "content" and "brand". This means that respondents' choice of video streaming services is affected when there is a difference in price, content, and brand.

Table 4.1: The Likelihood Ratio Test of the effect of all main attributes on respondents' utility.

Attribute	L-R Chi-Square	DF	Prob > ChiSQ
Subscription Price	169.037	2	<0.0001*
Content	8.329	2	0.0155*
Originals	0.468	1	0.4939
Screen Feature	0.019	1	0.8899
Brand	40.319	2	<0.0001*

Note: The sign \* corresponds to all the values that are less than the p-value of 0.05 which represents the significance of the variable. The value in yellow show a stronger significance effect of the variable and the red one presents a value with lower effect but still significant.

However, when control variables are included, the results change. Thus, to see the main attributes' significance changes when control variables are added, several models are introduced. Through the effect summary shown in Appendix D, Figure 1, the interaction variable between the control variable "subscription" and brand, subscription price, content are the most significant variables explaining the utilities followed by age group. On the other hand, the control variables gender, status, and region are not significant as the p-value is higher than 0.005 meaning that they will not contribute to the main

outcomes. Taking these results into consideration, age group and whether the respondent is subscribed to a platform are considered.

**Table 4.2:** The Likelihood Ratio Test of the effect of all main attributes and the interaction of the control variable age and subscription with the main attributes on respondents' utility.

Attribute	L-R Chi-Square	<b>DF</b> 2	<b>Prob &gt; ChiSQ</b> 0.1096
Subscription Price	4.421		
Content	5.341	2	0.0692
Originals	1.336	1	0.2477
Screen Feature	1.055	1	0.3044
Brand	8.356	2	0.0153*
Age * Subscription Price	6.623	2	0.0365*
Age* Content	2.614	2	0.2707
Age* Originals	0.692	1	0.4053
Age*Screen Feature	2.027	1	0.1545
Age*Brand	3.622	2	0.1635
Subscription * Subscription Price	8.167	2	0.0168*
Subscription * Content	7.099	2	0.0287*
Subscription * Originals	0.344	1	0.5573
Subscription *Screen Feature	3.082	1	0.0792
Subscription *Brand	12.420	2	0.0020*

Note: The sign \* corresponds to all the values that are less than the p-value of 0.05 which represents the significance of the variable.

According to Table 4.2, brand, the interaction of age and subscription price, the interaction of having a subscription with price, content and brand have all a significant effect on the consumer's utility and preference. The interaction effect means that the effects of subscription price, content and brand are not only limited to their unique effect on the preference for these platforms, but they also depend on age groups and if respondents are subscribed to a certain platform or not. For example, the effect of the subscription price on preferences for video streaming services will change as the age differs and similarly if a respondent is subscribed or not to a platform.

#### 4.1.2 Effect Marginals

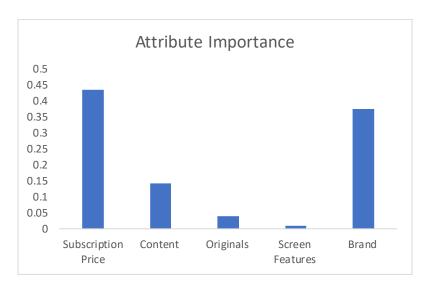
To investigate which attribute is the most fundamental for consumers' choice, the effect marginals analysis must be employed. This analysis would answer the second empirical question which

consist of finding the most important attribute that brings the most change in respondents' utility. In order to do this, the marginal utility range for each attribute is considered and then compared. The results from JMP on the marginal utility and probability can be found in Appendix F, Figure 1a and 1b. The marginal probability expresses the probability that a respondent would choose a certain level. To find the total importance of each attribute the range is calculated by taking the maximum utility minus the minimum and then use this value over the sum of ranges. The results are expressed in Table 4.3.

**Table 4.3:** The effect marginals calculated to display the importance of the attributes.

Attribute	Range	Importance	
Subscription price	0.7265	0.4340	
Content	0.2370	0.1416	
Originals	0.0677	0.0405	
Screen Feature	0.0147	0.0088	
Brand	0.6279	0.3752	

Notes: The range is calculated as the maximum marginal utility of an attribute minus the lowest utility marginal of the same attribute. The importance is calculated as one attributes range over the sum of all ranges of all attributes.



**Figure 4.1:** The importance of each attribute shown in a graph; subscription being the highest and screen feature the lowest.

From Figure 4.1 it can be seen that the most important attribute is the subscription price. This means that when respondents chose between choice profiles, price was one of the most important attributes affecting their preference. The second most important attribute is brand and then content with a utility range of 0.6279 and 0.2370 respectively. There seems to be an indifference in the preference for

screen features and originals showing that these attributes do not reflect a high influence in respondents' choice. However, from the likelihood rate test originals and the availability to have multiple screens were insignificant.

#### 4.1.3 Utility Profiler

The third empirical question consists of evaluating the combination of the most preferred attribute levels that would affect consumers choice. The utility profiler analysis displays the utilities of each level of the attributes and the maximum desirability for each attribute. To get a better glance of the most favored levels of each attribute that characterizes video streaming services, several models are taken into consideration in terms of age groups, gender and if they are subscribed or not. These results can be seen in Appendix G.

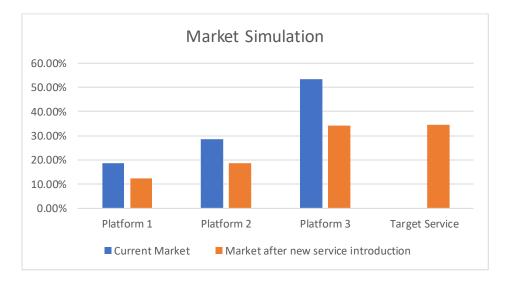
In terms of the subscription price, amongst all age groups, both female and males and whether they are subscribed or not, all respondents ideal price would be the lower price which is €9/month. In terms of the number of content that respondents would prefer in combination with other attribute levels is 3000+ movies, tv shows, documentaries etc except for when respondents do not own a subscription of any platform. In that case their preference increases for having more than 7000 content. A reason behind this change could be that respondents who have not used a platform yet might consider having more content as having more choice whereas for people who are already familiar with the platform enjoy their shows and do not necessarily need a large number content. Moreover, in terms of originals most of the respondent prefer having originals included in the content of video streaming services. However, for the age groups 36-49 and 50+ years old and people who are not subscribed to a platform, their favoured choice is not having originals in their package. Furthermore, in terms of screen features, preferences vary between age groups and gender. The young age group which includes ages from 18-25 prefer having 1-2 screen available whereas the rest, 26+ enjoy having 4 screens instead. A reason for this might be that the adult ages might like to have multiple screens as their share it with their family members. In terms of gender, males prefer 4 screens whereas females enjoy having only 1-2 screens. Lastly, in terms of the brand, Disney Plus is the most preferred choice amongst all age groups and gender. The only age group whose preference differs from the rest is the fourth group which 50+ years old and their utility is maximised for Netflix instead of Disney Plus or Amazon Prime Video.

Considering that the highest percentage of the sample is from young age and most of them have a subscription to platform already, the most ideal product of the respondents would be Disney Plus, with a monthly subscription of €9, with originals and a minimum of content of 3000+ and lastly with 4 screens

available. In order to see how this ideal product would perform in a market simulated by the software, the market shares of each product are analyzed. To create a simulation market situation the utilities of each combination of three platforms are needed. The formula calculating the market share of each service are calculated with the formula (3):

$$P(Y_n = 1) = \frac{e^{V_{n_1}}}{e^{V_{n_1}} + e^{V_{n_2}} + e^{V_{n_3}}}$$
 (3)

The dependent variable refers to the probability of one choosing a service platform with certain attributes and  $e^{V_{n_1}}$  represents the expected utility that the respondent of the young age which has a platform retrieved from this choice set. This value can be expressed as a percentage of the market share that this service with certain attributes holds in the simulated market. After calculating the value using this formula, the results of which can be found in Appendix H, Table 1, the graph presented displays the change between the current market and the market when the new target service is introduced. As seen in Figure 4.2, the market share of the first three platform packages decreases when the new product is introduced.



**Figure 4.2**: The market simulation of the video streaming services in Netherlands. A comparison between the current market and the market after the target service is introduced.

#### 4.3 Hypothesis results

After analyzing different literature regarding the most important attributes and their corresponding levels, hypotheses were created. The main hypothesis that was created based on the main finding from literature studies and the interviews conducted as qualitative research. After the analysis of the results

from the survey, these hypotheses were tested by using different tests and methods such as the likelihood ration test, effect marginals and utility profilers.

- **Hypothesis #1:** Price is going to have a significant negative effect on consumer preference for streaming services.

The first hypothesis stated that price is going to have a significant negative effect on consumer preference for streaming services. This means that as the price increases the utility of respondents will decrease. Looking at the results, the attribute of subscription price was significant when no interactions are included. From the parameter estimates, the utility for the price of  $\{20\)$ month and  $\{15\)$ month decreases compared to when the price is  $\{9\)$ month. Moreover, when age groups and subscription variables are added to the model, the interaction term between them is also significant and the effect on consumer preference is negative as well if parameter estimates are analysed. From the interview conducted which can be found in Appendix A, one of the questions asked the willingness to pay for a subscription. The answers varied from  $\{3-20\}$ , however the most common answer amongst them was an average of  $\{10\}$ per month. The results from the interview also support the hypothesis that price has a negative significant effect. This means that the first hypothesis can be accepted considering the results from the survey and interview.

- Hypothesis #2: Netflix is going to be the most preferred brand out of all platforms.

The second hypothesis consists of the most preferred brand which according to literature, Netflix is the most preferred platform to use amongst customers. However, according to the survey for Dutch respondents, Disney Plus produced the highest utility amongst different age groups, gender and whether they are subscribed or not according to the utility profiles analysis. Only the age group of 50+ years old preferred Netflix over the other options. This contradicts the second hypothesis which claims that Netflix is the most important brand that would influence their choice. A possible reason for this result based on the interviews is that most of the respondents from the sample already have a subscription in Netflix and would like to explore a new platform with a low price and more selected content. Most of the sample that participated in the interviews stated that if they would choose another platform to subscribe to it would be Disney Plus. This might suggest that the preferences of people that have already discovered the features of a brand have changed, and if Disney Plus continues to outperform other brands, there is a likelihood that consumers might churn or switch their subscription to Disney Plus. Respondents from the interviews conducted also emphasized that the main reason why they think Netflix is the most successful

one is the first mover advantage in the market and the history that it has marked. However, it is important to consider that preferences change, and this characteristic might not play such an important role.

- **Hypothesis #3**: Content and having originals will have a significant positive effect on consumer preference.

The third hypothesis states that content and having originals have a significant positive effect on consumer preference. According to results of parameter estimates, having less content the minimum being 3000+ is more preferred than having 7000+ and 15000+ and having originals has a positive effect on consumer preference. However, from the likelihood ratio test, only content is significant when control variables are not included whereas originals are not significant. When age groups and subscription is included in the model, the interaction between having a subscription and content is also significant. This means that respondent choice preference for content changes according to whether they are subscribed or not however, their preference in originals is insignificant. Thus, when they are introduced with choice options, having originals does not have an impact on their decision making and they usually prefer the minimum amount of content if they are subscribed to a platform. Regarding the interview responses, both attributes were important however, the term content could refer to also the quality of content rather than the number which is a bit difficult to measure. This could justify the fact that respondents do not necessarily find having a maximum number of contents very important. Instead, in a bundle choice of attributes they might give more importance to brand, price and good quality of content.

- **Hypothesis #4**: Four screens are preferred to only two or one.

The last hypothesis states that four screens are preferred to only or two screens. According to the utility profiles for age groups 26+ years old four screens are indeed preferred to 1-2, and only for the young Dutch respondents aged 18-25, 1-2 screen are more preferred. If they are subscribed to a platform, their utility increases if the platform has 4 screens instead of 1-2 and if they are not subscribed, the effect is opposite. However, despite of these results, the likelihood ratio test showed that screen features are not significant so we cannot conclude that 4 screens are preferred to 1-2.

#### 4.4 Summary of results

This section discusses the main findings drawn from the survey conducted in order to answer the main research question regarding the impact of the main attributes on consumer preference in the video streaming services in the Netherlands. There are three empirical questions that were posed to try and answer the main research questions and are listed below:

- 3. Which attributes have a significant effect on consumer preference in the Dutch video streaming market?
- 4. What is the most important service attribute affecting consumer preference in the video streaming market in the Netherlands?
- 5. Which service attribute levels lead to more subscribers in the Dutch video streaming market?

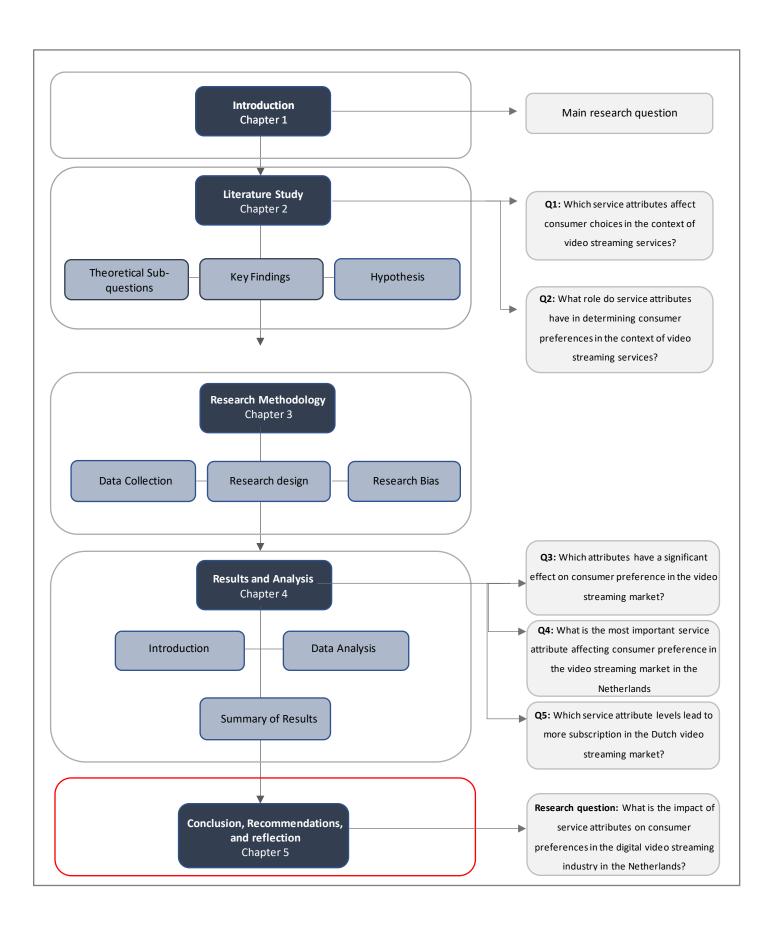
To answer the first question, the likelihood ratio test was used in order to find the significance of all attributes chosen for analysis. When all the main variables were included in the analysis the attributes of content, subscription price and brand were significant with a p-value less than 5%. When control variables were added to the model, namely age and whether a respondent is subscribed or not to a platform, the results changed. Only brand was significant from the main attributes together with the interactions between subscription and price, brand and content and age with subscription price. The other main attributes like having multiple screen features and including originals is the platform are not significant which means that they do not have an impact on the choice and preference of the respondents.

Moreover, to find the importance of each attribute, another test was used which is the effect marginals. Effect marginals uses the marginal utility of each respondent for a certain attribute. The results show that the most important attribute that might affect consumers' preference is subscription price. This implies that when people make purchase decisions, subscription price is the most important attribute to consider. Secondly, brand was also quite important when it comes to one's decision making, namely if they want to subscribe to Netflix, Amazon Prime Video or Disney. Lastly, content is of very much importance to respondents after price and brand leaving originals and screen feature rather insignificant to their purchase choice.

Besides the attributes, other important factors which may cause an impact on respondents' preference are the attribute's levels. In this way marketing managers may use this information before launching a new product or feature. To answer the third question regarding the most preferred levels to respondents, utility profiler test is used. According to the results, the most preferred level of subscription price is €9/month which means that people prefer the lower price when they decide to purchase a service. Moreover, less content is also preferred to more content namely 3000+ movies, TV shows or documentaries. If one is not subscribed to a platform this effect increases to preferring more content (7000+). This contradicted the hypothesis that more content is preferred to less. The most preferred brand according to the responses is Disney Plus which again contradicted the hypothesis that Netflix would be the most preferred choice amongst respondents. In terms of originals and screen features, respondents'

utility would increase if originals were included and if there are 4 screens available in the package which confirms the hypothesis. However, these two attributes were insignificant thus, it does not impact the overall choice of respondents as much as the others.

Lastly, a market stimulation is offered to view the target product chosen by respondents' choice and how this choice would change the market shares of the products that already exist in the market. The ideal product would be Disney Plus, with a monthly subscription of €9, with originals, a minimum of content of 3000+ and with 4 screens available.



## Chapter 5: Conclusion and recommendations

This chapter will consist of giving an overview of the main conclusions of this research regarding the main question and other answers namely theoretical and empirical. Moreover, managerial implications will be suggested in terms of how this research can be used and how the main findings will serve the real market. Lastly, some limitations that might have affected the research process and recommendations for future research will be presented.

#### 5.1 Central guestion and other research guestions

The main objective of this part is to answer the main question which is:

"What is the impact of service attributes on consumer preference in the digital video streaming industry in the Netherlands?"

In order to give a concrete answer, this question was associated with other questions namely two theoretical and three empirical ones. The theoretical questions give an overview of the main topic based on several literature studies whereas the empirical questions use quantitative research to give an answer namely, a survey conducted for Dutch residents regarding the video streaming services.

#### 5.1.1 Theoretical questions review

**Question 1**: What role do service attributes have in determining consumer preference in the context of video streaming services?

The first theoretical question consists of finding the role of attributes in determining consumer preference. The role of attributes was explained as a way to support customers' choice by maximising their utility over a certain product or service (p. 10). Moreover, it was concluded that by using attributes-based methodologies, one can predict consumers' perception of assortment variety in choosing a product with certain bundle of characteristics which helps a company sell their brand (p.10). Specifically, in the video streaming service market, attributes such as their brand or content play the most important role in affecting consumers' choice. It was suggested that the main role that attributes hold is retaining new costumers and decreasing churn rates within the video streaming services (p. 11). In order to achieve this, the attributes need to be qualitative and conform to customers' preferences. Lastly, a general conclusion is that to build and understand a customer's preference, an evaluation of attributes is fundamental. Thus, video streaming companies need to make sure that they offer the most innovative attributes in order to position their brand, acquire new customers and retain the existing ones.

#### **Question 2:** Which service attributes affect consumer choices in the context of video streaming services?

As mentioned, attributes play a very important role in forming and influencing customers preferences. To better understand the impact that they have in consumers' purchase behaviour, certain attributes must be further analysed and evaluated. According to several studies, the most important attributes that characterise video streaming services beside the brand are **price**, **content and originals**, **flexibility and multi screening**. From the literature study it was concluded that price is a fundamental attribute that negatively affects the preferences of consumers in relationship with quality as well. The higher the price the less interest is found in customers regarding video streaming services (p. 13). Moreover, it was argued that having a variety of content in terms of movies, TV shows or documentaries increases the utility of consumers in subscribing to a certain platform (p. 13). Producing originals also attracts new customers as they usually get more media coverage. Lastly, it was suggested that an additional important attribute that can affect customers' choice in subscribing to these platforms is the multichannel experience and the flexibility that it offers (p. 14). It was argued that this flexibility allowed customers to access different personalized content at any time that they preferred. These attributes were also found in the answers of the interviewees, who were asked about what the main attributes are according to their personal experience.

#### 5.1.2 Empirical questions review

**Question 3:** Which attributes have a significant effect on consumer preference in the Dutch video streaming market?

From the survey conducted with Qualtrics completed by various Dutch citizens, the results analysed with the software JMP helped determining the significance of several attributes of video streaming services namely subscription price, content, originals, multiscreen feature, and brand. To find the significance and importance of these attributes and their levels on consumer preference choice-based analysis was used. The first test that determined which attributes are significant was the likelihood test. From the results, only price, content and brand were significant with a p-value less than 5%. When control variables are added such as age and whether a respondent is subscribed or not the interaction terms between the control variables and price, content and brand become significant. Thus, it can be concluded that when respondents make purchase decisions, price, content, and brand are an important attribute that they consider by comparing different bundles whereas multiple screening and having originals does not have a big impact.

**Question 4:** What is the most important service attribute affecting consumer preference in the video streaming market in the Netherlands?

The effects marginals test helped conclude the most important attributes that affect respondents' utility and preference. According to the results the most important attributes are the subscription price followed by brand and then content. This means that Dutch responders are price sensitive when it comes to purchasing decisions in combination with the brand. Moreover, having a big amount of content also is important to customers before choosing a certain platform package.

Question 5: Which service attribute levels lead to more subscribers in the Dutch video streaming market?

Lastly, to answer the last empirical question regarding the attribute levels, utility profiles test is used. It was concluded that generally the most preferred bundle of a product was a subscription with the lowest price which is €9/month, with 3000+ content including originals and 4 screens available. Moreover, the most favourite brand amongst all is Disney Plus according to the respondent's choice.

#### 5.2 Key findings

The literature study helped in order to build several hypotheses regarding the video streaming platforms in general and how their attributes affect consumer preferences and their choice to purchase them. The key findings were that usually consumers are rather price sensitive when it comes to choosing to subscribe to a platform. Moreover, they prefer having a variety of content including originals and multiple screens. The difference in the results stands in the preference about the brand. In the Netherlands, the results showed that Disney Plus is the most preferred brand amongst others which deferred the hypothesis stating that Netflix was the most favoured one. A reason behind this result might be that respondents of both, interviews and survey already own a subscription package in Netflix, and they are more curious to watch other content that Disney Plus offers as a new experience. According to Malik (2022) in the first quarter of 2022, Disney Plus has increased the number of subscribers with 11.8 million new subscribers whereas Netflix has had the lowest growth since 2015. One of the main reasons for this growth has been the quality of the new content that has been added recently including premiers from theatres. This also explains the preference over the number of contents as respondent do not necessarily find it important when they choose. A reason might be that instead of the number they prefer the quality of each movie, TV show or documentary. Thus, it can be concluded that marketeers of these brands should really focus in the most important attributes according to customers which is price, their brand position and most importantly content to increase their sales and be market leaders. Besides the

focus in features, marketing managers should also be able to understand and evaluate customers' preference regarding these features to come up with the right marketing strategy.

#### 5.2 Limitations

The last chapter discusses some limitations of this investigation and recommendations for future research. Firstly, the short time given to conduct the survey and interviews limited the number of respondents that were gathered to only 120 for the survey. This small sample which represents the residents of Netherlands is quite small to be reliable which might directly affect the results. Secondly, in order to answer the main research question, only five service attributes were considered which limits the scope of the analysis. Other attributes such as personalization feature, genre of content etc. can also be significant to respondents if they were mentioned. Lastly, the choice-based methodology that were used to find to the impact of attributes on the utility of respondents was based in 10 different choice set. This method can cause fatigue when respondents are answering the survey lowering the truthfulness in their answers.

#### 5.2 Recommendation

Thus, there are several recommendations that could be considered to make this research more reliable in the future. One solution might be to explore other methods instead of choice-based conjoint analysis. One other way is to use concept testing, a method in which respondents are asked directly for an introduction of an attribute or a product with various attributes (Dolan, 2001). However, this method might not be of use if comparison between various brand would be needed. Another way to develop the reliability of the thesis results is by adding more people in the sample chosen and distributing them in a wider geographical scope would randomize the results making them more valid and reliable. Moreover, since this is a new topic and a constantly changing one, research must be updated very often. New features are being released every year which might change consumer's preference regarding the most important attribute which can influence their choice. Thus, it is very important to be aware of various changes, trends regarding new content that competitors might employ and the reaction of the audience regarding these changes. In this way marketeers might get a better glance of consumer's changing behavior with time. These recommendations would lead to better research in terms of reliability and validity in its results.

#### 5.4 Critical Reflection

This paragraph will give a short overview of the research in terms of the reflections gained along the process. The reflection is made upon all chapters including literature study, the research methodology, the outcomes of the study and which are the main lessons learned through the whole process of researching, reviewing, analyzing, and writing the thesis. Throughout the process of finding qualitative academic writings that would build a theoretical framework and the main hypothesis, main concepts were highlighted and further explained such as consumer preference and attributes. Another aspect that was quite challenging is to find studies that particularly concerned the digital video streaming market in Netherlands regarding the impact of attributes. However, using Google Scholar and the Erasmus Learn Library various journals and articles could be found and used to build hypothesis and answer the theoretical sub-questions.

Moreover, regarding the methodology, the most challenging part was to get as many respondents as possible in such short time for the survey and interviews. However, I was still able to build a structure on how the analysis was going to be constructed and follow it step by step along the process. Lastly, the process of delivering the outcomes was not very challenging in terms of creating all the tests necessary and the main analysis. The software JMP used for the analysis was the most challenging aspect in terms of the time I had to use it. Since I only had 1 month trial it limited me from running the results various times. Otherwise, the actual results brought a very interesting discussion where not all hypothesis based on the literature study were accepted. These results however, developed my critical thinking and the ability to evaluate possible answers to the main research questions.

The main lessons that were gained throughout this process is to properly build a research structure and consistently follow all steps needed to give an answer to the main research question and all sub-questions. It taught me how to also retrieve the most useful academic resources and build a theoretical framework based on their findings. Moreover, I gained experience in using a new software and retrieve results in an efficient way. Lastly, the whole experience has been impeccable in terms of the knowledge I have gained, the advice I have been given and skills that I have achieved in the marketing field.

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# **Appendices**

### Appendix A (Interview questions and answers)

**Table 1**: Interview questions constructed to gain more insights on what the main preferences of Dutch respondents are in terms of video streaming platform in Netherlands.

#### **Interview Questions**

- 1) What is your age?
- 2) What is your occupation?
- 3) Are you familiar with subscribed video streaming platforms?
- 4) What are the first 3 platforms that come to mind?
- 5) What do you think is the most popular video streaming platform in the market?
- 6) Why do you think that streaming platform is the most popular?
- 7) Are you subscribed to any video streaming platform? If so, which?
- 8) Why are you subscribed to specifically those platforms?
- 9) If you are not subscribed which platform, would you like to purchase in the future?
- 10) What is their most interesting feature?
- 11) How much would you be willing to pay for a subscription (a range)?
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

#### Interview answers transcribed from all 12 respondents.

#### Interviewee 1 (Male)

- 1) What is your age?
  - I am 58 years old.
- 2) What is your occupation?
  - I am a Senior Business Development Director.
- Are you familiar with subscribed video streaming platforms?
   Yes, I am.
- 4) What are the first 3 platforms that come to mind?
  - The first ones are Netflix, Disney Plus and HBO.
- 5) What do you think is the most popular video streaming platform in the market? Netflix.

- 6) Why do you think that streaming platform is the most popular?

  Because it was one of the first in the market.
- 7) Are you subscribed to any video streaming platform? If so, which?
  Yes, Netflix and Amazon Prime.
- 8) Why are you subscribed to specifically those platforms? I subscribed mainly to watch crime series.
- 9) If you are not subscribed which platform, would you like to purchase in the future?
- 10) What is their most interesting feature?

The fact that you can watch when you can, stop and start, download to watch.

- 11) How much would you be willing to pay for a subscription (a range)?
  I would pay 14 euros.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

I would say the series they have and the range and the new ones they are adding.

### Interviewee 2 (Female)

- 13) What is your age?
  - I am 20 years old.
- 14) What is your occupation?

I am a student.

- 15) Are you familiar with subscribed video streaming platforms?
  Yes, I am.
- 16) What are the first 3 platforms that come to mind?
  The first ones are Netflix, Disney Plus and Amazon Prime.
- 17) What do you think is the most popular video streaming platform in the market? I think Netflix.
- 18) Why do you think that streaming platform is the most popular?

  I think because of the original movies and TV Shows that has been producing recently. The brand has also become very present and well known globally.
- 19) Are you subscribed to any video streaming platform? If so, which? Yes, Netflix.

- 20) Why are you subscribed to specifically those platforms?

  I subscribed mainly to watch series and movies.
- 21) If you are not subscribed which platform, would you like to purchase in the future?

  I would like to get Disney Plus.
- 22) What is their most interesting feature?

Disney has new shows and movies compared to Netflix.

- 23) How much would you be willing to pay for a subscription (a range)?

  I would pay 3-10 euros.
- 24) What are the most important attributes that affected your decision on purchasing a subscription package?

Mostly the variety of choice that they offer.

### Interviewee 3 (Female)

- 1) What is your age?
  - I am 24 years old.
- 2) What is your occupation?

I am a student and part time worker.

- Are you familiar with subscribed video streaming platforms?
   Yes, I am.
- 4) What are the first 3 platforms that come to mind?

The first ones that come to mind are Netflix, Prime and Hulu but I don't personally use Hulu.

- 5) What do you think is the most popular video streaming platform in the market? Netflix for sure.
- 6) Why do you think that streaming platform is the most popular?

I think because its available in a lot of countries and it has a lot of selection. It is also affordable for what offers.

- Are you subscribed to any video streaming platform? If so, which?
   Yes, Netflix.
- 8) Why are you subscribed to specifically those platforms?

Mostly for its videos and

- 9) If you are not subscribed which platform, would you like to purchase in the future? Maybe Prime.
- 10) What is their most interesting feature?

The fact that they are super accessible at any time.

- 11) How much would you be willing to pay for a subscription (a range)?
  I would pay 10 euros per month maximum.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

I think the amount of content that they offer influenced me mainly.

#### Interviewee 4 (Female)

What is your age?
 I am 22 years old.

2) What is your occupation?

I am a student.

- Are you familiar with subscribed video streaming platforms?
   Yes, I am.
- 4) What are the first 3 platforms that come to mind? The first would be Netflix, Disney Plus and Amazon Prime.
- 5) What do you think is the most popular video streaming platform in the market?

  Netflix.
- 6) Why do you think that streaming platform is the most popular?

  Netflix has a large reputation across the market and its brand is well known by almost everyone.

  Also, recently they are investing a lot in originals which I think has helped them.
- 7) Are you subscribed to any video streaming platform? If so, which?

  I am subscribed to my family's Disney Plus account.
- 8) Why are you subscribed to specifically those platforms?
  I am a fan of Marvel movies and the shows they provide and comparing to other ones it is a bit cheaper.
- 9) If you are not subscribed which platform, would you like to purchase in the future?

10) What is their most interesting feature?

11) How much would you be willing to pay for a subscription (a range)?I would pay 10 euros per month.

12) What are the most important attributes that affected your decision on purchasing a subscription package?

I purchased Disney because of its price mainly, and the selection of movies and shows available. Also, it offers four number of screens which makes it easier for the whole family to use at the same time and can be personalized as well.

#### Interviewee 5 (Female)

What is your age?
 I am 54 years old.

2) What is your occupation?

My occupation is Operations Manager at ILX.

Are you familiar with subscribed video streaming platforms?
 Yes, I am familiar with subscribed video steaming platforms.

4) What are the first 3 platforms that come to mind?
The one I know best is Netflix and I think it is also the most popular one.

- 5) What do you think is the most popular video streaming platform in the market? Yeah, Netflix.
- 6) Why do you think that streaming platform is the most popular?

Why? Their advertising is nice, and I like what I get from them. Were they not also the first one?

- 7) Are you subscribed to any video streaming platform? If so, which? We have a subscription to Netflix for the family.
- 8) Why are you subscribed to specifically those platforms?I like their series but also the selection of movies, documentaries.
- 9) If you are not subscribed which platform, would you like to purchase in the future?n.a
- 10) What is their most interesting feature?

What is their most interesting reature

- 11) How much would you be willing to pay for a subscription (a range)?
  I think the price of 10 euros per month is a good one because very affordable for what you get. But I am also still very much an old school watching tv kind of person.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

Last question I find difficult: that you have a choice but that is the case for all of the streaming packages. Maybe I am vulnerable for their marketing strategies to attract customers and Netflix ticks the boxes for me?

#### Interviewee 6 (Male)

- 1) What is your age?
  - I am 38 years old.
- 2) What is your occupation?
  - I am a Computer Engineer.
- Are you familiar with subscribed video streaming platforms?
   Yes, I am.
- 4) What are the first 3 platforms that come to mind? The first ones are Netflix, Amazon Prime and Twitch.
- 5) What do you think is the most popular video streaming platform in the market? Netflix.
- 6) Why do you think that streaming platform is the most popular?

  It was the first platform to revolutionise the way we watch movies/shows.
- Are you subscribed to any video streaming platform? If so, which?
   Yes, Netflix.
- 8) Why are you subscribed to specifically those platforms?
  Because it has a lot of shows that I like that can only be found there.
- 9) If you are not subscribed which platform, would you like to purchase in the future?

  I would be subscribed to Amazon Prime if not to Netflix.
- 10) What is their most interesting feature?

  I really enjoy the Netflix originals.
- 11) How much would you be willing to pay for a subscription (a range)?

  I would pay 10-15 euros per month.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?
  - I would say mainly the content of the platform, Netflix has a variety of it.

#### Interviewee 7 (Female)

1) What is your age?

I am 37 years old.

2) What is your occupation?

My occupation is IT Auditor.

Are you familiar with subscribed video streaming platforms?
 Yes, I am familiar.

4) What are the first 3 platforms that come to mind?

The first ones I would say Netflix, Disney Plus and Hulu.

- 5) What do you think is the most popular video streaming platform in the market? Netflix.
- 6) Why do you think that streaming platform is the most popular?

  It is cheaper than the rest and it has more variety of shows and movies.
- 7) Are you subscribed to any video streaming platform? If so, which?

  I am subscribed to Netflix and Prime.
- 8) Why are you subscribed to specifically those platforms? They have the TV shows that I usually watch and like.
- 9) If you are not subscribed which platform, would you like to purchase in the future? Disney Plus maybe.
- 10) What is their most interesting feature?I really like the watch party's feature.
- 11) How much would you be willing to pay for a subscription (a range)? I think 10-15 euros per month.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

I think the price, the shows, and movies, how many people can watch at the same time.

#### Interviewee 8 (Male)

1) What is your age?

I am 30 years old.

2) What is your occupation?

I am a Nurse.

- Are you familiar with subscribed video streaming platforms?
   Yes, I am.
- 4) What are the first 3 platforms that come to mind?

The first ones are Netflix, Hulu, Disney.

- 5) What do you think is the most popular video streaming platform in the market?

  I think Netflix.
- 6) Why do you think that streaming platform is the most popular? Good price, a lot of marketing, lately a lot of good original tv series and movies, tv series from different parts of the world widens the target audience.
- Are you subscribed to any video streaming platform? If so, which?
   Yes, I am subscribed to Netflix and Amazon.
- 8) Why are you subscribed to specifically those platforms?

  I am subscribed to Netflix because of the variety of content and price worthy. Amazon because it comes along with prime student very cost effective and subscription connected with other services such as amazon fresh(supermarket), prime delivery etc.
- 9) If you are not subscribed which platform, would you like to purchase in the future? In the future I would not purchase any other platform.
- 10) What is their most interesting feature?
  The most interesting feature of the platforms i am registered to are content and being able to download and watch offline
- 11) How much would you be willing to pay for a subscription (a range)?
  I would pay 10-20 euros.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

The most important attributes price and content.

#### Interviewee 9 (Male)

- What is your age?
   I am 21 years old.
- 2) What is your occupation?

I am a student.

- 3) Are you familiar with subscribed video streaming platforms?
  Yes
- 4) What are the first 3 platforms that come to mind? Netflix, Amazon Prime and Disney Plus.
- 5) What do you think is the most popular video streaming platform in the market?

Netflix.

- 6) Why do you think that streaming platform is the most popular? I think because they have a very recognisable brand and lots of content.
- 7) Are you subscribed to any video streaming platform? If so, which? Yes, Netflix and Amazon Prime.
- 8) Why are you subscribed to specifically those platforms?

  Because I like to watch content with no ads, and I like what they offer compared to the price.
- 9) If you are not subscribed which platform, would you like to purchase in the future? Disney Plus.
- 10) What is their most interesting feature?
  For Disney I guess the fact that they have a lot of childhood memories
- 11) How much would you be willing to pay for a subscription (a range)?

  I would pay 7-13 euros per month.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?
  The diversity on what they offer and the quality of streaming , also the design of the brand

#### Interviewee 10 (Male)

and site

- What is your age?
   I am 28 years old.
- What is your occupation?I am A Scrum Master.
- Are you familiar with subscribed video streaming platforms?
   Yes, I am.
- 4) What are the first 3 platforms that come to mind? The first ones are Netflix, Amazon Prime and HBO.
- 5) What do you think is the most popular video streaming platform in the market? Netflix.
- 6) Why do you think that streaming platform is the most popular?

  Because it has the most subscribers in my opinion.
- Are you subscribed to any video streaming platform? If so, which?
   Yes, Netflix.

- 8) Why are you subscribed to specifically those platforms?
  Because it has the shows I am interested, and it is relatively cheap.
- 9) If you are not subscribed which platform, would you like to purchase in the future? I would like to get HBO or Prime.
- 10) What is their most interesting feature?

The most interesting feature is screen casting through devices.

- 11) How much would you be willing to pay for a subscription (a range)?
  I would not pay more than 15 euros.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

The most important attributes are price, range of database, speed and performance.

#### Interviewee 11 (Male)

- What is your age?
   I am 21 years old.
- 2) What is your occupation?

I am a student.

- Are you familiar with subscribed video streaming platforms?
   Yes.
- 4) What are the first 3 platforms that come to mind? Netflix, Amazon Prime and Apple TV.
- 5) What do you think is the most popular video streaming platform in the market? Netflix.
- 6) Why do you think that streaming platform is the most popular?
  First mover in the market, and best originals.
- 7) Are you subscribed to any video streaming platform? If so, which? Yes, Netflix and Amazon Prime.
- 8) Why are you subscribed to specifically those platforms?
  Because they were the first one to exist, and because my family had an account already.
- 9) If you are not subscribed which platform, would you like to purchase in the future? Disney Plus maybe.
- 10) What is their most interesting feature?
  The interface for desktop and mobile phone application.

- 11) How much would you be willing to pay for a subscription (a range)?

  I would pay 10-20 euros per month.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

I think the most important features are the original productions they offer, and the amount of content.

#### Interviewee 12 (Female)

- What is your age?
   I am 29 years old.
- What is your occupation?I am a Graphic Designer or Art Decor.
- 3) Are you familiar with subscribed video streaming platforms? Yes, I am.
- 4) What are the first 3 platforms that come to mind? Netflix, Disney Plus and HBO Max.
- 5) What do you think is the most popular video streaming platform in the market? I think the most popular one is Netflix.
- 6) Why do you think that streaming platform is the most popular? Because Netflix, different from other streaming platforms, was available not only in the US or several limited countries since the beginning and it reached a bigger audience.
- 7) Are you subscribed to any video streaming platform? If so, which? Yes, Netflix and Disney Plus.
- 8) Why are you subscribed to specifically those platforms?
  Well because Netflix Original Tv Series are some of my favourites, and Disney + because it has a bigger variety of movies and shows than Netflix has.
- If you are not subscribed which platform, would you like to purchase in the future?
   HBO Max maybe.
- 10) What is their most interesting feature?
  - To me, the interesting feature has always been that you can be organized. By watching the episode exactly where you have stopped it the last time. Having different videos or anything related to the title and, lots of documentaries that you can never catch on the theatre and all.

- 11) How much would you be willing to pay for a subscription (a range)?I would pay €14 per month.
- 12) What are the most important attributes that affected your decision on purchasing a subscription package?

Well, enjoying my time off watching new stuff or comforting old stuff.

### Appendix B (Survey questions and raw data with answers)

### **Survey Questions**

**Start of Block: Default Question Block** 

Q1 Dear responders,

Welcome to this survey conducted for my bachelor thesis at Erasmus University of Rotterdam. This paper is trying to analyze the impact of attributes/characteristics of video streaming services such as Netflix, Amazon Prime Video or Disney Plus on consumer preference in the Netherlands.

An attribute can be defined as a feature or characteristic of a product or service. In this case the attributes that characterize video streaming services and their levels are:

Brand: Netflix, Amazon Prime, Disney Plus

Subscription price: €9/month, €15/month, €20/month Content (number of movies, tv shows etc): 3000+, 7000+, 15000+

Streams Originals: Yes=1, No=0

Screen availability feature: 1-2 screens, 4 screens

This survey will only take a few minutes, so please be kind and complete it till the end. The answers will all be anonymous, and the information gathered will be strictly confidential and used for the purpose of this research only. If you need any additional information regarding the survey, please don't hesitate to contact me (Griselda Delija), by sending an email to 534034gd@student.eur.nl

Thank you so much for the help and your time!

**End of Block: Default Question Block** 

Start of Block: Block 11

Q25 1. What is your gender?
O Male (1)
O Female (2)
O Non-binary (3)
End of Block: Block 11
Start of Block: Block 12
Q24 2. What age group do you belong to?
O 18-25 years old (1)
O 26-35 years old (2)
O 36-49 years old (3)
○ 50+ years old (4)
End of Block: Block 12
Start of Block: Block 15
Q26 3. What is your current employment status?
O Student (1)
C Employed (2)
O Unemployed (3)
O Retired (4)
End of Block: Block 15
Start of Block: Block 16

Q28 4. In which region of Netherlands do you currently reside?
O Drenthe (1)
O Flevoland (2)
O Friesland (3)
○ Gelderland (4)
○ Groningen (5)
C Limburg (6)
O Noord-Brabant (7)
O Noord-Holland (8)
Overijssel (9)
O Zuid-Holland (10)
O Utrecht (11)
O Zeeland (12)
End of Block: Block 16
Start of Block: Block 13
Q26 5. Do you currently have a subscription in a video streaming platform such as Netflix, Amazon Prime Video or Disney Plus?
O Yes (1)
O No (2)

End of Block:	Block 13
Start of Block	x: Block 14
Q25 6. If you	are subscribed to one of them, which are your favourite content to watch?
	Movies (1)
	TV- Shows (2)
	Documentaries (3)
	Originals (4)
	Others (5)
End of Block:	Block 14
Start of Block	x: Block 17
	are going to be given 10 questions with 2 choice profiles each with different attribute level. tion, please choose the profile that you would subscribe to if it was presented in the market.
End of Block:	
Start of Block	x: Block 2
Q4 Question	
Q5 Which cho	pice option would you prefer?
Choic	ce 1 (1)
Choic	re 2 (2)
End of Block:	Block 2
Start of Block	x: Block 3

Q6 Question 2	
Q7 Which choice option would you prefer?	
O Choice 1 (1)	
Choice 2 (2)	
End of Block: Block 3	
Start of Block: Block 8	
Q16 Question 3	
Q17 Which choice option would you prefer?	
O Choice 1 (1)	
Choice 2 (2)	
End of Block: Block 8	
Start of Block: Block 5	
Q10 Question 4	
Q11 Which choice option would you prefer?	
O Choice 1 (1)	
O Choice 2 (2)	
End of Block: Block 5	

Start of Block: Block 7

Q14 Question 5	
Q15 Which choice option would you prefer?	
O Choice 1 (1)	
O Choice 2 (2)	
End of Block: Block 7	
Start of Block: Block 10	
Q20 Question 6	
Q29 Which choice option would you prefer?	
O Choice 1 (1)	
Choice 2 (2)	
End of Block: Block 10	
Start of Block: Block 4	
Q8 Question 7	
Q9 Which choice option would you prefer?	
O Choice 1 (1)	
O Choice 2 (2)	
and of Block: Block 4	
Start of Block: Block 6	
Q12 Question 8	
Q13 Which choice option would you prefer?	
Choice 1 (1)	
O Choice 2 (2)	

End of Block: Block 6	
Start of Block: Block 1	
Q2 Question 9	
Q3 Which choice option would you prefer?	
Choice 1 (1)	
Choice 2 (2)	
End of Block: Block 1	
Start of Block: Block 9	
Q18 Question 10	
Q19 Which choice option would you prefer?	
Choice 1 (1)	
Choice 2 (2)	
End of Block: Block 9	

## Appendix C (Choice designs using JMP)

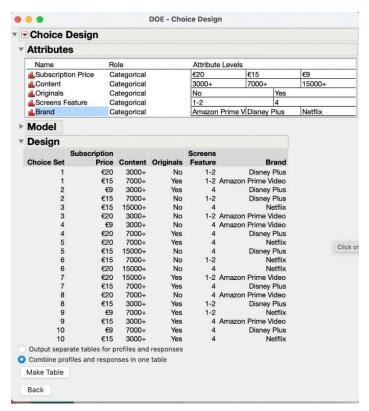


Figure 1: Choice design for all 5 attributes and their respective levels.

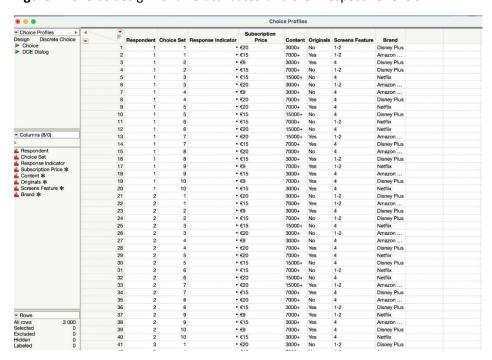
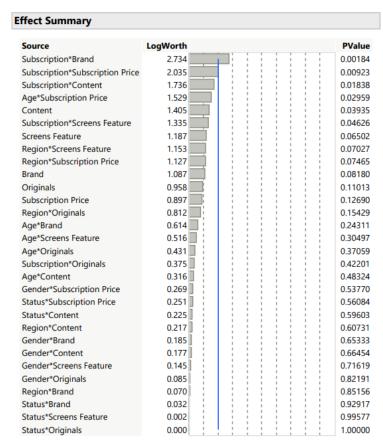


Figure 2: All possible combinations of the choice sets produced by JMP.

## Appendix D (Effect Summary table)



**Figure 1**: Effect summary of all main variables and the interaction with the control variables including their significance and Log Worth.

## Appendix E (Likelihood Ratio Test for different models)

	L-R					
Source	ChiSquare	DF	Prob>ChiSq			
Subscription Price	25.745	2	<.0001*			
Content	0.064	2	0.9683			
Originals	1.231	1	0.2672	i	i	i
Screens Feature	1.402	1	0.2364	- 1	1	- 1
Brand	22.977	2	<.0001*			
Age*Subscription Price	6.379	2	0.0412*			i
Age*Content	2.783	2	0.2486		1	- 1
Age*Originals	0.696	1	0.4042	i	i	i
Age*Screens Feature	2.008	1	0.1564	1	- 1	i
Age*Brand	3.735	2	0.1545	1	-	1

**Figure 1:** The Likelihood Ratio Test of the effect of all main attributes and the interaction term "age" on respondents' utility.

Likelihood Ratio Tests			
	L-R		
Source	ChiSquare	DF	Prob>ChiSq
Subscription Price	4.129	2	0.1269
Content	6.470	2	0.0394*
Originals	2.552	1	0.1101
Screens Feature	3.404	1	0.0650
Brand	5.007	2	0.0818
Gender*Subscription Price	1.241	2	0.5377
Gender*Content	0.817	2	0.6645
Gender*Originals	0.051	1	0.8219
Gender*Screens Feature	0.132	1	0.7162
Gender*Brand	0.851	2	0.6533
Region*Subscription Price	5.190	2	0.0746
Region*Content	0.997	2	0.6073
Region*Originals	2.029	1	0.1543
Region*Screens Feature	3.277	1	0.0703
Region*Brand	0.321	2	0.8516
Subscription*Subscription Price	9.370	2	0.0092*
Subscription*Content	7.993	2	0.0184*
Subscription*Originals	0.645	1	0.4220
Subscription*Screens Feature	3.972	1	0.0463*
Subscription*Brand	12.593	2	0.0018*
Status*Subscription Price	1.157	2	0.5608
Status*Content	1.035	2	0.5960
Status*Originals	0.000	1	1.0000
Status*Screens Feature	0.000	1	0.9958
Status*Brand	0.147	2	0.9292
Age*Subscription Price	7.041	2	0.0296*
Age*Content	1.454	2	0.4832
Age*Originals	0.802	1	0.3706
Age*Screens Feature	1.052	1	0.3050
Age*Brand	2.828	2	0.2431

**Figure 2:** The Likelihood Ratio Test of the effect of all main attributes and the interaction term "age", "gender", "region", "subscription" and "status" on respondents' utility.

## Appendix F (Marginal Utility and Probability Results)

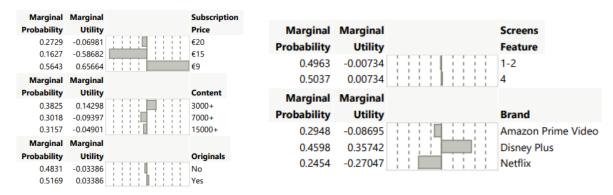


Figure 1a, 1b: The marginal utilities and probabilities of each level of attributes.

# Appendix G (Utility Profiler Results)

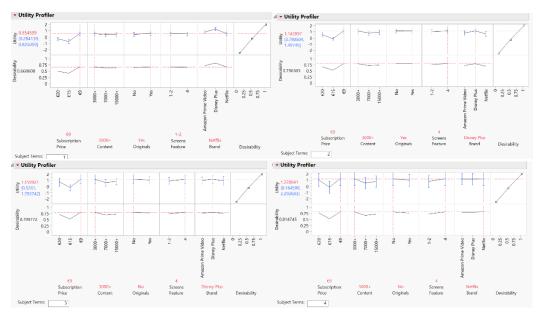


Figure 1a, 1b, 1c, 1d: The utility profiles for the attribute's levels for four different age groups.

Notes: When the subject term is 1 it means that the results correspond to the age group 18-25 (1a), 2 for ages 26-35 (1b), 3 for ages 36-49 (1c) and 4 for ages 50+ years old (1d). The first row in each picture represents the utility for each level of the attribute and the second one shows the maximum desirability for each level.

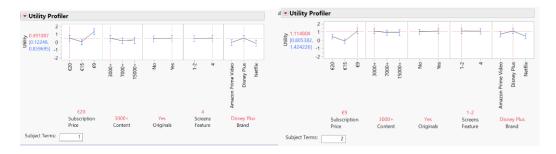


Figure 2a, 2b: The utility profiles for the attribute's levels for different genders.

Notes: When the subject term is 1 it means that the results correspond to males (2a), and 2 for females (2b) The first row in each picture represents the utility for each level of the attribute.

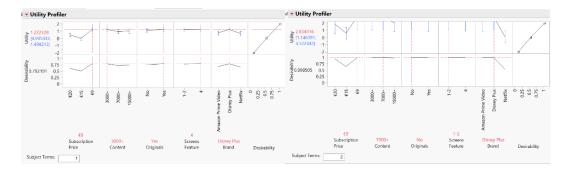


Figure 3a, 3b: The utility profiles for the attribute's levels for two levels of subscription.

Notes: When the subject term is 1 it means that the results correspond to people who are subscribed to a platform (3a), and 2 for people who are not subscribed (3b). The first row in each picture represents the utility for each level of the attribute and the second one shows the maximum desirability for each level.

### Appendix H (Market simulation of the video streaming services and the target service)

**Table 1:** The market stimulation showing the utility of each product in the market and the target product and the market share of each.

	Subscription Price	Content	Originals	Screen Feature	Brand	Utility	Market Share	New Market Share
Platform 1	€20/month	15000+	Yes	4	Netflix	-0.4594	18.80%	12.30%
Platform 2	€15/month	15000+	Yes	1-2	Amazon Prime Video	-0.7014	28.70%	18.77%
Platform 3	€9/month	3000+	Yes	4	Disney Plus	1.2833	52.51%	34.35%
Target Service	€9/month	3000+	Yes	1-2	Disney Plus	1.2005		34.59%

Notes: The utility is retrieved using JMP software through utility profilers. The market share is calculated as the utility of a product over the sum of all utilities.