

Master Thesis

**Drivers for and Barriers against Consumer Adoption of
Subscription-based Services**

The Case of Cosmetics Subscriptions

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by

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Rebecca Reininger, BA

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Abstract

Subscription services are a fundamental way of shopping nowadays, primarily through well-known service providers such as Netflix or Spotify. In recent years, many companies have implemented this revenue model in their way of doing business. The cosmetics industry is one of many that offer a great variety of products through such services. The goal for this study was to find out what drives or hinders people from adopting such services for cosmetic products. Therefore, several hypotheses were stated which could be researched through this study. A quantitative approach was used, along with an online questionnaire, to carry out this study. With this method, 506 respondents participated in the study. The data was then analyzed through a multiple regression analysis. The results reveal several factors that influence consumers' intention to adopt such services in the cosmetics industry. Consumer Innovativeness, Convenience, and Value for money positively influence people's intention to adopt such services. At the same time, Tradition barrier and Perceived risk negatively influence people's intention to adopt subscription services.

Keywords: subscription-based services, cosmetic product subscriptions, adoption of subscription services

Abstract German

Abonnementdienste sind heutzutage eine grundlegende Art des Einkaufens, vor allem durch bekannte Anbieter wie Netflix oder Spotify. In den letzten Jahren haben viele Unternehmen dieses Modell in ihre Geschäftsabläufe integriert. Die Kosmetikindustrie ist eine von vielen Branchen, die eine große Vielfalt an Produkten über solche Dienste anbieten. Ziel war es, herauszufinden, was die Menschen dazu bewegt oder daran hindert, solche Dienste für Kosmetikprodukte zu nutzen. Daher wurden mehrere Hypothesen aufgestellt, die im Rahmen dieser Studie untersucht werden konnten. Für die Durchführung dieser Studie wurde ein quantitativer Ansatz mit einem Online-Fragebogen verwendet. Mit dieser Methode konnten 506 Menschen erreicht werden, welche an der Studie teilgenommen haben. Die Daten wurden anschließend mit Hilfe einer multiplen Regressionsanalyse ausgewertet. Die Ergebnisse zeigen mehrere Faktoren auf, die die Absicht der Verbraucher beeinflussen, solche Abomodelle in der Kosmetikbranche zu nutzen. Innovativität, Bequemlichkeit und ein gutes Preis-Leistungs-Verhältnis wirken sich positiv auf die Bereitschaft der Verbraucher aus, solche Dienste in Anspruch zu nehmen. Gleichzeitig haben die Barriere der Tradition und das wahrgenommene Risiko einen negativen Einfluss auf die Absicht der Verbraucher, Abonnementdienste zu nutzen.

Keywords: Abonnements, Kosmetik Abomodelle, Verhaltensabsicht von Abomodellen

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1. Introduction

Subscription services have been integrated into today's life for many years, including newspaper subscriptions or well-known streaming providers, such as Netflix or Spotify. Over the years, many things changed and developed; there are digital and product-based subscriptions. Subscription commerce describes the delivery of products without reordering and instead having a subscription with a specific price and time frame (Rudolph et al., 2017, p. 19).

Subscription commerce is a thriving business that is becoming more relevant for many industries. This revenue model is offered in sectors such as the Food and Grocery sector, where major companies are Hello Fresh or Amazon Subscribe & Save. Also, Fashion and Clothing companies, such as JustFab or Blacksocks, use subscriptions. Another primary subscription provider is in the Beauty and Décor industry; the most relevant firms are The Dollar Shave Club, Birchbox, and Glossybox (Bischof et al., 2020, pp. 1–15). Also, business models around access-based subscriptions become more popular, which means people rent specific goods or products through subscriptions (Kerschbaumer et al., 2022, pp. 179–205). According to Chen et al. (2018), revenues on the market were around 2.6 billion U.S. dollars for the biggest retailers in 2016, a market growth of around 100% that year. With the help of venture capital funding, start-ups have established these companies in various industries, including feminine products, video games, vitamins, and child products (Chen et al., 2018, pp. 1–9).

Much research has already been done on subscription commerce, but the drivers and barriers to why people use subscriptions still need to be clarified and can be researched through this master thesis. Also, past research focused not only on consumer goods subscriptions but also on intangible goods, such as streaming providers and entertainment services (Bischof et al., 2020, pp. 2–3). Recent research primarily focused on the firm side and managerial factors of subscriptions, while it was less focused on the customer side and their intentions for using subscription services. Articles were focused on the benefits for companies when offering subscriptions and

how it can affect the relationship with their customers (Randall et al., 2016, pp. 1–6). Ramkumar & Woo (2018) addressed customers' hedonic and utilitarian motives of customers, how they influence them when using subscriptions, and which factors make this model more appealing. The main focus of this research was on subscription boxes where the company decides, according to given parameters by the customers, what will be delivered to them (Ramkumar & Woo, 2018, p. 22).

1.1 Research Problem

Despite the growing importance of subscription-based services in online retail, literature on factors influencing consumer adoption remains scarce, especially for fast-moving consumer goods (FMCG) in the cosmetics sector of predefined subscriptions. This means that customers decide beforehand what they will get delivered compared to surprise subscriptions, where the company delivers products to people with given preferences. Even though researchers have already studied consumer behaviour towards subscription-based online services (SOS), no clear statements can be made about why people are attracted by that model (Bray et al., 2021, pp. 1–8). Therefore, with the formation of hypotheses that test if the stated drivers and barriers have an influence on the intention of customers to adopt such services, will be checked.

1.2 Research Objective

The thesis aims to discover what drives customers and what barriers they face when deciding on or against a subscription model. As research has been done already in that field, hypotheses will be created and tested later. With the empirical part in a quantitative approach, these hypotheses are tested to conclude which drivers and barriers influence consumers' adoption of subscription-based services. The goal is to give further researchers and companies more information about the topic and contribute to existing literature.

Through the act of testing hypotheses, which are defined before formulating a questionnaire, this research can contribute to further exploring the subscription commerce economy. The thesis will outline the intention to conduct a comprehensive investigation into the positive and negative factors affecting consumer adoption of

subscription commerce for cosmetic goods. The objective is also to discover what factors can contribute to consumer adoption so that industry players can improve their subscription-based strategies.

The topic is of interest as subscriptions are mainly in the cosmetics industry, a model which is used by many companies. Companies need to know why people do or do not use those and replace the service with an in-store experience or why they still prefer brick-and-mortar retail. This research, therefore, helps to further elaborate on what offers are appealing to customers or which mixtures can be offered. With the research of drivers and barriers, companies are given the possibility to understand how they have to build their offers to stimulate people to buy their goods. According to the research done already, the research question is about customer behaviour and what explicitly drives or hinders them from making use of subscription models. Therefore, the research question is stated as follows:

Which Drivers and Barriers influence Consumer Adoption of subscription-based services?

2. Subscription commerce

According to Rudolph et al. (2017), subscriptions have been used for many years, containing cell phone contracts, streaming platforms, beauty boxes, or food subscriptions. Much research has been done on intangible goods and how firms use such models with less focus on the reason for customer choices (Rudolph et al., 2017, pp. 18–25). Since the 2000s, subscription commerce has gotten a push with digitalization as subscriptions became more relevant again. Before, typical subscriptions that were on the market included books or mobile contracts (Warrillow, 2015, as cited in Rudolph et al., 2017, p. 18).

Bray et al. (2021) researched the market for delivering customized boxes or surprise boxes, which has grown over the last five years in tremendous amounts. Through their study, they also were the first ones in Europe to research the motives of customers to give further managerial advice then (Bray et al., 2021, p. 1). Research done by Pauwels & Weiss (2008) focused on the consumer perspective, with a focus on intangible goods and formulating managerial advice according to their marketing actions. In this study, the authors advise on how firms can change their model from free subscriptions to fee-based distribution with a focus on marketing actions (Pauwels & Weiss, 2008, pp. 14–31).

Bischof and Rudolph (2020) described the concept of beauty box subscriptions, which included one of the most successful companies, Glossybox. This refers to the surprise subscription, where a company packs a box with various products that the customer can try without having any control over what is delivered. The example of the Dollar Shave Club is also often mentioned in various papers when researching this topic (Bischof & Rudolph, 2020, p. 3). In the beginning, companies offered the models exclusively, but nowadays, numerous companies sell physical products in retail stores and online via subscriptions. Companies have several possibilities for how they want to build their business; some examples of businesses that offer subscriptions additionally are Lindt Chokoladenclub or Amazon Subscribe & Save (Haas & Schmolke, 2016, pp. 97–98).

Hsiao and Chen (2017) conducted a study in which they researched which parameters influence consumers' intention to adopt subscription services for e-books. The basis of this study was the perceived-value theory, which means what do customers get in return for their payment or what do they expect. The study was done through an online questionnaire where they asked around 400 people. The study consisted of constructs which were Perceived Content, Perceived Context, Perceived Infrastructure, and Perceived Price. The results showed that the perceived context, what the company offers, and the perceived price play an important role when considering such services. They also discovered that the perceived infrastructure, how people get the product, and perceived content, how the content is delivered to consumers, do not play a significant role in the decision-making (Hsiao & Chen, 2017, pp. 434–448).

Woo and Ramkumar (2018) did a study on the topic of which characteristics would benefit customers' usage of subscription services and how these differ from the characteristics of people who do not use such services. The study was done in the fashion and beauty industry. Through their research, they did an online questionnaire that asked for around 380 probands. The study revealed that the primary users of SOS are females with a higher tendency for e-tailer trust and fashion consciousness in comparison to those who are non-users. It also showed no significant difference in consumers regarding gender or exploratory product acquisition (Woo & Ramkumar, 2018, pp. 121–130).

Sivathanu (2018) researched the adoption of online subscriptions to beauty boxes with a behavioral reasoning theory. The goal was to discover the drivers and barriers of beauty boxes in India. Therefore, the sample group consisted of females who lived in India, and the focus was also on doing research in a developing country. The sample size was over 650 respondents, who were analyzed later on. The study revealed that the drivers for SOS were convenience, ubiquitous, hedonic shopping motivation, social influence, and price consciousness. The barriers found were traditional barriers, relative advantage, variety, and perceived risk. The study was conducted to help businesses react to the market with suitable strategies (Sivathanu, 2018, pp. 19–36).

A look at the literature shows that experts have classified different subscription models. Rudolph et al. (2017) classified subscription commerce into two types, which are Predefined-Subscriptions and Surprise-Subscriptions. As mentioned earlier, Glossybox is part of the surprise subscriptions that are classified by that researcher (Rudolph et al., 2017, pp. 18–25). Another classification was done by Chen et al. (2018), who classified subscriptions into three different types, which are replenishment, curation, and access subscription. Those three differ in their degree of personalization and customers' purchase intention (Chen et al., 2018, pp. 1–8). Bischof et al. (2020) structured different subscription models into four archetypes with different degrees of personalization and a different degree of surprise. This model illustrates the four types: predefined, curated surprise, access, and general surprise. Previous studies only offer a scant understanding of the contemporary subscription retailing industry for tangible products (Bischof et al., 2020, pp. 1–15).

2.1 Definition

A subscription is a contract that specifies recurrent purchases of goods or services between clients and businesses (Rudolph et al., 2017, p. 20). People who sign up for subscriptions will have a long-term relationship with a retailer (Accenture GmbH et al., 2019, p. 325). The term subscription commerce is sometimes used in this context. This means offline businesses offer their products online but still deliver their goods offline in a specific pre-defined time interval for arranged conditions, for example, newspapers. In contrast, streaming platforms for music or entertainment operate only online (Haas & Schmolke, 2016, p. 97).

Subscriptions must be differentiated from club memberships, as those do not include the arrangement of delivered goods. They only provide the customer with some kind of access to the firm's goods or services, which creates exclusivity. The idea for club memberships was generated with the goal of increasing customer loyalty. Those are generally voluntary, but the services and benefits can differ, and also, if members have to achieve a specific purchase volume or can join with no specific actions to be done in return, it is different (Dorner, 1999, pp. 240–241).

The example of the online commerce platform Amazon is suitable for a better understanding of the difference between subscription and club memberships. According to a study done by McKinsey, over 5.000 people in the U.S. said that Amazon Subscribe & Save is their favorite subscription service and, in fact, the most popular among the respondents (Chen et al., 2018, pp. 1–3). The Amazon Subscribe & Save model allows customers to get auto-deliveries, which is for Amazon Prime members without shipping costs. This system allows customers to schedule their deliveries and often get a discounted price if they order through a subscription. People have the option to terminate their subscription at any time, providing flexibility and convenience in managing their subscription status (Amazon, 2023).

Subscription commerce has seen tremendous growth over the last few years, as many companies, particularly start-ups, have recognized the potential of this sales model. In the subscription commerce industry, two types can be distinguished: digital and physical goods; the first ones are, for example, streaming platforms, software, or online newspapers, and the physical ones are food, fashion, or cosmetic goods. According to the Consumer Barometer of KPMG, in 2021, 41% of the respondents of their survey have a subscription for consumer goods or have tried one in the past; this is an increase from 2017 of 27%. 23% said they are interested in having a subscription for a FMCG. When taking a closer look, it can be observed that the most used subscriptions are in the food industry, with 37%, and in the second place, with 34%, are cosmetics and beauty products (KPMG, 2021, pp. 1–25).

Having a look at the market distribution in digital subscription commerce, 15% are consumer goods, compared to the other sectors, which are the third largest sector (UBS, 2021a). In 2020, the overall market share for the subscription economy reached 650 billion U.S. dollars, whereas E-commerce held 225 billion U.S. dollars. Statista published a forecast for 2025, which reveals that E-Commerce will have a market size of 687 billion U.S. dollars. In total, the subscription economy will grow up to a 1,500 billion U.S. dollar market share. This growth accounts for an increase of around 205% in the E-commerce sector and an increase of around 131% in total, including the segments Cloud and Others (UBS, 2021b).

2.2 Customer Side

Since the 2000s, subscription commerce has gotten a push with digitalization as subscriptions became more relevant again. Before, typical subscriptions that were on the market included books or mobile contracts (Warrillow, 2015, as cited in Rudolph et al., 2017, p. 18). With the formation of streaming services such as Netflix or Spotify, things changed rapidly, as these were of high interest to consumers. Nowadays, streaming services are available not only via subscriptions but also for physical goods. This model has opened a new way of shopping and retailing for customers (Rudolph et al., 2017, p. 19).

One reason for their prevalence is the shift in consumer demands, as the availability of many products at all times has introduced people to a more convenient way of shopping (Warrillow, 2015, as cited in Rudolph et al., 2017, p. 18). Another reason is the relevance of the sharing economy, which means that people do not wish to own something as much as they are delighted with access to specific products or services (Rudolph et al., 2012, p. 8). The sharing economy gives customers the right to use a specific good for a predefined time, but the ownership still is at the provider; this model is especially attractive for movie or music streaming providers. Examples of that are Spotify or Netflix, as customers want to have access to thousands of songs or films but do not wish to buy them and have the ownership more to simply consume them. Collaborative consumption is part of the sharing economy and is part of the wish to protect resources and consume together (Deges, 2020, pp. 106–107).

Making use of subscriptions brings some kind of inspiration to the customer, which means that companies offer more than the convenience of delivering goods; they also change the way of shopping with additional products, for example, which they recommend to their customers. Another example is food delivery subscriptions, as they often recommend different meals to cook to their shoppers. Some firms also include tips on how to use their products or additional information, which expands the experience people have when shopping in-store. Subscribing to such services can become a delightful experience for customers when companies understand how to deliver excellent customer value (Suhr Hansen, 2014, p. 10).

Subscription reduces shopping complexity for customers as they need to choose at the beginning of the subscription period and then the goods are being delivered or the services available. This brings the advantage of reducing time when deciding on goods each time and does not bring customers into the decision phase each time they want to use a specific good or service (Suhr Hansen, 2014, p. 10). According to Rudolph et al. (2012), people change their purchasing habits when they get inspired. The inspiration factor can, in some cases, lead to customers buying more goods than without this factor (Rudolph et al., 2012, pp. 18–25).

According to Bischof & Rudolph (2020), subscription-based services tend to cater primarily to a demographic composed of younger individuals with relatively higher income levels. This demographic segment is characterized by a propensity for risk-taking behaviors and a proclivity toward embracing novelty and adventure (Bischof & Rudolph, 2020, p. 47).

2.3 Company Side

As consumer demands shift, companies have to react to those changes in order to attract their customers with fitting solutions. Companies have to focus more on customer needs; therefore, some decide to add to their business by offering subscriptions (Rudolph et al., 2017, pp. 18–25). It is crucial for firms to create marvelous experiences for customers, which in turn can decrease their churn rates (Chen et al., 2018, p. 8).

Some start-ups also recognized the market of subscription commerce and, therefore, built up a business that only offers online subscriptions (Rudolph et al., 2017, p. 19). Some companies have started to change the way subscriptions worked before, meaning predefined duration, wanting to make subscriptions more flexible, which has also worked out pretty well for some (Deges, 2020, p. 104). The implementation of subscription commerce establishes companies with a new market and gives them the chance for further growth. Companies tend to focus on loyal customers, which can bring increased profits in return (Descoux & Rumo, 2020, pp. 383–405).

Implementing subscriptions as a business and revenue model delivers positive aspects to a company. First of all, firms are given the ability to lock customers in and benefit from existing customers. Companies can use subscriptions to get an abundant amount of customer preference and purchase data. This model can be used to test products before they launch and have the community test it. Overall, subscriptions create a relationship with the consumer and can build up and strengthen engagement. Therefore, it does not supersede brick-and-mortar companies, as it creates a new form of shopping with the ability of brand engagement. Firms can use present stores as showrooms, but revenue is generated through subscriptions (Randall et al., 2016, pp. 1–6).

Innovative convenience business models and efficient automation are supporting a trend of subscription services at the company level. These include various tools and technologies that lead to the automation of individual purchasing processes, making them more attractive to customers. These technologies and tools include GPS and Radio Frequency Identification (RFID), which enable the real-time localization of products. Implementing those technologies leads to time and cost benefits but also offers the opportunity to better respond to customer needs. In the context of subscription commerce, these technologies can lead to a benefit for the purchase of FMCGs. Businesses are assisted in managing subscriptions, which frequently turns out to be difficult, and can provide clients with a flexible, user-friendly idea by utilizing clever convenience business models and effective automation. To ensure that managing subscriptions is simple and flexible, a shop system with an integrated payment module should ideally already be implemented (Heinemann, 2016, pp. 21–22).

In a study conducted by Chen et al. (2018), it was discovered that both word-of-mouth recommendations and favorable online reviews exert a significant positive impact on individuals' propensity to engage with subscription services, particularly those that operate on curation-based and access-based models. The phenomenon of positive word of mouth acts as a catalyst, prompting individuals to contemplate the utilization of subscription-based online services. Furthermore, the research suggests that for subscription models beyond the realms of curation and access, companies can

effectively encourage adoption through the provision of financial incentives (Chen et al., 2018, p. 5)

2.4 Archetypes of Consumer Goods Subscriptions

The literature shows that experts classified different models; in the following section, some of them will be elucidated. Some experts focus more on surprise subscriptions and classify such types, and others, such as Rudolph et al. (2017), discuss two different types.

Several models of subscription commerce can be discussed. Rudolph et al. (2017) classified subscription commerce into two types: predefined Subscriptions and surprise subscriptions. The first one includes no kind of surprise as the customer themselves decides beforehand what kind of product they want to order. Customers precisely state what they would like to order, when, and at which time; this type gives people the whole control over the purchasing process; a company that operates in that way is, for example, The Dollar Shave Club, which sells razors. The other type is the Surprise Subscription, where the control over the process is at the seller; therefore, sometimes the product is a surprise. Those include all kinds of surprise boxes, such as Glossybox or Birchbox, which were further discussed in an earlier chapter. This type differs significantly from the first one as customers have this surprise effect, which they create for themselves when choosing a surprise subscription (Rudolph et al., 2017, pp. 8–15).

Another classification was done by Chen et al. (2018), who classified subscriptions into three different types which are replenishment, curation, and access subscription. Those three differ in their degree of personalization and the purchase intention of customers. Replenishment subscriptions are convenience purchases that bring more comfort to the customer by getting such everyday products delivered to their home, including, for example, razors or baby diapers. The second one is curation subscriptions, which are personalized surprise boxes that allow customers to try new products in predefined product categories such as beauty or food. The last one is access subscriptions, which provide users with the ability to get access to special deals and become part of communities that allow them to make use of their subscriptions. To take advantage of

becoming a member of such a community, members pay a fee to get exclusive access, for example, to online fashion outlets (Chen et al., 2018, p. 3).

Bischof et al. (2020) structured different subscription models into four archetypes with different degrees of personalization and different degrees of surprise. The framework can be seen in Figure 1; it illustrates the four types which are predefined, curated surprise, access, and general surprise. The framework is structured in the form of a matrix with two axes and two dimensions that address the power dynamics between the client and supplier about purchases made through subscriptions and the level of granularity at which the subscription assortment is adjusted. The buy control dimension explains how much control clients have over the purchases made with their money. Consumers often have less influence over subscriptions that have higher levels of surprise compared to consumers who have more control over subscriptions that have lower levels of surprise. The purchase has a contract as a base, which states the subscription time and the payment method; if it is paid beforehand or after the first delivery, this part can be individually specified by the company. The following paragraphs describe each archetype in more detail (Bischof et al., 2020, p. 10).

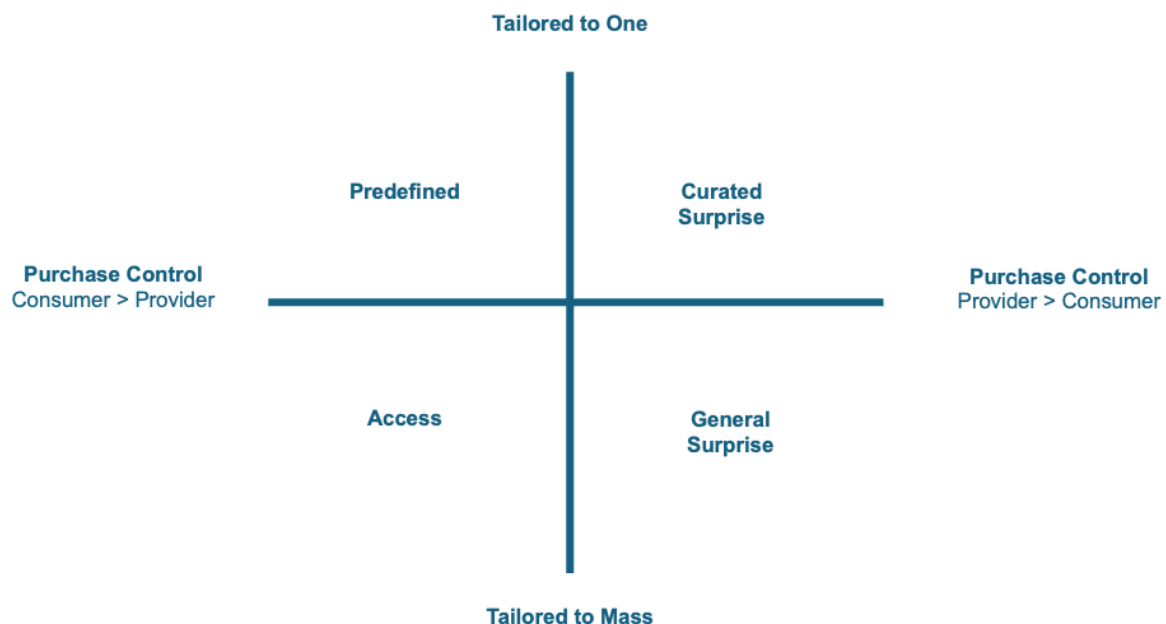


Figure 1: Archetypes of consumer goods subscriptions
Source: (Bischof et al., 2020, p. 10).

2.4.1 Predefined Subscriptions

Predefined subscriptions include fast-moving consumer goods that are ordered by customers for a specific period and purchased online but delivered offline to their doorstep. Customers decide by themselves which products they want the company to deliver to them; the products usually stay the same through the subscription interval and improve the convenience of the shopping process. This model does not include a surprise factor as the customer decides explicitly to get the same products in the chosen time frame (Bischof et al., 2020, p. 4).

For this type, products include groceries, socks, or cosmetics such as razors, which fulfill the general needs of customers and provide them with the products available at home. Companies that offer predefined subscriptions are The Dollar Shave Club and Amazon Subscribe & Save, which deliver toilet paper at intervals, for example (Bischof et al., 2020, p. 4).

2.4.2 Curated Surprise Subscriptions

This type of subscription includes deliveries that have a surprise factor as the order is compiled according to preferences, which customers stated before. Therefore, it is the company's task to pack a package that the customer is delighted with and considers in their preferences. The boxes are tailored to customers and include fashion, beauty, or food, and the only thing that is decided by the customer is the time frame and delivery, as well as the kind of box, in terms of size and price. This kind of subscription brings some kind of risk to the customer as it is not their own choice of products and could lead to a negative experience (Bischof et al., 2020, p. 4). According to the study by Chen et al. (2018), consumers who make use of curation subscriptions want to have some kind of surprise and want to feel good after receiving the package and have the feeling they got something for their money (Chen et al., 2018, p. 5).

Companies that offer this type of subscription are, for example, Birchbox or Hello Fresh, a food box delivery company where customers can state beforehand which kind of diet they live or if they prefer some kind of meals, which gives the company a chance to deliver boxes that bring people joy (Bischof et al., 2020, p. 4).

2.4.3 *General Surprise Subscriptions*

This type of subscription gives the customer no control over the product selection or a say in their preferences. In this case, the company itself decides on the array of products it wants to ship to customers without knowing what their preferences are. This form of surprise subscription gives customers the chance to try new products that they may not have bought if they had gotten the chance to decide on their box. This kind of subscription is not tailored to the preferences of customers and is an adventure for the customer as it is a monthly or weekly surprise delivered to their home, depending on the interval. Successful companies that offer such subscriptions are Glossybox and Try the World, which delivers surprise boxes compiled by the company (Bischof et al., 2020, p. 10).

2.4.4 *Access Subscriptions*

The last type described by Bischof et al. (2020) concerns that this subscription makes customers members of specific communities who get access to exclusive products or marketplaces. These subscriptions hide their offers and only give paying members the ability to purchase them; therefore, the fee of the subscription does not cover the costs for the products themselves, just for the access to get the opportunity to buy them. Companies working with such a model are in the fashion or food industry. In that case, customers have control over the purchase, and companies deliver access to their products. After the purchase, the products are delivered to their homes (Bischof et al., 2020, p. 10).

An example of such a company using this model is JustFab. The company offers clothes, shoes, bags, and accessories, and in exchange for a membership, customers can shop for their exclusive offers (Bischof et al., 2020, p. 10). Another example is the Swarovski Crystal Society, which is a VIP program that gives people, after the purchase of a membership, access to exclusive products, events of the company, and other advantages, including free repair services or a present during their membership (Swarovski Crystal Society, 2023).

3. Cosmetics industry

The following chapter gives insight into the cosmetics market, which businesses are in it, and how the market is developing. When considering statistics of the cosmetics industry, it reveals that in 2023, the cosmetics industry had revenues of 103.82 billion U.S. dollars which is an increase compared to the years before. The forecasts show that the market will further grow until 2028; the revenues will continuously increase up to 128.89 billion U.S. dollars, which is an increase of 24.15% compared to 2023, which also marks 2028 as a new peak (UBS, 2023).

As this distribution model is of interest to consumers, especially when looking at forecasts, it is vital for companies to know why people consider this to offer the best possible. With the knowledge of drivers for and barriers against consumer adoption, further research can be done, and companies can offer more suitable solutions. Also, the cosmetics industry is, as described in the past paragraph, a striving and growing sector.

As the thesis is focused on the cosmetics industry, it is vital to mention what cosmetics include and which goods are considered cosmetics. The definition for cosmetics of the Federal Ministry Republic of Austria for Social Affairs, Health, Care and Consumer Protection is the following:

"Substances or mixtures intended to come into external contact with the various parts of the human body (skin, hair system, nails, lips, and external intimate regions) or with the teeth and mucous membranes of the oral cavity for the sole or predominant purpose of cleaning, perfuming, altering the appearance, protecting, maintaining in good condition or affecting body odor" (*Kosmetika*, 2023).

3.1 E-Commerce

As mentioned in the past chapter, the cosmetics market is a growing market, and companies have been highly successful through online distribution. In the beginning, the cosmetics industry was not the easiest one to sell goods online as it brought barriers to consumers. Consumer buying behavior is different; for some products, the usage of people's senses is vital for the buying decision (Liu et al., 2013, pp. 240–241; Sirajuddin et al., 2023, pp. 1–21). For example, the buying decision for perfume is different in a retail store compared to an online shop, as the smell probably influences the buying decision to a high degree.

In the cosmetics industry in Germany, E-commerce sales have increased recently. Sales increased from 607 million euros in 2020 to around 823 million euros in 2022. The product category with the most turnover is personal care items (NielsenIQ, 2022). It is anticipated that between 2023 and 2028, the global E-commerce market will see a steady growth in turnover of 1.8 trillion euros (+61.55%) (Statista, 2023).

According to the study by Bischof & Rudolph (2021), respondents see beauty products in second place, considering which types of subscriptions they find most useful. Those were in total 26% of people thought fashion and beauty items were the most valuable items to sign up for (Bischof & Rudolph, 2021, p. 22).

In comparison to brick-and-mortar retailers, online subscription providers can focus more on the customer experience of their FMCG. Companies can offer personal intervals for customers to perfectly fit their needs. When selling surprise box subscriptions, companies use machine learning to better tailor people's wishes. These services give firms the ability to build up customer loyalty and long-term retention rates (Bischof & Rudolph, 2021, pp. 23–26). "Click-only companies" are businesses that solely engage in internet retail. Meanwhile, the majority of conventional retailers – that is, brick-and-mortar stores branched out into click-and-mortar stores. "Click and mortar" describes traditional brick-and-mortar stores that also provide online sales (Kotler et al., 2016, p. 810).

When looking at demographic aspects of the online subscription market, it can be said that people who use subscriptions have a gross income higher than the average and are often younger people. The primary users are customers between 24 and 34 years of age; therefore, it can be said that subscribers who are increasing in age are less likely to sign up for subscriptions. However, there are also some who are better suited for the older generation. According to gender, female customers prefer surprise subscriptions, whereas male buyers are more likely to sign up for predefined subscriptions (Bischof & Rudolph, 2021, pp. 26–28). Bray et al. (2021) found in their study that people aged 18-44 are more likely to use subscription services. Furthermore, they also confirmed that customers using those services have a higher income and a higher job status. For instance, customers with lower incomes and those who are parents of small children are more inclined to engage with Personal Care subscriptions, in contrast to general trends (Bray et al., 2021, p. 5).

The beauty industry, which is part of cosmetics, has also seen an increase in sales through influencers, people on the internet who share their opinion on a specific product or service with their community. Influencer marketing can give a brand an excellent push for their goods, as in comparison to celebrities, influencers are seen as authentic and as if it is a recommendation from a friend. A shift can be seen in the importance of beauty products for younger people; for example, lipsticks have increased their relevance in the last few years as they have a high intensity when using social media filters (Kort, 2017).

One company worth mentioning is one of the pioneers in the beauty box segment, namely Glossybox. The German company has become a worldwide provider of beauty boxes, providing customers with product samples of qualitative brands. The box is solely sold via the company's website and delivered to the customer at a chosen interval. The company creates a beauty profile of the customer in the beginning to send preferred products that fit the customer's preferences. Glossybox quickly expanded its market and is currently available in 16 different countries. Therefore, it is a role model for many subscription businesses. The firm has over 200.000 active subscribers, which creates a strong brand community. For the company, the fact that they were a first

mover in the market with a low entry barrier was a high advantage. Glossybox has achieved being the most extensive beauty box seller worldwide as they early focused on a solid team, investments, and the focus on numbers and quality throughout their company. Their future positioning is focusing on stronger and fixed partnerships with cosmetic brands (Heinemann et al., 2013, pp. 235–252).

3.2 Subscriptions for Cosmetics

In the following, three examples of companies in the cosmetics industry from Europe that are in subscription commerce will be mentioned.

3.2.1 Estrid

Estrid is a Swedish company that offers subscriptions to products related to hair removal and body care. The company's model works as follows: the customer chooses a razor in a preferred color and then decides on a delivery interval for the razor blades; this can be chosen for every month, every second, or every third month. The Starter Kid, which includes a razor, two blades, and a holder, is € 11,95. In addition, the company offers many body care products which can also be purchased. The company is on social media on several platforms and also works together with influencers to promote their products. It must be mentioned that their razor and blades can only be bought through a subscription. The company also implemented a referral program that provides the referrer with free razor blades if a friend uses their referral code. The company has a transparent cancellation policy that allows customers to cancel their subscriptions at any time or pause their subscriptions (*Estrid*, 2022).

3.2.2 Everdrop

Everdrop is a German firm that sells household products and organic cosmetic products that can be bought single or as a subscription. Everdrop is also available at brick-and-mortar retailers as their goal is for everyone to buy environmentally friendly products easily. Their company is highly focused on producing and selling products that are environmentally friendly. Their products are offered similarly to Amazon's Subscribe & Save model, which allows products to be bought either once or regularly. Their shower gel starts with a subscription price of € 11,99, and the delivery is possible individually.

The company's turnover in 2021 was in the double-digit million range, and its profits increased from 2020 to 2021 by 200%. Everdrop not only sells its products but also refills or accessories online via its shop and in-store. The company works environmentally friendly and transparently and gives insights into its supply chain and how its products are produced. The company uses influencer marketing to promote its products on Instagram and other social media platforms (*Everdrop*, 2023).

3.2.3 *Wild*

Wild is a British company that sells deodorant and shower gels in their online shop and brick-and-mortar retailers. In their web shop, their products can be bought through subscriptions; the deodorant starts at € 18,00 with a starter set of one case with three refills, and plans can be chosen to get refills every two, three, or four months. Customers can also choose a plan that includes flexible deliveries but starts with higher prices; their subscriptions can be canceled or paused at any time. The company has a strong focus on the environment; therefore, the idea is to buy such a deodorant case once and only subscribe for refills afterward. Influencer marketing is also implemented in their strategy, as with the companies mentioned before. Besides their referral program, which gives referrers a discount on their next order, the company stated that with every purchase, a tree is planted (*Wild*, 2023).

4. Drivers and Barriers to Consumer Adoption

The significance for consumers was already discussed in the chapter on the customer side; this chapter focuses on the reasons why customers choose to purchase or not utilize subscriptions. Utilizing subscriptions has benefits and drawbacks, which might encourage or discourage users from doing so. Sivathanu (2018) used the Behavioral Reasoning Theory to examine arguments for and against subscribing to a Beauty Box. Prior to the formulation of this theory, reasons were characterized as specific subjective elements that are thought to account for predicted behavior (Sivathanu, 2018, pp. 19–40).

Various authors have mentioned or researched different drivers and barriers of distinct branches in relation to subscription services. Drawn on the literature review, the following are the factors that influence the intention of customers to use subscription-based services. Those drivers and barriers mentioned are the base of the conceptual model and further research.

4.1 Drivers

Based on prior research, several factors have been identified as exerting a positive influence on customers' attitudes towards subscription services. These drivers will be listed in the chapters below.

4.1.1 Consumer Innovativeness

Consumer innovativeness describes customers who would instead buy new products in an early stage rather than stick with their old ones or their buying patterns (Steenkamp et al., 1999, p. 25). Subscriptions give customers the ability to get new or innovative goods delivered to their homes, which supports the ease of consumers buying a new product at an early stage (Ramkumar & Woo, 2018, pp. 7–8). Ramkumar & Woo (2018) did a study on the intentions of customers to use SOS in the fashion and beauty sector and found out that there is a direct influence of consumer innovativeness and the usage of SOS. The idea to employ fashion and beauty SOS was directly driven by customer inventiveness and demand for distinctive goods (Ramkumar & Woo, 2018,

p. 18). According to the study of Chen et al. (2018), customers who signed up for access-based and curation-based subscriptions wanted something new and innovative (Chen et al., 2018, p. 5).

4.1.2 Convenience

One driver for consumer adoption is the convenience for people when using subscriptions. When using subscriptions, customers decide at the beginning of the subscription period, and then the goods will be delivered to them in the chosen interval. This results in time-saving in comparison to shopping in a physical store and choosing a product (Longanecker, 2015). According to Ramkumar & Woo (2018), convenience could be one factor that increases the attitude of people to use subscriptions. They also mentioned that convenience is a utilitarian factor that has a positive influence on customers, such as subscriptions. Utilitarian factors can drive customers' attitudes toward a product or service; those factors are inferred from the functions of the product, service, or the brand itself on the customer (Ramkumar & Woo, 2018, pp. 5–7). According to the study by Chen et al. (2018), convenience is among the top reasons why customers continue to make use of subscriptions. As the subscription market is growing rapidly, ordering goods through subscriptions is a convenient way (Chen et al., 2018, p. 6). Convenience does not only include a reduction of complexity for the customer but also includes convenient options in terms of transactions and delivery forms (Suhr Hansen, 2014, p. 9). According to the study by Bray et al. (2021), respondents mentioned that being able to get bulk deliveries through subscriptions concludes in a driver as it replaces the heavy lifting when shopping (Bray et al., 2021, p. 4). Bray et al. (2021) found out that people who work full-time tend to subscribe to such services as they bring convenience and save time (Bray et al., 2021, p. 5).

4.1.3 Value for Money

Value for money is often identified as a utilitarian motive and, therefore, besides convenience and time saving, a driver of why customers sign up for subscriptions (Ramkumar & Woo, 2018, p. 7). Saving money by buying products at a lower price is a motive for many subscription users. When comparing ages, younger generations see value for money as a greater driver than older people (Bray et al., 2021, p. 5). Financial

benefits such as discounts are strong drivers for people signing up for replenishment subscriptions (Bray et al., 2021, p. 3). According to the study by Chen et al. (2018), value for money was beyond the most important reasons for people to continue a subscription. It was highest rated in the replenishment subscriptions section. When value for money is not satisfying for customers, it can easily become a barrier, or it can be seen in this study as a reason why people cancel their subscriptions (Chen et al., 2018, p. 6). Companies that offer subscription services often lower prices or offer discounts, which makes signing up for a subscription more appealing (Suhr Hansen, 2014, p. 11). The study by Koyuncu & Bhattacharya (2004) revealed that customers prefer online shopping because of the lower prices compared to brick-and-mortar retail (Koyuncu & Bhattacharya, 2004, p. 241). Young Kim & Kim (2004) also found out in their study that lower prices are a driver for customers to buy goods online (Young Kim & Kim, 2004, p. 889).

4.1.4 Discovery of new products and variety

Tao & Xu (2018) found out that the opportunity to explore new styles is seen as a driver in their study on fashion subscription retailing. Participants mentioned that through the subscription, they found new goods that had not been found or tried in stores. In their study, one point was also that consumers tend to go to the same stores where, with subscription boxes, they tried something new (Tao & Xu, 2018, p. 502). The discovery of new products or the access to them was mentioned as a driver for participants of the study by (Bray et al., 2021). They found that this motive is especially relevant for subscriptions in the home entertainment sector and other branches. People commented that they had the ability to try out new goods (Bray et al., 2021, p. 5). Customers who sign up for access-based subscriptions value the fact that the variety of goods is greater than in-store (Bischof & Rudolph, 2020). According to (Bischof & Rudolph, 2020), customers who sign up for curated subscriptions have the greatest demand to experience new products (Bischof & Rudolph, 2020, p. 13).

4.1.5 Delivery Intervals

Even though the E-commerce market is growing, and people like to do their shopping online, customers choose to buy less online if delivery times are low. Customers prefer different delivery intervals when using subscription services (Koyuncu & Bhattacharya, 2004, p. 241). Given the range of risks associated with consumer goods subscriptions, it makes sense to predict that customers will choose different delivery intervals for each subscription (Bischof et al., 2020, p. 5). The delivery interval differs depending on which subscription customers sign up for. When thinking about surprise subscriptions, people like to receive them less frequently. In comparison to the other forms of SOS (predefined subscriptions or access-based subscriptions), where the goods are chosen by the customer, the delivery intervals are narrower (Bischof et al., 2020, p. 6).

4.2 Barriers

As mentioned, the drivers of why customers make use of subscription services will be outlined below. The following will outline barriers that hinder people from signing up for subscriptions. Depending on the subscription model chosen, different barriers might occur stronger than others; some are dissatisfied with the quality of the goods, and others miss the in-shop experience (Bray et al., 2021, p. 3).

4.2.1 Tradition Barrier

Another aspect to consider revolves around the potential drawbacks associated with committing to subscription services, wherein the missed sales opportunities, coupled with the absence of the social dimensions inherent in traditional in-store shopping experiences, emerge as significant concerns of customers (Tao & Xu, 2017, p. 2). Impulsive buying decisions revolve around the fact that a stimulus triggers a customer to buy. IKEA stores, for example, make use of those stimuli in the structure of their store (Tomczak et al., 2023, p. 27). Delving into this facet unveils a dual challenge: first, the prospect of forgoing valuable sales opportunities that may arise through spontaneous, non-subscription-based purchases, and second, the overlooked social perspectives intrinsic to the act of physically navigating stores (Tao & Xu, 2017, p. 2). Gupta & Arora (2017) did a study on mobile shopping and found out that customers'

reasons against using subscription services include consumer anxiety, which comes into place when customers do online shopping. This, therefore, can occur if people sign up for subscriptions in comparison to going shopping in brick-and-mortar retail stores (Gupta & Arora, 2017, pp. 1–7).

4.2.2 Perceived Risk

Sivathanu (2018) found out in his study on the adoption of online subscription boxes that interviewees mentioned a perceived risk as they are afraid that the ordered products are below their expectations. The perceived risk customers experience leads to a barrier that may negatively influence their decision regarding the usage of SOS (Sivathanu, 2018, p. 25). The perceived risk depends on the subscription form, as predefined subscriptions have less of a risk of not satisfying the customer. When thinking about surprise subscriptions, the perceived risk is much higher as there is no transparency on the products that will be delivered (Bischof & Rudolph, 2020, pp. 11–16). Getting unwanted products when using curated subscriptions leads to a negative experience for the customer, which in turn can become a barrier. Particularly with curated subscriptions, which are tailored to an individual's interests (Bischof & Rudolph, 2021, p. 9).

4.2.3 Commitment

Bray et al. (2021) discovered in their study that a key barrier for customers is commitment; during their study people thought that changing or canceling subscriptions was a major concern and also a consideration when signing up for one. Many people want to choose the goods they buy by themselves, and this is why they do not want to make use of subscriptions. The main problem people who were part of this study was that they had too much of some products as they had to commit to a subscription and got the products according to the interval chosen and not when they needed a new product of the specific kind (Bray et al., 2021, p. 5). Tao and Xu (2018) investigated consumers' opinions on fashion industry subscriptions and their propensity to discontinue them. The findings indicate that the focus group members were worried about canceling and about not having a good shopping experience with favorable internet reviews (Tao & Xu, 2018, p. 494).

5. Research model and hypotheses

This chapter outlines the research model and the formed hypotheses in order to answer the stated research question. The conceptual model and the hypotheses are focused on the cosmetics industry. The subscription service market is growing, as is the cosmetics industry; therefore, research on the combination of both has been chosen.

This master thesis aims to fill a research gap and determine what drives and hinders customers from using subscription services in the cosmetics industry. The following research question will be answered through this thesis:

Which Drivers and Barriers influence Consumer Adoption of subscription-based services?

5.1 Conceptual Model

For researching the topic, a conceptual model was developed to further explore which drivers and barriers are relevant for the consumer adoption of subscription services in the cosmetics industry. A literature review was conducted to summarize relevant factors that influence customer choice. Through the literature review, factors that have been considered important by other authors as well in the context of subscription services could be identified. Those factors are consumer innovativeness, convenience, value for money, discovery of new products and variety, tradition barrier, and perceived risk. Those factors have either positive or negative influences on customers' intention to adopt subscription services. Based on these factors mentioned a model was drawn that illustrates the relevant factors for the consumer adoption of subscription services in the cosmetics industry. The model consists of six hypotheses that influence customers' intention to adopt subscription services, which are shown in the middle of the model in Figure 2. In the following, Figure 2 shows the described conceptual model, which is also the basis for the hypotheses in the next chapter:

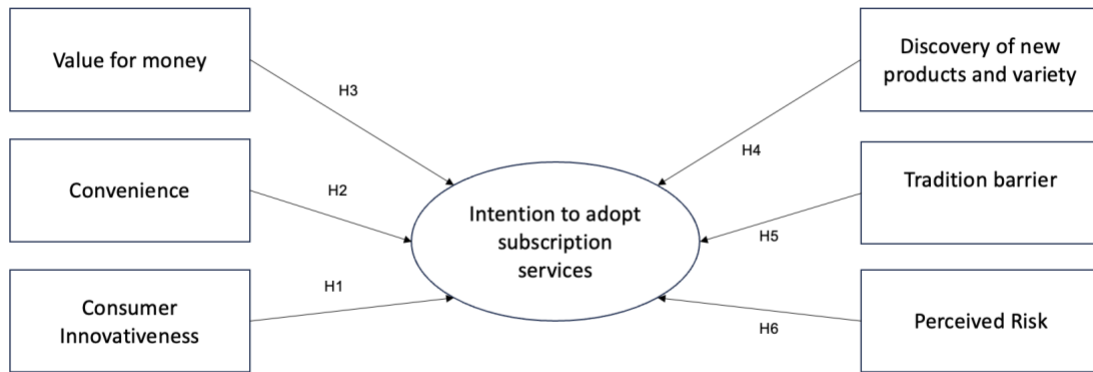


Figure 2: Conceptual Model

5.2 Hypotheses

The following chapter will outline the hypotheses that have been developed according to the theoretical chapters. The hypotheses will be the foundation of the questionnaire and will answer the research question stated. In the following, seven hypotheses were formed, which have either a positive or negative influence on consumers' intention to adopt subscription services.

Consumer innovativeness supports the ease of customers buying goods at an early stage and being among the first ones to use them. In a research on customers' intentions to use SOS in the fashion and cosmetics industry, Ramkumar & Woo (2018) discovered a strong correlation between consumer innovativeness and SOS usage. Customer creativity and the need for unique products directly inspired the decision to use Fashion and Beauty SOS (Ramkumar & Woo, 2018, p. 18). According to Chen et al.'s (2018) study, customers who signed up for access-based and curation-based memberships desired something novel and cutting edge (Chen et al., 2018, p. 5). The following hypothesis (H1) on consumer innovativeness was formed:

H1: Consumer Innovativeness has a positive influence on the intention to adopt subscription services.

Convenience could be driving for customers when signing up for a subscription service (Ramkumar & Woo, 2018, p. 8). Chen et al. (2018) did a study on the subscription E-commerce of customers to better understand those intentions. Their study revealed that convenience is one of the main reasons why people continue to use their subscription service. With the growth in subscriptions, customers believe the usage of subscription services to be convenient (Chen et al., 2018, p. 6). Bray et al. (2021) found out in their research about subscription retailing that people, for example, liked buying goods in bulk, which made it more convenient for them to do their shopping (Bray et al., 2021, p. 4). According to previous studies, the following hypothesis (H2) will be assumed:

H2: Convenience has a positive influence on the intention to adopt subscription services.

In their study, Young Kim & Kim (2004) also discovered that consumers are drawn to Internet retailers because of reduced pricing (Young Kim & Kim, 2004, p. 889). Bray et al. (2021) did a study on consumers' behaviors and views on subscription services, from home entertainment to personal care of luxury services. The study revealed that low prices and discounts are strong drivers for people to sign up for subscription services (Bray et al., 2021, p. 3). Value for money was shown to be more significant than other factors when it came to motivating consumers to stick with their subscriptions (Chen et al., 2018, p. 6). Customers prefer Internet purchasing over brick-and-mortar retail because of the reduced pricing, according to research (Koyuncu & Bhattacharya, 2004, p. 241). Therefore, the following hypothesis (H3) was formed, as value for money is perceived to have a positive influence on customers' adoption of subscription services:

H3: Value for money has a positive influence on the intention to adopt subscription services.

Bray et al. (2021) discovered in their study that access to many goods is a driving factor in subscriptions. Among their respondents, the fact of having many choices is seen as an advantage for E-commerce stores (Bray et al., 2021, p. 5). Through the research of

Tao & Xu (2018), the authors found in their study about fashion subscriptions that the opportunity to try out new things is seen as a driver by customers. Respondents mentioned that they normally go to the same stores, whereas subscription services provide them with the opportunity to try out new things and have access to a great variety (Tao & Xu, 2018, p. 502). Customers who choose access-based subscriptions like having a wider selection of products than they would in-store (Bischof & Rudolph, 2020, p. 15). Customers who subscribe to curated subscriptions, according to Bischof & Rudolph (2020), have the highest desire to try new items (Bischof & Rudolph, 2020, p. 13). The following hypothesis (H4) is therefore put forward:

H4: The Discovery of new products and variety have a positive influence on the intention to adopt subscription services.

Tao & Xu (2017) found out that there is a tradition barrier if customers do their shopping online. Customers miss the in-store experience, and spontaneous shopping is nonexistent in the online world. Signing up for subscription services decreases the social dimension when shopping compared to brick-and-mortar retailers (Tao & Xu, 2017, p. 2). In a study on mobile shopping, Gupta & Arora (2017) discovered that buyers' concerns about utilizing subscription services include those that arise from internet buying. Accordingly, this can happen if customers choose to subscribe rather than shop at physical retail establishments (Gupta & Arora, 2017, pp. 1–7). According to these past studies, the following hypothesis (H5) and its negative influence were formed:

H5: The tradition barrier has a negative influence on the intention to adopt subscription services.

In his research on the uptake of online subscription boxes, Sivathanu (2018) discovered that respondents expressed a perceived risk because they worry that the items they ordered will not meet their expectations. Customers' perceived risk creates a barrier that might have a negative impact on their choice to use SOS (Sivathanu, 2018, p. 25). Getting goods delivered that have the risk becomes a perceived risk for customers. Especially surprise subscriptions create such a risk for customers as they might get

products delivered to them with whom they are not satisfied (Bischof & Rudolph, 2020, pp. 11–16, 2021, p. 9). According to the studies that have already been made, it will be assumed that perceived risk has a negative influence on customers' adoption of subscription services. Therefore, the following hypothesis (H6) was stated:

H6: Perceived risk has a negative influence on the intention to adopt subscription services.

6. Research Design

The methodological framework employed in this study entails a quantitative approach, utilizing an online questionnaire as the principal data collection instrument. This questionnaire was disseminated across a heterogeneous sample comprising not only academic peers but also individuals from diverse social circles, including acquaintances, family members, and friends. Additionally, leveraging the ubiquitous reach of contemporary social media platforms, the questionnaire was further distributed via links shared across various online networks. Moreover, the inclusion of respondents from both academic and non-academic spheres serves to enrich the data set with a multifaceted array of insights and viewpoints, as well as people from different age groups and genders who might have different opinions on the topic.

6.1 Methodology

Data collection is an essential part of the research; therefore, many different options from the literature can be chosen. Those vary from quantitative methods to qualitative methods and need to be selected according to the set goal. Regarding this research, a primary study will be conducted rather than using any particular data that currently exists (Döring, 2023, pp. 322–323). As the master thesis topic has been researched to a certain extent, a quantitative method has been chosen. A quantitative research approach is used when hypotheses are formulated and tested with a specific quantity of people. Through a quantitative strategy, the theory will be tested and analyzed afterward, and often, already existing theories will be extended. Quantitative studies are assessed according to different criteria, including objectivity, which means that the study is done independently from the researcher. The second is replicability, which states that a study can be repeated. The last criterion includes validity, which is seen as the most important factor for the evaluation of the study and means the validity of the results (Döring, 2023, p. 186).

The data will be collected through a quantitative online questionnaire, which was designed self-administered, which means that people from the sample had to fill it out by themselves. Through a questionnaire method, it is possible to get peoples' self-

reports on selected aspects regarding their experience and behavior in a written format. A scientific questionnaire was used to obtain this information, which respondents could fill out on their own. People digitally got the questionnaire and could fill it out on any of their electronic devices. Afterward, it was analyzed to get an answer to the research question stated. The advantage of a questionnaire is to get a subjective and anonymous insight into respondents' behavior and beliefs towards the chosen topic (Döring, 2023, p. 393).

To either confirm or reject the stated hypotheses from the conceptual model in Figure 2, an online questionnaire was built in order to test them through a fully structured online survey. There is a differentiation between a scientific questionnaire method and a non-scientific one. Parameters that highlight a scientific method are that the research is done to find a solution to a problem or an answer to a stated research question, which is based on the conceptual model of the previous chapter in this master thesis. Another factor is that the questionnaire is built with questions from the literature; this point will be further elaborated in the next chapter. Other factors are that a sample size has been created and that the distribution and analysis are documented and carried out based on academic standards (Döring, 2023, pp. 393–394). The online questionnaire has been carried out through the Unipark platform, which is a suitable and easily accessible online questionnaire platform. It helps to collect the data for the research and export it for the analysis part afterward (*Unipark*, 2024).

To do a quantitative research method, it is vital to set a sample of people who will be surveyed. Sample sizes are generally larger than those used when performing a qualitative approach (Döring, 2023, p. 306). A sample is a part taken out of something bigger, which is, in this case, the population. When taking out a sample of a whole population, statements about the whole can be made. Working with samples in comparison to the full population brings advantages in terms of time, costs, destruction, decision importance, accuracy, and confidentiality. Sampling means, as mentioned before that a certain part of the population will be excluded, which is known as sampling error. A differentiation when using sampling is the probability sampling and non-probability sampling, wherein the first element of a population has a chance to be in the

sample, whereas, in non-probability sampling, the selection of the criteria of the sample was set by the researcher (Diamantopoulos et al., 2023, pp. 11–14).

For this thesis, a non-probability sampling method was chosen as this is less time-consuming, given the set time of the research. Another factor is that non-probabilities must be set beforehand; therefore, a disadvantage is that the sample may not be representative of the population. Several sampling methods are applicable to quantitative studies; for this case, convenience sampling was chosen (Diamantopoulos et al., 2023, pp. 14–15). Convenience sampling describes a method where people who are available at this time are part of the study. For example, a questionnaire will be posted on Social Media, and those who can access it can fill it out (Diamantopoulos et al., 2023, p. 15; Döring, 2023, p. 307).

For this thesis, a sample was chosen to answer the stated research question through a quantitative approach. For accessibility reasons, the population of Austria was chosen as the base of the sample. For the study, it was assumed that people with purchasing power in Austria who are over 18 years old are used for the research. According to Statistik Austria (2023), in 2023, 7,343,211 million people in Austria are over 20 years old and therefore have full business capacity. The category starting with 20 years of age was chosen according to the age categories stated by Statistik Austria (Statistik Austria, 2023). The sample includes all people over 18 years of age who live in Austria. Respondents who are under 18 years old or live in any other country will not be included in this study. The sample size is based on statistics, where the age category starts with people over 20 years; nevertheless, this one was chosen as it is the most fitting one for the sample of this research.

In market research, a significance level of 95% percent and a probability error of around 3% is seen as sufficient. This means that it can be said that with a probability of 95%, the results can fluctuate from 3% up or down (Berger-Grabner, 2022, pp. 218–219). For the quantitative survey based on this demographic, a sample size of $n = 385$ is sought to obtain a sampling error rate of 5% with 95% certainty (SurveyMonkey, 2023).

According to Föhl & Friedrich (2022), it is important that an online questionnaire is not changed after the start of the field phase. Therefore, with the help of a pretest, the questionnaire can be designed accordingly. The field time can vary depending on the study topic and the target group. For some studies, ten to fourteen days is enough to reach the goal of the sample size. If not enough people can be reached, a reminder to fill out the questionnaire can be useful (Föhl & Friedrich, 2022, p. 129). For this study, the questionnaire was online for seventeen days, which was enough time to reach, at the end over 500 people.

6.2 Survey Instrument

A quantitative approach was used for empirical research on the consumer adoption of subscription commerce. As research has already been done in this field, it is useful to format hypotheses and test them through an online questionnaire, which was designed in a self-administered way. The research through an online questionnaire holds the advantage of collecting a large amount of data and sampling large groups of people. To capture relevant behavioral variables, the questionnaire was designed by applying scales from extant literature (Tao & Xu, 2018, pp. 78–88).

For the research, a quantitative approach was chosen with the help of an online questionnaire. The questionnaire was designed with closed questions, which had to be answered with predefined answer options, which were designed using a 5-point Likert-Scale. The questions are based on the theoretical part of the thesis, and questions were formed in order to give an answer to the stated research question.

The following figure (Figure 3) shows how the questionnaire was designed, as it started with an introduction and data protection information. In the next step, people had to answer if they live in Austria, which is a criterion for being part of the sample for the survey. The questions began with the subject of customer innovativeness. In the following, respondents got a short information text in which a situation they had to imagine answering the following questions was explained. The situation described the process of a person ordering a product from the cosmetics sector through a subscription service. Then, questions about the stated hypotheses were asked, which

included the Discovery of new products and variety, Convenience, Value for money, Perceived Risk, and Tradition barrier. The purpose section of the following questions asked respondents how likely they are to use these services. In the last section, people were asked demographic questions, which included age, gender, and people's educational degree.

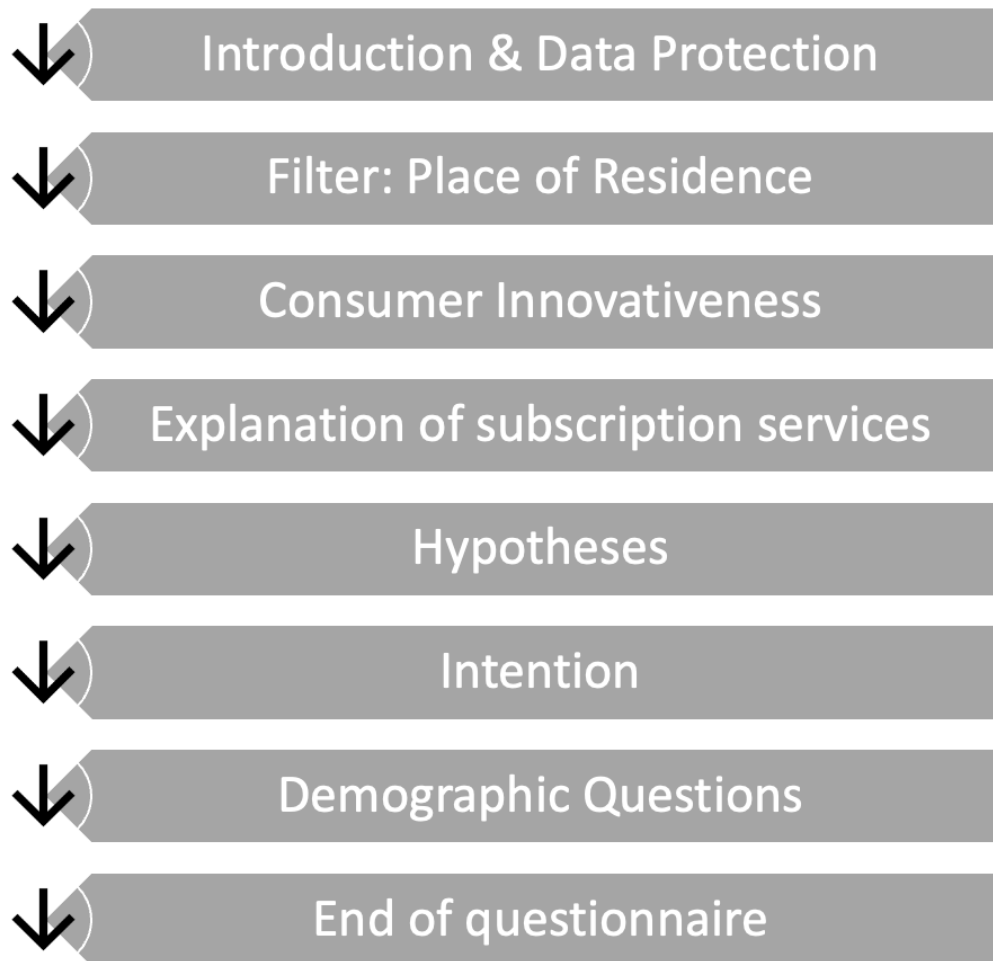


Figure 3: Structure of the questionnaire

In Table 1, the structure of the questionnaire is shown in more detail, including the number of items and the measuring method. For the question of place of residence, a yes or no question will be asked whether people live in Austria or not. For the open questions, the explanation of the operationalization can be found down below. The age, gender, and educational degree were measured through closed questions, which

means respondents could choose their gender, had to type in their age, and could select which educational degree they have.

| Coding | Structure | Number of items | Measuring method | Hypotheses |
|--------------------|---------------------------------------|------------------------|-------------------------|-------------------|
| v_residence | Place of Residence | | Closed question | |
| CINN | Consumer Innovativeness | 5 items | 5-point Likert scale | H1 |
| CON | Convenience | 3 items | 5-point Likert scale | H2 |
| VFM | Value for money | 4 items | 5-point Likert scale | H3 |
| DPV | Discovery of new products and variety | 3 items | 5-point Likert scale | H4 |
| TRB | Tradition barrier | 3 items | 5-point Likert scale | H5 |
| PER | Perceived risk | 3 items | 5-point Likert scale | H6 |
| ITA | Intention to adopt | 3 items | 5-point Likert scale | |
| v_age | Age | | Closed question | |
| v_gender | Gender | | Closed question | |
| v_education | Educational degree | | Closed question | |

Table 1:Structure overview

For quantitative approaches with a questionnaire, researchers often use the 5-point Likert scale to measure the answers given. This method of measurement is used a lot in social sciences. The scale measures parameters based on the degree of likeliness; therefore, the five levels illustrate the intensity of the measured item. The rating scale is structured as follows: strongly agree, agree, neutral, disagree, and strongly disagree (Döring, 2023, pp. 270–271). Likert scales are used in studies as numbers are assigned to the values that can be chosen, and on that basis, an analysis can be made afterward (Kreis et al., 2021, p. 107). For this study, the 5-point Likert scale is used for all constructs, including the stated hypotheses, which are Customer Innovativeness, Convenience, Value for money, Discovery of new products and variety, Tradition barrier, Perceived risk, and intention to adopt. In that case, respondents can give their answers as follows: 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree.

The following describes the sections of the questionnaire mentioned above in detail with specific questions. The first construct included the Consumer Innovativeness questions, which were asked using the 5-point Likert scale described above. This construct is based on the questionnaire of Ramkumar and Woo (2018), which was first used by Le Louarn (1997). In this study, they separated this into Attraction to newness, Autonomy in innovative decision-making, and Ability to take risks in trying newness (Ramkumar & Woo, 2018). The following Table 2 shows the question items below.

| Construct | Coding | Question | Source |
|--|--------|--|---|
| CINN: Consumer Innovativeness | CINN_1 | I am the kind of person who tries every new product at least once. | Ramkumar and Woo (2018), as cited in Le Louarn (1997) |
| | CINN_2 | When I hear about a new product, I try to know more about at the first occasion. | |

| | | | |
|--|--------|---|-------------------------|
| | CINN_3 | Before trying a new product, I try to learn what friends who possess this product think about it. | 3/19/2024 4:34:00 PM |
| | CINN_4 | I seek out the opinion of those who have tried new products or brands before I try them. | |
| | CINN_5 | I never buy something I do not know anything about with the risk of making a mistake | |

Table 2: Construct of Consumer Innovativeness

The next construct is about Convenience, consisting of three question items that were used before in a similar study by Ramkumar & Woo (2018). This construct also made use of the 5-point Likert scale to answer the questions. Before answering those questions, people had to read a text that described a subscription service in the cosmetics industry to better understand the topic. The text which described the specific situation and was implemented in the questionnaire can be found in the appendix. Table 3 shows the question items that were taken to test the hypothesis about Convenience.

| Construct | Coding | Question | Source |
|-----------------------------|--------|---|---|
| CON: Convenience | CON_1 | I could shop at such subscription-based online services without going out. | Ramkumar and Woo (2018), as cited in Le Louarn (1997) |
| | CON_2 | Shopping at such subscription-based online services would not have conflict with my schedule. | |
| | CON_3 | Such subscription-based online service would be convenient to me. | |

Table 3: Construct Convenience

The third construct includes value for money which is based on the questionnaire of Ramkumar and Woo (2018). The authors measured this item through value and cost savings, which were combined for this questionnaire and measured using the 5-point Likert scale.

| Construct | Coding | Question | Source |
|-----------------------------|--------|---|---|
| VFM: Value for money | VFM_1 | I could save my money by shopping at such subscription-based online services. | Ramkumar and Woo (2018), as cited in Le Louarn (1997) |
| | VFM_2 | I could spend less when I shop for such subscription-based online services. | |
| | VFM_3 | Such subscription-based online services could offer me competitive prices. | |
| | VFM_4 | Shopping at such subscription-based online services would give me discounts. | |

Table 4: Construct Value for money

The fourth construct is the discovery of new products and variety, which was measured using the 5-point Likert scale. The question items in Table 5 consist of the idea and selection of the construct by Ramkumar and Woo (2018). Table 5 illustrates the question items used in the questionnaire.

| Construct | Coding | Question | Source |
|---|--------|---|---|
| DPV: Discovery of new products and variety | DPV_1 | I could access a variety of merchandise via such subscription-based online services. | Ramkumar and Woo (2018), as cited in Le Louarn (1997) |
| | DPV_2 | I could access a wide selection of merchandise via such subscription-based online services. | |

| | | | |
|--|-------|---|--|
| | DPV_3 | I could keep up with the trends by shopping at such subscription-based online services. | |
|--|-------|---|--|

Table 5: Construct Discovery of new products and variety

The next question items are based on a survey done by Sivathanu (2018) on the adoption of beauty box subscriptions. Although the questions have been adopted for the cosmetics sector, they are appropriate for this thesis because the two industries are comparable. The tradition barrier was tested with the 5-point Likert scale, which consists of three questions, as shown in Table 6 below.

| Construct | Coding | Question | Source |
|---------------------------------------|--------|--|------------------|
| TRB: Tradition barrier | TRB_1 | I enjoy purchasing cosmetics products from retail shops, and it is nice to do so. | Sivathanu (2018) |
| | TRB_2 | I only purchase my cosmetics products from the retail shop as per my choice. | |
| | TRB_3 | I am happy with my current way of purchasing cosmetics products from the retail shops. | |

Table 6: Construct Tradition Barrier

The next construct measured is Perceived Risk, which consists of three questions based on the research done by Sivathanu (2018) in the beauty industry. The results will be measured using the 5-point Likert scale, which is illustrated in Table 7.

| Construct | Coding | Question | Source |
|--------------------------------------|--------|---|------------------|
| PER: Perceived Risk | PER_1 | I feel that the online subscription of cosmetics boxes is risky because the cosmetics box delivered may fail to meet my expectations. | Sivathanu (2018) |
| | PER_2 | I believe that online subscription of cosmetics boxes is risky as it may delivery inferior cosmetics products. | |
| | PER_3 | I feel online subscription of cosmetics boxes is risky as it may lead to the financial loss due to advance payment of subscription. | |

Table 7: Perceived Risk

The last questions measured through the 5-point Likert scale included the topic of intention to use cosmetics SOS. These questions are based on the study of Ramkumar and Woo (2018), which measured the intention of people to use SOS in the fashion and beauty sector. Table 8 below shows the question items used.

| Construct | Coding | Question | Source |
|--|--------|--|---|
| ITA: Intention to adopt | ITA_1 | I intend to purchase through SOS in the near future (e.g., next 3 months). | Ramkumar and Woo (2018), as cited in Le Louarn (1997) |
| | ITA_2 | It is likely that I will purchase through SOS in the near future. | |
| | ITA_3 | I expect to purchase through SOS in the near future. | |

Table 8: Construct Intention to adopt

In social sciences, dependent variables are measured when doing quantitative research, as shown by the frequency of occurrence. Through a dependent variable, different forms are often tested in many nuances (Döring, 2023, pp. 232–234). In this research, the Intention to adopt is the dependent variable, and the constructs mentioned above are the independent items. As the intention to adopt is dependent on the others, it relies on the answers given to the other question items.

6.3 Quality criteria for quantitative research

There are three criteria that are used in quantitative social sciences to check if the quality of the data to be analyzed is sufficient. The research should be objective, reliable, and valid to be able to interpret the results correctly. As it is difficult to prevent any measurement errors, it is vital to note those criteria (Berger-Grabner, 2022, p. 173).

Objectivity means that no matter who is doing the test, the results stay the same, and the users are independent of the measurements. The research process in the study has to be unaffected. Such a process is completely objective if different users using the same method have an identical result (Berger-Grabner, 2022, p. 173). In this study, a predefined questionnaire was used, which means that respondents had no direct influence. Doing a pretest before the start of the field phase helped to eliminate any kind of disruptions (Döring, 2023, p. 201).

Reliability describes the degree to which a research instrument will bring the same results if the same parameters and respondents are used when repeating the study (Berger-Grabner, 2022, p. 173). For this study, in order to answer the research question, hypotheses were formed, and those question items were put into constructs. Those constructs were measured, for example, through Cronbach's Alpha, which is explained in more detail in the upcoming chapters.

Validity represents a fundamental criterion in research methodology, serving as a litmus test to ascertain the extent to which a research instrument accurately captures the constructs it purports to measure. At its core, validity pertains to the degree of alignment between the operationalization of variables within the research instrument and the theoretical constructs they are intended to represent. In essence, a study is considered

valid when it effectively measures the phenomena or variables it purports to assess, thereby ensuring the fidelity of the research findings (Berger-Grabner, 2022, p. 173). For this study, the theoretical part is based on literature, and the questionnaire items are also from literature, which means that the level of validity is high.

6.4 Pretest

Before sending out the questionnaire to people giving their answers, a pretest was conducted with eight people to test clarity and errors. With the help of pretests, the online questionnaire can be adapted and optimized through feedback from respondents. This can prevent that the questionnaire is incomprehensible to respondents, which may influence the quality of answers given (Döring, 2023, p. 23). According to Döring (2023), pretests are essential to have the guarantee of a well-functioning questionnaire (Döring, 2023, p. 201). Different pretest options exist which include a qualitative pretest or a feedback conference. The last method was chosen for this thesis; potential respondents who are not included later on are going to answer the questionnaire, which will then be analyzed, and the results will be checked (Döring, 2023, p. 406).

6.5 Data collection and data analysis

For data collection, an online questionnaire was sent out to people and posted on Social Media Channels where potential respondents could give their answers voluntarily. The channels used were Instagram, Facebook, LinkedIn, Studo, and direct messages to family and friends. Respondents were requested to send the link to people they know to create a snowball system. The questionnaire was also posted in student forums or platforms where potential respondents are. The questionnaire was online to participants for around two and a half weeks to reach as many people as possible and then further analyze the data. The data obtained was used anonymously to get results. Throughout the field time, 537 people participated in the questionnaire.

After the closing of the questionnaire, the data was exported as an Excel file to work with that dataset further. IBM SPSS was used to analyze the data, and the sample size, which was 537 finished questionnaires, was exported. In the next step, the data was

imported into SPSS to further work with the data. A multiple regression analysis was performed as a data analysis method. This analysis type is used when researchers want to find out which variables to which extent influence a certain action. This means the relationship of one dependent variable to several independent variables (Döring, 2023, p. 612).

After the data was checked for errors or finished questionnaires that were not included in the sample, those were excluded, and 29 questionnaires were removed. The remaining dataset consisted of 506 questionnaires, which were, after the import in SPSS, categorized into nominal, ordinal, and metric.

All categories in this study – customer innovativeness, convenience, value for money, discovery of new items and variety, tradition barrier, perceived risk, and intention to adopt – were measured using a 5-point Likert scale. Respondents could then select one of the following response options: 1 for strongly agreeing, 2 for agreeing, 3 for neutral, 4 for disagreeing, and 5 for strongly disagreeing.

The items CINN_3, CINN_4, and CINN_5, which were part of the dimension consumer innovativeness, were recoded as those are interpreted negatively. For the sake of further analysis, this step was done to provide a consistent base for all question items.

As a first step, the reliability of the dimensions was tested to see if the data that was analyzed was accurate and reliable. A reliable questionnaire produces consistent results over time and across different situations (Möhring & Schlütz, 2019, p. 18). Reliability can be tested in various ways; for this research, Cronbach's Alpha was used to get the average correlation of the single items in a construct (Döring, 2023, p. 274).

For this thesis, a multiple regression analysis was chosen as hypotheses were formed, which included several independent variables that may have a positive or a negative influence on the intentions of people to use subscription services. It is assumed that the influence of the parameters is not linear; therefore, a multiple regression model is suitable for testing more complex combinations. Another reason why this model is suitable is that the question items were chosen from literature where researchers had already tested the same or similar factors (Ramkumar & Woo, 2018; Sivathanu, 2018).

A multiple regression model gives the opportunity to test the stated constructs before testing the hypotheses and answering the research question.

To see if a hypothesis can be confirmed or rejected, it is important to check the value of the significance. Therefore, a threshold value has to be set beforehand; this value is, according to the literature, set at 5%. This means if the value of significance $<0,05$, the stated hypothesis can be confirmed; if the value is above, the hypothesis must be rejected. When the significance level is below 5% it means that there is a significant relationship between the independent and the dependent variables (Döring, 2023, pp. 252–253).

6.6 Overview of the research

The following illustrates and summarizes the study briefly, which consisted of a quantitative approach with an online questionnaire. The following table should give an overview of the method used.

| Method | Quantitative Research |
|---------------------------------|--|
| Method instrument | Online questionnaire |
| Target group | People over 18 years old who live in Austria |
| Sample size | n = 537 |
| Sample size after data clearing | n = 506 |
| Field time | 29.01.2024 to 14.02.2024 |
| Analysis method | Multiple regression analysis |
| Analysis tools | IBM SPSS and Excel to clear the data |

Table 9: Method overview

7. Results

This chapter presents the results of the empirical study and aims to answer the research question stated. First, the descriptive data will be presented, which includes the sample size and differentiation of gender, age, and education. To analyze which group was the majority of the sample size, further elaborate on that. In the next step, the reliability analysis is explained to show that the data is reliable. After that, descriptive constructs will be tested and explained using various variables. In the end, the hypotheses will be tested, and the results will be explained. To give an overview of the whole study and the data collected, the following chapter provides an outline.

7.1 Data clearance

The chapter before explained how the data was collected and how the questionnaire was distributed to get participants. After the end of the field phase, the data was checked, and 537 people participated and filled out the online questionnaire. It could be obtained that all of the data was correct, and no errors could be discovered. As the questionnaire had criteria regarding the target group, 29 questionnaires had to be removed from the dataset. The criteria were that people had to be above 18 years old as this group is considered to have purchasing power and to live in Austria. The ones that have been removed were under 18 or did not have their residence in Austria. After the data had been cleared, 506 questionnaires were used for further analysis.

7.2 Demographic Data Results

The following illustration (Figure 4) shows how many people, according to their gender, have participated and its distribution. It can be seen that 74,9% were female participants, which are 379 people; 23,9% of participants were males, which are 121 people; and the rest were 1,2%, which were six people who identified themselves as divers.

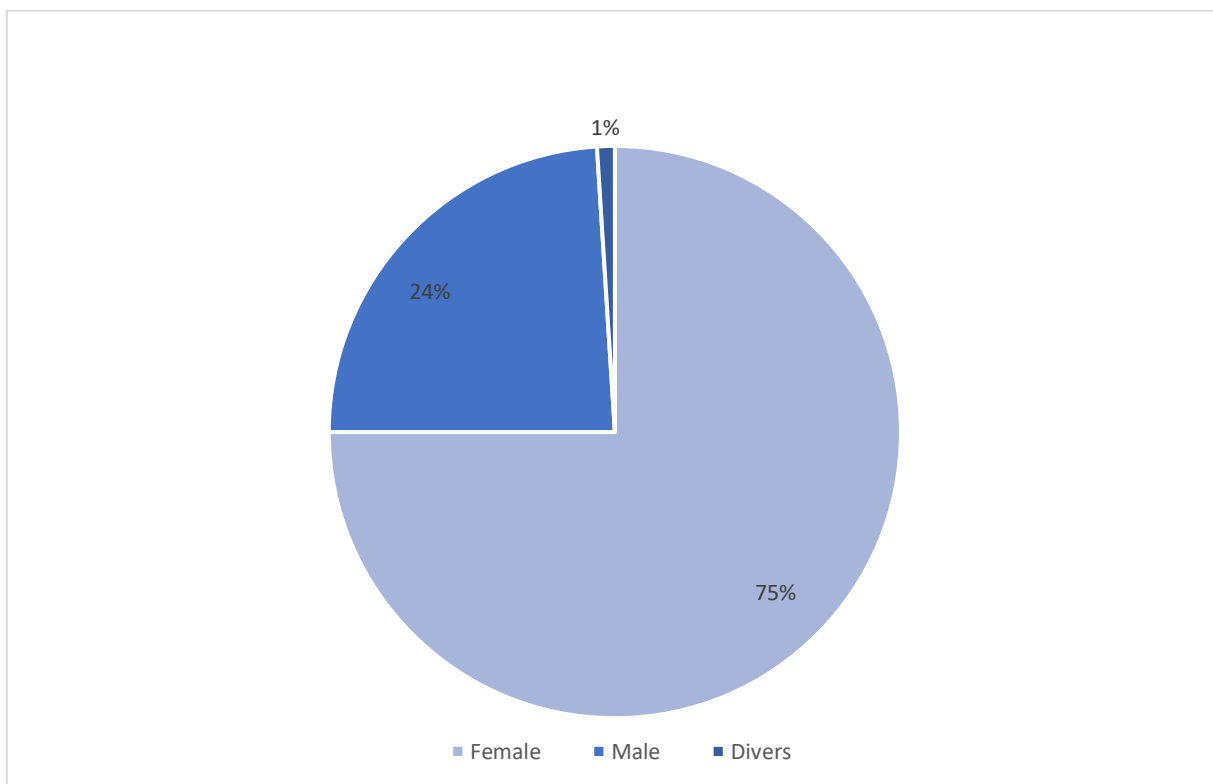


Figure 4: Gender Distribution
Remark: n = 506

To illustrate the age distribution of the sample size, people were clustered into seven age groups. Figure 5 shows that participants under 20 years make up 7,3% of the sample. The next age group, 20 to 29 years, accounts for 69,6% of the participants, which is clearly the biggest age group that participated in the survey. The group of 30- to 39-year-old people makes up 5,9% as well as for the 40 to 49-year-olds. 9,5% of participants were between 50 and 59 years old, and the following age group is 60 to 69 years old, which accounts for 1,6 %. The last age group, and also the smallest one, are participants above 70 years of age, which make up 0,2%.

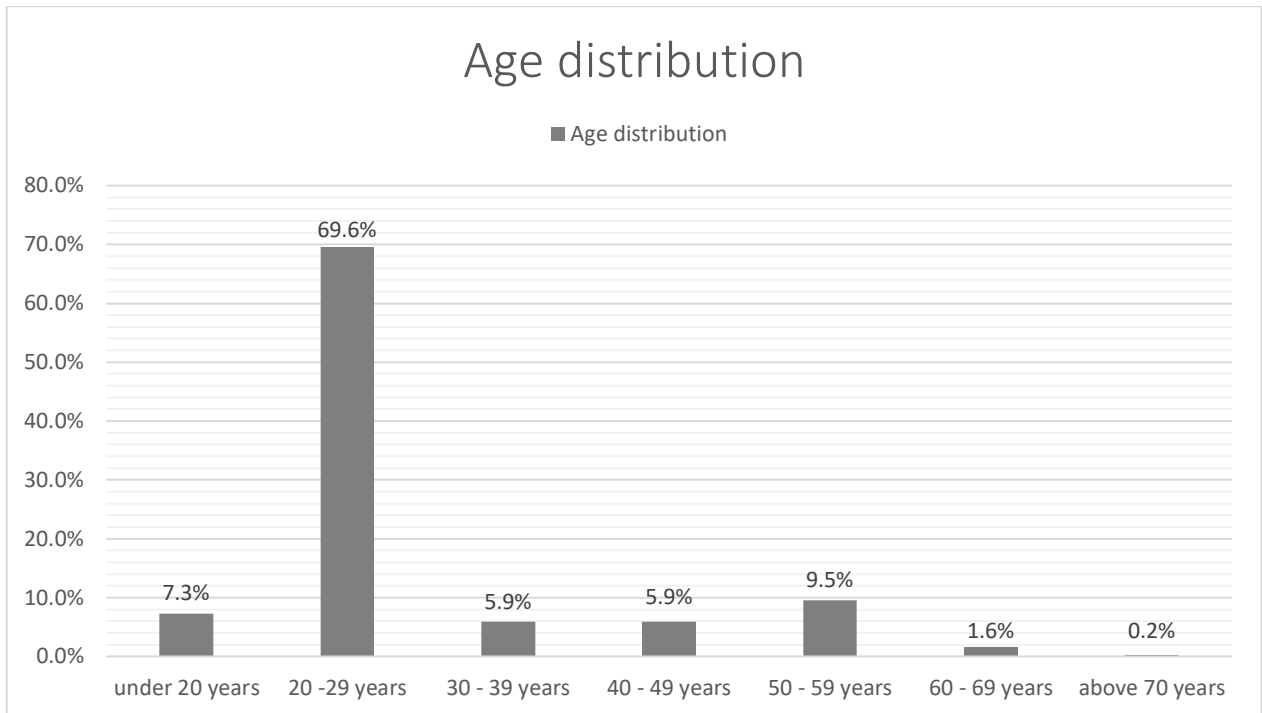


Figure 5: Age Distribution
Remark: n = 506

The last table (Table 10) of demographic factors illustrates the education of the people who took part in the online survey. The distribution of the education of participants shows that the majority of people have their A-levels or a university degree; those two together account for 83,6% of all participants. Therefore, it can be said that the educational level of the participants is rather high. There are multiple reasons for the distribution of a sample; one reason for this study can be that the distribution of the questionnaire was a lot in the family and friends' section, where a lot of higher degrees are held by the people. It can be seen that a minority of people have a lower education background and that every participant has some kind of education.

| Education | Frequency in % |
|-----------------------------------|----------------|
| No educational degree | 0 % |
| Compulsory school | 1,0 % |
| Apprenticeship | 8,3 % |
| Secondary school without A-levels | 7,1 % |
| A-levels | 50,0 % |
| University degree | 33,6 % |

Table 10: Education Distribution
Remark: n = 506

7.3 Quality of the Data

It is essential to prove that the data used is reliable and of high quality to conduct correct data analysis and test the stated hypotheses. Therefore, in the following, the methods used will be presented with their results. For this cause, a reliability test and a functional analysis have been carried out.

7.3.1 Reliability testing

After the clearance of the data, a reliability test can be done to check if the question items that form constructs are reliable. To test this, Cronbach's Alpha was used as a reliability coefficient. The values can vary between zero and one, where zero means that there is no consistency, and one means that the consistency is fully there (Baur & Blasius, 2014). Researchers defined several values for Cronbach's Alpha, including which values are acceptable and which ones are not. For this study, the research was used, which states that values should be above 0,7, but values above 0,6 are acceptable (Hair, 2016). Therefore, for this study, a threshold value of $\alpha > 0,6$ was used.

The following table shows each construct with the number of items and the value of Cronbach's Alpha.

| Construct | Number of items | Cronbach's Alpha |
|--|------------------------|-------------------------|
| Consumer innovativeness | 5 items | 0,403 |
| Convenience | 3 items | 0,758 |
| Value for money | 4 items | 0,828 |
| Discovery of new products and variety | 3 items | 0,758 |
| Tradition barrier | 3 items | 0,692 |
| Perceived risk | 3 items | 0,750 |
| Intention to adopt | 3 items | 0,939 |

Table 11: Reliability testing

Table 11 shows that the first construct, Consumer Innovativeness, has a Cronbach's Alpha of 0,403, which is under the threshold value. Despite this, it's imperative to retain this construct due to its alignment with the dimensions delineated by Ramkumar & Woo (2018). Notably, Roehrich (2004) underscores the sound validity of the items, albeit with an unexpected observation of weak correlations (Roehrich, 2004, p. 675). However, the analysis (Table 12) demonstrates robust correlations between the dimensions, notably 0,783 for the former and 0,639 for Attraction to Newness, affirming their coherence and reliability. These values may occur because the dimensions come in pairs according to literature, which results in an overall low Cronbach's Alpha value.

| Dimension | Item | Cronbach's Alpha Dimension | Cronbach's Alpha total |
|---|---|----------------------------|------------------------|
| Attraction to newness | I am the kind of person who tries every new product at least once. | 0,783 | 0,403 |
| | When I hear about a new product, I try to know more about at the first occasion. | | |
| Autonomy in innovative decision | Before trying a new product, I try to learn what friends who possess this product think about it. | 0,639 | |
| | I seek out the opinion of those who have tried new products or brands before I try them. | | |
| Ability to take risks in buying newness | I never buy something I do not know anything about with the risk of making a mistake | | |

Table 12: Consumer Innovativeness – Cronbach's Alpha

7.3.2 Factor Analysis

A factor analysis is used to analyze the structure of the data and try to identify relationships between data. It is also useful when a large amount of variables is used to decrease them (Döring, 2023, p. 929). The first essential criterion is called Kaiser-Meyer-Olkin (KMO), which in this study is 0,800. The value describes if the dataset is good for a factor analysis. Good values are near 1 and have to be above 0,5; therefore, this value is seen as meritorious (Backhaus et al., 2021, p. 423). Bartlett's Test of Sphericity reviews this value and shows the significance, which should be near 0. In

this case, it is $< 0,001$, which tells us that the results of this study with the dimensions used are valuable (Kaiser & Rice, 1974, p. 111).

In the next step, the Principal Component Analysis (PCA) was carried out. This analysis is useful to show that all constructs (Consumer Innovativeness, Convenience, Value for Money, Discovery of new products and Variety, Tradition Barrier, Perceived Risk, and Intention to Adopt) contribute accordingly to the research model. For this research, the threshold value is set for 0,2; this means that items with values below will be removed. According to Kopp and Lois (2014), a squared loading value above 0,5 can be considered as high. Table 13 illustrates that the values for Consumer Innovativeness range from 0,460 to 0,767; the value for CINN_5 is below 0,5 but clearly higher than the threshold value of 0,2; therefore, this item will not be removed (Kopp & Lois, 2014, pp. 94–96). The value square loadings from Convenience vary from 0,539 to 0,721. For the constructed value for money, the values range from 0,500 to 0,768, which are good values. The discovery of new products and variety has values between 0,441 and 0,826; the factor loading of DPV_3 is below 0,5 but again clearly over 0,2; therefore, it will not be excluded for further analysis. Tradition barrier and intention to adopt both have squared loading values above 0,5, which are considered good. PER_3 has a factor loading of 0,488, which is above the threshold value and does not have to be removed from the list.

| Construct | Items | Value Squared Loading |
|--------------------------------|--------|-----------------------|
| Consumer Innovativeness | CINN_1 | 0,767 |
| | CINN_2 | 0,714 |
| | CINN_3 | 0,609 |
| | CINN_4 | 0,700 |
| | CINN_5 | 0,460 |
| Convenience | CON_1 | 0,539 |

| | | |
|--|-------|-------|
| | CON_2 | 0,557 |
| | CON_3 | 0,721 |
| Value for money | VFM_1 | 0,768 |
| | VFM_2 | 0,759 |
| | VFM_3 | 0,675 |
| | VFM_4 | 0,500 |
| Discovery of new products and variety | DPV_1 | 0,808 |
| | DPV_2 | 0,826 |
| | DPV_3 | 0,441 |
| Tradition barrier | TRB_1 | 0,634 |
| | TRB_2 | 0,614 |
| | TRB_3 | 0,724 |
| Perceived risk | PER_1 | 0,753 |
| | PER_2 | 0,799 |
| | PER_3 | 0,488 |
| Intention to adopt | ITA_1 | 0,760 |
| | ITA_2 | 0,770 |
| | ITA_3 | 0,726 |

Table 13: Communalities

7.4 Descriptive analysis – constructs

All constructs used in this study were measured through the 5-point Likert scale, which had a scale of 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree. This measurement is the base of the following descriptive analysis. For the purpose of capturing the constructs, scales comprised a predetermined set of items and were subsequently transformed through the calculation of mean values.

The drivers for and barriers against the intention to adopt subscription-based services in the cosmetics industry were measured through the constructs of Consumer Innovativeness, Convenience, Value for Money, Discovery of new products and Variety, Tradition Barrier, Perceived Risk, and Intention to Adopt. Table 14 shows the values of the 506 finished questionnaires.

| Construct | Min. | Max. | Mean | Std. Deviation | Variance |
|------------------------------------|-------------|-------------|-------------|---------------------------|-----------------|
| Consumer Innovativeness | 1 | 5 | 3,53 | 0,569 | 0,323 |
| CINN_1 | 1 | 5 | 3,54 | 1,036 | 1,073 |
| CINN_2 | 1 | 5 | 3,22 | 1,085 | 1,176 |
| CINN_3 | 1 | 5 | 3,79 | 0,977 | 0,955 |
| CINN_4 | 1 | 5 | 3,83 | 0,906 | 0,821 |
| CINN_5 | 1 | 5 | 3,28 | 1,205 | 1,452 |
| | | | | | |
| Convenience | 1 | 5 | 2,64 | 0,979 | 0,958 |
| CON_1 | 1 | 5 | 2,70 | 1,257 | 1,581 |

| | | | | | |
|--|---|---|------|-------|-------|
| CON_2 | 1 | 5 | 2,47 | 1,092 | 1,192 |
| CON_3 | 1 | 5 | 2,76 | 1,221 | 1,491 |
| | | | | | |
| Value for money | 1 | 5 | 3,05 | 0,798 | 0,637 |
| VFM_1 | 1 | 5 | 3,32 | 1,003 | 1,005 |
| VFM_2 | 1 | 5 | 3,30 | 1,059 | 1,121 |
| VFM_3 | 1 | 5 | 2,82 | 0,990 | 0,979 |
| VFM_4 | 1 | 5 | 2,76 | 0,868 | 0,754 |
| | | | | | |
| Discovery of new products and variety | 1 | 5 | 2,68 | 0,819 | 0,671 |
| DPV_1 | 1 | 5 | 2,51 | 0,971 | 0,944 |
| DPV_2 | 1 | 5 | 2,54 | 0,969 | 0,938 |
| DPV_3 | 1 | 5 | 2,99 | 1,052 | 1,107 |
| | | | | | |
| Tradition barrier | 1 | 5 | 2,15 | 0,837 | 0,701 |
| TRB_1 | 1 | 5 | 2,22 | 1,126 | 1,267 |
| TRB_2 | 1 | 5 | 2,39 | 1,192 | 1,421 |
| TRB_3 | 1 | 5 | 1,85 | 0,841 | 0,707 |
| | | | | | |

| | | | | | |
|---------------------------|---|---|------|-------|-------|
| Perceived Risk | 1 | 5 | 2,60 | 0,906 | 0,822 |
| PER_1 | 1 | 5 | 2,45 | 1,088 | 1,183 |
| PER_2 | 1 | 5 | 2,81 | 1,128 | 1,272 |
| PER_3 | 1 | 5 | 2,53 | 1,115 | 1,244 |
| | | | | | |
| Intention to adopt | 1 | 5 | 3,74 | 1,011 | 1,022 |
| ITA_1 | 1 | 5 | 3,54 | 1,155 | 1,334 |
| ITA_2 | 1 | 5 | 3,80 | 1,023 | 1,046 |
| ITA_3 | 1 | 5 | 3,86 | 1,030 | 1,061 |

Table 14: Descriptive statistics
Remark: n = 506

The constructs Consumer Innovativeness and Intention to Adopt have the lowest means considering the 5-point Likert scale; those are for CIN (3,53) and for ITA (3,74). The Std. deviation values are 0,569 for CIN and 1,001 for ITA, which shows a difference in that value. Value for money and discovery of new products and variety have means in a similar range, which are 3,05 and 2,68, their Std. Deviation values are 0,798 and 0,819. The last three constructs, Tradition barrier, Perceived risk, and Convenience, have the lowest means with TRB (2,15), PER (2,60), and CON (2,64). The Std. deviations are 0,798 for TRB, 0,906 for PER, and 0,979 for CON, which are in a related range.

The following figures show the distribution of each item of a construct in relation to the 5-point Likert scale. Starting with the first one, Consumer Innovativeness, where the items CINN_3, CINN_4, and CINN_4 were recoded as they are negatively coded because if people voted for strongly agree, for example, this means that they are less innovative. Therefore, recoding was necessary so that the analysis could be even for the whole construct.

Figure 6 shows that the majority of people voted disagree (43,9%) on the first item, which means they are not innovative people who like to try every new good on the market. 31,4% of the probands answered with agree for the question that they like to know more about a new product when they hear about it, which contributes to the construct of consumer innovativeness. 48,1% said that they buy things with the risk of making a mistake, which tells that they are rather innovative people. The majority of people, 76% for CINN_3 and 78,1% answered that they do not seek the opinion of friends who have tried the products before, which demonstrates that those are innovative.

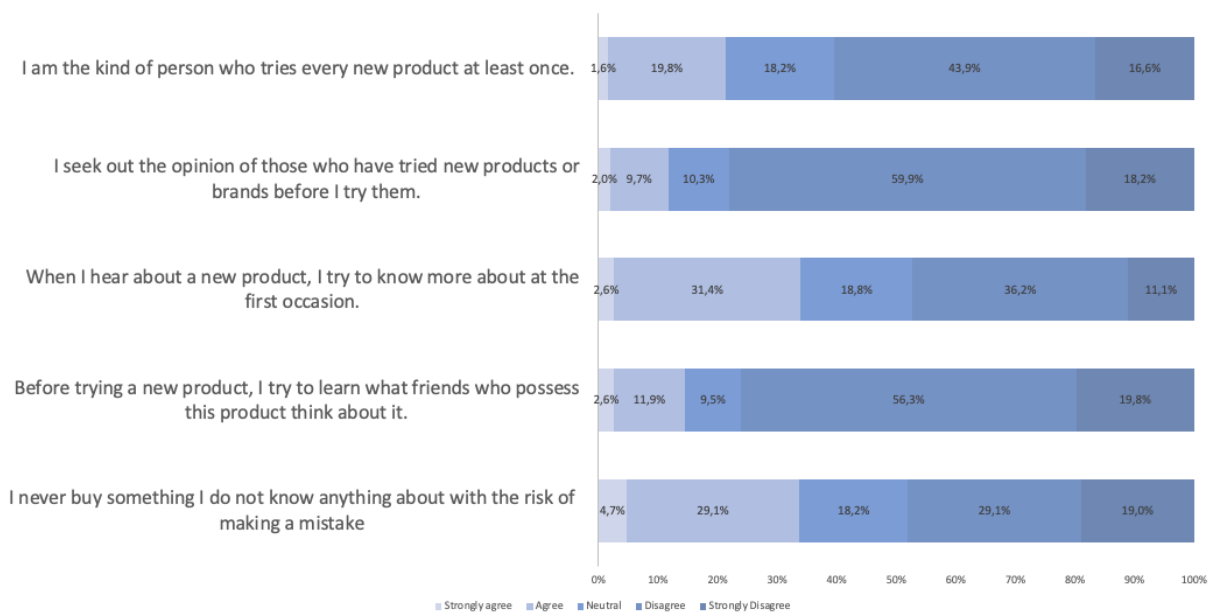


Figure 6: Distribution Consumer Innovativeness
Remark: n = 506

Figure 7 demonstrates the distribution of the construct Convenience, where probands could rate their answers through the 5-point Likert Scale. The highest percentage of people agreed with the fact that shopping at subscription-based online services would not conflict with their schedule, particularly 61,7%. The other two questions also had a high rate of agreement, both over 50%, which means that people who answered the questionnaire perceived shopping at subscription-based services as convenient.

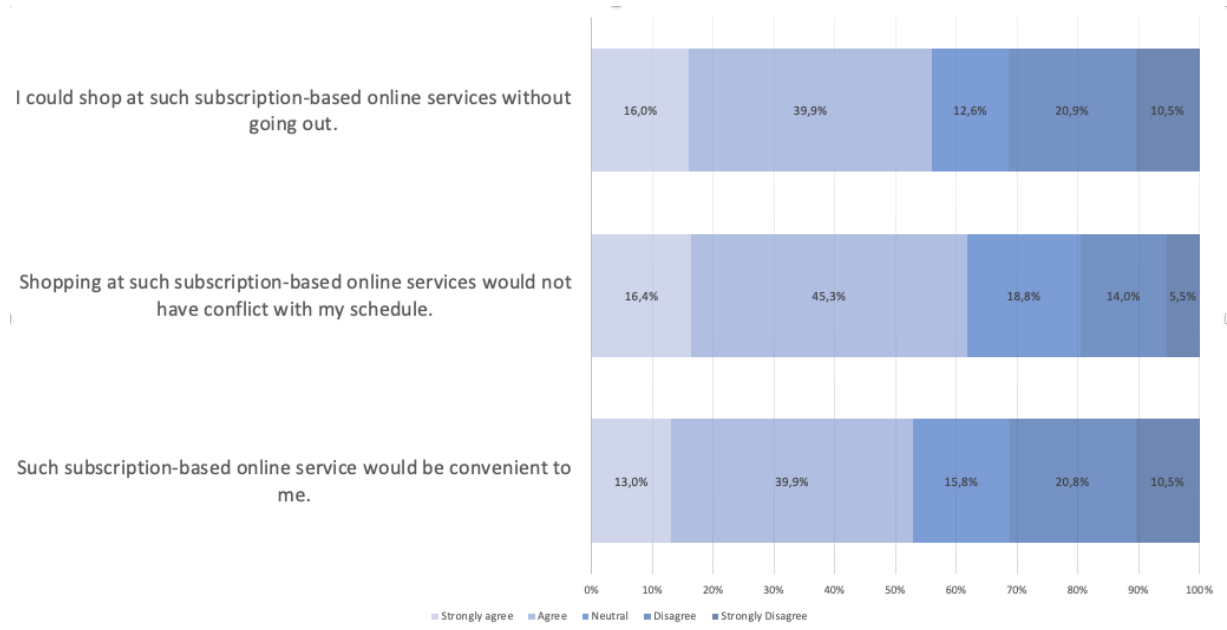


Figure 7: Distribution Convenience
Remark: n = 506

The following figure (Figure 8) represents the distribution of the constructed value for money, which was measured using the 5-point Likert Scale. It can be said that around 40% of the respondents think that they can save money when shopping at such subscription-based online services as they get discounts and competitive prices; the other third is neutral about whether they can save money or not. 47,1% of the people who answered the questionnaire do not think that they can spend less money when using such services. In contrast to that, $\frac{1}{4}$ of the probands think they can save money when using such subscription-based services.

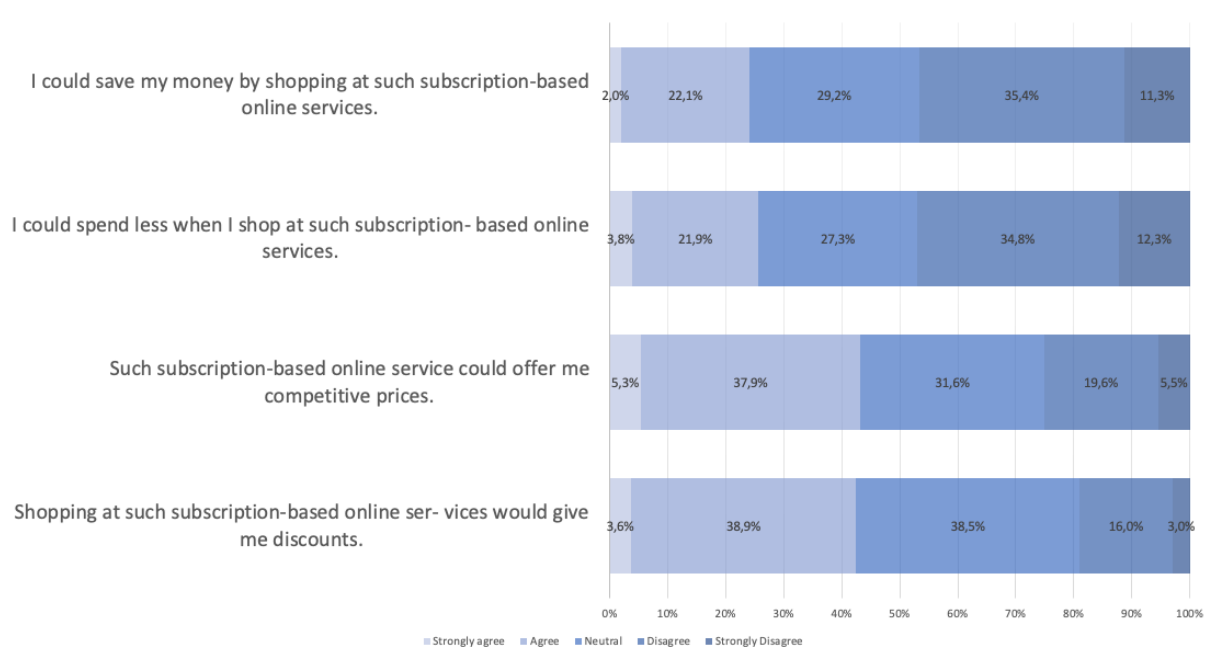


Figure 8: Distribution Value for money
Remark: n = 506

Figure 9 shows the distribution of the construct diversity of new products and variety, which was measured using the 5-point Likert scale. It can be said that over 60% of the respondents who clicked on strongly agree and agree with the statement that they could access a wide selection and variety of products when making use of subscription-based online services. It must be said that for the statement that using such services could enhance them to keep up with trends, no clear statement can be made as it is nearly accurately split into three groups where some agree, others are unsure, and the rest disagree.

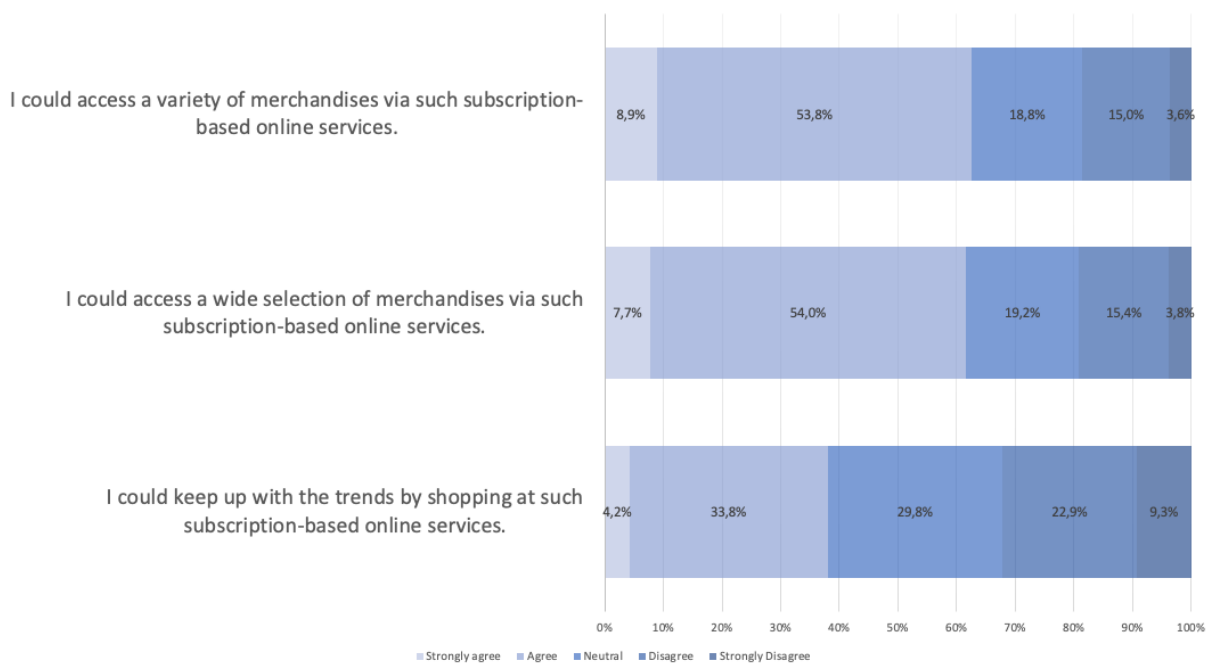


Figure 9: Distribution Diversity of new products and variety
Remark: n = 506

The distribution of the construct tradition barrier, which was measured through the 5-point Likert scale, is illustrated in Figure 10. The majority of people (70,6%) state that they enjoy doing their cosmetics shopping in a retail shop. Even 62,9% of the respondents agree that they only buy their cosmetics products from retail stores. The statement that people are happy with their current way of shopping in retail shops has been agreed by 83,2% of respondents. This shows that only a minority of people wish to shop for their cosmetic products through something different than brick-and-mortar retail.



Figure 10: Distribution Tradition barrier
Remark: n = 506

The construct Perceived risk was measured with the 5-point Likert scale and can be seen in Figure 11 below. 62,1% of the respondents strongly agreed and agreed with the statement that they perceive the usage of such subscription-based online services for cosmetic products as risky as those products might not meet their expectations. 45,3% of the people who answered the questionnaire believe that shopping through such subscription-based services could deliver inferior cosmetics products to them. Over half of the respondents (59,7%) fear a financial loss if they shop for cosmetic products through online subscription-based services.

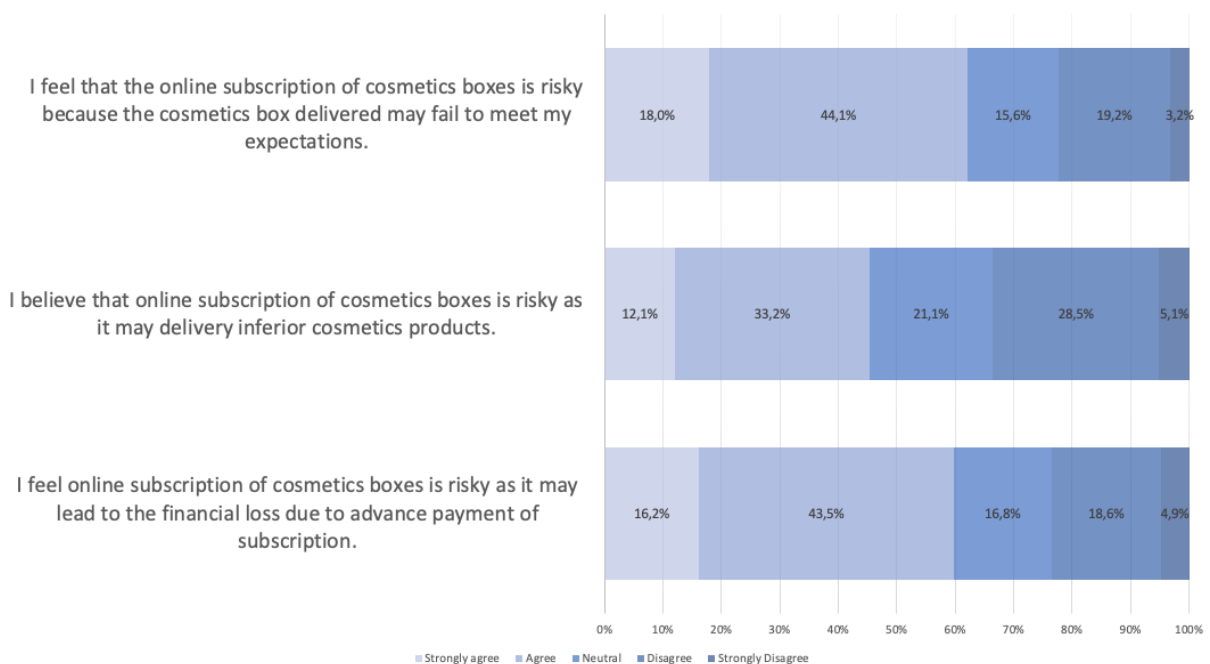


Figure 11: Distribution of Perceived Risk
Remark: n = 506

The last construct is the intention to adopt, which was measured with the 5-point Likert Scale and is illustrated in Figure 12. It can be clearly seen that the majority of respondents are unsure if they want to use subscription-based online services in the future. For all items, 22,3 % to 29,6% strongly disagree that they intend or expect to use such subscription-based services in the future. It can be seen that 25,5% of the people answering the questionnaire believe that they intend to purchase through subscription services in the near future.

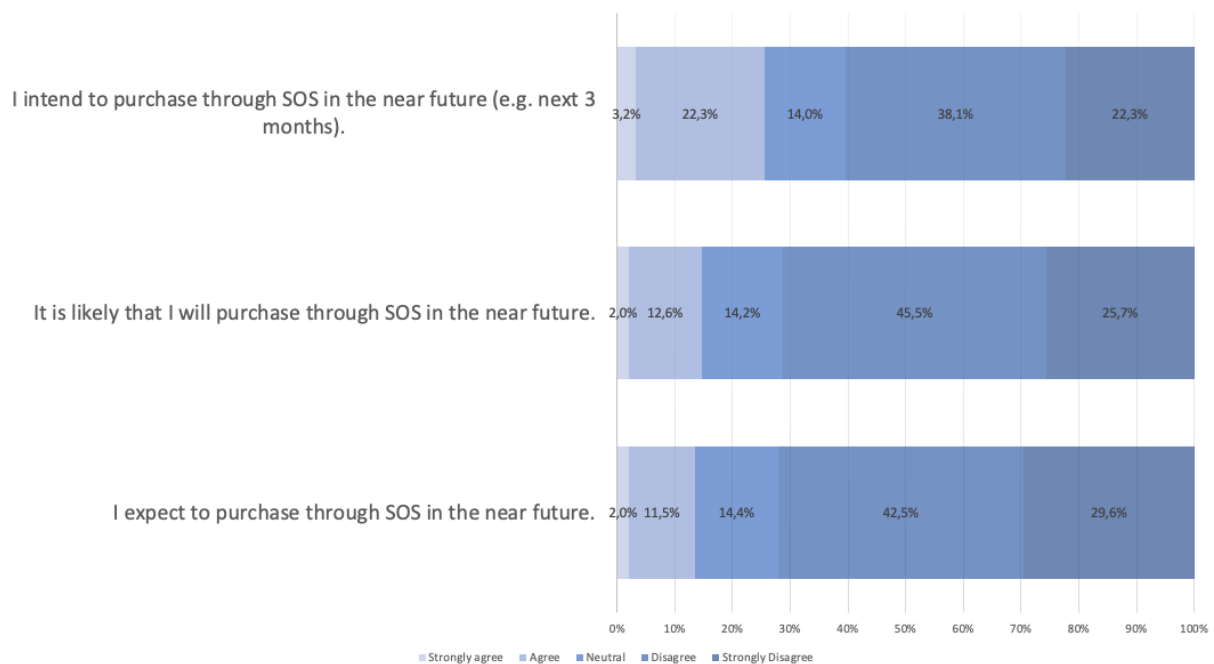


Figure 12: Distribution Intention to adopt
Remark: n = 506

7.4.1 Differences in intention to adopt by gender

The following Table (Table 15) illustrates the differences in intention to adopt subscription-based online services for cosmetic products by gender. The table shows the genders that could be chosen (male, female, and divers) as well as the number of respondents of each gender. The mean value pertains to the variable of intention to adopt, encompassing all items that were surveyed. The mean value for male participants is 3,74, which is similar to the one for female people, with 3,73, which are in the middle field with a tendency to not be likely to use such services. Individuals who

identified as gender diverse exhibit the lowest propensity to utilize such services, with a mean value of 4.22.

| Gender | Frequency absolute | Frequency in % | Mean |
|---------------|---------------------------|-----------------------|-------------|
| Male | 121 | 23,91% | 3,74 |
| Female | 379 | 74,90% | 3,73 |
| Divers | 6 | 1,19% | 4,22 |

Table 15: Difference in intention to adopt by gender
Remark: n = 506

Table 16 illustrates the mean values for all items pertaining to the respondents' gender, ranging from 3,51 to 4,33. These values indicate minimal discrepancies between the responses across different genders. Particularly, the mean values for male and female respondents are nearly indistinguishable in the lower range, suggesting a degree of uncertainty or reluctance towards the utilization of subscription-based online services in the future. However, notable differences emerge among individuals who identify as gender diverse, as indicated by the mean values of the questionnaire items, signaling a propensity towards avoiding the use of such services.

| Mean values | | | |
|--------------------|-------------|---------------|---------------|
| Item | Male | Female | Divers |
| ITA_1 | 3,51 | 3,54 | 4,00 |
| ITA_2 | 3,81 | 3,79 | 4,33 |
| ITA_3 | 3,89 | 3,85 | 4,33 |

Table 16: Difference in intention to adopt by gender – Mean values
Remark: n = 506

7.4.2 Differences in intention to adopt by age

Table 17 presents the distribution of intention to adopt subscription-based services across different age groups. The largest cohort of respondents falls within the 20 – 29-year age group, exhibiting a mean value of 3,73, indicative of an inclination towards uncertainty or reluctance to utilize such services in the future. Mean values across age groups range from 3,35 to 4,33, suggesting a relatively uniform distribution. Notably, the highest mean value of 4,33 is observed in the age group above 70 years, which was only one person, while the lowest mean value of 3,35 pertains to the 60 to 69 age group. Overall, respondents across all age groups exhibit a degree of uncertainty or reluctance toward the adoption of subscription-based online services in the future.

| Age groups | Frequency absolute | Frequency in % | Mean |
|-----------------------|---------------------------|-----------------------|-------------|
| Under 20 years | 37 | 7,3 % | 3,92 |
| 20 – 29 years | 352 | 69,6 % | 3,73 |
| 30 – 39 years | 30 | 5,9 % | 3,47 |
| 40 – 49 years | 30 | 5,9 % | 3,53 |
| 50 – 59 years | 48 | 9,5 % | 3,65 |
| 60 – 69 years | 8 | 1,6 % | 3,35 |
| Above 70 years | 1 | 0,2 % | 4,33 |

Table 17: Differences in intention to adopt by age – Mean values
Remark: n = 506

Table 18 shows that mean values have a range of 3,00 to 5,00, which means that respondents are, according to the mean values, either unsure or unlikely that they make use of subscription-based online services. The lowest mean values over all age groups can be seen for statement ITA_,1, which was “I intend to purchase through SOS in the near future (for example, the next three months).” The highest mean value was given

by one person over 70 years old, who strongly disagrees with the statement that they expect to purchase through SOS in the near future.

| Mean values | | | |
|----------------|-------|-------|-------|
| Age groups | ITA_1 | ITA_2 | ITA_3 |
| Under 20 years | 3,79 | 4,11 | 3,87 |
| 20 – 29 years | 3,53 | 3,82 | 3,89 |
| 30 – 39 years | 3,31 | 3,53 | 3,57 |
| 40 – 49 years | 3,32 | 3,62 | 3,65 |
| 50 – 59 years | 3,63 | 3,64 | 3,68 |
| 60 – 69 years | 3,00 | 3,60 | 3,45 |
| Above 70 years | 4,00 | 4,00 | 5,00 |

Table 18: Differences in intention to adopt by age - Mean values per item
Remark: n = 506

7.5 Hypotheses testing

Before the hypotheses can be tested, some tests have to be done to see if the requirements are fulfilled for the multiple regression analysis. For the analysis, the data has to be normally distributed, which can be reviewed with histograms, Q-Q-Plots, Kolmogorov-Smirnov-Test, or a Shapiro-Wilk-Test. Also, the correlations, missing values, and residual values have to be tested to see if the analysis can be done or has valuable outputs (Janssen & Laatz, 2017, pp. 242–246). For large samples ($n > 200$) it is more vital to check the normal distribution graphically without calculating their significance. If the samples are getting bigger the dataset is becoming more sensitive which means it seems that datasets are not normally distributed (Field, 2009, p. 139). For the reasons explained before, the dataset of this study will also make use of checking histograms and their normal distribution curve as well as Q-Q-Plot normal

distributions. The dataset is rather roughly normally distributed. Large departures from the normal distribution assumption may often be tolerated because most tests are quite robust (Janssen & Laatz, 2017, p. 247). As the data has theoretical relevance, the multiple regression analysis will be performed as the results are a contribution to the topic. The following figures (Figure 13 to Figure 24) illustrate the normal distribution.

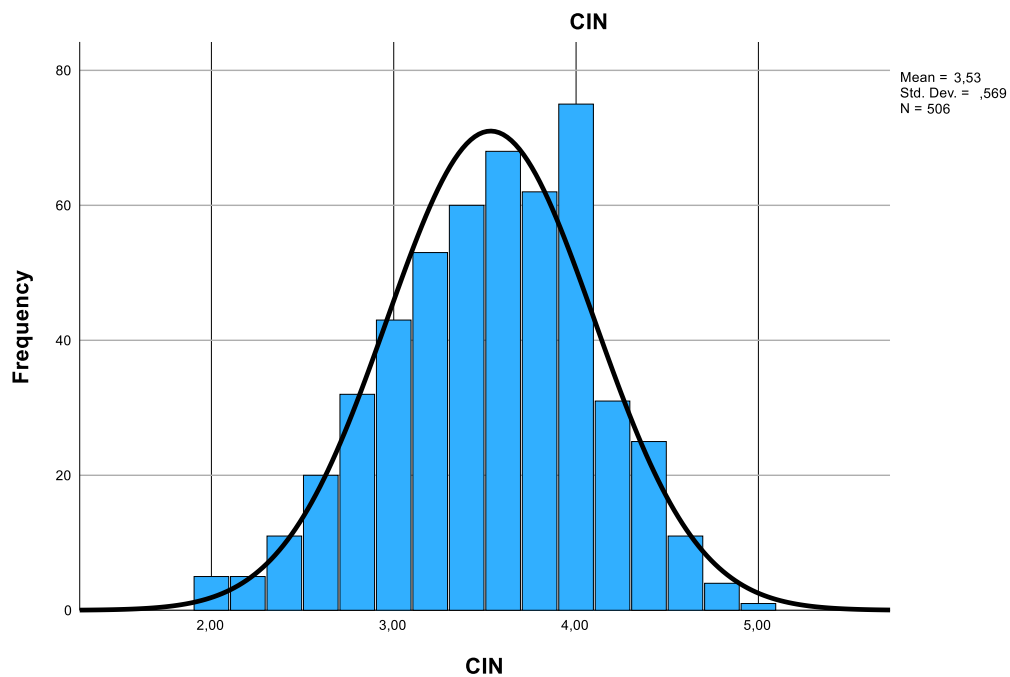


Figure 13: Histogram and Normal Distribution Curve (H1)

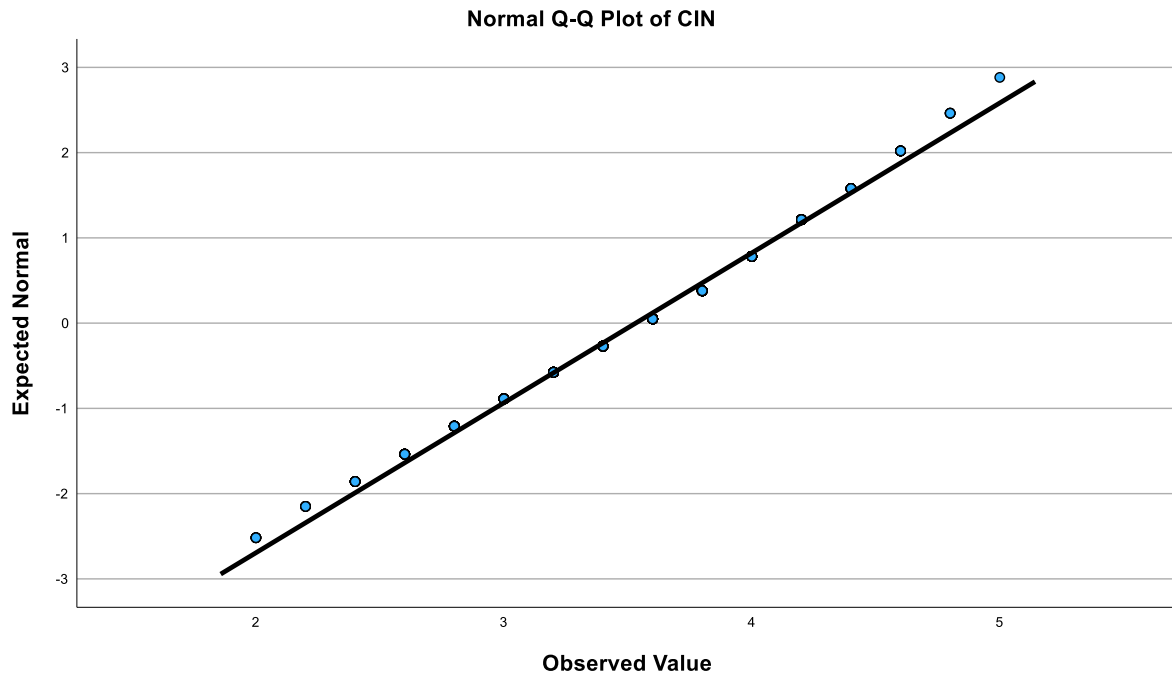


Figure 14: Q-Q-Plot Normal Distribution (H1)

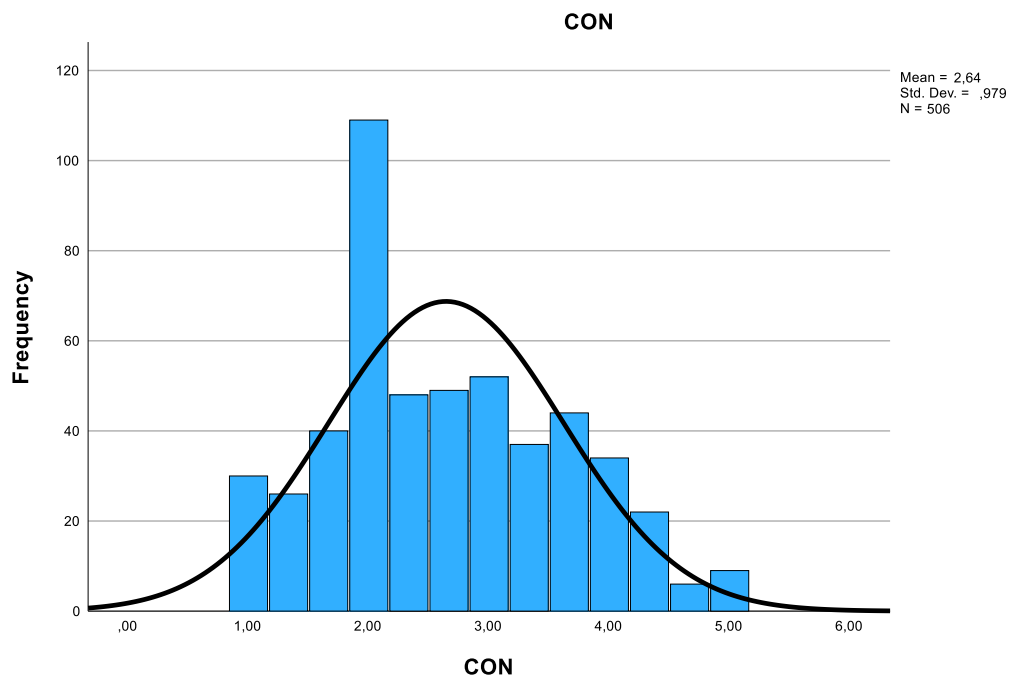


Figure 15: Histogram and Normal Distribution Curve (H2)

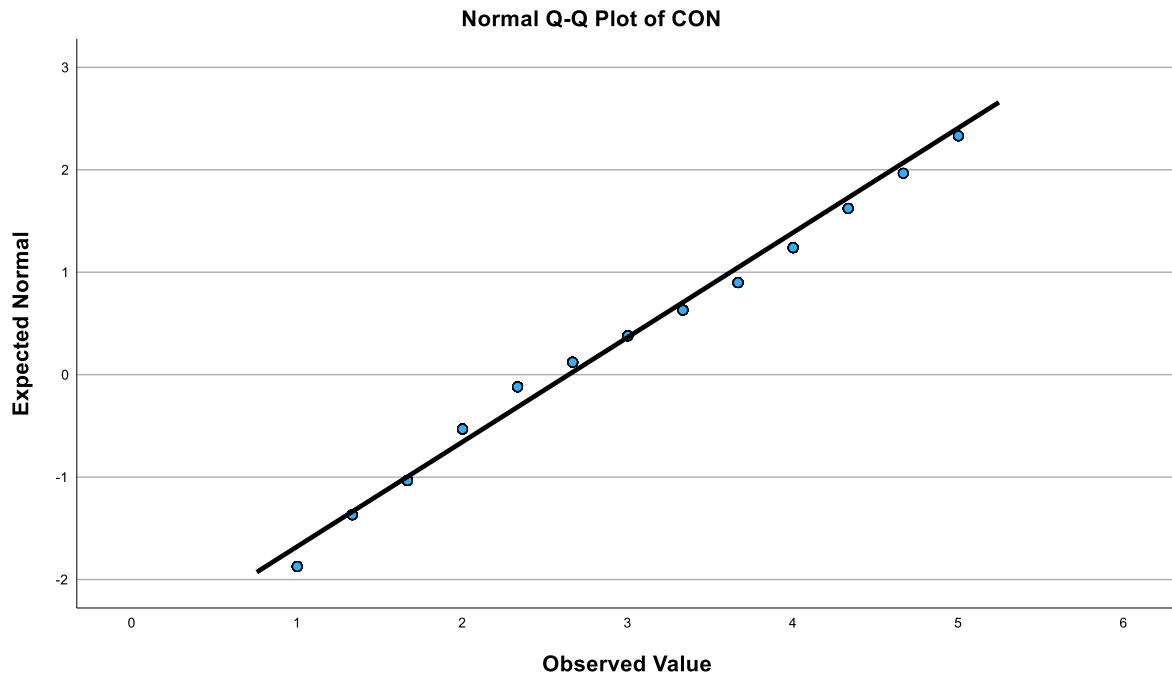


Figure 16: Q-Q-Plot Normal Distribution (H2)

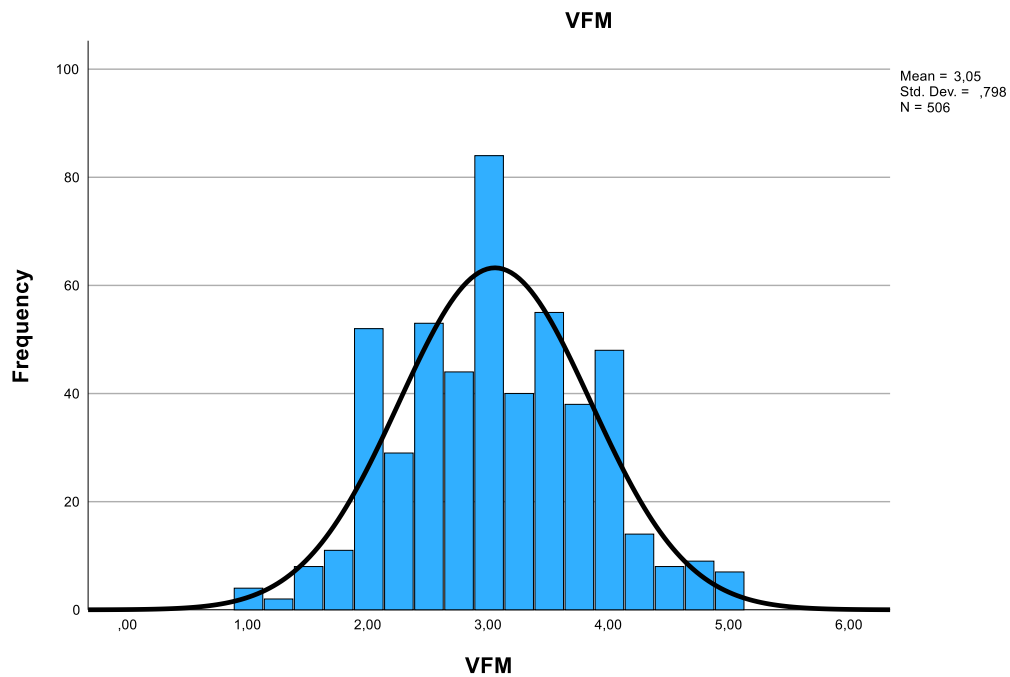


Figure 17: Histogram and Normal Distribution Curve (H3)

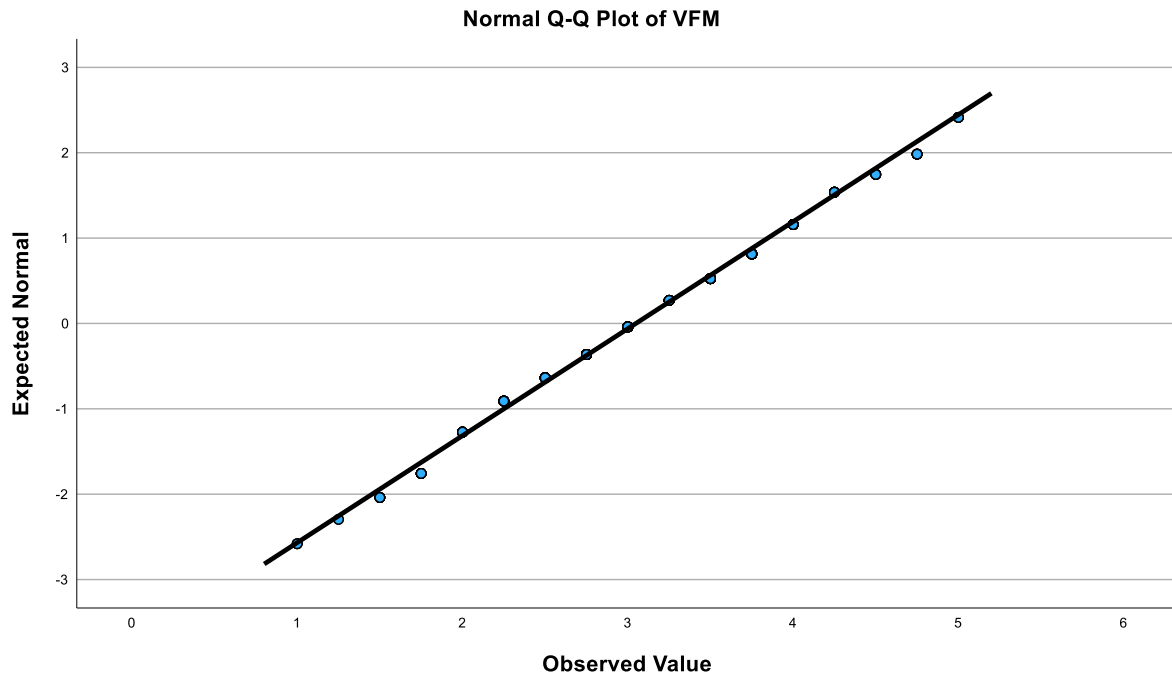


Figure 18: Q-Q-Plot Normal Distribution (H3)

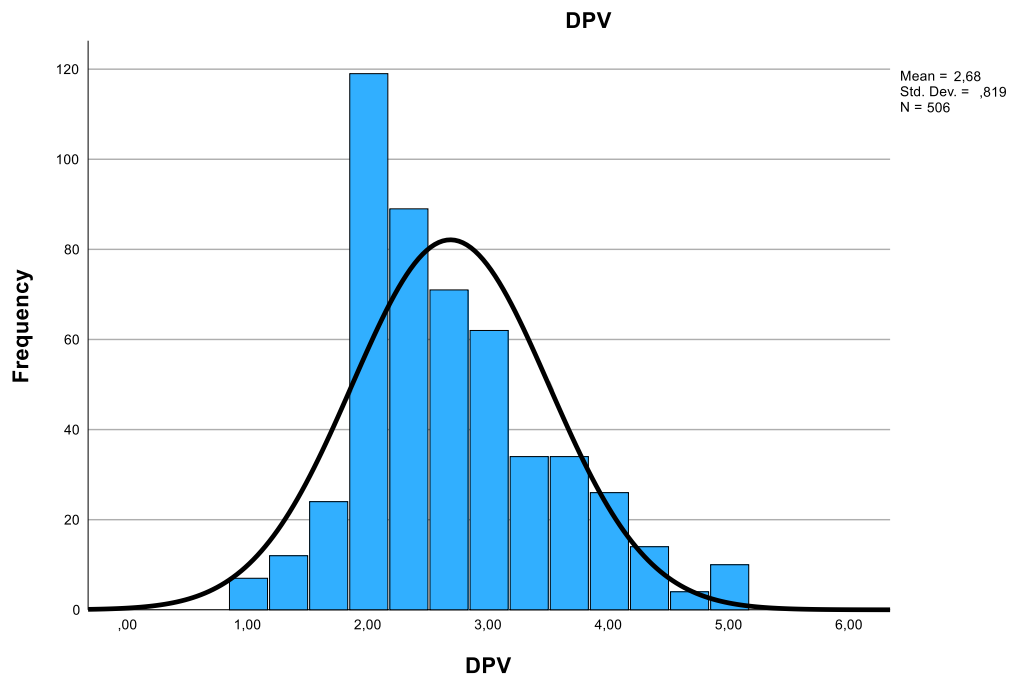


Figure 19: Histogram and Normal Distribution Curve (H4)

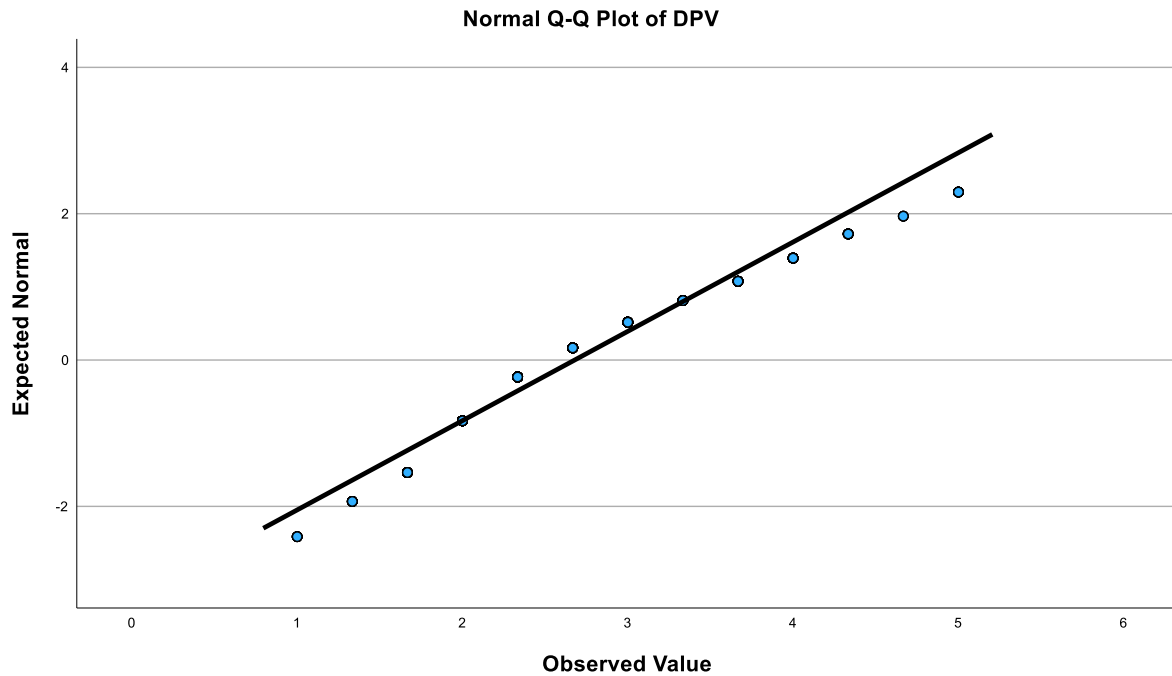


Figure 20: Q-Q-Plot Normal Distribution (H4)

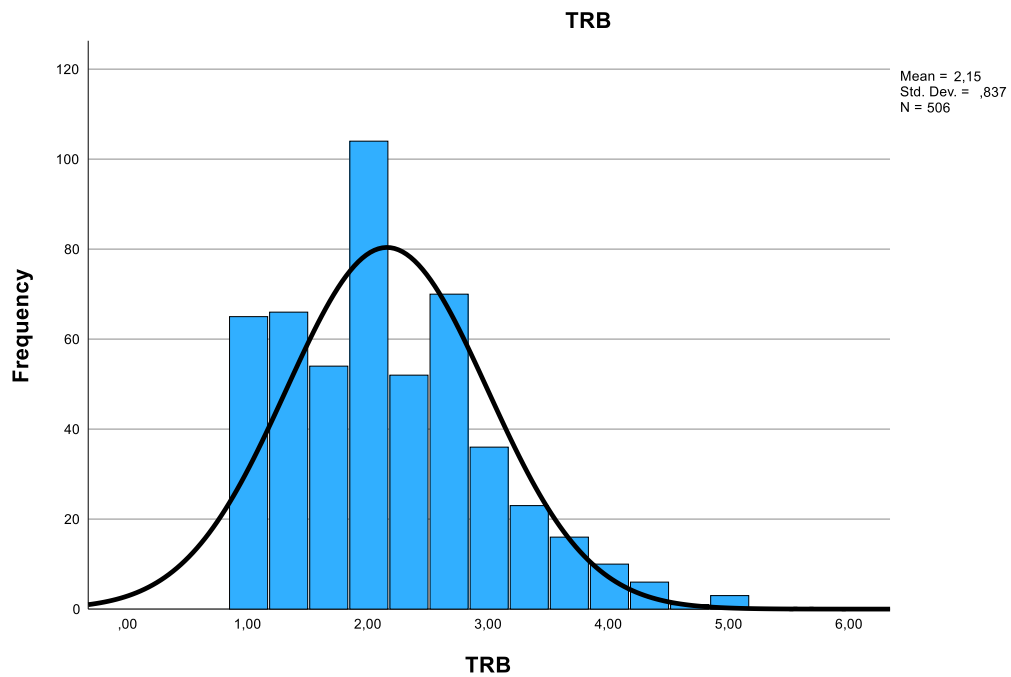


Figure 21: Histogram and Normal Distribution Curve (H5)

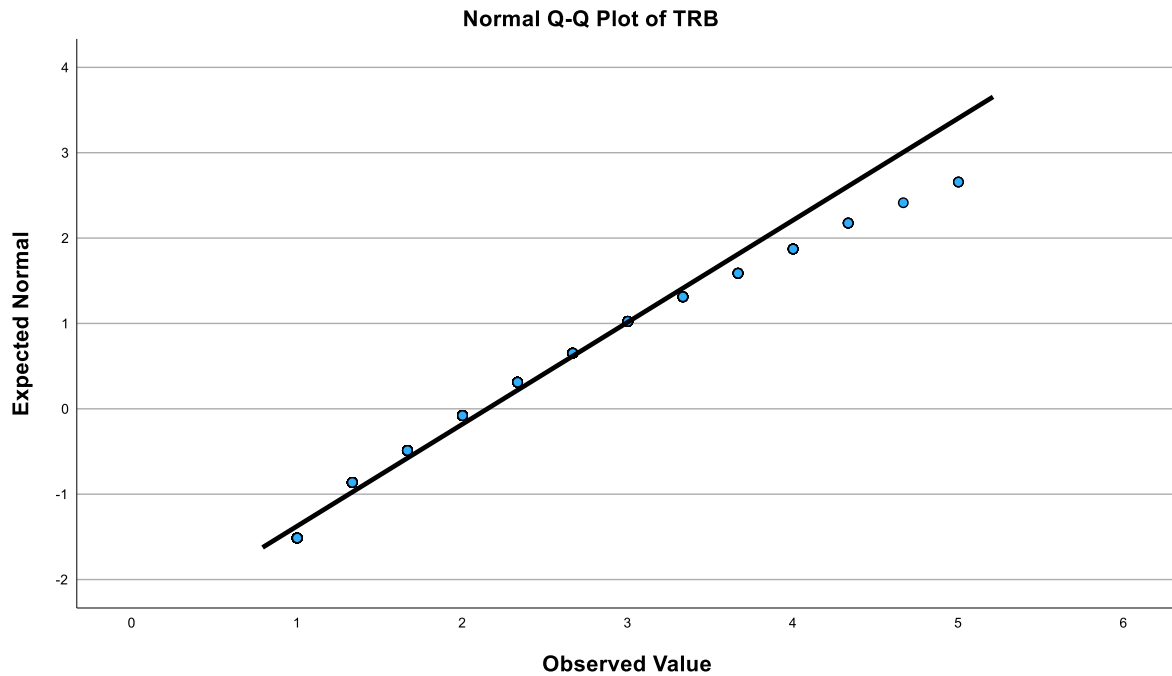


Figure 22: Q-Q-Plot Normal Distribution (H5)

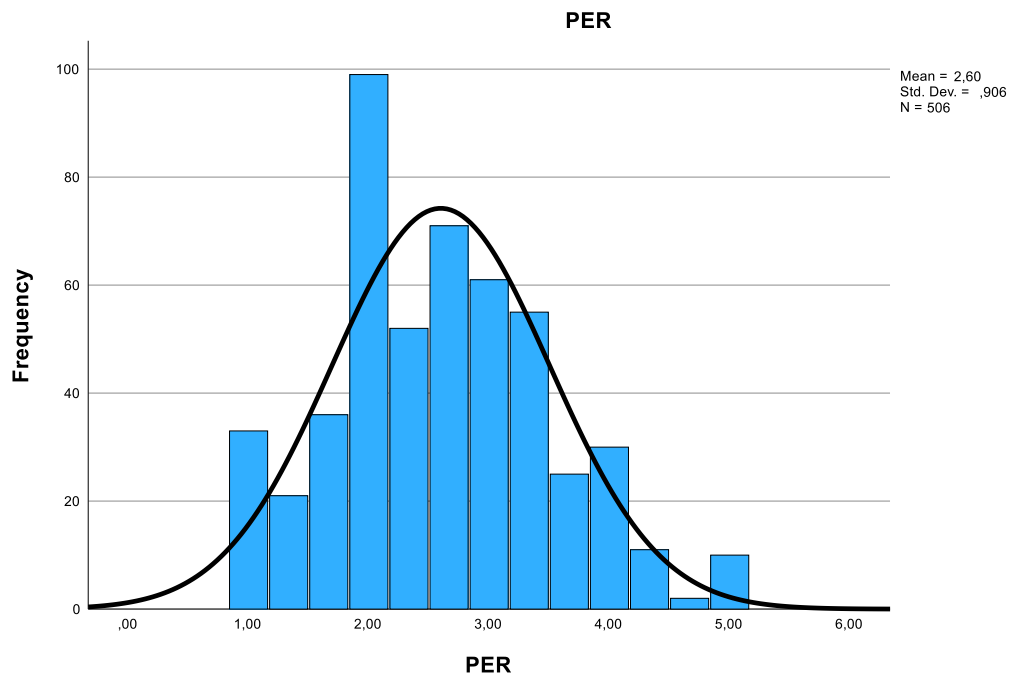


Figure 23: Histogram and Normal Distribution Curve (H6)

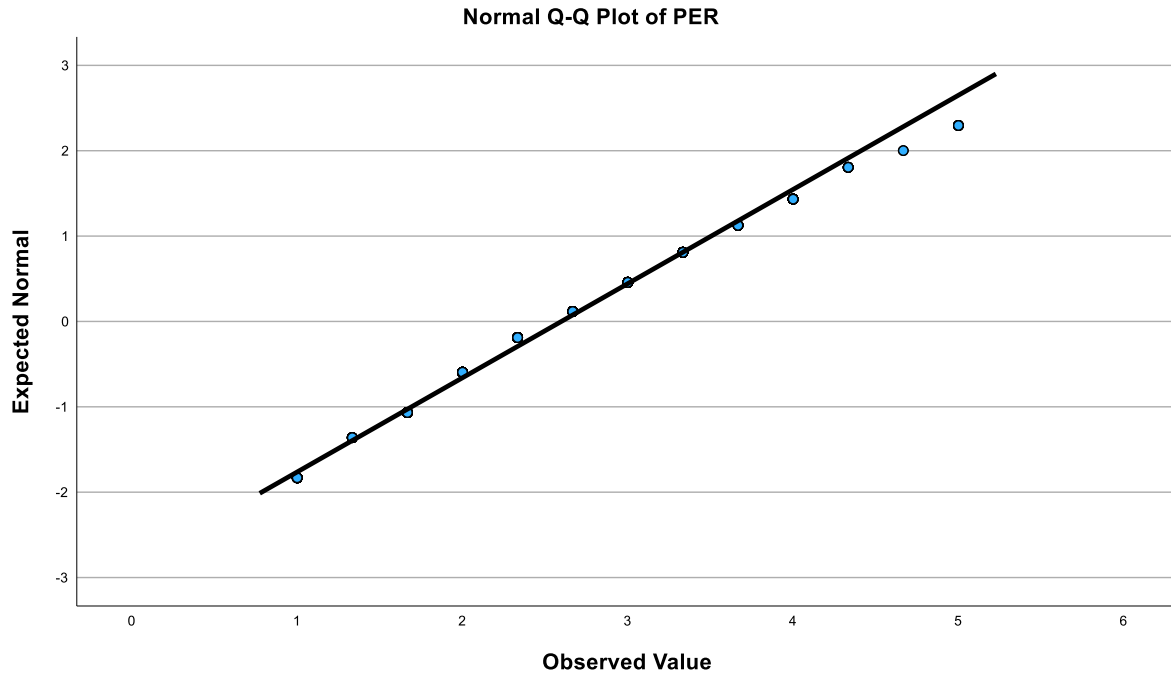


Figure 24: Q-Q-Plot Normal Distribution (H6)

Prior to conducting the multiple regression analysis, a prerequisite step involved the conversion of the variables of each item into latent variables. This process entailed the computation of mean values for each construct, which typically comprised three to four items. This aggregation facilitated the creation of new variables, each corresponding to a specific construct, thereby serving as the foundation for the subsequent multiple regression analysis. The multiple regression analysis was used to test the influence of the independent variables, which are Consumer Innovativeness, Convenience, Value for money, Discovery of new products and variety, Tradition barrier, and Perceived risk, on the dependent variable, which in this study was the intention to adopt to such subscription-based services.

7.5.1 Multiple Regression Analysis

The following Tables illustrate the multiple regression analysis. To start off with the analysis, the quality of the model was tested through the correlation of the coefficient of determination R^2 . The most popular goodness-of-fit statistic in regression analysis is the coefficient of determination (R^2), although it is insufficient when used alone. Although a high value of R^2 is often preferred, a greater coefficient of determination does not always indicate a superior model (Backhaus et al., 2021, p. 92). The value of R^2 is between 0 and 1, where those exact values are extremes that do not represent any variance. Normally, good values are those that are between 0 and 1 (Kreis et al., 2021). Table 20 shows the values for R^2 , which for this study is 0,477 and a significance of $<,001$, which is clearly below the threshold value of 0,05. This means the model is highly significant. The value for R^2 indicates that 47,7% of the variance in consumers' intention to use such subscription-based services can be explained by the drawn model. The value for Durbin-Watson of 2,046 indicates that there is no autocorrelation as the value is around 2. This indicates that there is no consistent relationship between the independent and dependent variables and that the residuals meet the requirements of classical linear regression.

| Model | R | R^2 | Adjusted R^2 | Durbin-Watson |
|-------|-------|-------|----------------|---------------|
| 1 | 0,690 | 0,477 | 0,470 | 2,046 |

Table 19: Model summary

The following table (Table 21) shows which constructs have an influence on the intention to adopt subscription-based services for cosmetic products. For all constructs, a hypothesis was stated, and the following calculations show which of them have a significant influence.

The results of the multiple regression model show that H1, which was the positive influence of consumer innovativeness on the intention to adopt such services for cosmetic products, is significant (beta = 0,107; $t = 3,234$; $p = 0,001$).

The validation of H2 signifies that the construct of convenience plays a pivotal role in shaping consumers' intentions toward embracing subscription-based online services for cosmetics. This finding suggests that individuals perceive convenience as a significant determinant influencing their propensity to adopt such services (beta = 0,320; t = 8,674; p = <0,001). Table 21 highlights that Convenience exhibits the highest beta coefficient, signifying its predominant influence on the intention to adopt.

H3 is also supported, which means that value for money has a positive impact on the intention to adopt subscription-based online services for cosmetics (beta = 0,302; t = 8,065; p = <0,001).

The multiple regression model shows that H4, which was the Discovery of new products and variety, is not supported, which means that it cannot be confirmed that this has a positive influence on customers' intention to adopt such services (beta = 0,031; t = 0,870; p = 0,385).

The tradition barrier, which is H5, shows after the analysis that it has a negative influence on the intention to adopt such services (beta = -0,193; t = -5,644; p = <0,001).

The last hypothesis, H6, can also be confirmed, which means that perceived risk has an impact on consumer's intention to adopt subscription-based online services for cosmetic products (beta = -,119; t = -3,456; p = <0,001).

| Model | Standardized Coefficients Beta (β) | t | Significance (p) | 95,0% Confidence Interval for Beta | |
|--|--|--------|------------------|------------------------------------|-------------|
| | | | | Lower Bound | Upper Bound |
| Constant | | 5,782 | <,001 | 1,167 | 2,368 |
| Consumer Innovativeness | 0,107 | 3,234 | ,001 | 0,075 | 0,307 |
| Convenience | 0,320 | 8,674 | <,001 | 0,256 | 0,405 |
| Value for money | 0,302 | 8,065 | <,001 | 0,290 | 0,467 |
| Discovery of new products and variety | 0,031 | 0,870 | 0,385 | -0,048 | 0,123 |
| Tradition barrier | -0,193 | -5,644 | <,001 | -0,315 | -0,152 |
| Perceived risk | -0,119 | -3,456 | <,001 | -0,209 | -0,057 |

Table 20: Multiple Regression Analysis – Coefficients

The following Table provides an overview of the confirmed hypotheses and those that are not supported. The list shows again which six hypotheses were stated in the beginning.

| Hypotheses | Intention to adopt |
|---|---------------------------|
| H1: Consumer Innovativeness has a positive influence on the intention to adopt subscription services. | Confirmed |
| H2: Convenience has a positive influence on the intention to adopt subscription services. | Confirmed |
| H3: Value for money has a positive influence on the intention to adopt subscription services. | Confirmed |
| H4: Discovery of new products and variety have a positive influence on the intention to adopt subscription services. | Rejected |
| H5: The tradition barrier has a negative influence on the intention to adopt subscription services. | Confirmed |
| H6: Perceived risk has a negative influence on the intention to adopt subscription services. | Confirmed |

Table 21: Hypotheses testing

8. Discussion and Recommendations

This chapter presents and analyzes the outcomes derived from the study in conjunction with the theoretical framework underpinning it. Furthermore, it endeavors to address and expound upon the research question stated at the beginning, thereby fostering a deeper understanding of the research findings. In addition to providing answers to the initial research question, the limitations of this research will be outlined, and an outlook for further research will be discussed.

8.1 Key Findings

The intention of this study was to research the drivers and barriers people have when they intend to adopt subscription-based services in the cosmetics industry. For this case, six hypotheses were stated in the previous chapters, which were about the positive and negative impacts of the drivers and barriers that could be found in the literature. The goal was to find out what drives or hinders people's intention to adopt such services. Therefore, the following research question was formed:

Which Drivers and Barriers influence Consumer Adoption of subscription-based services?

For the data collection, an online questionnaire was designed in order to get consumers' opinions on which drivers and barriers they consider when thinking of an online subscription service. In the beginning, respondents got a case that they had to keep in mind in order to answer the questions. The example was about a cosmetic product that they could buy through an SOS. The study was designed to find out which drivers and barriers influence the intention to adopt online subscription services. The influencing factors included Consumer Innovativeness, Convenience, Value for Money, Discovery of new products and variety, Tradition Barrier, and Perceived risk. Each of those items included three to four questions, which respondents had to answer through a 5-point Likert scale, which started with strongly agree and ended with strongly disagree.

The results revealed that Consumer Innovativeness has a positive influence on consumers' intention to adopt subscription-based online services in the cosmetics industry. Innovative-driven consumers are in need of unique products and tend to use products from an early stage. Therefore, there is a correlation between consumer innovativeness and customers' use of subscription-based online services. People using subscriptions or memberships desire something new or wish for novelty (Chen et al., 2018, p. 5; Ramkumar & Woo, 2018, p. 18). After this study and with the findings of past research, it can be said that Consumer Innovativeness is a significant driver of people's intention to adopt subscription services.

Convenience is perceived as a positive influence for people using subscription services, according to studies done before in the fashion and cosmetics industry. Especially when people use subscriptions, convenience is a driver in continuing the subscription and not canceling it as they got used to the service (Chen et al., 2018, p. 6; Ramkumar & Woo, 2018, p. 8). Convenience is also seen as a positive factor as some perceive buying products in bulk as delightful, which can be done through narrow subscription delivery intervals (Bray et al., 2021, p. 4). The results of this study confirm that convenience is seen as a strong driver for customers to adopt subscription services. Throughout this research, convenience has the strongest influence on people among all the constructs tested.

Value for money is a driver for customers as they can save money through the online purchase of subscriptions. Often, subscription services have discounts or special price offers that draw people to them (Bray et al., 2021, p. 3; Young Kim & Kim, 2004, p. 889). The factor value for money is also seen as one of the most significant when it comes to customers sticking to a company as it is important to them (Chen et al., 2018, p. 6). This is also a reason why people prefer online shopping compared to brick-and-mortar retail, as there are more reduced prices or special offers (Koyuncu & Bhattacharya, 2004, p. 241). The study confirmed that value for money has a positive influence on people's intention to adopt subscription-based services. Subscription services give consumers the chance to make use of special deals or save money through a subscription.

According to past research, subscription services give people the chance to explore a new product and also offer a great variety of options. It is seen as a driver for people as it can exceed their shopping experience when they are able to try out new things (Bray et al., 2021, p. 5; Tao & Xu, 2018, p. 502). Furthermore, the research conducted by Tao & Xu (2018) delved into the domain of fashion subscriptions, revealing that the prospect of exploring novel offerings resonates strongly with customers, emerging as a salient motivator for subscription engagement. The allure of trying out new products emerged as a compelling factor driving consumer interest and participation in fashion subscription services (Bray et al., 2021, p. 5; Tao & Xu, 2018, p. 502). Through this research, the hypothesis that the discovery of new products and variety could not be confirmed as the results were not significant. This could be the case as past studies have not only been conducted in the field of cosmetics.

The factor of the tradition barrier could be confirmed as a negative influence on people's intention to adopt such services through this study. People have concerns when using subscriptions as some only know traditional brick-and-mortar retail; therefore, shopping over the Internet is an unknown territory. Customers perceive shopping through subscriptions as a decreased social experience as it is different from going to a physical store. Consumers also believe that signing up for subscriptions leads to a less satisfied shopping experience and hinders them from spontaneous shopping. This includes people who have general problems with online shopping and are also less willing to use subscription services (Gupta & Arora, 2017, pp. 1–7; Tao & Xu, 2017, p. 2).

Some people worry that if they use subscriptions, the ordered products will not meet their expectations. This perceived risk can have a negative influence on people's adoption of subscription services. It can become a barrier because customers believe that an online subscription service might not deliver the same quality as a physical store and the products could not (Sivathanu, 2018, p. 25). This perceived risk creates anxiety in some people's minds and hinders them therefore to using such services as their fear is too big to be unsatisfied with the delivery (Bischof & Rudolph, 2020, p. 9).

The study confirms that perceived risk has a negative influence on the intention to adopt subscription services. People see this as a barrier as it could lead to a financial loss because of the beforehand payment or an unsatisfying quality after the delivery.

8.1.1 Answering the research question and practical implications

The results of the study reveal that several factors can influence consumers' intention to adopt subscription-based services for cosmetic products. Certain factors are perceived more positively by consumers, exemplified by constructs such as Consumer Innovativeness, Convenience, and Value for Money. These dimensions are regarded favorably within the realm of consumer behavior and market dynamics, embodying attributes that resonate with individuals' preferences and expectations. The factors of Tradition barrier and Perceived Risk are considered to have a negative impact on customers' intention to adopt such services. These dimensions are characterized by inherent barriers and apprehensions that impede consumers' willingness to engage with novel consumption models and unfamiliar offerings.

The research shows that consumers have psychological concerns when thinking about subscription services. Therefore, it is important for people to be open to new services and overcome the perceived risks they consider as they do not know this way of shopping. If they adopt such services, consumers can also experience the positive factors that were mentioned before and enjoy, for example, the convenience of such services. For companies, it is important to create personalized experiences for customers. Subscription firms need to be transparent in their offers and show consumers the value they can get in return. It can be obtained that some customers are ready for a change or want a change from their normal art of shopping, and others need to be convinced and overcome their barriers.

The study revealed and also supports existing studies in the assumption that convenience is one of the main drivers for people to adopt subscription services. Especially when people do not have much time for doing their shopping in physical stores or the opening hours do not align with their schedule, this can be a fitting solution. If companies let customers experience the benefits this brings the

convenience factor may lead to long-term customers who enjoy a convenient subscription service for their cosmetic products.

According to this study, value for money is a driver for people to adopt such services. Customers enjoy using discounts or reduced prices when subscribing to their needed products. This can be used by firms to have an advantage over brick-and-mortar retail.

The fact that the discovery of new products and variety has brought no significant results is also a contribution to current studies, as those mention it as a driver. For this study and the case of cosmetic product subscriptions, respondents do not perceive it as a driver.

Perceived risk is clearly seen as a barrier for people to adopt such services as it has a negative influence on them. In this case, companies have to show potential customers that their products are of good quality and build up trust. With the right actions, firms can decrease fears people have and help them overcome those. Also, stating safe payment options is important to customers as this decreases the fear of financial loss caused by the possibility of an advance payment.

The study reveals that there is no clear difference according to the gender of the respondents, as the largest groups, which were males and females, had a similar intention to adopt such services. The research also showed that not only younger people considering adopting subscription services but also people from the age 60 to 69 are not completely reluctant to make use of a subscription for cosmetic products.

In sum, the findings gleaned from this research endeavor hold potential utility for companies seeking to refine and optimize their subscription service offerings in order to effectively attract and retain customers. By gaining insights into the various factors influencing consumers' intentions to adopt subscription services, companies can leverage this knowledge to inform strategic decision-making and enhance the appeal of their subscription-based propositions.

8.2 Limitations and Further Research

This master thesis researched the topic of which drivers and barriers either have a positive or a negative influence on the intention to adopt subscription services for cosmetic products. The study brought valuable contributions to the existing research but also has limitations which are stated in the following.

The study had over 500 participants, where 352 respondents were aged between 20 and 29 years, which is not a diverse distribution. Also, overall, 379 female people contributed their answers, which clearly means more women participated. Therefore, for future studies, a broader distribution in age and gender would be favorable to get better insights into various genders and also age groups. A wide variety of people can deliver various views on the topic of subscription services.

One of the stipulations for this sample was that participants must be residents of Austria. While this criterion ensured a focused and geographically specific sample, it simultaneously constrained the diversity of the participant pool. By restricting the sample to a single country, the study may not capture the full spectrum of perspectives and experiences that could arise from a more culturally diverse cohort comprising individuals from various countries or regions.

Another limitation of this study pertains to the distribution of the data, which exhibited a rough approximation of normality. A more precise adherence to the normal distribution would have yielded more accurate and statistically significant results. Additionally, the Cronbach's Alpha value for the first construct was relatively low, indicating potential deficiencies in the internal consistency of the measurement instrument. This could be remedied by expanding the pool of question items and subjecting them to rigorous testing to enhance the reliability and robustness of the measurement tool. Addressing these limitations would bolster the validity and reliability of the study's findings, thereby enhancing the credibility and rigor of the research outcomes.

Consequently, exploring alternative categories beyond cosmetics presents an opportunity to delineate industry-specific nuances and discern patterns of consumer

behavior that may diverge from those observed within the cosmetic sector. By undertaking comparative research across various industries, researchers can elucidate the idiosyncrasies of subscription service adoption within different contexts, shedding light on the interplay between sector-specific dynamics and consumer preferences.

For this study, a quantitative approach with an online questionnaire was used, which is great for reaching many people and getting their insights on the topic stated. Using a quantitative approach also has its drawbacks, as people cannot justify their answers or perspectives. Another point is that, therefore, their intentions cannot be precisely analyzed, which is important to understand the drivers and barriers that influence their intention to adopt subscription services. Researching through a qualitative approach through in-depth interviews or focus groups could enhance this topic to further explore if there are more drivers or barriers than the ones stated in this study. It also gives the researcher the opportunity to explore the intentions and motives of the respondents in comparison to a quantitative method with a questionnaire.

As the intention to adopt is rather low for this study, it would be interesting to do a study with customers of subscription services to understand their drivers for such services. This could also help companies explore which drivers are essential for people to use those services to implement them in their strategy for further growth. This is also an opportunity to compare the results with those of non-users of subscription services.

The last limitation is that not all drivers and barriers found in the literature could be tested. The reason was that some studies used a quantitative approach, which resulted in the absence of questionnaire items. Others were that other studies did research in a completely different sector, which would have led to a drastic change of question items. Therefore, several methods can contribute to the existing literature to further test drivers and barriers.

9. Summary

Subscription services have become an integral part of contemporary life, spanning a variety of sectors and offerings. From traditional newspaper subscriptions to popular streaming platforms like Netflix and Spotify, the landscape of subscription-based services has evolved significantly over the years. This evolution has witnessed the emergence of both digital subscriptions, which provide access to online content and services, as well as product-based subscriptions, which entail the regular delivery of physical goods to subscribers' doorsteps. The knowledge about drivers and barriers to the intention to adopt such services has not been researched to a great extent.

This master thesis researched the topic of how drivers and barriers influence people's intention to adopt subscription services in the cosmetic industry. For this purpose, quantitative research was carried out using an online questionnaire, which had over 500 respondents. The largest group of respondents were female people between 20 and 29 years old. The precondition for this study was that people had to be above 20 years old and had to have their residence in Austria. Therefore, people who did not fulfill these facts were removed from the study. The questionnaire was distributed through family, friends, and colleagues over various online platforms. The field time was around two and a half weeks because the sample size could be reached over that time frame.

The factors that were researched on the intention to adopt were Consumer Innovativeness, Convenience, Value for money, Discovery of new products and variety, Tradition Barrier, and Perceived Risk. Those constructs, with each three to five questions, were the base of the online questionnaire.

Consumer innovativeness describes people who tend to be early adopters, which means that those who want to try every new product or are open to new things. This also includes the adoption of new business forms such as subscriptions. Convenience means the benefit for people of getting their cosmetic products delivered to their homes. This results in not having to leave the house and no schedule conflicts when subscribing to products. Value for money focuses on the financial advantages of

subscription services in comparison to physical stores. Subscription services often offer special offers or discounts. The discovery of new products and variety is a driver for people who can get access to more products or new products on the market through subscriptions. Tradition barrier describes the factor that can have a negative influence on consumers as it means that through subscription services, people change their traditional way of shopping in brick-and-mortar. This results in less social interaction and the act of doing the shopping themselves offline. The last dimension, perceived risk, describes people's fear of dissatisfaction with subscription services. This includes the fear of getting products that do not lead to satisfaction or a financial loss because of paying beforehand.

The results of this study show that Consumer Innovativeness has a positive influence on people's intention to adopt subscription services. An explanation for this can be that innovative people like to try new things and are open to newness and also the adoption of new services. Convenience is among the top drivers for people to adopt subscription services of cosmetic products, as this construct can bring many benefits to someone's life. People who use subscriptions do not have to leave their houses or check their schedules when shopping for cosmetic products, as they will be delivered to their doorstep, which is convenient. Value for money showed a significant positive influence on consumers' intention to adopt subscription services for cosmetic products. This could be the case because subscription service companies often have special offers or discounts that drive people there. In comparison to brick-and-mortar, people can save money by using subscription services. The construct Discovery of new products and variety has shown no significance in this study. This means that the hypothesis that this dimension has a positive influence on people's intention to adopt such services had to be rejected. Tradition barrier was tested to have a negative influence on people's intention to adopt such services through this study. This means that people lose any kind of social interaction and the fact of going out to a store, which hinders them from using subscriptions. The last hypothesis was about the construct of Perceived risk, which was confirmed to negatively influence consumers in this research. This means that people fear either not being satisfied with the products delivered or facing money loss because of the payment before the delivery.

The findings derived from this study yield valuable insights for companies operating within the cosmetics industry and offering subscription services. By gaining a deeper understanding of the underlying motives and barriers that shape consumers' decisions regarding subscription adoption, companies can strategically tailor their offerings to align with the preferences and needs of their target demographic. This heightened level of adaptation not only enhances the relevance and attractiveness of subscription services but augments their overall success and efficacy in capturing market share.

Bibliography

- Accenture GmbH, Heinemann, G., Gehrckens, H. M., & Täuber, T. (Eds.). (2019). *Handel mit Mehrwert: Digitaler Wandel in Märkten, Geschäftsmodellen und Geschäftssystemen*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-21692-4>
- Amazon. (2023). *Subscribe & Save*. Amazon. https://www.amazon.de/gp/help/customer/display.html/ref=hp_sns_asns?nodeId=201889910
- Backhaus, K., Erichson, B., Gensler, S., Weiber, R., & Weiber, T. (2021). *Multivariate Analysemethoden: Eine anwendungsorientierte Einführung*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-32425-4>
- Baur, N., & Blasius, J. (Eds.). (2014). *Handbuch Methoden der empirischen Sozialforschung*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-531-18939-0>
- Berger-Grabner, D. (2022). Angewandte quantitative Sozialforschung. In D. Berger-Grabner, *Wissenschaftliches Arbeiten in den Wirtschafts- und Sozialwissenschaften* (pp. 169–200). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-39586-5_6
- Bischof, S. F., Boettger, T. M., & Rudolph, T. (2020). “Curated subscription commerce: A theoretical conceptualization.” *Journal of Retailing and Consumer Services*, 54, 1–15. <https://doi.org/10.1016/j.jretconser.2019.04.019>

- Bischof, S. F., & Rudolph, T. (2020). *Subskriptionsmodelle im Handel: Wie Subskriptionen den Konsum automatisieren*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-29678-0>
- Bischof, S. F., & Rudolph, T. (2021). *Consumer goods subscriptions: How to win in retail in the 21st century*. Walter de Gruyter.
- Bray, J., De Silva Kanakaratne, M., Dragouni, M., & Douglas, J. (2021). Thinking inside the box: An empirical exploration of subscription retailing. *Journal of Retailing and Consumer Services*, 58, 102333. <https://doi.org/10.1016/j.jretconser.2020.102333>
- Chen, T., Fenyo, K., Yang, S., & Zhang, J. (2018, February). *Thinking inside the subscription box: New research on e-commerce consumers*. <https://www.mckinsey.com/~media/McKinsey/Industries/Technology%20Media%20and%20Telecommunications/High%20Tech/Our%20Insights/Thinking%20inside%20the%20subscription%20box%20New%20research%20on%20ecommerce%20consumers/Thinking-inside-the-subscription-box-New-research-on-ecommerce-consumers.pdf>
- Deges, F. (2020). *Grundlagen des E-Commerce: Strategien, Modelle, Instrumente*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-26320-1>
- Descloux, R., & Rumo, E. (2020). Online-Abonnement-Vermarktung: Erfolgreicher Marketingmix für die Abonnement- Vermarktung von Konsumgütern. In J. Schellinger, K. O. Tokarski, & I. Kissling-Näf (Eds.), *Digitale Transformation und Unternehmensführung* (pp. 383–405). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-26960-9_14

- Diamantopoulos, A., Schlegelmilch, B., & Halkias, G. (2023). *Taking the Fear Out of Data Analysis: Completely Revised, Significantly Extended and Still Fun*. Edward Elgar Publishing. <https://doi.org/10.4337/9781803929842>
- Döring, N. (2023). *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften*. Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-662-64762-2>
- Dorner, B. (1999). *Versandhandelsmarketing*. Deutscher Universitätsverlag. <https://doi.org/10.1007/978-3-663-01459-1>
- Estrid. (2022). Estrid. <https://estrid.com/en-at/>
- Everdrop. (2023). Everdrop. <https://www.everdrop.de/about-us/jobs#rt-jobs-1>
- Field, A. P. (2009). *Discovering statistics using SPSS: And sex, drugs and rock “n” roll* (3rd ed). SAGE Publications.
- Föhl, U., & Friedrich, C. (2022). *Quick Guide Onlinefragebogen: Wie Sie Ihre Zielgruppe professionell im Web befragen*. Springer Gabler.
- Gupta, A., & Arora, N. (2017). Understanding determinants and barriers of mobile shopping adoption using behavioral reasoning theory. *Journal of Retailing and Consumer Services*, 36, 1–7. <https://doi.org/10.1016/j.jretconser.2016.12.012>
- Haas, S., & Schmolke, T. (2016). Die Abo-Commerce Landschaft in Deutschland: Eine angebotsbezogene Untersuchung. *Wissenschaftliche Beiträge / Technische Hochschule Wildau*. https://doi.org/10.15771/0949-8214_2016_1_13
- Hair, J. F. (2016). *Essentials of business research methods* (3. ed). Routledge.
- Heinemann, G. (2016). *Der neue Online-Handel: Geschäftsmodell und Kanalexzellenz im Digital Commerce* (7., vollständig überarbeitete Auflage). Springer Gabler. <https://doi.org/10.1007/978-3-658-11934-8>

- Heinemann, G., Haug, K., Gehrckens, M., & dgrou (Eds.). (2013). *Digitalisierung des Handels mit ePace: Innovative E-Commerce-Geschäftsmodelle und digitale Zeitvorteile*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-01300-4>
- Hsiao, K.-L., & Chen, C.-C. (2017). Value-based adoption of e-book subscription services: The roles of environmental concerns and reading habits. *Telematics and Informatics*, 34(5), 434–448. <https://doi.org/10.1016/j.tele.2016.09.004>
- Janssen, J., & Laatz, W. (2017). *Statistische Datenanalyse mit SPSS: Eine anwendungsorientierte Einführung in das Basissystem und das Modul Exakte Tests* (9., überarbeitete und erweiterte Auflage). Springer Gabler. <https://doi.org/10.1007/978-3-662-53477-9>
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark Iv. *Educational and Psychological Measurement*, 34(1), 111–117. <https://doi.org/10.1177/001316447403400115>
- Kerschbaumer, R. H., Foscht, T., & Eisingerich, A. B. (2022). Smart Services and the Rise of Access-based Subscription Models. In M. Bruhn & K. Hadwich (Eds.), *Smart Services* (pp. 179–205). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-37346-7_6
- Kopp, J., & Lois, D. (2014). *Sozialwissenschaftliche Datenanalyse: Eine Einführung*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-02300-3>
- Kort, K. (2017, May 3). Make-Up-Boom dank Selfie-Wahn. *Handelsblatt*. <https://www.handelsblatt.com/unternehmen/handel-konsumgueter/kosmetikindustrie-make-up-boom-dank-selfie-wahn/19748768.html?ticket=ST-163162-dpdNscD5KebaidYPBnwZ-ap3>

Kosmetika. (2023, March 25). Bundesministerium Soziales, Gesundheit, Pflege Und Konsumentenschutz.

<https://www.sozialministerium.at/Themen/Konsumentenschutz/Verbrauchergesundheit/Kosmetika.html>

Kotler, P., Armstrong, G., Harris, L. C., & Piercy, N. (2016). *Grundlagen des Marketing* (6., aktualisierte Auflage). Pearson Deutschland GmbH.

Koyuncu, C., & Bhattacharya, G. (2004). The impacts of quickness, price, payment risk, and delivery issues on on-line shopping. *The Journal of Socio-Economics*, 33(2), 241–251. <https://doi.org/10.1016/j.socec.2003.12.011>

KPMG. (2021). *Consumer Barometer 2/2021 – Streaming und Verbrauchsgüter: Wie Abonnements einen Boom erleben* (02/21; pp. 1–25). KPMG AG. <https://kpmg.com/de/de/home/themen/2021/06/consumer-barometer-2-2021.html>

Kreis, H., Wildner, R., & Kuß, A. (2021). *Marktforschung: Datenerhebung und Datenanalyse*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-32459-9>

Liu, W.-Y., Lin, C.-C., Lee, Y. S., & Deng, D.-J. (2013). On gender differences in consumer behavior for online financial transaction of cosmetics. *Mathematical and Computer Modelling*, 58(1–2), 238–253. <https://doi.org/10.1016/j.mcm.2012.08.010>

Longanecker, C. (2015, March 19). *Why You Should Use a Subscription Business Model*. Entrepreneur. <https://www.entrepreneur.com/growing-a-business/why-you-should-use-a-subscription-business-model/243573>

- Louarn, P. L. (1997). La tendance à innover des consommateurs: Analyse conceptuelle et proposition d'une échelle de mesure. *Recherche et Applications En Marketing (French Edition)*, 12(1), 3–19. <https://doi.org/10.1177/076737019701200101>
- Möhring, W., & Schlütz, D. (2019). *Die Befragung in der Medien- und Kommunikationswissenschaft: Eine praxisorientierte Einführung*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-25865-8>
- NielsenIQ. (2022). *E-Commerce-Umsatz in der Kosmetikbranche nach Produktart in Deutschland in den Jahren 2020 bis 2022* (Lebensmittel Zeitung) [Statista]. <https://de-statista-com.uaccess.univie.ac.at/statistik/daten/studie/1330663/umfrage/e-commerce-umsatz-in-der-kosmetikbranche-nach-produktart-in-deutschland/>
- Pauwels, K., & Weiss, A. (2008). Moving from Free to Fee: How Online Firms Market to Change Their Business Model Successfully. *Journal of Marketing*, 72(3), 14–31. <https://doi.org/10.1509/JMKG.72.3.014>
- Ramkumar, B., & Woo, H. (2018). Modeling consumers' intention to use fashion and beauty subscription-based online services (SOS). *Fashion and Textiles*, 5(1), 22. <https://doi.org/10.1186/s40691-018-0137-1>
- Randall, C., Lewis, A., & Davis, A. (2016, January 6). How subscriptions are creating winners and losers in retail. *Harvard Business Review*, 1–6. <https://hbr.org/2016/01/how-subscriptions-are-creating-winners-and-losers-in-retail>
- Roehrich, G. (2004). Consumer innovativeness. *Journal of Business Research*, 57(6), 671–677. [https://doi.org/10.1016/S0148-2963\(02\)00311-9](https://doi.org/10.1016/S0148-2963(02)00311-9)

- Rudolph, T., Bischof, S. F., Böttger, T. M., & Weiler, N. (2017). Disruption at the Door: A Taxonomy on Subscription Models in Retailing. *Marketing Review St. Gallen*, 5, 18–25.
- Rudolph, T., Böttger, T., & Pfrang, T. (2012). Kundeninspiration als Chance für den Handel. *Marketing Review St. Gallen*, 29(5), 8–15.
<https://doi.org/10.1365/s11621-012-0158-x>
- Sirajuddin, R. S. B., Senathirajah, A. R. B. S., Haque, R., & Isa, A. M. M. (2023). Marketing Mix Influence on Consumer Buying Behavior: A Case Study on the Cosmetics Industry. *International Journal of Professional Business Review*, 8(5), e01499. <https://doi.org/10.26668/businessreview/2023.v8i5.1499>
- Sivathanu, B. (2018). Adoption of Online Subscription Beauty Boxes: A Behavioural Reasoning Theory (BRT) Perspective. *Journal of Electronic Commerce in Organizations*, 16(4), 19–40. <https://doi.org/10.4018/JECO.2018100102>
- Statista. (2023). *Umsatz im Markt für E-Commerce weltweit in den Jahren 2019 bis 2028* (Statista) [dataset]. <https://de-statista-com.uaccess.univie.ac.at/prognosen/484763/prognose-der-umsaetze-im-e-commerce-markt-in-der-welt>
- Statistik Austria. (2023). *Bevölkerung nach Alter/Geschlecht*. Statistik Austria. <https://www.statistik.at/statistiken/bevoelkerung-und-soziales/bevoelkerung/bevoelkerungsstand/bevoelkerung-nach-alter/geschlecht>
- Steenkamp, J.-B. E. M., Ter Hofstede, F., & Wedel, M. (1999). A Cross-National Investigation into the Individual and National Cultural Antecedents of Consumer

- Innovativeness. *Journal of Marketing*, 63(2), 55–69.
<https://doi.org/10.1177/002224299906300204>
- Suhr Hansen, M. (2014). *How to build a subscription business: 29 steps to subscription mastery* (1. edition). Bookboon.com.
- SurveyMonkey. (2023). *Sample Size Calculator*. SurveyMonkey.
<https://www.surveymonkey.com/mp/sample-size-calculator/>
- Swarovski Crystal Society. (2023). Swarovski. <https://www.swarovski.com/de-DE/scslandingpage/>
- Tao, Q., & Xu, Y. (2017). *Fashion Subscription Retailing: An Exploratory Study of Consumers' Perception*. 2. <https://dr.lib.iastate.edu/handle/20.500.12876/51824>
- Tao, Q., & Xu, Y. (2018). Fashion subscription retailing: An exploratory study of consumer perceptions. *Journal of Fashion Marketing and Management: An International Journal*, 22(4), 494–508. <https://doi.org/10.1108/JFMM-11-2017-0123>
- Tomczak, T., Reinecke, S., & Gollnhofer, J. (2023). *Marketingplanung: Einführung in die marktorientierte Unternehmens- und Geschäftsfeldplanung*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-34221-0>
- UBS. (2021a, March 10). *Market distribution of the digital subscription economy worldwide in 2020, by sector*. Statista.Com. <https://www-statista-com.uaccess.univie.ac.at/statistics/1295125/digital-subscription-economy-global-market-share-by-sector/>
- UBS. (2021b, March 10). *Market size of the digital subscription economy worldwide in 2020, with a forecast for 2025, by segment (in billion U.S. dollars)*. Statista.Com.

<https://www-statista-com.uaccess.univie.ac.at/statistics/1295064/market-size-digital-subscription-economy-worldwide-by-segment/>

UBS. (2023, June 28). *Revenue of the cosmetics market worldwide from 2015 to 2028 (in million U.S. dollars)*. Statista.Com. <https://www-statista-com.uaccess.univie.ac.at/forecasts/1272313/worldwide-revenue-cosmetics-market-by-segment>

Unipark. (2024). <https://www.unipark.com>

Warrillow, J. (2015). *The automatic customer: Creating a subscription business in any industry*. Portfolio.

Wild. (2023). <https://www.wearewild.com/de>

Woo, H., & Ramkumar, B. (2018). Who seeks a surprise box? Predictors of consumers' use of fashion and beauty subscription-based online services (SOS). *Journal of Retailing and Consumer Services*, 41, 121–130. <https://doi.org/10.1016/j.jretconser.2017.11.011>

Young Kim, E., & Kim, Y. (2004). Predicting online purchase intentions for clothing products. *European Journal of Marketing*, 38(7), 883–897. <https://doi.org/10.1108/03090560410539302>

Appendix

1. Online Questionnaire

Liebe Teilnehmer:innen!

Im Rahmen meiner Masterarbeit an der FH Campus 02 in Graz führe ich eine Studie zum Thema Online Shopping durch. Die Beantwortung des Fragebogens dauert zwischen 5 und 10 Minuten. Für den Erfolg der Studie ist es wichtig, dass Sie den Fragebogen vollständig und wahrheitsgemäß ausfüllen.

Die Daten werden streng vertraulich behandelt und nur für den Zweck dieser Umfrage verwendet.

Vielen herzlichen Dank für Ihre Teilnahme und Unterstützung,

Rebecca Reininger

Hinweise zum Datenschutz:

Auf den folgenden Seiten werden Sie um Ihre Antworten zum Thema Online Shopping gebeten. Dafür möchte ich grundsätzlich keine personenbezogenen Daten erheben, es werden jedoch Fragen zu Ihren Eindrücken und Einschätzungen gestellt. Eine Registrierung bzw. die Angabe Ihres Namens ist für die Teilnahme nicht erforderlich, weshalb in der Regel keine Rückschlüsse auf Einzelne oder die Identifizierung Ihrer Person oder anderer Teilnehmer:innen der Befragung möglich sind. Darüber hinaus werden die Ergebnisse dieser Umfrage (z. B. Endberichte etc.) ausschließlich in aggregierter und anonymisierter bzw. pseudonymisierter Form verarbeitet.

Ihre Teilnahme ist freiwillig.

Weitere Informationen über die Verarbeitung der Daten finden Sie unter: www.campus02.at/ds-umfrage

8%

WEITER

Appendix Figure 1: Online Questionnaire

Befindet sich Ihr derzeitiger Wohnort in Österreich?

☐ Ja ☐ Nein

17%

WEITER

Ich gehöre zu den Menschen, die jedes neue Produkt ausprobieren möchten.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Bevor ich ein neues Produkt ausprobiere, versuche ich zu erfahren, was Freund:innen, die dieses Produkt besitzen, darüber denken.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Wenn ich von einem neuen Produkt höre, versuche ich, bei der ersten Gelegenheit mehr darüber zu erfahren.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich suche die Meinung derjenigen, die neue Produkte oder Marken ausprobiert haben, bevor ich sie ausprobiere.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich kaufe nie etwas, über das ich nichts weiß, auf die Gefahr hin, einen Fehler zu machen.

- ☐ Stimme voll und ganz zu
- ☐ Stimme voll zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu



Die nachfolgenden Fragen beziehen sich auf dieses Serviceangebot:

Stellen Sie sich vor, Sie haben die Möglichkeit, Kosmetikprodukte (z.B. Deodorants, Rasierer und Rasierklingen oder Duschgels) nicht im Geschäft zu kaufen, sondern Online in Form von einem Abo Modell. Das heißt, das Produkt wird entsprechend Ihrem gewünschten Lieferintervall direkt zu Ihnen nach Hause geliefert.



Ich könnte mit so einem Abo-Service einkaufen, ohne rauszugehen.

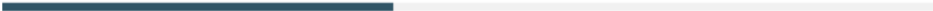
- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Das Einkaufen mit so einem Abo-Service würde nicht mit meinem Zeitplan in Konflikt geraten.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ein solches Abo-Service wäre für mich bequem.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

 42%

WEITER

Ich könnte Geld sparen, wenn ich über so einen Abo-Service einkaufe.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich könnte weniger ausgeben, wenn ich bei so einem Abo-Service einkaufe.

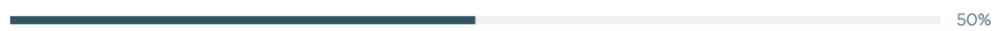
- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Solche Abo-Service Anbieter könnten mir günstige Preise bieten.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Wenn ich bei Abo-Service Anbietern einkaufe, bekomme ich Rabatte.

- ☐ Stimme voll und ganz zu
- ☒ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu



WEITER

Ich könnte über solche Abo-Services auf eine Vielzahl von Waren zugreifen.

- ☐ Stimme voll und ganz zu
- ☒ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich könnte über solche Abo-Services auf eine große Auswahl an Waren zugreifen.

- ☐ Stimme voll und ganz zu
- ☒ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich könnte mit den Trends Schritt halten, indem ich bei solchen Abo-Service Anbietern einkaufe.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu



WEITER

Ich kaufe gerne Kosmetikprodukte im Geschäft, weil ich es mag.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich kaufe Kosmetikprodukte meiner Wahl nur im Geschäft.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich bin zufrieden mit der Art und Weise, wie ich derzeit Kosmetikprodukte im Geschäft kaufe.

- ☐ Stimme voll und ganz zu
- ☒ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu



WEITER

Ich halte solche Abo-Services für riskant, weil die gelieferten Produkte möglicherweise nicht meinen Erwartungen entsprechen.

- ☐ Stimme voll und ganz zu
- ☒ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich halte solche Abo-Services für riskant, da minderwertige Produkte geliefert werden können.

- ☐ Stimme voll und ganz zu
- ☒ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich halte solche Abo-Services für riskant, da es aufgrund der Vorauszahlung des Abonnements zu finanziellen Verlusten führen kann.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu



WEITER

Ich kann mir vorstellen, in Zukunft über Abo-Services einzukaufen.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Es ist wahrscheinlich, dass ich in Zukunft solche Abo-Services nutzen werde.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

Ich gehe davon aus, in Zukunft über Abo-Services einzukaufen.

- ☐ Stimme voll und ganz zu
- ☐ Stimme zu
- ☐ Weder noch
- ☐ Stimme nicht zu
- ☐ Stimme überhaupt nicht zu

83%

WEITER

Welchem Geschlecht fühlen Sie sich zugehörig?

- ☐ Männlich
- ☐ Weiblich
- ☐ Divers

Wie alt sind Sie?

(Alter in Zahlen)

Was ist Ihr höchster Bildungsabschluss?

- ☐ Kein Schulabschluss
- ☐ Pflichtschule
- ☐ Lehrabschluss
- ☐ Berufsbildende mittlere Schule ohne Matura (z.B. Handelsschule)
- ☐ Allgemeinbildende oder berufsbildende höhere Schule mit Matura (z.B. Gymnasium, HAK, HTL, HLW)
- ☐ Universität/ Fachhochschule

92%

WEITER

Vielen Dank für Ihre Teilnahme an dieser Umfrage!

Bei Fragen können Sie mich gerne kontaktieren unter: s51394@edu.campus02.at

