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**CUPFLUENCE - MOTIVATIONS AND BARRIERS SHAPING THE
PERCEPTION OF MENSTRUAL CUPS AMONG 18 TO 50-YEAR-OLD
CONSUMERS**

**A MENSTRUÁCIÓS KELYHEK PERCEPCIÓJÁT ALAKÍTÓ
MOTIVÁLÓ ÉS AKADÁLYOZÓ TÉNYEZŐK VIZSGÁLATA A 18-50
ÉVES FOGYASZTÓK KÖRÉBEN**

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Declarations

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Abstract

Despite potential advantages and waste reduction effects, the adoption of menstrual cups remains low. This study explores the perceptions, motivations, and barriers influencing menstrual cup usage among Hungarian consumers, focusing on consumer behavior and product preferences. A mixed-methods approach is used, combining in-depth interviews with consumers and company representatives and an online questionnaire addressing four key factors related to knowledge gaps, societal taboo, product choices, and environmental concerns.

The findings provide valuable insights into the role of education and information dissemination, which is crucial in enhancing the perception of menstrual cups and driving product adoption. Further, there is a notable improvement in opinions when individuals are educated about menstrual cups. This study highlights strong connections between environmental consciousness and product choice, as well as monthly spending on menstrual products and the choice to use menstrual cups.

The research contributes to the understanding of the adoption process of menstrual cups, applying the Diffusion of Innovation framework. What sets this study apart is the intricacy of the primary research, the Central European context and the examination of the awareness stage of the innovation process, as understanding the influential factors in this stage can aid the progression of the innovation adoption. Such influential factors are the societal taboo, the sustainable nature of the product and the effect of the knowledge gap. The findings offer important insights for companies in the menstrual product market, emphasizing the significance of factors such as comfort, protection, and environmental considerations in product selection. Education also plays a pivotal role in alleviating concerns about alternative period products.

However, it is important to acknowledge the study's limitations, including convenience sampling, uneven age group distribution, reliance on self-reported answers, and potential bias. Therefore, the results should be interpreted with caution, recognizing that they may not fully represent the broader population. Nevertheless, these findings provide a solid foundation for further analysis and consideration.

Absztrakt

A menstruációs kelyhek népszerűsége annak előnyei és hulladékcsökkentő hatásai ellenére is alacsony. Jelen kutatás azt vizsgálja, hogy milyen percepciók, motivációk és akadályok befolyásolják a magyar fogyasztók megítélését a menstruációs kelyhekről, a fogyasztói magatartásra és termékpreferenciákra fókuszálva. A tanulmány egy vegyes módszertani megközelítést alkalmaz, amely fogyasztókkal és vállalati képviselőkkel készített mélyinterjúkat kombinál egy online kérdőívvel, négy meghatározó tényezőt vizsgálva: a tudáshiány hatását, a társadalmi tabukat, a termék fenntartható aspektusát és a termékválasztást.

Az eredmények betekintést nyújtanak a fogyasztók edukálása és az információterjesztés szerepébe, ami kulcsfontosságú a menstruációs kelyhek megítélésének javításában és a termék elfogadásának előmozdításában. Emellett, egy pozitív véleményváltozás megfigyelhető, ha a fogyasztók információt kapnak a menstruációs kelyhekről, a vizsgált személyek nyitottabbá és érdeklődőbbé váltak a termékkel kapcsolatban. A tanulmány rámutat egy szignifikáns kapcsolatra a környezettudatosság és a termékválasztás között, valamint a menstruációs termékekre havonta fordított összeg és a menstruációs kelyhek használata között.

A kutatás hozzájárul a menstruációs szokások és termékpreferenciák megértéséhez, az innovációk diffúziója (DOI) modell alkalmazásán keresztül. A tanulmány legfőbb hozzáadott értéke a primer kutatás összetettsége, a közép-európai kontextus, valamint a megismerés (awareness) szakaszban folytatott vizsgálat, amely megértése segítheti az innováció elterjedésének következő lépéseit. Ilyen feltárt befolyásoló tényezők például a társadalmi tabu, a termék fenntartható jellege és a tudáshiány hatása. Az eredmények fontos betekintést nyújtanak a menstruációs termékek piacán működő vállalatok számára, kiemelve olyan tényezők jelentőségét, mint a kényelem, védelem és környezeti szempontok a termékválasztásban. Az fogyasztók ismeretének növelése szintén kulcsszerepet játszik az alternatív menstruációs termékekkel kapcsolatos aggodalmak eloszlásában.

Ugyanakkor fontos megjegyezni a tanulmány korlátait, beleértve az önkényes mintavételt, az egyenletlen életkorcsoport-eloszlást a kvantitatív kutatásban, az önkéntes válaszokra való támaszkodást és a potenciális elfogultságot. Ezért az eredmények kellő fenntartással értelmezendők, figyelembe véve, hogy azok nem feltétlenül reprezentálják a populációt. Mindazonáltal a feltárt eredmények szilárd alapot nyújtanak további elemzéshez és tanulmányozáshoz.

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1. Introduction

According to Chavez-Macgregor et al. (2008), women have approximately 451 menstrual cycles in a lifetime, meaning that they have to find a solution for a reoccurring and non-voluntarily-chosen issue over and over again. Understandably, this creates a significant market opportunity for companies producing menstrual products, as women averagely spend up to £18,450 on their period in a lifetime, based on a survey conducted in the UK (Moss, 2015).

Currently there are several types of menstrual products, which can be divided into two main categories: disposables and reusables. The market for disposable menstrual products is more than three times bigger, the most accessible and therefore the most widely used solutions being disposable pads and tampons (Moss, 2015; Priya, 2022). The former are even more popular in countries where a cultural taboo is linked to the association of virginity and penetration of the tampon (Spinks, 2015). Following Peberdy et al.'s summary (2019), other popular products include organic tampons with/without applicator, organic disposable pads, reusable pads, menstrual cups and period underwear. In the USA and Western Europe, tampons are the preferred choice, women use 100 million tampons globally, with an average of 11.000 pieces in a lifetime (Cooper, 2018).

But this usage rate also means an immense amount of waste created (Ashley et al., 2005), which could be somewhat restrained by consumers switching to reusable period products. Menstrual cups are the most popular among sustainable period solutions (Surabhi & Onkar, 2020), but they are not nearly as much used as disposable ones (Priya, 2022).

The objective of this current work is to explore the motivations and barriers shaping the perception of menstrual cups among 18-50-year-old consumers. While menstrual cups seem to have a comparative advantage in terms of liquid upholding capacity (Huston, 2020; van Eijk et al., 2019), safety (van Eijk et al., 2019), cost effectiveness (Babagoli et al., 2022) and environmental protection (Flamand, 2018), only a fraction of women use it (Tighe, 2022). Although it must be noted that there isn't a precise global estimate on the exact number of menstrual cup users worldwide (WoMena, 2021).

This work attempts to examine the problem from the perspective of consumers and compare it to the insights of menstrual cup company representatives. The study explores how the perceptions of consumers are shaped by different factors and how these influential aspects are reflected in their product type preferences. The chosen target group is women between 18-

50 years old, therefore most of females are represented among the adult population who have a regular menstruation. Currently, there is only a limited research on first world countries, most studies about the uptake of alternative menstrual products were carried out in developing countries. Therefore, the added value of this present work stems from its comprehensive approach to primary research, encompassing in-depth interviews with both consumers and company representatives, alongside a quantitative investigation involving consumers through an online survey questionnaire, all conducted in an underresearched area, in Hungary.

Among the factors, the following are to be considered: access to information about alternative period products, the lack of knowledge shaping product choice, the effect of social norms (including the issue of taboo), personal and cultural habits, and the role of environmentalism in consumers' buying decisions. Researching among the target group results in the opportunity of getting meaningful data and conclusions about the menstrual habits and product preferences among 18-50-year-old women in Hungary, with special emphasis on the factors that become motivating or hindering determinants of menstrual cup purchase and usage.

For the purpose of this study, a mixed methods approach is employed. First in-depth interviews were conducted with five consumers to explore consumers' thoughts and perspectives on the subject, complementing the existing literature, which served as the foundation for the questionnaire. Alongside the discussions with consumers, representatives from menstrual cup companies were interviewed to gain their experiences and insights regarding the perceptions of menstrual cups. Subsequently, an online questionnaire was designed for data collection, using convenience sampling to gather responses from participants. The gathered data was expected to confirm the conjectures and provide valuable insights for future research.

The generalizability of the results may be limited, regarding that the basis of the conclusion are the self-reported answers of customers and no customer observation methods were used. Similarly, the nature of convenience sampling used both at the in-depth interviews and questionnaire limits the conclusions drawn from the research.

2. Literature review: Menstrual cups and factors shaping the perception of them

This chapter includes a comprehensive literature review focused on menstrual cups and the wide range of factors influencing how they are perceived. The chapter aims to provide an in-depth understanding of menstrual cups, offering an overview of the market, discussing the core problem they address, and summarizing conjectures derived from existing literature. This will provide the foundation for the upcoming examination of consumer perceptions and behaviors regarding the adoption of menstrual cups.

2.1. An overview of the market and of menstrual products, presenting the menstrual cup

The market of diverse menstrual products has grown significantly over the past decades and is still in constant growth. In 2020, the global feminine hygiene products market was valued at \$38.9 billion and is expected to reach \$68.7 billion by 2030 (Priya, 2022). Although now a wide range of solutions are available for women, interviews conducted by Freidenfelds (2009) concluded that in the times before commercially produced disposable tampons and pads were available, women used pieces of fabric they could find and often washed these in order to reuse.

In this present work, two types of menstrual product categories will be distinguished. The first category is the traditional period products, such as sanitary pads and tampons which are the most popular solutions currently on the market, but due to their disposable nature, they create an immense amount of waste. Every year 4.6 million tonnes of sanitary waste is being disposed (Ashley et al., 2005, p. 207). Each plastic-containing sanitary product requires 500-800 years in average to break down, but those that end up in a landfill (which is the case mostly), are very unlikely to degrade because of the very different conditions and lack of oxygen (Newbold, 2010). Dwivedi and Desai claim that women averagely dispose 150kgs of menstrual waste (2021, p. 37), while Howard et al. (2011) explored that the median number of menstrual products used per period in a year is 169 disposable items. Edwards (2004) reported the increasing number of sanitary products on beaches and in seas .

The second category of menstrual products is represented by the alternative solutions, such as menstrual cups, period underwear, reusable pads and menstrual discs. These products present a promising substitute for addressing the issue of waste generation, as their reusable

nature offers a significantly more sustainable option compared to traditional disposable products. However, these alternatives face certain challenges since they are not yet the dominant choice among consumers and require a different usage approach, necessitating a shift in attitudes and habits. Thus, the process of adoption involves multiple stages. It commences with raising consumer awareness about these products, followed by their consideration as viable options, and ultimately requires a significant change in consumer attitudes and behaviors (Frambach & Schillewaert, 2002). In essence, these alternative products represent a more complex and transformative process of adoption. Table 1 contains a summary of the two types of menstrual products.

Table 1: Categorization of menstrual products

CATEGORIZATION OF MENSTRUAL PRODUCTS	
TRADITIONAL (disposable)	ALTERNATIVE (sustainable)
Sanitary pads	Menstrual cups
Tampons	Period underwear
	Reusable pads
	Menstrual discs

Source: Constructed by the author

This work examines the current state of the adoption process of the alternative period products through the lens of the perception of menstrual cups, since these are the most popular and well-known sustainable alternative period products on the market. The menstrual cup is a sustainable period product that is made of a bell-shaped flexible reusable silicone that can hold up 10-38 ml of fluid (van Eijk et al., 2019). In comparison, a tampon can averagely hold up to 3-12 ml of fluid (Huston, 2020). Howard et al. states that menstrual cups are substitutes for disposable tampons, offering a long-term solution by providing cost savings and avoiding substantial health risks (2011). According to Hill (2019), Srinivasan et al. (2019) and Tiwary (2018), society is now ready to debunk some taboos around menstruation, specifically targeting the lack of knowledge around period product alternatives, menstrual poverty and the lack of menstrual education.

Menstrual cups are the most popular type of reusable period products, in 2018 the global menstrual cup market size was estimated at \$632 million and is predicted to reach \$963 million by 2026 (Surabhi & Onkar, 2020). According to Future Market Insights (2022), the global menstrual cup market accounts for around \$835.6 million, showing a clear growth in the last years. The share of menstrual cups in feminine care products market is estimated to 4-7%.

Although menstrual cups were developed in the 1930s, around the same time as tampons, they didn't become nearly as popular due to the intense marketing activity for the disposable products and the relatively neglectable for the menstrual cups (Shure, 2016). This was due to the potential profit that could be realised from the tampons that need to be repurchased regularly, while the lifespan of a menstrual cup can last up to 10 years (Budden, 2018; Davidson, 2012). This marketing activity, among other things, had such a strong impact that it has defined the market ever since.

2.2. Problem definition and factors shaping the perception of menstrual cups

Although menstrual cups have started to gain noticeable popularity in recent years, they are still not as known and used as disposable options. For instance, in 2022, the global tampon market was estimated to reach \$4.1 billion, compared to the \$835.6 million of menstrual cups mentioned before (Future Market Insights, 2022). The purpose of this current study is to explore the motivations and barriers of the purchase and usage of menstrual cups by finding out how women perceive these sustainable menstrual products and how their knowledge and attitude affect their product choices.

The first menstrual cup was patented in 1937, but they became more popular during the 1980s, in the era of toxic shock syndrome, when they were deemed safer than tampons (Rosas, 2021). The medical silicone menstrual cups were introduced in the early 2000s worldwide and they have started to become more popular when consumers explored their main advantages: cost-effectiveness, longer protection time, they contain less chemicals than the disposable options, and that cups are more environmentally friendly (Rosas, 2021; Shure, 2016).

2.2.1. Impact of advertisements and communication

Examining the perception of women regarding menstrual cups, Liu et al. states that *“menstrual product advertisements may intentionally or unintentionally shape girls’*

understandings of menstruation, body perceptions and gender norms” (2021, p. 1). This shows that consumers, especially young women, are influenced by what they see around them in both the physical and digital world. For the generation Z social media has become the main information source (Thapa & Roy, 2023) and the most influential factor in shaping their perception of social norms. The opinion of friends and relatives also plays a significant role in perception and product choice (Couto, 2020; Thapa & Roy, 2023), especially if the topic is considered to be intimate. A positive experience of a person in the inner circle can motivate product purchase and trial, while a negative encounter can replace the desire for personal experience and plays a vital role in shaping opinion of a product.

Steinkogler examined the adoption and rejection of menstrual products (Steinkogler, 2021) and found communication to have a vital role in shaping the perception of reusable menstrual products. She argues that the lack of communication can lead to concerns and misconceptions regarding product usage, while other sources define the lack of knowledge as a prominent barrier to product adoption (Grose & Grabe, 2014). While the two terms are related, they are reflecting of different aspects of information flow. Gaining knowledge is essential for a successful product adoption, but it can only be realised through an effective and targeted communication. For such, tools can include education and social media communication (Gaybor, 2019).

The role of advertisements and communication was also examined from the distributors’ perspective. There were at least three attempts for menstrual cups to break into the market since they were introduced in the 1930’s (Stein & Kim, 2009) and there is an undeniable learning curve involved for the correct product usage (Stewart et al., 2010). Therefore, finding the most effective tools for communication and advertising the products was an often investigated topic. Couto looked into the influence of word-of-mouth in advertising and product diffusion of menstrual cups and found that implementing WOM in the marketing strategy can be a highly advantageous practice (2020). Her findings were also supported by Mooncup’s success story, whose sales increased by 98% over 5 years. They assign their achievement partly to their WOM marketing (Stevens, 2019).

2.2.2. Education and the effect of familiarity

Targeted advertising and marketing campaigns can greatly influence certain beliefs about menstrual products and practices (Culling, 2001). Notably, menstrual product advertising in the USA is now aiming to make a positive influence on young women’s perceptions towards their

bodies and menstruation (Liu et al., 2021). Another factor shaping the perceptions is the rise of conversations about menstruation and the normalisation of periods, where menstruation activists had a significant role (Eveleth, 2016). This has offered menstrual product companies a chance of open communication, which seems to be an important element of dissolving the fears and concerns around menstrual cups (North & Oldham, 2011).

Education is another crucial factor in targeting the knowledge gap and misconceptions, although the composition of these materials is also certainly decisive. The existence of educational materials alone is not enough, in fact, these can even have an opposite effect on awareness raising. Booklets published by companies producing disposable period products in the 20th century were found to emphasize the negative aspects of menstruation rather than the positive ones (Erchull et al., 2002), resulting in further strengthening the existing stigma around menstruation.

Spinks (2015) suggests that the most important factor that influences the buying decision is the product to perform well, in this case: a menstrual cup should be safe and easy to use, it shouldn't leak and must be comfortable enough to wear during daily activities (van Eijk et al., 2019). But if a modern product is considered reliable and safe, the initial choice is affected by other factors, such as availability of products and social expectations (Hertwich, 2008; Peberdy et al., 2019). Kent and Allen (1994) argue that consumers will use familiarity when facing a large number of options as a justification rather than considering other factors, the phenomenon known as brand familiarity. Looking at it from a broader perspective, it also applies to product categories, i.e. for facing a decision between disposable and reusable products.

2.2.3. Experience vs preliminary perceptions

One of the most significant factors shaping the perception of menstrual cups is getting first-hand experience with the product and learning the proper usage of it. Women who have used menstrual cups associated the product and their experience with words like sustainability, feminism, forgetting (about their menstruation), convenience, freedom and independence (Owen, 2022; Steinkogler, 2021). They reported the experience to have become more personal and less practical, since they were also learning about their bodies in the process and gained a sense of body-awareness. Van Eijk found that women who took part in studies having to use menstrual cups had a positive experience and around 70% of the participants wanted to continue the usage of cups (van Eijk et al., 2019). It might take some time until one gets familiar with

the product and learns the correct usage of it. Gaybor calls the learning a gradual process (2019), during which the motivations and practices may vary.

The adoption of menstrual cups presents an additional challenge as it necessitates more than just familiarization with the product; it requires a shift in established habits. Women have relied on traditional disposable menstrual products for decades, and this knowledge is often passed down through generations, significantly influencing product adoption (Peberdy et al., 2019). Successful adoption of such products demands not only becoming accustomed to their use but also a change in attitude.

While getting personal experience with the products may significantly improve the opinion of them, the perception of menstrual cups is often surrounded with taboo and social stigma. Studies found a linear relationship between body image and the willingness to use menstrual cups (Lamont et al., 2019). These findings suggest that in many cases, several steps are needed to awaken the willingness or desire to use these products, which often include breaking the stigma around menstruation and providing a platform for open communication.

Consumers often don't even consider the purchase of menstrual cups or other alternative solutions for different reasons. One could be that they are not even aware of the product, which is less and less the reason (Thapa & Roy, 2023), as recent studies found that most women are aware of menstrual cups, they are only sceptical towards them. Which is the other frequent reason of not choosing an alternative solution when it comes to menstruation. Due to the lack of knowledge and social stigma, the majority of women seem to have concerns and misconceptions of menstrual cups, which acts as a barrier of product uptake. These concerns can be related to the proper usage, hygiene or size of menstrual cups. Other barriers of the adoption were found to be the availability of the product, the initial costs of it, the perceived lack of effectiveness, body-shame and the social pressure to use disposable options (Chwialkowska, 2019; Steinkogler, 2021). Figure 1 depicts a summary of the influential factors in the adoption of menstrual cups.

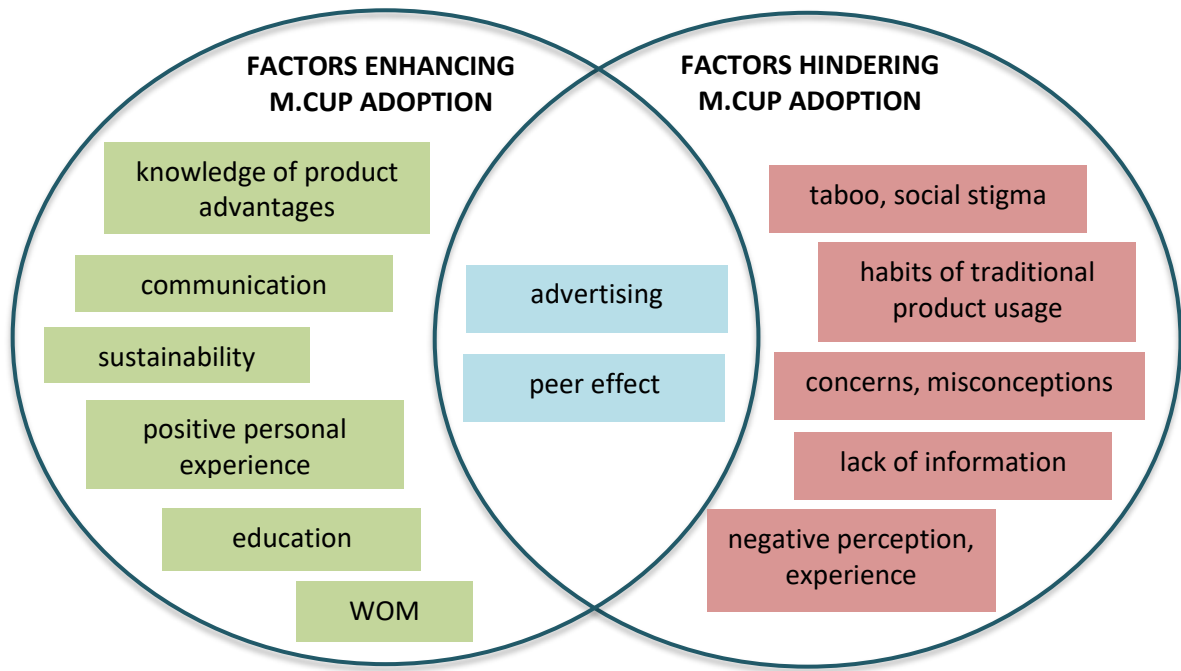


Figure 1: Influential factors of menstrual cup adoption
Source: Constructed by the author

2.2.4. Diffusion of innovation

While menstrual cups have been available in the market for nearly a century, their adoption has been notably slow, with relatively low usage rates. This gradual diffusion into the feminine hygiene product market has faced historical challenges and resistance. Menstrual cups are facing not only the societal stigma surrounding menstruation but also the specific stigmatization of these products (Johnston-Robledo & Chrisler, 2013). The recent rise in the popularity of menstrual cups can be attributed to the broader trend favoring sustainable solutions and initiatives aimed at promoting body positivity while challenging social stigmas associated with menstruation.

Given the stigmatization, the unique sustainability aspect of menstrual cups and the relatively low awareness compared to the traditional products, they can be viewed as an innovative item on the market and an examination is worth from the perspective of the Diffusion of Innovation (DOI) theory (Rogers, 2003; Stein & Kim, 2009). This theory offers valuable insights into the adoption and acceptance of menstrual cups within the broader context of the feminine hygiene product market. It provides a framework for understanding how and why

some consumers become early adopters while others are more resistant to this innovation, shedding light on the factors influencing the diffusion of menstrual cups into mainstream use.

The diffusion of innovation model is attributed to Everett Rogers, who defines diffusion in the following way in his book: *"the process in which an innovation is communicated through certain channels over time among the members of a social system"* (Rogers, 2003, p. 5). Therefore, the theory examines the impact of diffusion through the channels it occurs and the speed of diffusion. The decision to accept or reject the innovation is made by each individual and influenced by personal values and personal belief systems. In addition, influencing factors can include external elements, such as the social system, which encompasses norms and customs.

Based on existing research, those who adopt an innovation early on have different characteristics than those who do so later. Thus, based on when someone accepts an innovation, consumers can be classified into five groups: innovators, early adopters, early majority, late majority, and laggards (Dearing & Cox, 2018). The distribution of people is illustrated in Figure 2, which shows that when it comes to accepting an innovation, the majority of people typically fall into the middle categories, as implied by the labels *"early majority"* and *"late majority."*



Figure 2: Classification of consumers during the adoption of an innovation
Source: Reiling (2022)

Analyzing the adoption stage of menstrual cups, it can be inferred that they are primarily embraced by innovators and early adopters, as this solution still qualifies as an alternative menstrual product and has not yet become widely recognized. Innovators are characterized by their eagerness to seek novelty, as they are willing to take risks associated with the product. If the adoption is successful, they become the product's primary advocates (Rogers, 2003, p. 248). Early adopters, on the other hand, include opinion leaders in the given field. This phenomenon

is increasingly observed, especially on social media platforms, where influencers promote the product's usage, and opinion leaders try out this growing yet stigmatized solution while sharing content about it. The role of early adopters is *"to decrease the uncertainty about the new idea by adopting it"* (Rogers, 2003, p. 249) and disseminating it within their social circles.

There are five primary factors influencing the adoption of a product, and these factors play varying roles across the five adopter categories. These factors are namely the relative advantage, compatibility, complexity, trialability, and observability (Rogers, 2003, pp. 213–232). The relative advantage of the product indicates how much better the innovation appears to consumers compared to existing technology. According to the reviewed literature, these comparative advantages include the product's sustainability, long-term cost-efficiency, as well as considerations related to comfort and health (Babagoli et al., 2022; Flamand, 2018; van Eijk et al., 2019).

Compatibility, refers to how well the innovation aligns with the values, experiences, and needs of the adopter. It relies on women's physiological attributes, considering whether menstrual cups offer them comfort and whether the insertion method aligns with their preferences and lifestyle (van Eijk et al., 2019). Compatibility also depends on alignment with the values and beliefs of the consumer, as suggested by Rogers (2003, p. 223). Personal values and beliefs, which can be influenced by social norms, play a substantial role in shaping the adoption process. Furthermore, compatibility extends to how well the innovation aligns with an individual's lifestyle and needs, which can evolve over time due to shifts in beliefs or external influences.

The complexity factor relates to how easily the innovation's usage can be understood and mastered. The complexity of menstrual cups might pose challenges for those unfamiliar with the technology, as usage involves a learning curve. The time and effort required to become familiar with the correct and most effective usage of the products vary from consumer to consumer. As Rogers noted, *"complexity is the degree to which an innovation is perceived as relatively difficult to understand and use"* (Rogers, 2003, p. 230).

Trialability measures to what extent the innovation can be tested before making a purchase decision. Given the intimate nature of the products, consumers can't try it out before the purchase which can act as a possible barrier to adoption. Rogers defines observability as *"the degree to which the results of an innovation are visible to others"* (Rogers, 2003, p. 232). The primary research conducted investigates both the extent to which the inability to test the

product serves as a barrier and the level of communication among women when it comes to sharing their experiences regarding the product and menstrual habits.

The process of diffusion involves several stages, including awareness of the innovation, consideration, intention, the development of the adoption decision and continued use of the innovation (Frambach & Schillewaert, 2002). Menstrual cups are progressively gaining recognition among consumers, with women becoming increasingly informed about them (add ref). However, their adoption continues to encounter multiple challenges, primarily stemming from misconceptions and fears associated with menstrual cup usage (Surabhi & Onkar, 2020). Consequently, the next step in the adoption of menstrual cups is to elevate women's awareness and facilitate the transition to the next stage, the consideration phase. This is precisely why this study concentrates on women who are in the preliminary stages of acquainting themselves with the product, aiming to investigate the motivating and hindering factors influencing their adoption process.

In case of menstrual cups, the adoption of the innovation is significantly influenced by external social factors, particularly the cultural norms associated with disposable menstrual products and the prevailing social stigma and taboo linked to menstruation, specifically in the context of menstrual cups. These innovative products demand a higher level of body awareness and a distinct usage technique. It's important to note that menstruation stands as one of the most stigmatized biological functions (Kowalski & Chapple, 2000). This stigmatization also affects communication in the media, often manifesting in the use of euphemisms or highlighting the secretive and embarrassing nature of menstruation in advertisements (Johnston-Robledo & Chrisler, 2013). Such communication significantly shapes societal perceptions and may consequently impede the adoption of this innovation.

Another factor that can influence the adoption of this innovation is the environmentally friendly nature of menstrual cups. Various sources suggest that the diffusion of sustainable products can be a slow and challenging process (Chwialkowska, 2019; Karakaya et al., 2014; Ozaki, 2011). Reasons for this include factors such as *“availability, high cost, lack of awareness, perceived lack of effectiveness [...], social pressure and feminization of sustainable behaviours”* (Chwialkowska, 2019, p. 33). The question of which consumer groups (innovators, early adopters, early majority, late majority, laggards) have already adopted the innovation is examined during the primary research of this work, along with the five primary

factors that influence the adoption of innovations (relative advantage, compatibility, complexity, trialability, observability).

2.3. Conjectures based on existing literature

To investigate the motivations and barriers shaping the perception of menstrual cups among consumer, the assumptions of this work are the following, based on the existing literature:

1) The lack of purchase and usage can be linked to uncertainty about the product, unanswered fears and a sense of shame due to the still existing treatment of menstrual products as a taboo.

2) A significant barrier for women using menstrual cups is the lack of knowledge about the product (comfort, applicability, health concerns, cost effectiveness).

3) Individuals with a stronger environmental consciousness exhibit greater receptiveness towards menstrual cups.

4) Consumers are more likely to use disposable menstrual products if they don't know about their harmful effects on the environment.

2.3.1. Uncertainty and taboos

According to Carneiro (2021), menstrual poverty does not only include limited access to period products, but also receiving adequate information about menstruation. In this sense, the problem is far greater than only present in developing countries. Wootton & Morison (2020) argue that educating young women and ensuring access to information would help to decrease menstrual poverty and the negativity and disgust relating to menstruation. Peberdy (2019) believes that the key to reducing the environmental impact of menstrual products might be to tackle taboos associated with menstruation and form the public attitude towards awareness and consciousness. She noted that the taboos surrounding menstruation begin to form at a young age. Children are more impressionable, so it is crucial to start educating them early and create positive associations with this phenomenon.

Menstrual activism raises awareness, and it has helped to reform the feminine hygiene industry by increasing knowledge about products and health (Spencer, 2021). Menstrual activists have an influential role in promoting *“alternative period products that are not hugely popular in mainstream media and critique commercials and advertisements that do not show*

menstruation in a natural way” (Fahs, 2016, p. 1). They help women to not to regard their menstruation as a taboo by tackling the *“consumerist, shame-based, patriarchal and sexist basis of menstrual management and menstrual hygiene today”* (2016, p. 3).

2.3.2. Knowledge gap

According to Davidson, there is little consideration towards the environmental impact of disposable sanitary products, which shows a lack of understanding towards menstrual products knowledge (2012, o. 57). A research conducted in India argued that even women working in healthcare are not better informed than average students (Thapa & Roy, 2023). Peberdy (2019) points out an intergenerational gap in regards of menstrual products: mothers often didn’t know about the modern reusable options, therefore this knowledge couldn’t be transferred to daughters and they went on using the same types as their mothers. Oster and Thornton (2009) noted an increased product uptake in case of peer influence, meaning that if friends gave them confidence and advice about the product, they were more likely to try. The role of mothers is also important, but peer effect is significantly more decisive in learning about menstrual products (Koff & Rierdan, 1995).

The perceived value of menstrual cups is also influenced by the existing knowledge of consumers about the product. The initial purchase price can be a deterrent for low-income consumers, as they may perceive it as too high. However, what they may not realize is that menstrual cups quickly pay for themselves in the long run due to their extended lifespan of up to 10 years (Borowski, 2011; Bussey, 2015; Davidson, 2012). This lack of awareness can hinder the clear understanding of the cost-effectiveness of menstrual cups.

Grose and Grabe (2014, p. 689) found that women with prior knowledge of menstrual cups were more open towards using it, therefore raising awareness and educating women about reusable period products can be a *“a promising strategy for challenging widespread resistance to products such as menstrual cups”*. Peberdy (2019, p. 13) confirmed the same: research participants believed that *“education about the topic could and should be improved”*. Simes & Berg conclude that *“advertising could be a tool to spread large amounts of information about menstruation and different product varieties to help bridge the knowledge gap”* (2001, p. 467).

2.3.3. Environmentalism

Peberdy (2019) found a link between environmental considerations and product choice. She concluded that consumers with higher awareness levels are more likely to opt for menstrual

products with a lower environmental impact. Borowski (2011), on the other hand, argued that women don't use greener period products due to environmental and health reasons. Although her research was broad, it definitely had its limitations: she didn't explain the term "*green*" before asking about it in questions, and she didn't consider the lack of knowledge of women for not using alternative products. However, Weir (2015) states the same conclusion: there is no clear correlation between concerns of environmental impact of period products and product choice. A possible cause for the contradiction can be the phenomena that it's uncommon to get exposed to data on the environmental impact of disposable products (Weir, 2015), and if consumers are not aware, they can't base their decisions on such factors.

2.3.4. Improvident product choice

Ashley et al. (2005) and Peberdy et al. (2019) note that women may be unaware of the amount of plastic in non-organic disposable products and the amount of sanitary waste they create in a lifetime of menstruation and the impact of it on the environment. They suggest that consumers choose disposable products due to lack of knowledge, but once they become aware of the environmental impact of disposable period products, an intention to change their purchasing habits and switch to reusable ones can be observed. Dwivedi and Desai note the same: women using disposable menstrual products are most likely ignorant towards alternative products on the market (2021).

3. Methodology and results

In this chapter, the data collection techniques and the interpretation of the collected information are presented. For this study, a comprehensive mixed-methods design was applied involving five in-depth interviews with the target customer group, two expert interviews with representatives from companies engaging in menstrual cup production, and an online quantitative survey with 174 respondents. The summary of the conducted primary research is depicted on Figure 3.

The primary research of this works is aimed at investigating women's perceptions during the initial stage of the innovation adoption process, referred to as the awareness stage. To achieve this, the in-depth interview guides and the online questionnaire were developed to assess the factors influencing their perception and, consequently, their judgment of menstrual cups. Analyzing the awareness stage is a crucial step in formulating an effective strategy that can guide women from this initial phase to the consideration stage. This, in turn, will impact their ultimate decision to either adopt or reject menstrual cups.

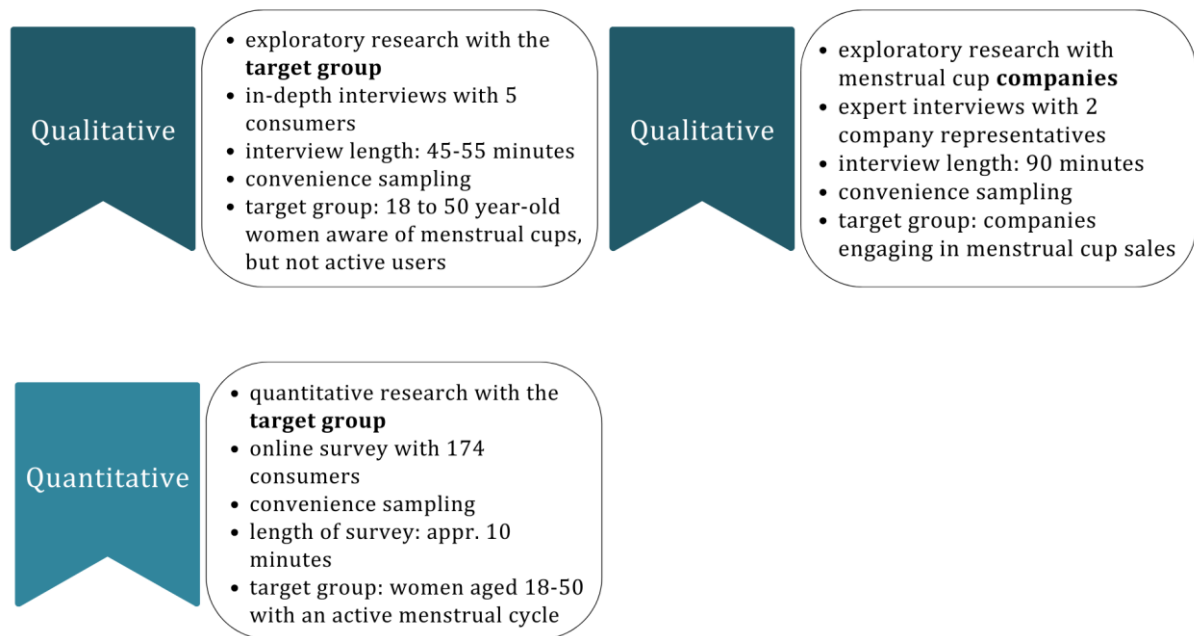


Figure 3: Summary of the conducted primary research
Source: Constructed by the author

These primary data sources provide rich qualitative insights into the motivations, barriers, and experiences of the target audience, as well as industry practices, challenges, and perspectives. By examining both sides, the insights of companies engaging in menstrual cup sales become comparable to the consumers' encounters which allows for the identification of opportunities and challenges within the presented domain. The data collected from the online survey offers a broader quantitative perspective of the investigated problem and enables the examination of a larger population. The different types of research are interconnected and build upon each other, therefore the combination of the three primary research enhances the comprehensiveness of the study.

Furthermore, the study focuses on a wide age range, specifically consumers aged 18 to 50 years, providing an integrated view of menstrual cup adoption. This approach acknowledges that motivations and barriers may vary across age groups. By combining these research methods and focusing on an extensive age range, the study offers a distinctive perspective on the motivations and barriers shaping the perception of menstrual cups.

3.1. Methodology of the in-depth interviews with consumers

Prior to the quantitative research, exploratory qualitative research was conducted in the form of semi-constructed in-depth interviews in order to get a more profound understanding of the topic and of the perception of consumers. With this type of primary research, alongside their knowledge, understanding and usage of menstrual cups, I was also able to gain information on the women's perception of menstruation, their product preferences, and awareness of the impact their chosen products have on the environment. The guide of the interviews is in Appendix 1.

Following the in-depth interviews with consumers, representatives from menstrual cup-producing companies were asked about their insights and experiences regarding product uptake, the current market landscape, consumer characteristics, and communication strategies employed. This type of primary research provided an exploration of the market from the manufacturers' perspective.

Examining how these companies navigated barriers related to product uptake and responded to consumer feedback generated valuable data for comprehending the situation and exploring potential solutions to address the identified issues. The guide of the expert interviews with the representatives of the companies can be found in Appendix 3.

The semi-structured interviews with consumers took place in form of online meetings with each individual as semi-structured discussions. Participants were chosen from the target group, meaning Hungarian females between the ages of 18-50 who had a regular menstruation, five people in total. These women were chosen based on the criterion that they had heard of menstrual cups but were not current users. This distinction was important because, in the context of the innovation adoption process, they represent the target audience whose awareness needs to transition into consideration for the innovation adoption process to proceed. Moreover, by focusing on this group, it allows for the development of the most effective strategy while acknowledging the limited number of current cup users, which can make sampling from them more challenging. For the construction of the guide, the work of Spencer (2021) was used as a model, in the matters of menstrual habits and perception of alternative period products.

The in-depth interviews were held between 9 and 23 of February 2023 and lasted for 40-55 minutes. The transcript of the discussions is attached in Appendix 2, all citations are translated by the author. Table 2 contains the summary of the methodology. Due to the restricted number of interviewees and non-probability sampling, the qualitative research is considered not to be representative for the whole population. However, it was suitable for offering a deeper understanding of the perception of the target group, and getting an insight into the motivations and barriers of women when it comes to product choice and usage. The qualitative research served as a satisfactory base for forming and structuring the questions of the online survey.

Table 2: Methodology of the qualitative research

Methodology	Semi-structured in-depth interviews
Target group	Women aged 18-50, who have a menstruation and are at least familiar with menstrual cups
Sampling method	Convenience sampling
Length	40-55 minutes
Form of inquiry	Online video call on Google Meet
Number of participants	5
Limitations	Non-representative, subjectivity, bias

Source: Constructed by the author

The interview participants were chosen to represent different candidates of the target group, varying in social status and knowledge about the different types of menstrual products. By social status differences in age, education, occupation and marital status among the interviewees are meant.

The names of the participants are kept anonym, therefore letters from A to E will mark their identity, also shown in Table 3 below, which contains data of the participants. All references to them will be made using these letters.

Table 3: Interviewees

Participant	Gender	Age	Life status
A	Female	22	University student, working part-time
B	Female	50	Working full time, married, mother
C	Female	39	Working full time, married
D	Female	22	University student, working part-time
E	Female	18	High school student

Source: Constructed by the author

Two of the interviewees were university students (both 22 years old), one person was a graduating high school student (18), while two of the females were married working full time (39, 50), one of them being a mother of two children.

3.2. Findings of the in-depth interviews with consumers

This chapter presents the outcomes of in-depth interviews conducted with consumers. These women were aware of menstrual cups, but none of them are active users. The reason for this selection was to delve into the awareness stage of the innovation adoption process, a critical step preceding the consideration phase. Within these interviews, various themes were explored, including the participants' menstrual habits, their understanding of the environmental impact associated with traditional period products, their perceptions of menstruation, and their attitudes toward alternative menstrual solutions. Furthermore, the chapter focuses on assessing their knowledge and opinions regarding menstrual cups, with a special emphasis on identifying the motivating and inhibiting factors influencing the adoption of the innovation.

3.2.1. Menstrual habits, environmental effect of disposable period products

The discussion started with an introductory conversation into the topic and the introduction of the interviewees. Then they were asked about their menstrual habits, mainly focusing on the period products they currently use, the most important criteria for them when purchasing such products and the amount of money they averagely spend in a month on them.

All of the participants named traditional products, either sanitary pads or tampons as their go-to menstrual products, O.B. and Always dominating their brand choice. The average amount of money they spend on feminine hygiene products in a month (not including painkillers or birth control pills) varied from 1000 to 5000 HUF. When asked about the most important criteria when choosing a product, all of the participants mentioned comfort and no leakage, but some interviewees also recalled that the products they currently use has never really been a conscious decision from their part. It was also revealed that the initial introduction to menstrual products often occurred through a maternal purchase, which subsequently became a routine practice: *"I think my mother has been buying this (pads and tampons) for me from the beginning, and that's how I inherited this habit"*(Participant A). The exploration of alternative products was limited, even though they were occasionally observed during visits to the drugstore.

As a brand choice, most respondents are using the same brands (namely O.B, Always and Libresse) as their friends or the ones seen in (TV) commercials. These acquisitions now became a habit, a routine purchase based on familiarity and past satisfaction, but it also means that they don't consider other options when buying feminine hygiene products. In fact, they have never even properly checked the label of the brands they are choosing to find out about the composition of the products, for example. This phenomenon is attributed to the fast-paced and overwhelming nature of today's consumption and product choices. Habitual purchases are seen as a time-saving and comforting option. Furthermore, some individuals consider the brand as an indicator of product quality.

The interviews also evaluated participants' environmental consciousness concerning product selection, consumption, and environmentalism. Each participant claimed engagement in various environmentally friendly behaviors, such as using reusable bottles, avoiding straws and plastic bags, refraining from littering, purchasing eco-friendly cleaning products, and seeking out reusable packaging during shopping. However, none of them demonstrated any consideration for the environmental impact when acquiring feminine hygiene products. The

majority exhibited a lack of awareness regarding the composition of disposable menstrual products, including the fact that such products take an average of 500-800 years to decompose.

As a result, there appears to be no cognitive link between their eco-friendly practices and their choices of menstrual products. All participants currently employ traditional period solutions without recognizing the potential for menstrual product selection as a means of environmentally conscious behavior, thereby failing to integrate their sustainability efforts into their menstrual product choices. The interviewees were surprised to find out about the amount of waste a woman averagely creates from menstrual products: 170-200 items averagely disposed in a year for 30-35 years, each taking at least 500-800 years to decompose. They were all underestimating the environmental impact of these products: *"until it was said that how much menstrual products pollute the environment, I didn't even realize it at all"* (Participant A). Some expressed discontent with the fact that these options remain the most widely favoured, despite their adverse impact of the environment.

While discussing environmentalist habits, the practice of using cotton appeared. The more senior respondents remembered that they used to put cotton in their underwear in their early adult years, because pads were scarce goods:

What comes to mind now, and I think it's an environmentally friendly solution, is that we often put cotton wool in the pad or under the tampon, and then the chance of bleeding over was lower and less (products) were needed. Back then these products weren't as much available as now.
(Participant B)

The other practice later was using washable underwear, which was the predecessor of the period underwear. A switch was made to the more convenient disposable pads and tampons when they became popular in Hungary. A summary of the menstrual habits of interviewees' and their knowledge about the environmental effect of traditional products is depicted on Figure 4.

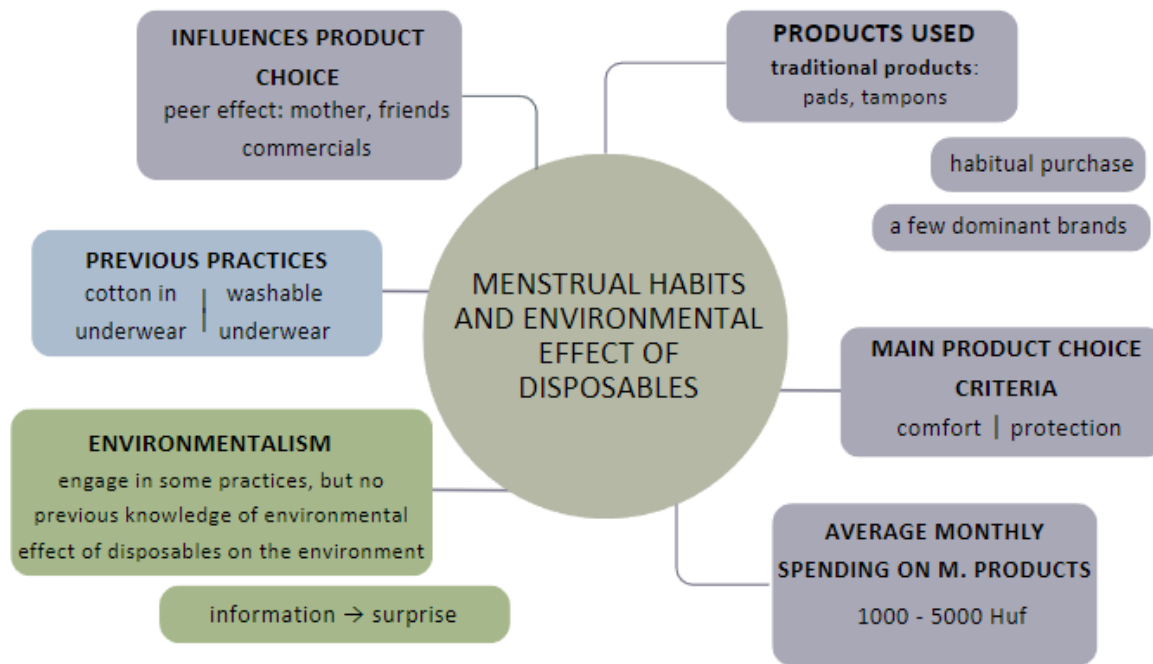


Figure 4: Menstrual habits and environmental effect of traditional products
Source: Constructed by the author

3.2.2. Perception of menstruation

During the interview, participants were asked to evaluate the role of menstruation in their life, namely considering its significance, how it influences their everyday activities and their relation towards it, while some questions specifically targeted their communication about menstruation. To assess the information available to them, participants were asked about recent period-product-advertisements seen, whether they look for information themselves, and their demand for more, regarding both period products and menstruation.

From the point of this work, it was important to examine the extent to which menstruation is perceived as a taboo in the lives of consumers, both on a personal and societal level, as the taboo factor can significantly function as a barrier in the adoption of an innovation. It is essential to recognize that the degree of taboo has implications not only for individual perceptions but also for the dissemination of information, as the absence of open communication about the phenomena hinders the flow of information. The interview participants didn't consider menstruation as a taboo in their personal life, but they claimed to be more comfortable with sharing information about it in their close friend group, with close co-workers or with people of their age (especially younger participants). The main focus of these conversations are mostly

either sharing personal experiences or giving advice to each other regarding uprising problems and concerns. While none of the consumers considered menstruation as a taboo topic in their personal lives, they agreed that it is still surrounded by social stigma, and people don't discuss it much. Figure 5 summarizes this contrast.

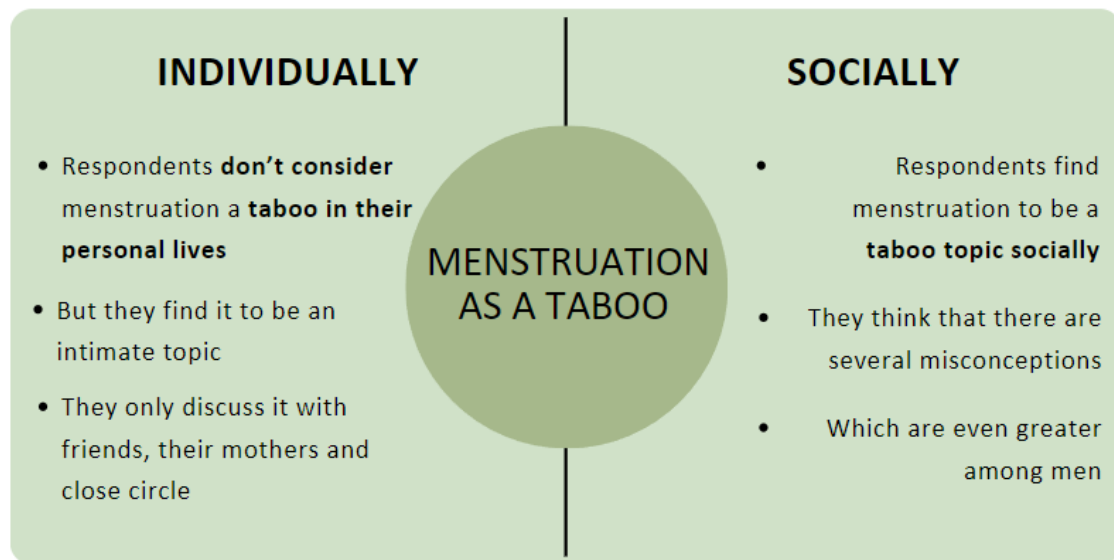


Figure 5: Perception of menstruation as a taboo
Source: Constructed by the author

The respondents specifically highlighted the gender differences: they rarely talk to men about menstruation-related topics as it would feel unnatural, it's not something to talk about with them and men might feel uncomfortable if they raised such topics or they wouldn't understand it: *"socially, I think neither menstruation nor products are common topics"* (Participant C).

Sexual education at schools turned out to be influential on product choice and perception of menstruation. The issue of these educational occasions not being thorough enough was also raised, as some participants missed a proper education with reliable and comprehensive information. They think that several misconceptions can be attributed to the lack of proper sexual education and general knowledge about menstruation, such as *„using tampons takes away one's virginity"* or *„you pee out menstruation"* (Participant D). A consensus emerged that these misconceptions were even more prevalent among boys; thus, the importance of educating them about the phenomenon is just as significant, as in case of girls, encouraging more respectful and empathetic behavior toward menstruation.

One interviewee was a founding member of the Támpont, an initiative that originated as a student project and has since evolved into a foundation. Támpont's primary mission is to gather donations for homeless women and those in need, providing them with essential feminine hygiene products like tampons and sanitary pads, which might otherwise be financially inaccessible to them. This participant's experiences and perceptions surrounding menstruation underwent a significant transformation over time, particularly after becoming involved with Támpont. In her earlier years, when she first began menstruating, she tried to hide it and didn't share her experiences with others. However, her perspective changed as she embraced the understanding that menstruation is an inherent aspect of life:

And from then on, when I realized that, I was very open about it. I mean, from the moment I realized that it's a natural thing that my stomach hurts, I eat a lot... And I think I really approached it by talking about it more openly, I knew it was a natural thing. (Participant D)

Her involvement with Támpont fostered heightened awareness of her surroundings, reinforcing her belief in the critical importance of addressing menstrual poverty. This individual's perspective underscores the significance of open communication in normalizing menstruation and dissolving related taboos, a central theme in this research.

Regarding their relation to menstruation, participants' answers varied from a neutral perspective to a negative association. Although they claimed it to be a natural process and an important part of being a woman, their answers were influenced by the level of pain and discomfort they experience. For some, the thought of period is related to stress and anxiety (whether it's late or too early, too painful etc.), while a few respondents even reported to experience severe pain, fatigue, mood swings and increased hunger levels, which requires the daily routine to be adjusted to the menstruation:

On the one hand, menstruation is very much a part of my life, (...) so everything from my everyday life (is influenced by my menstrual cycle). The rhythm I live by. On the other hand, I don't think it's something that's often talked about. (Participant D)

The feeling of dirtiness or uncleanness was expected to have been raised in regards of one's relationship with menstruation, but surprisingly, it didn't seem to be a relevant association for them when being asked about the differences they encounter during their period. Further,

their first experience with menstruation, according to them, had no effect in determining their later relation with the phenomena.

As part of the interview, participants were assessed to what they are getting information about menstruation and about period products, whether it's coming from an external source or they look for it themselves. The majority of interviewees has seen at least one advertisement or commercial in the last month presenting a menstrual product, namely sanitary pads. Some of them saw it on TV and highlighted the commercial focusing on feeling comfortable, the colour white and pink, softness and pleasant fragrances.

Most of the interviewees don't search for information about menstruation or menstrual products regularly and when they do so, it's rather about period symptoms and uprising concerns. The main information source is the internet, be it Google, YouTube or social media (Instagram and TikTok), although these platforms often offer unvalidated information, which raised concerns in some respondents about credibility and reliability. Other participants mentioned their friends as a source of information and school biology classes.

Although they are not actively looking for it, the interviewees stated that they would like to see more accessible and reliable information about menstruation, but especially about period products. They argued that such things should be taught in schools and incorporated into other reliable personal channels, such as via doctors and gynecologists. participants were told by their gynecologists that tampons should not be used as they can be harmful to them, yet they were offered no proper alternative products for it. Similarly, available period products were not part of the conversation at school sexual educations either. The older generations articulated the power of interpersonal communication and suggested that there should be more forums and communities to talk about such things, while the younger generations highlighted the potential of the social media. But they all agreed that for now, the topic seems to be too intimate for people to be open about it, therefore communities could be a great space for opening up, getting access to information, which could also influence product choice.

Some interviewees mentioned having theoretical knowledge about menstruation, but lacking practical information, including the products available. Seeing the ads only cause doubt and uncertainty in them, therefore the solution could be providing more information instead of increasing advertising expenditure:

I don't think there is anyone in my immediate environment who does not use tampons or pads. So I am not effected by any other kind of impact. So I think I would rather and sooner be informed by a reliable source, or from an acquaintance, than from advertisements. (Participant A)

Women claimed that they would be the most likely reached on social media platforms like Instagram and Facebook and on the internet, and also on interpersonal channels such as the above mentioned (online) communities, schools and medical offices. Interesting to note the generational differences: gen Y and Z interviewees mentioned social media platforms first, while older participants (gen X) the personal channels. Although the younger generations also highlighted the intensity of the peer effect.

3.2.3. Alternative products, menstrual cups

To explore awareness and usage of alternative period products, participants were asked to name products besides tampons and sanitary pads they have heard of, and also state the ones they have tried. Assessing their answers, there was a gap between their awareness and usage. All interviewees have heard about menstrual cups, but none of them could name a brand selling it and only one participant purchased and tried using one. The majority named period underwear, as well and someone also mentioned washable pads.

As first encounters with menstrual cups, the interviewed women recalled YouTube videos about zero waste solutions and colleagues and friends talking, buying and using cups. Some also mentioned their concerns related to the first experience and usage, be it their own or a friend's negative incident, which prevented them from trial and usage. These respondents used words as “scared”, „uncertain”, „lack of secure information” and “gave up trying” (Participant B, D).

A few of the interviewees reported to have people in their immediate environment using menstrual cups, and despite of being interested in the product, none of them ended up purchasing one. They named habit and the lack of information about menstrual cups as the greatest barrier of taking any further steps, but they also mentioned reservations about comfort, leakage, uncertainty about the proper method of usage and cleaning the product.

The participants' knowledge about menstrual cups varied. Some of them knew that it is made of silicone and can be reused, but only a few of them added additional information, such

as the product being environmentally-friendly or “*hygienic, sustainable*” and “*worth the price*” (Participant E). One respondent understood the process of application of the cup, but was not sure of “*the removal*”, which prevented her from purchasing.

At the end of the interview, participants received some information about menstrual cups, namely about the material, usability, lifespan, cleaning, capacity, hygiene, comfort and different sizes available. Period cups are made of medical grade silicone, can be used up to 5-10 years, if cleaned and used properly. Their capacity is between 10-38 ml, therefore can be used at once for up to 12 hours, and there are also different sizes available based on shape, capacity and cervix height (Healthline, 2022). According to researches in the topic, they are perfectly safe to use, hygienic and a comfortable alternative.

All participants expressed positive emotions when receiving information about the product: they were excited to have learnt about “*such a great alternative*” (Participant A), some were surprised, impressed or interested in further details. The final step of the interview was to assess respondents’ opinion change about menstrual cups based on the information they have obtained. All of them indicated a positive shift, the majority even reported an interest in buying and trying out the product. Some women reported to have been touched by the gained information: “*it was hurtful to realize the amount of waste we create*” (Participant C), while the older generations believe in the power of the youth for bringing a positive change to which the first step is providing accurate information.

I don't know if they would immediately go and buy a cup based on this, but I think it is definitely important from an information point of view that people are at least aware of their own options and be able to make more informed decisions. (Participant B)

Figure 6 summarizes the key findings related to the perception of menstrual cups. The figure predominantly emphasizes the obstacles to product adoption, as none of the respondents are active menstrual cup users. Consequently, the interviews aimed to gain insight into their perceptions and uncover the barriers of usage for them.

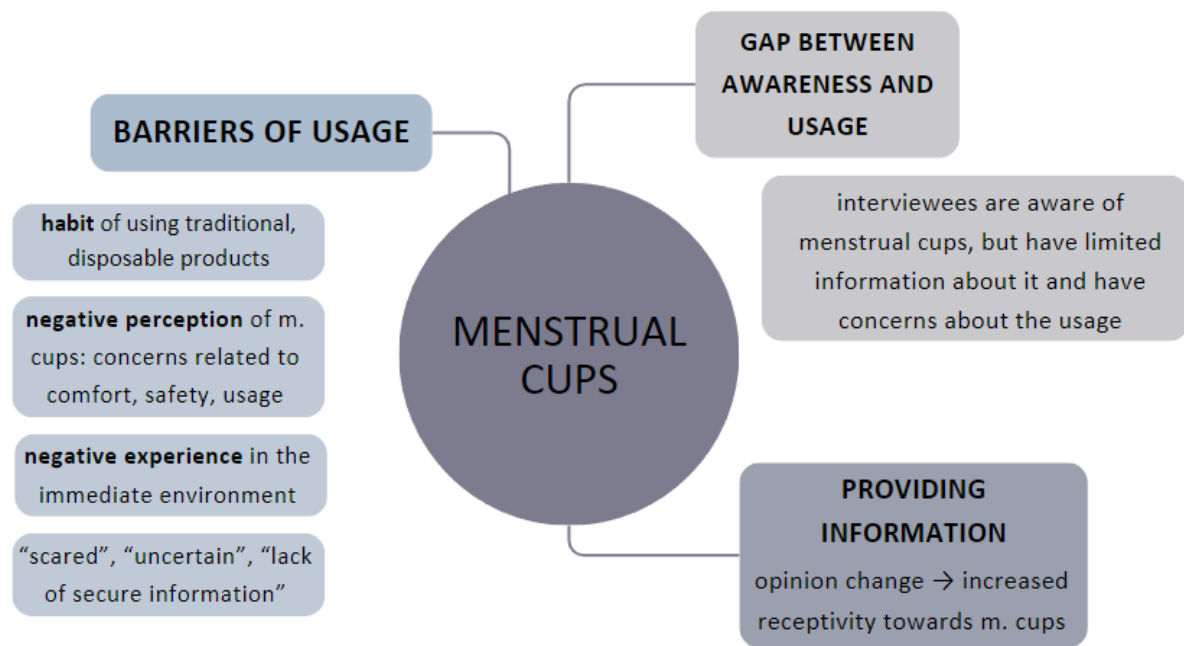


Figure 6: Perception of menstrual cups
Source: Constructed by the author

3.3. Methodology of the expert interviews with menstrual cup companies

Two in-depth interviews were conducted, one with the Commercial and Marketing Director of BioIntimo and another with the CEO of LaliCup. The discussion with the representative of BioIntimo took place in an online video call format via Google Meet and lasted approximately 130 minutes. The CEO of LaliCup provided written answers to the questions, following the interview guide, which was previously sent over. The transcripts of the discussions with company representatives can be found in Appendix 4. All citations used in this chapter will be translated by the author. For anonymity, these companies will be referred to as Company F and Company G in the following sections.

For the construction of the guide, the work of Coe-Björnell & Jansson (2015) was used as a model, in the matters of structuring the interview, exploring consumer perception and company communication.

Both companies were selected due to their presence in the Central European market, which countries share similar consumer characteristics, especially those part of the Visegrad Four countries (Fahy et al., 2000; SIS International Research, n.d.). BioIntimo, founded in Hungary in 2010, currently operates in Hungary and distributes in five other Central European countries. Similarly, LaliCup, a Slovenian company, markets its products in Hungary, as well.

The former is involved in selling anion sanitary pads, reusable pads, pain-relieving patches, and menstrual cups, while the latter exclusively focuses on selling menstrual cups. The customer base of these companies aligns with the consumers examined during the in-depth interviews, making them suitable representatives of the manufacturer's perspective within the studied market. A summary of the methodology can be found in Table 4.

Table 4: Methodology of the expert interviews

	BioIntimo	LaliCup
Methodology	Semi-structured expert interview	Written question-answer format
Target group	Companies distributing in the Central European market, producing menstrual cups	
Representative	Commercial and Marketing Director	CEO
Sampling method	Convenience sampling	
Length	130 minutes	-
Form of inquiry	Online video call on Google Meet	written
Limitations	Non-representative, subjectivity, bias	

Source: Constructed by the author

3.4. Findings of the expert interviews with menstrual cup companies

This chapter offers an insight into the results derived from expert interviews with representatives from the menstrual cup industry. The outcomes are structured around several key themes, including the companies' presentation, their understanding of the current market dynamics, and an exploration of consumer characteristics from the perspective of companies engaged in the sale of alternative menstrual products. Moreover, the chapter also examines the role of communication, which serves as a critical factor in building trust, disseminating information, and facilitating the flow of knowledge between sellers and consumers. The primary objective of these interviews was to provide a complementary viewpoint, offering the industry's perspective on the current state of the innovation adoption process. These insights

serve to complement the findings from in-depth interviews with consumers, ultimately contributing to a more comprehensive and nuanced understanding of the overall landscape.

3.4.1. Company presentation and competitors

One representative works at a Slovenian company selling exclusively menstrual cups in Slovenia and other Central European markets. They are renowned for manufacturing the market's largest capacity cups, with product sizes raging from S (27.4 ml capacity) to XL (51.1 ml). The founder's vision was to provide multi-size cups with substantial capacity tailored to women experiencing heavy menstrual flows. Both companies pioneered the introduction of menstrual cups to their respective national markets, offering them both through webshops and select drugstore outlets.

At first, company G was offering anion sanitary pads, reusable pads, pain-relieving patches. In 2012, the company introduced its 'Aqua Tampon Menstrual Cup' product, which was promptly made available in drugstores. However, the product faced initial challenges in terms of consumer adoption: concerns were raised regarding its size, hygiene, and the unconventional shape and insertion method. A strong theme that emerged was the relation between women's awareness of their bodies, such as cervical length and pelvic muscle strength, and the ease with which they could find suitable products. Representative G firmly believes that the more a woman understands her body's unique characteristics, the more open she is towards alternative menstrual products.

Both interviewees had a strong personal motivation when developing and marketing their products, along with a desire to help women in the matters of easing their menstruation and the difficulties experienced during these days:

I was very interested in the idea from the beginning, because the silicone is a much safer solution compared to a pad or tampon: it won't move, it won't get wet, it won't fall apart (and it won't leave synthetic fibers after), it won't need to be changed so often, it is environmentally friendly and much more cost-effective in the long run. (Representative G)

Both executives were determined to introduce this innovative solution to consumers. However, they both reported the need for several modifications to be made before the menstrual cups reached their current state. This involved adjustments in terms of the cups' physical attributes, categorization, and communication towards consumers. For instance, one of the

companies initially used different materials and sizes for their products, while the other categorized their products by age groups. It wasn't until they realized that the necessary cup size primarily depended on the volume of menstrual flow and individual anatomical characteristics. Representative G believes that their way of looking at product usage in a complex manner is what helps them understand the needs of their customers and makes them different from their competition: *"We are different from our competitors in the way that we position ourselves into the situation and problems of our consumers and find a tailored solution to them", "we have a few products that provide solutions for many different problems, because we look at menstruation in an integrated way"* (Representative G).

There was a consensus among respondents that the market of menstrual cups is growing and they also agreed that their current greatest rivals are companies producing cups at a lower price (e.g. drugstores like DM and Rossmann). That is often possible due to the advantage of these establishments having lower market presence costs or using lower-quality materials:

The proliferation of various menstrual cup options, including lower-cost plastic alternatives, is a notable trend in the market. However, it's crucial for consumers to exercise caution and prioritize factors like material quality, safety, and long-term usability when selecting a menstrual cup. While affordability may be appealing, it's essential to consider the potential trade-offs in terms of comfort, durability, and overall product quality when opting for such alternatives. (Representative F)

When asked about their present objectives in regards of increasing their companies' market position, one company is currently working on expanding their international presence, while the other named increasing their social media appearances to optimize their communication and build a strong community. Interviewee G believes that their competitive advantage lies in having worked with several partners, influencers and creating educative content on their website and social media platforms, although these messages can't get through adequately without an effective communication, at which, at the moment, the rivals perform better due to their sizable online communities.

3.4.2. Consumers and their characteristics

Representatives defined their typical customers with the same characteristics, which is also consistent with the reviewed literature: environmentally-conscious, active women, budget-

conscious, consumers with heavy flows, ethical shoppers and advocates of menstrual health (add ref). It was raised that the perception of alternative menstrual products depends on cultural norms, environmental awareness and access to education. The barriers of product uptake can also root here in form of cultural taboos and societal norms, for example, as in some cultures, the menstrual cups are less acceptable than in others.

Neither of the brands conduct formal customer surveys, they assess reactions to products and campaigns based on sales, social media feedback, via email communication, newsletters and attendance at live events. Then they incorporate the received suggestions into the product development. For instance, one of the companies introduced their menstruation kit as a response to consumer feedback and DM reintroduced the other's pain-relieving patches due to a customer demand.

Representatives were asked about the methods they use to target potential purchasers. Both of them emphasized creating educational contents on their blogs and social media platforms in forms of posts, pictures and videos and the importance of active social media presence, mostly for highlighting the benefits of menstrual cups and addressing common concerns. One of them also raised the role of collecting authentic customer reviews, which are essential for building trust around the product, especially for those who are not yet familiar with it.

The interviewed executives agreed that the Central-European market for feminine hygiene products shares similar characteristics, and they both confirmed that menstrual cups (and alternative period products in general) are increasingly gaining popularity. One respondent believes that women who previously used tampons are most likely to transition to using menstrual cups, as these two products share common features, although menstrual cups offer several advantages over tampons. She is of the opinion that collaborations with influencers and opinion leaders, as well as appearances on different channels, have a significant impact on the spread of these products. Both representatives think that the opinions of friends, close relatives, and communities also strongly influence product adoption, while they consider taboos, societal norms, and the inability to test the products before purchase as potential barriers.

3.4.3. Communication

The brands' marketing communication has evolved over time. According to one interviewee, their initial communication strategy primarily relied on packaging, which included

product information, company details, and their brand message. However, as time went on, they set up and began using their social media platforms and website to engage with consumers. Both respondents agree that their most effective communication channels at present are social media platforms, particularly Facebook, Instagram, and TikTok. They also employ newsletters, direct calls, and emails for communication.

The core principles they advocate and aim to convey to women through their brand and products are sustainability, affordability, and comfort, emphasizing the freedom and convenience they offer. Notably, one interviewee acknowledged that, despite the numerous advantages of menstrual cups, there is undoubtedly a learning curve involved. It can take a few months for consumers to experiment with how the product best suits them, including the method of insertion, removal, and cleaning. While some women adapt to the usage almost immediately, others may require more time. She emphasized that they don't offer a one-size-fits-all solution. To ensure transparency, they also communicate the results of product tests and evaluations. Their primary objective is to educate and assist women rather than prioritizing sales at any cost: *“menstruation should be a better experience in itself, and instead of specializing in problems, we aim to make menstruation a better experience”* (Representative G).

The interviewed executives hold the belief that awareness of menstrual cups is already quite high, although women may not necessarily be using them yet. They are confident that with effective communication, trust can be established, making more women open to trying and using these products. Consequently, both of them consider it crucial to enhance their communication strategies through newsletters, online marketing, and a TikTok presence to address and break taboos and concerns associated with menstrual cups.

There are still several concerns existing related to the size and usage of the product, as well as a lack of information regarding its advantages. One interviewee expressed an interest in employing Google Ads more professionally to enable more targeted communication and broaden their outreach. She believes that offline marketing entails higher expenses, is less measurable, and represents a slower method. Respondents also place significant importance on education, whether it's through their own platforms or by collaborating with influencers and opinion leaders.

3.5. Summary of the qualitative research

To sum up the qualitative research conducted, the findings of the interviews with consumers will be contrasted to the findings of the discussions with company representatives, placing emphasis on the factors influencing product adoption. The consumer group exhibited a strong reliance on familiar practices and products such as tampons and pads, often influenced by practices inherited from their mothers. While they expressed eco-conscious behaviors in other aspects of their lives, this was not extended to their menstrual product choices. They lacked the association that their decisions could be a form of environmentally conscious behavior. They possessed limited knowledge about the environmental impact of these products; however, they responded positively when provided with this information.

The interviewees claimed menstruation to be a determinative part of their lives as it can impact their daily activities and energy levels and they often associated it with discomfort and pain. While they didn't consider it a taboo topic within their close circles, they agreed the socially it is rarely openly discussed. Both the consumer group and company representatives recognized that this societal taboo creates barriers, misperceptions, and limited information flow surrounding menstruation and menstrual products.

Company representatives, who pioneered the introduction of menstrual cups in their national markets, reported similar observations. They understood the challenges tied to breaking taboos and launching non-conventional products. Consumers shared common concerns about the menstrual cups' shape, size, usage, and hygiene. Negative experiences from women in their immediate circles amplified these concerns.

Both groups emphasized the significant influence of community opinions on individual perceptions and choices. Friends and mothers play pivotal roles in shaping these opinions. Additionally, company representatives highlighted the impact of cultural norms and education on perceptions, underlining the importance of consumer education and trust-building through online communities and personal relationships.

Representatives identified their consumer base as environmentally-conscious, active, budget-conscious women, with heavy menstrual flows, ethical shoppers, and menstrual health advocates, aligning with the main motivating factors for product choice. Consumers, translating the opinions of their immediate social circles, described the advantages of menstrual cups as comfortable, eco-friendly, cost-effective, and practical.

To address the issue of limited information, interviewees recommended implementing school education on menstruation and product options. They also suggested involving gynecologists in awareness campaigns and providing accessible, reliable information to the public. Currently, they admitted to rarely seeking out information about menstruation and related products, but expressed interest in more practical and informative content.

Representatives agreed in the importance of effective communication and education. They utilize social media channels as their primary platforms for building trust and educating women about menstruation, product options, and proper menstrual cup usage. They are actively working on building communities to leverage the strong peer effect and establish a platform for women to communicate and share their experiences. In their efforts to enhance their products, communication, and reach potential consumers, they incorporate the feedback they receive into their product development and communication strategies. However, it's important to note that they must operate with limited financial and human resources. Despite producing valuable content, it may not always reach the intended target audience. For instance, the interviewed women were not familiar with these brands and had limited information about alternative period products.

None of the respondents saw a menstrual cup advertisement in the last month. And, although they are aware of some alternative period products (menstrual cups, period underwear), the consumer decision journey (Court et al., n.d.) fails after the awareness stage: due to the lack of information, they become uncertain and end up sticking to their habitual decisions. One interviewee purchased a menstrual cup, but she was having problems with the correct usage, therefore she put the product aside for a while.

To assess the effect of information, consumers were provided a brief description of menstrual cups at the end of the interview. All of them testified an increased receptivity towards menstrual cups: respondents became more open towards trying the product, they even claimed to consider purchasing one.

The qualitative research provided foundational insights into menstrual product adoption and facilitated a comparison of consumer and seller perspectives. A visual representation of the identified influential factors in the adoption process is presented in Figure 7. The findings from consumer interviews will serve as a basis for the development of an online questionnaire in the subsequent quantitative research phase.

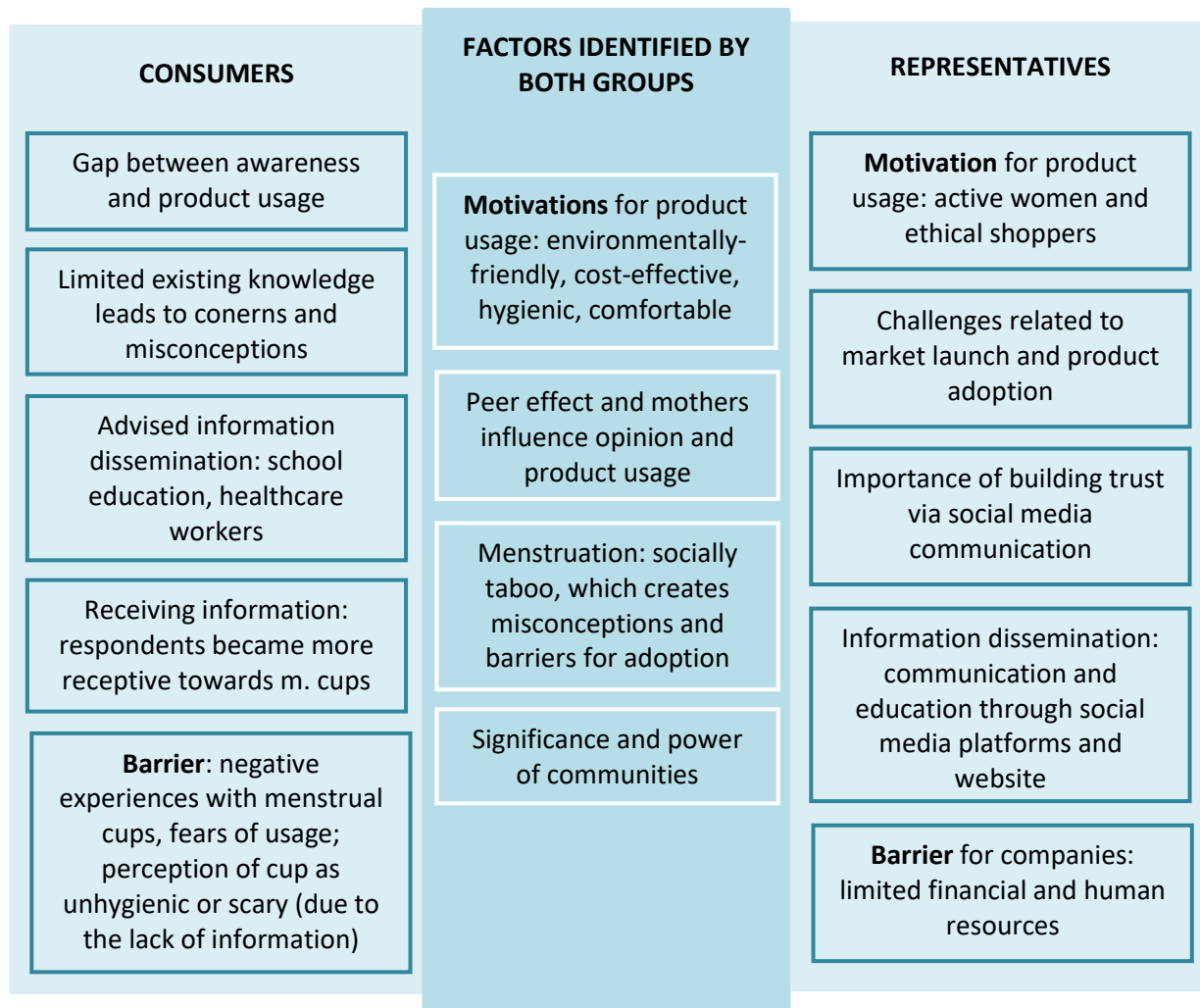


Figure 7: Identified influential factors in product adoption
Source: Constructed by the author

3.6. Methodology of the online questionnaire

The explorative research served as a base for the questionnaire survey. After analysing the discussions, an online questionnaire was created and published, which can be found in Appendix 5.

The objective of the online survey was to test the conjectures and issues raised during the semi-structured interviews and gain quantifiable data to be able to draw conclusions and form recommendations. Among the questions, the survey also contains a validated scale from Haws et al., namely the Green Consumer Values (2014), which will help to answer the fourth conjecture, regarding the positive relation between environmentalism and usage of menstrual cups. For some questions, the work of Spencer was used as a guide (2021) for the perception of menstruation and knowledge about alternative period products.

The survey was administered with Google Forms and was available between the 28th of February 2023 and the 27th of March 2023. The questionnaire was posted to Facebook and convenience sampling was used. 174 respondents filled it out in total.

To ensure that only valid respondents are included, filtering questions were used in the first part of the questionnaire, such as for the gender and age of the participants. Out of the 174 people, 7 men tried filling out the questionnaire and 18 women above the age of 50. These 25 people were excluded from the substantive part of the analysis, as they did not form part of the research's target group: women between the age of 18-50, having a regular menstruation. Further 6 women had to be excluded who were not having a menstruation, although matching the targeted age group.

The sample size became 143, all females, whose age distribution and occupational status is summarized in Table 5. Due to the convenience sampling used, the limited sample size and the unequal age-group distribution, the results of the analysis will not be representative. In the reduced dataset, 7 (5%) respondents are high school students, while 62 (43%) are studying at a university. Some of these people are also working, the total number of employed participants yielding 109 (76%). 10 (7%) are not working and 2 (1,4%) women are currently on maternity leave (Other).

Table 5: Demographic characteristics of the respondents

Demographics (N = 143)		Frequency	Relative frequency %
Age distribution	18-25 years old	72	50
	26-33 years old ale	32	23
	34-50 years old	39	27
Occupational status	High school student	7	5
	University student	61	43
	Employed	109	76
	Unemployed	10	7
	Other	1	1

Source: Constructed by the author

3.7. Findings of the online questionnaire

The online questionnaire served as a valuable instrument for conducting a comprehensive examination across a larger and more diverse population, assisting in gaining insights relevant to the conjectures of this work. In this chapter, the results of the quantitative research are structured around key topics and conjectures. These include the analysis of consumer perceptions concerning menstruation, their general product preferences, the extent of their environmentally conscious behaviors, and the relationship between these behaviors and their product choices. Furthermore, this chapter places particular emphasis on the exploration of the perception of menstrual cups, examining the motivating and inhibiting factors that influence the adoption of these products. The questionnaire's structure is aligned with the findings from the in-depth interviews. Additionally, this chapter delves into the concept of menstruation as a taboo subject and the subsequent impact of this societal perception on product choices.

3.7.1. Perception of menstruation, menstrual product preferences

Figure 8 shows that almost all respondents are familiar with sanitary pads and tampons. Based on their answers, menstrual cups are the most known reusable period products (77%),

followed by reusable pads (67%) and period underwear (63%). The options menstrual disc and cotton were added by respondents.

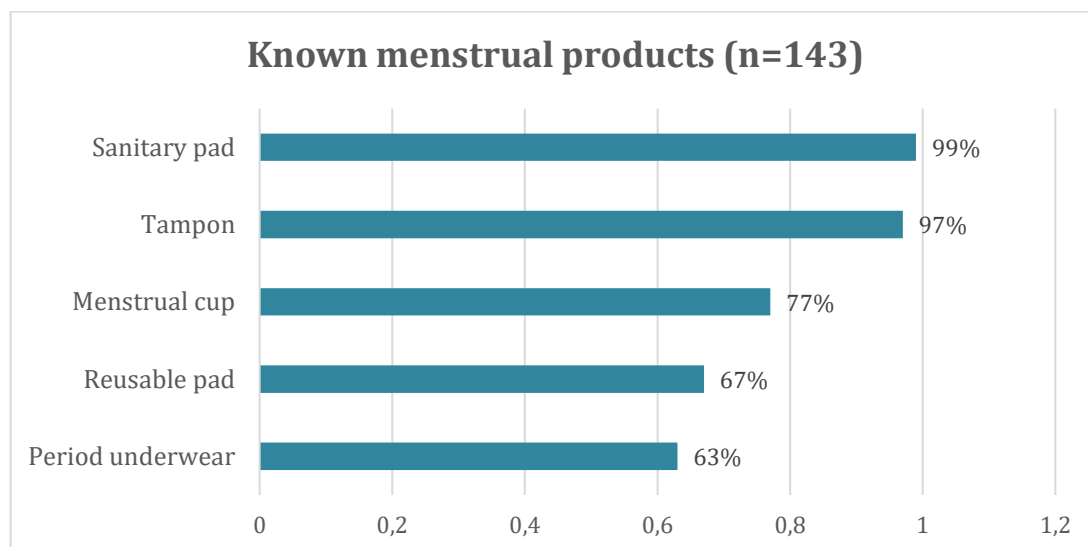


Figure 8: Menstrual products known by the respondents
Source: Constructed by the author

Figure 9 depicts the proportion of each menstrual product used by the respondents (the criteria was to have used a product at least once in their life). In the case of sanitary pads and tampons, the number of those who know and those who use the products are very similar. But as for the reusable period products, there is a significant difference between the two conditions. Only 31% of women have at least tried using a menstrual cup compared to the 77% who are familiar with it, and only 14% of women have ever tried using a reusable pad and 8% a period underwear. The option cotton was added by a respondent, probably referring to the practice of using cotton instead/in addition to disposable products also mentioned during the in-depth interviews.

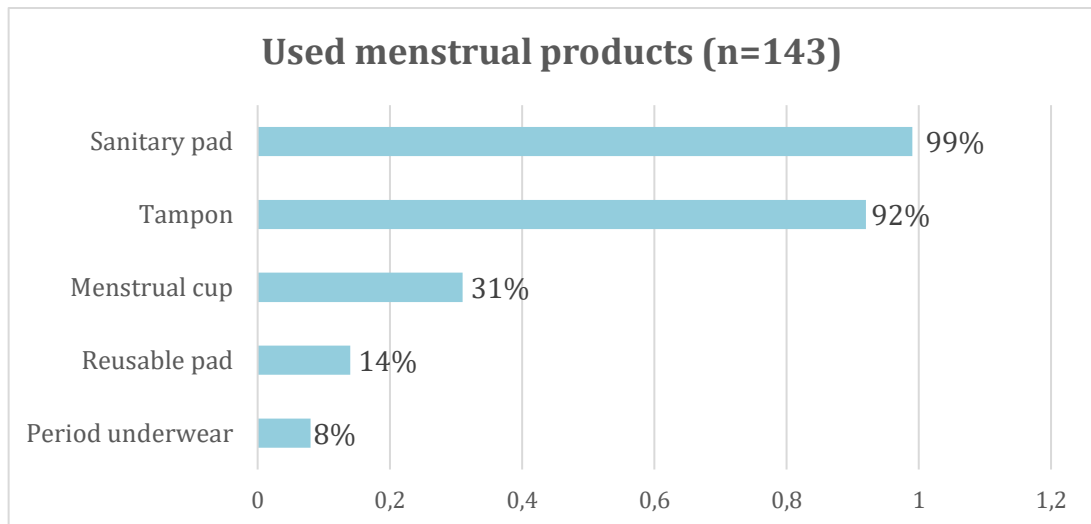


Figure 9: Menstrual products used by the respondents
Source: Constructed by the author

Respondents were assessed on how much they averagely spend on menstrual products in a month (Figure 10) and which criteria are the most important when choosing such goods (Figure 11). Most women spend between 1001-2000 Ft on feminine hygiene products monthly, the average being 1494.41 Ft, while the median value is equal to 1500 Ft.

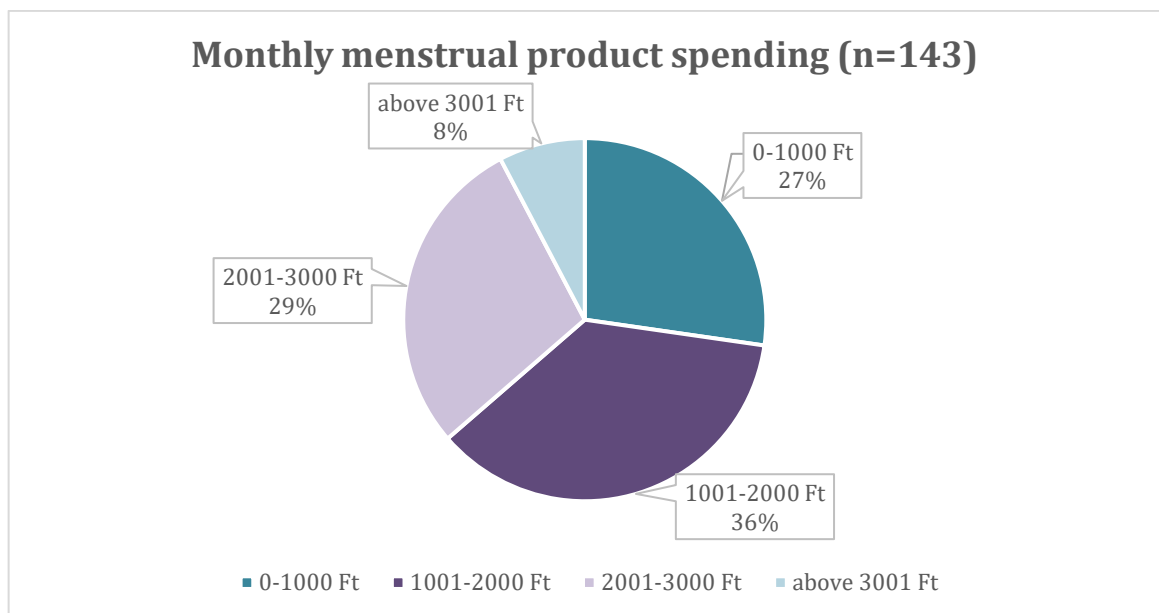


Figure 10: Average monthly spending on menstrual products
Source: Constructed by the author

Participants prioritized comfort and protection as the most crucial factors when selecting menstrual products. To assess product choice criteria, a 5-point Likert scale was used, where 1 indicated “not important at all” and 5 expressed “very important”. The results were analysed

with the top-2-box method, which calculates the highest scoring answer options. In this method, the sum of percentages for the top two most favorable scale points (4 and 5) is divided by the total number of responses (Morgan & Rego, 2006). The most influential factors in product selection were ranked in descending order, with comfort and protection emerging as the top priorities. These findings are consistent with previous research by Spinks (2015) and van Eijk et al. (2019), who have also emphasized the importance of menstrual products being easy to use, non-leaking, and comfortable enough to wear during daily activities.

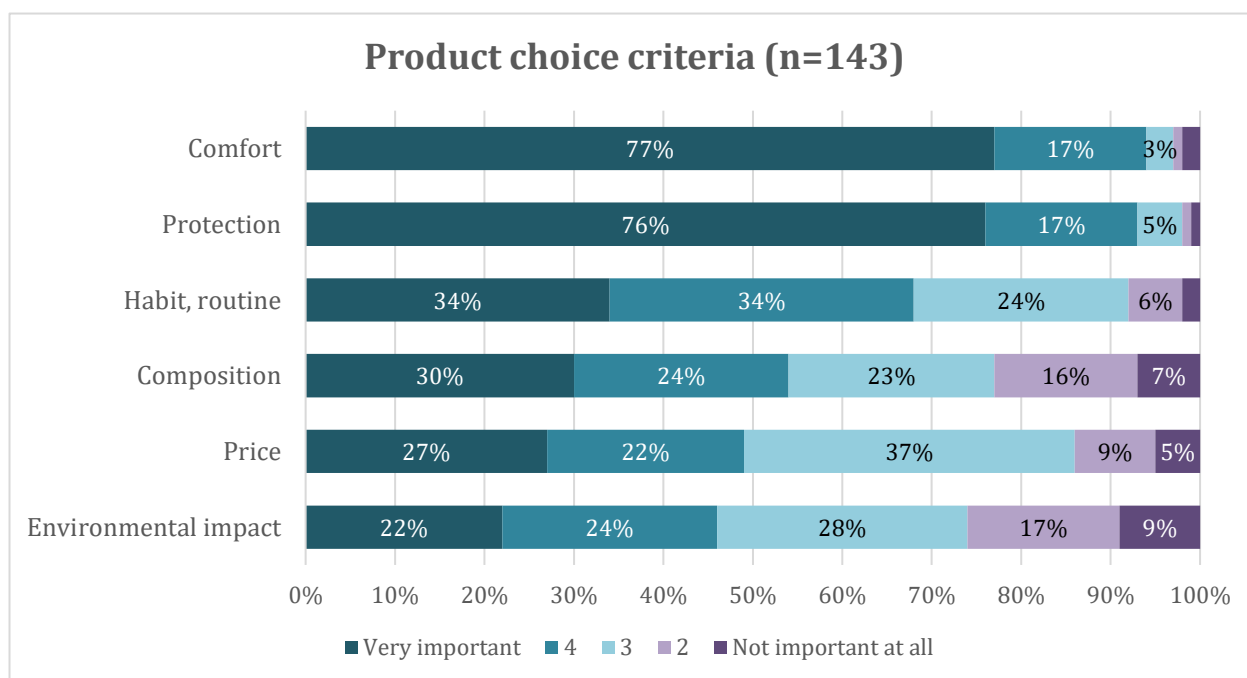


Figure 11: Significance of different factors in product selection

Source: Constructed by the author

The results were analysed with the top 2 box score

Based on the provided data, it can be observed that a significant majority of the respondents (73.4%) prefer to seek information about menstrual products on the internet (Figure 12). The second most popular source of information is friends (46.9%), followed by social media (45.5%). A notable 19.6% of women rely on knowledge obtained from their mother, while 15.4% reported not seeking information at all. Additional options such as "doctor", "supermarket shelves", "siblings", and "shops, pharmacies, ads" were provided by the respondents. It is interesting to note that a relatively high number of participants (15%) do not seek information about feminine hygiene products despite menstruation being a phenomenon that affects all respondents. These findings can provide valuable insight for future promotional

strategies of menstrual products, specifically highlighting the platforms where women are most likely to seek out information.

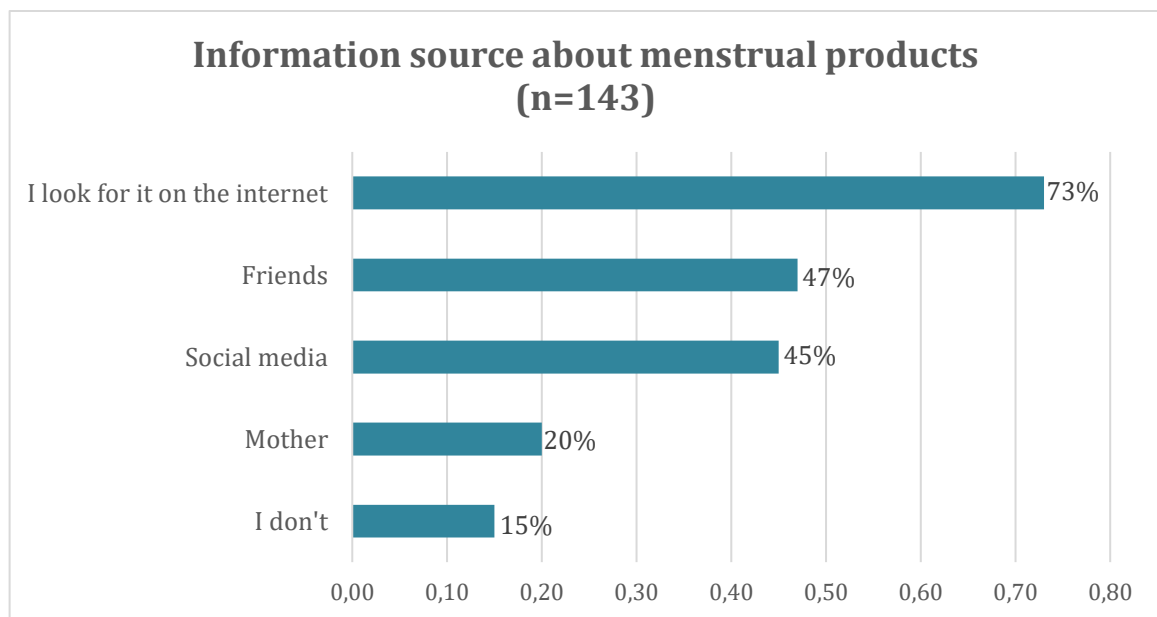


Figure 12: Information sources of participants about menstrual products
Source: Constructed by the author

Respondents were assessed on their agreement level with various statements about menstruation using a 5-point Likert scale, where 1 indicated “*I do not agree at all*” and 5 represented “*I totally agree*”. The questions examined factors such as the perception of menstruation as a taboo topic and the interest in obtaining further information about products and the phenomenon. Overall, 67% of respondents find the information about menstruation and period products easily accessible, 59% reported to talk about menstruation easily in their personal lives and 41% of respondents would like to get more information (those who rated with at least 4 on the scale).

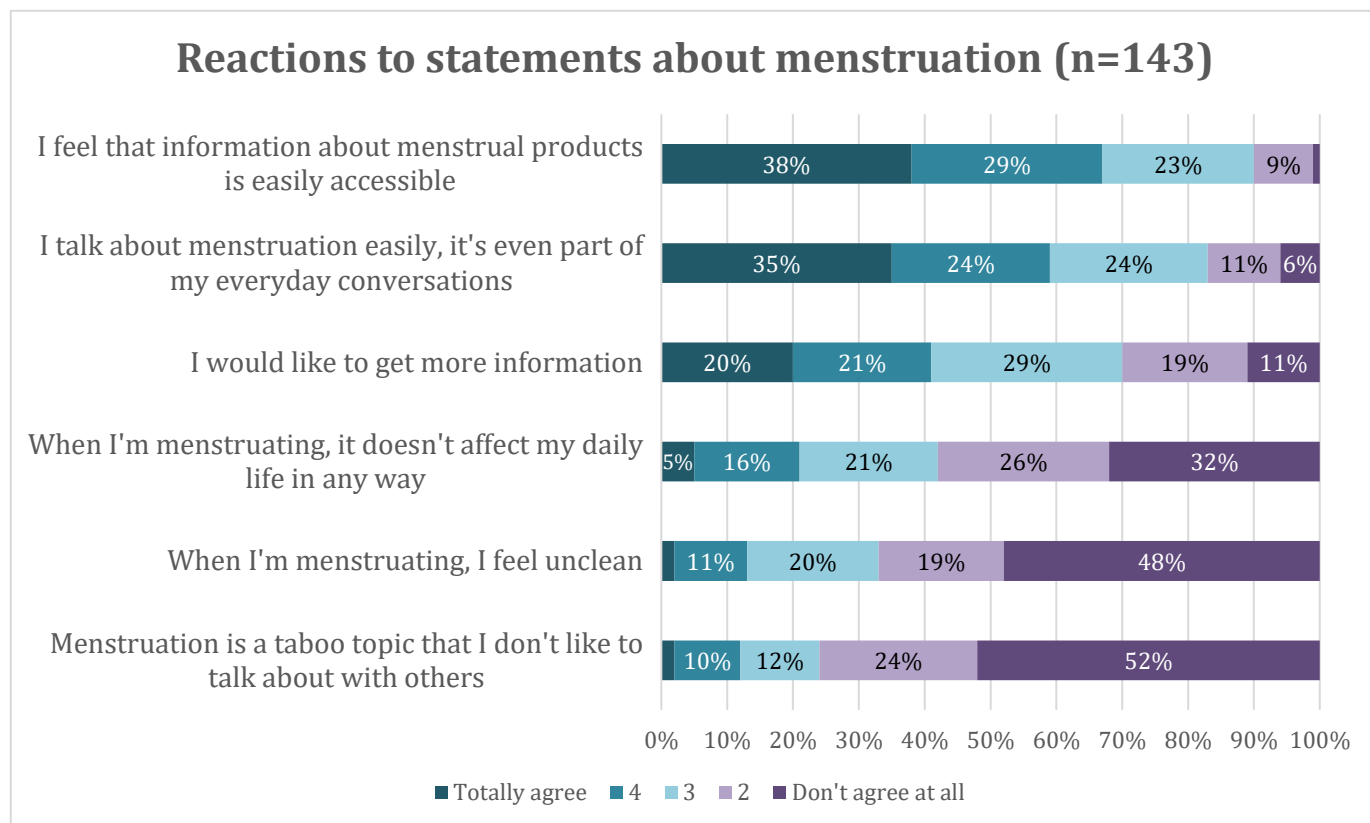


Figure 13: Agreement of participants on statements about menstruation

Source: Constructed by the author

The results were analysed with the top 2 box score

Figure 14 depicts the relation of women to menstruation. Only 8% of respondents claimed to have a negative relationship with menstruation (values 1 and 2 on the 5-point Likert scale), 34% a neutral and the majority (58%) reported a positive relationship. These responses are aligned with the results of the previous questions about menstruation as a taboo topic.

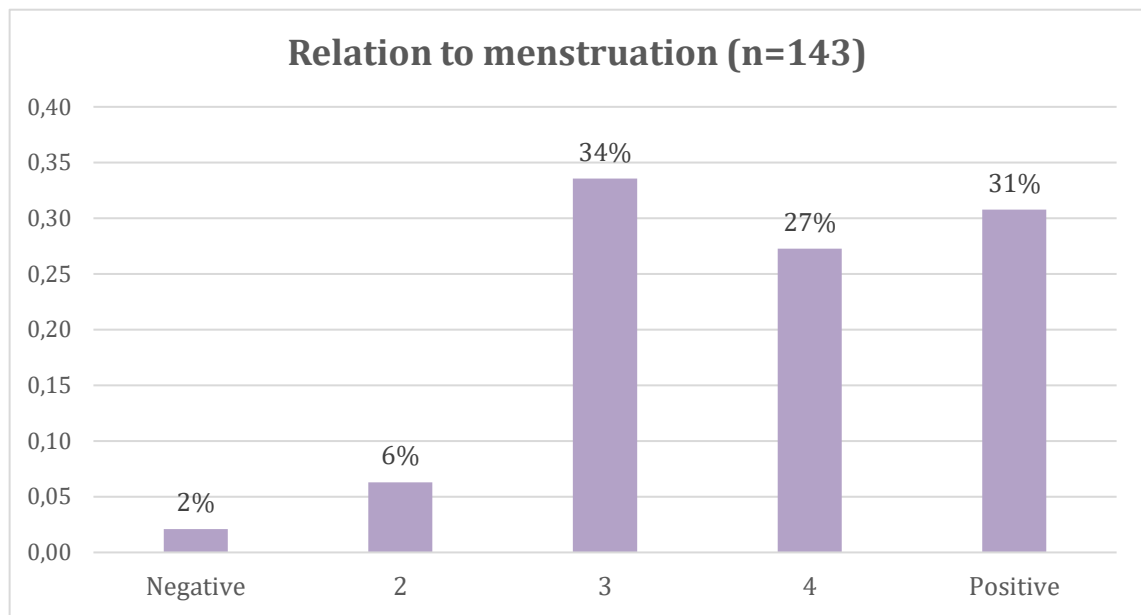


Figure 14: Relationship of participants to menstruation
Source: Constructed by the author

3.7.2. Conscious consumerism, environmental protection

The environmentally conscious behavior of participants was evaluated using the Green Consumption Values, based on the research by Haws et al. (2014). The level of agreement with specific statements was measured on a 5-point Likert scale, where 1 indicated “*I do not agree at all*” and 5 represented “*I totally agree*”. The statements and participants' reactions are presented in Figure 15. Notably, two statements in Figure 15, related to shopping habits and consumers perceived environmentally-consciousness, exhibit striking values that deserve attention.

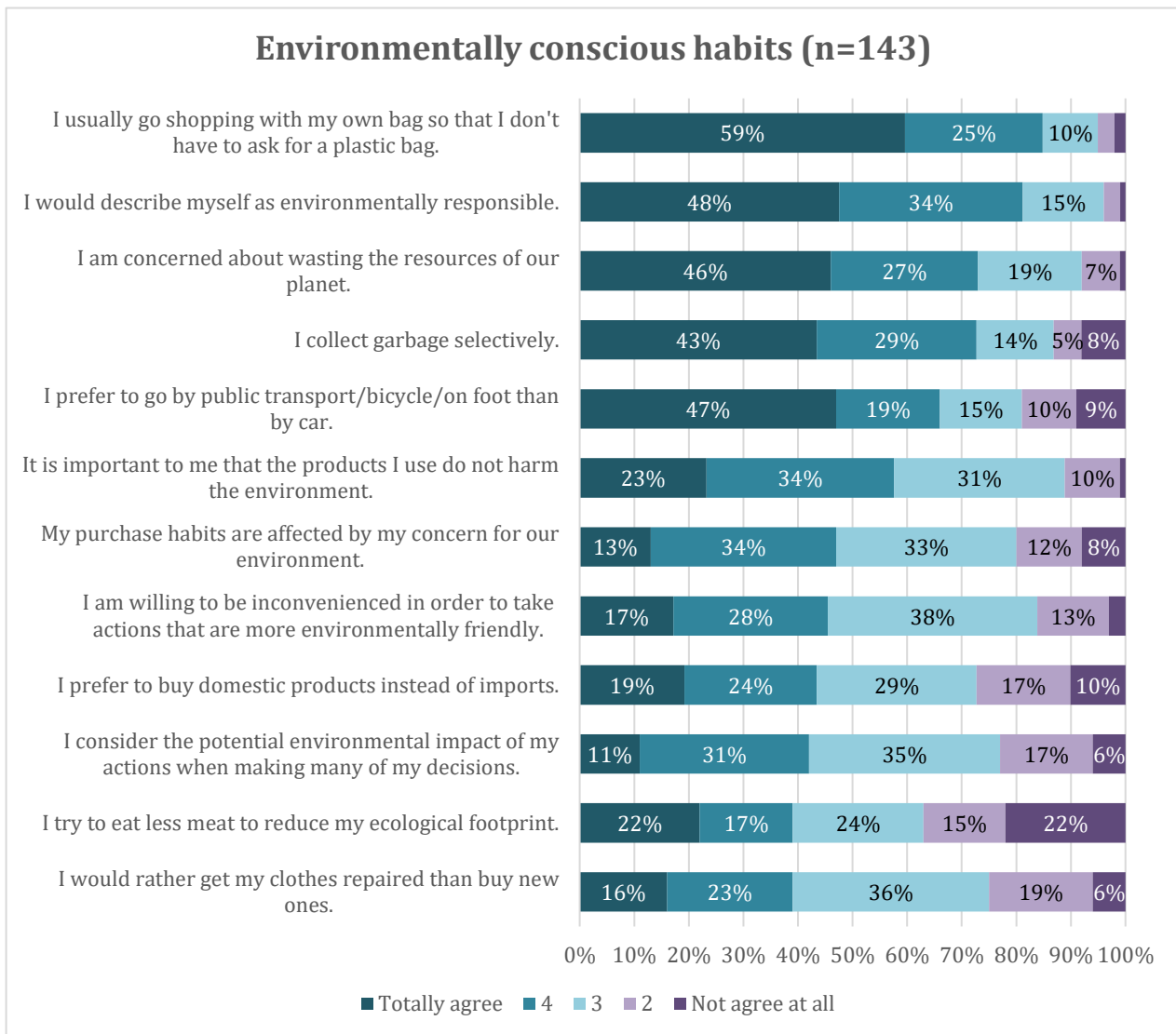


Figure 15: Environmentally conscious habits of the respondents
Source: Constructed by the author
The results were analysed with the top 2 box score

3.7.3. Menstrual cups

The participants were evaluated based on their usage of menstrual cups, as shown in Figure 16. The response options ranged from being knowledgeable about and actively using the product to having no knowledge about it and expressing no interest in trying it. The findings revealed that 22% of the women currently use a menstrual cup, 37% are aware of them but do not use them, and 8% have previously used one. Additionally, 23% expressed an interest in trying menstrual cups, while 10% indicated their reluctance to do so. These responses are consistent with the question pertaining to participants' usage of menstrual products.

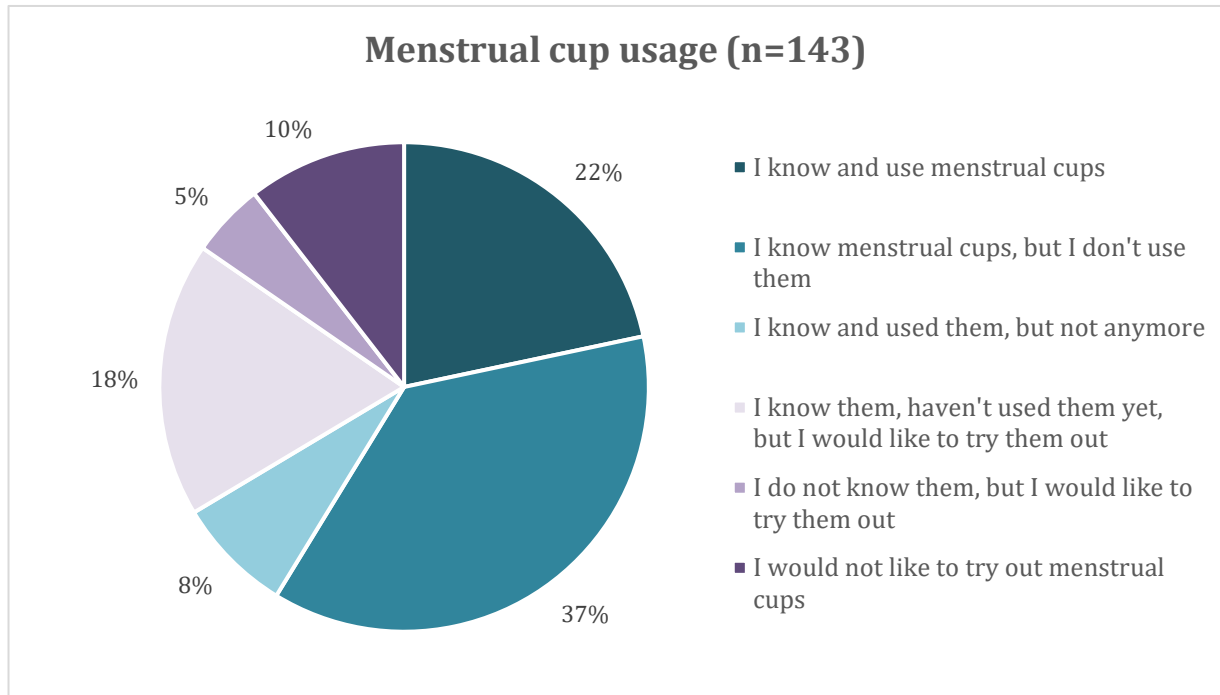


Figure 16: Menstrual cup usage of respondents
Source: Constructed by the author

The findings reveal that a significant proportion of the surveyed women, who self-identified as menstrual cup users or expressed a desire to use the product, chose environmental considerations (61%) and comfort (58%) as their primary motivations (Figure 17). Although, cost efficiency (52%) and health-related reasons (40%) also achieved noteworthy scores. The option “*curiosity*” was manually added by the respondents.

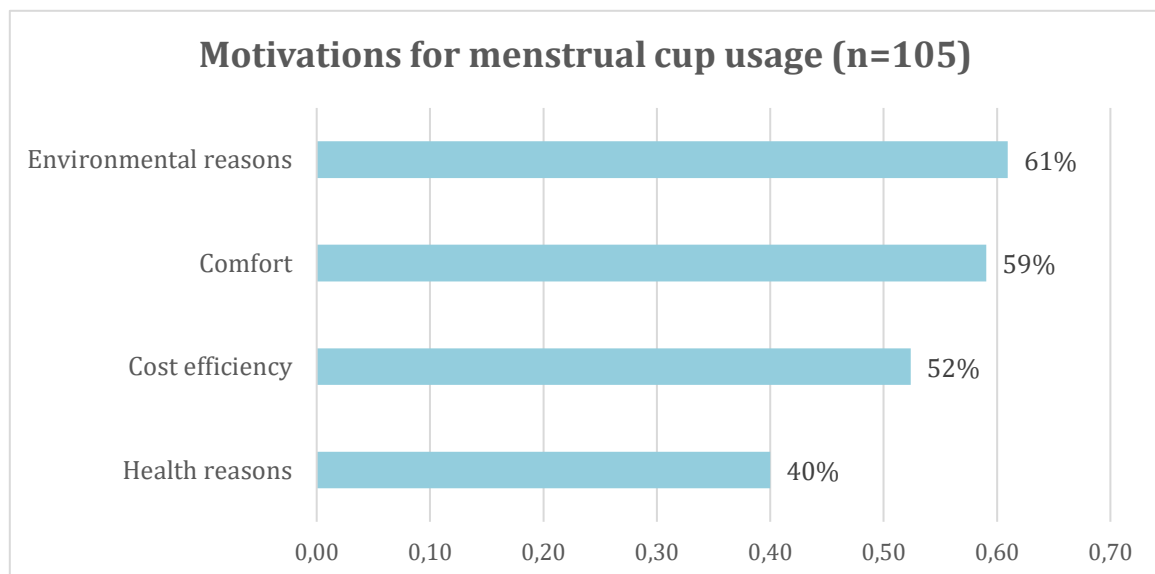


Figure 17: Main motivations for menstrual cup usage of the respondents
Source: Constructed by the author

Women who do not use menstrual cups were asked about the primary factors impeding their usage (Figure 18). The results revealed that hygienic concerns ranked highest as the main barrier (47%), followed by perceived fears of the product being "scary" or "painful" (34%), lack of familiarity with the product (23%), and absence of others in their immediate environment using it (19%). Manually added answers were categorized into two main groups: perceptions of the product as complex or difficult to use, and preference for existing routine solutions.

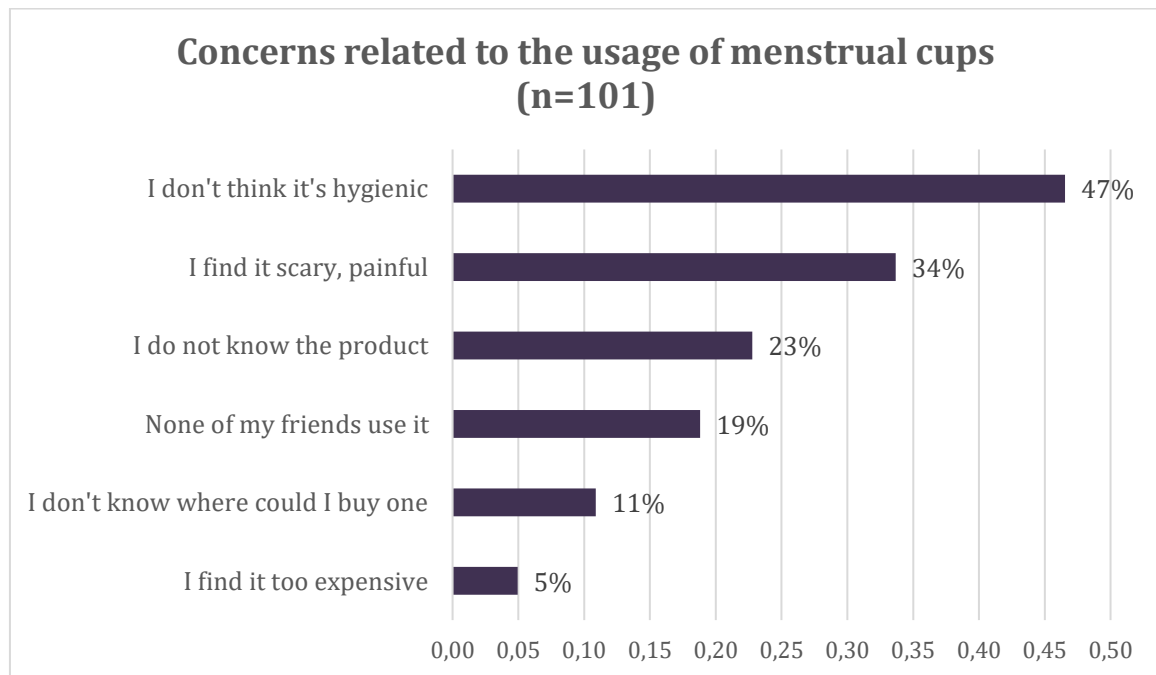


Figure 18: Factors hindering the usage of menstrual cups
Source: Constructed by the author

3.7.4. Effect of information dissemination

In the final section of the survey, participants were presented with a brief description of menstrual cups, which can be found in Appendix 3. The objective of this section was to assess any shifts in respondents' opinions regarding the product. Figure 19 presents the corresponding results, obtained using a 5-point Likert scale, where a rating of 1 indicated a "change in a negative direction," and a rating of 5 represented a "change in a positive direction." Among the respondents, 2% reported a negative change (scoring 1 or 2), 41% reported no change, and 56% reported a positive change in their opinions.

Based on Figure 19, providing information is an effective tool for changing opinions in a positive direction. However, it is important to note that this only pertains to changing opinions

and does not measure changes in decision-making. Further research is needed to assess decision changes accurately.

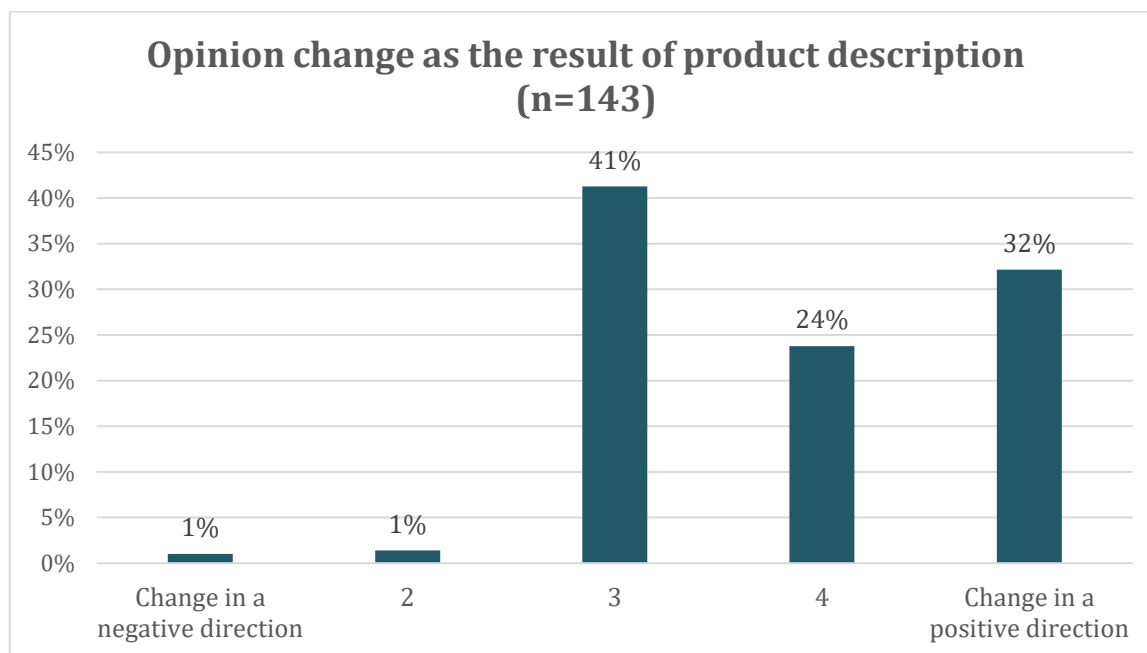


Figure 19: Opinion change of respondents on menstrual cups
Source: Constructed by the author

According to Figure 20, the results indicate that 69% of women expressed their willingness to try out the menstrual cup after being provided with a brief description. This suggests that providing information about the products and bridging the knowledge gap has a positive impact on openness and product usage.

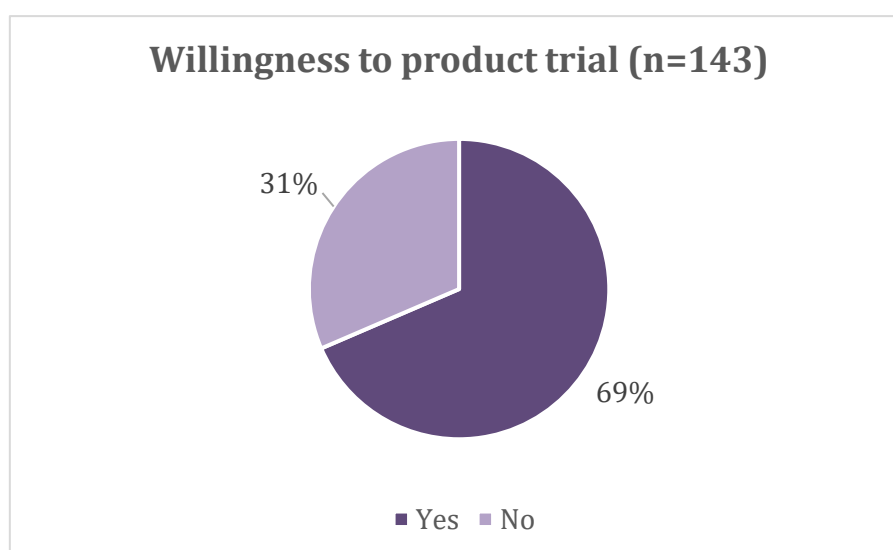


Figure 20: The impact of the product description on openness to product trial
Source: Constructed by the author

3.7.5. Relationship analysis

Based on the available data, an examination was conducted to determine if there is a relationship between the assessed variables and, if so, what kind of relationship exists. One such explored relationship was between habitual buyers (Figure 11) and the types of menstrual products used (Figure 9). To analyze this, consumers were first categorized: those who exclusively used disposable menstrual products were labeled as "*traditional*", while those who had tried at least one reusable product were labeled as "*alternative*". Individuals who rated at least a 4 on the third question in Figure 4 were referred to as "*habitual buyers*". This allowed for further investigation into the potential connection between these variables.

The results depicted in Figure 21 indicate that routine purchasing does not significantly influence product selection. This is supported by the performed Chi-square test, with a p-value of 0.8130, indicating that the null hypothesis cannot be rejected. Therefore, there is no significant relationship between purchasing habits and product usage.

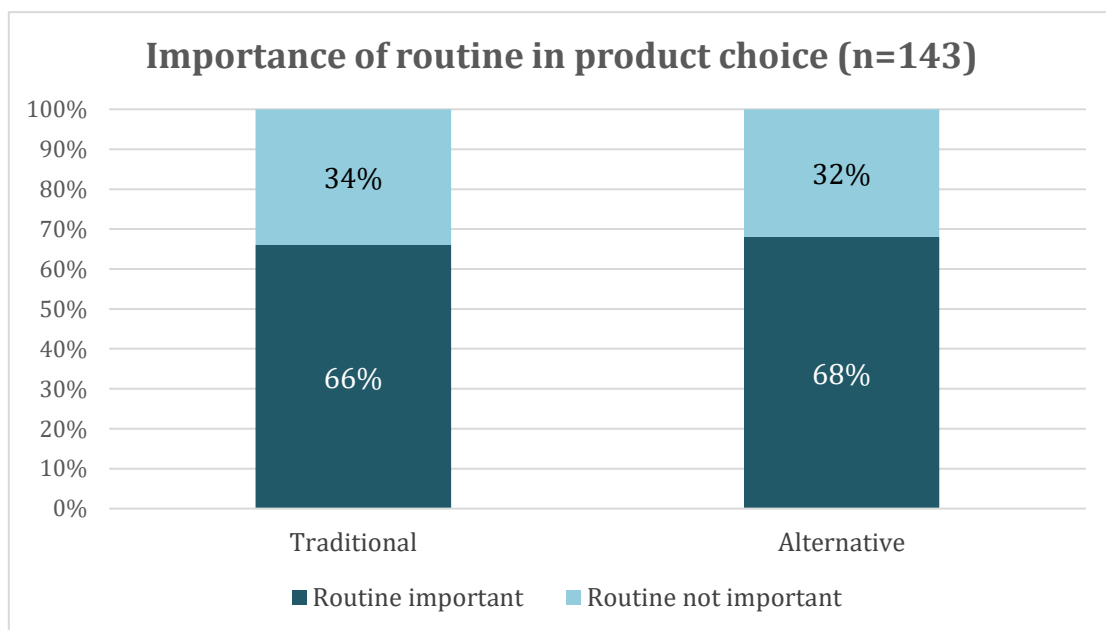


Figure 21: Effect of routine on product choice
Source: Constructed by the author

Similarly, the relationship between product usage and the importance attributed to "*environmental impact*" during product selection was examined. In this case, the responses to the question were compared with the usage of menstrual cups (Figure 16). The distribution of the data is depicted in Figure 22. The results reveal a significant relationship between

environmental consideration and menstrual cup usage, as supported by a p-value of 1.2107E-06.

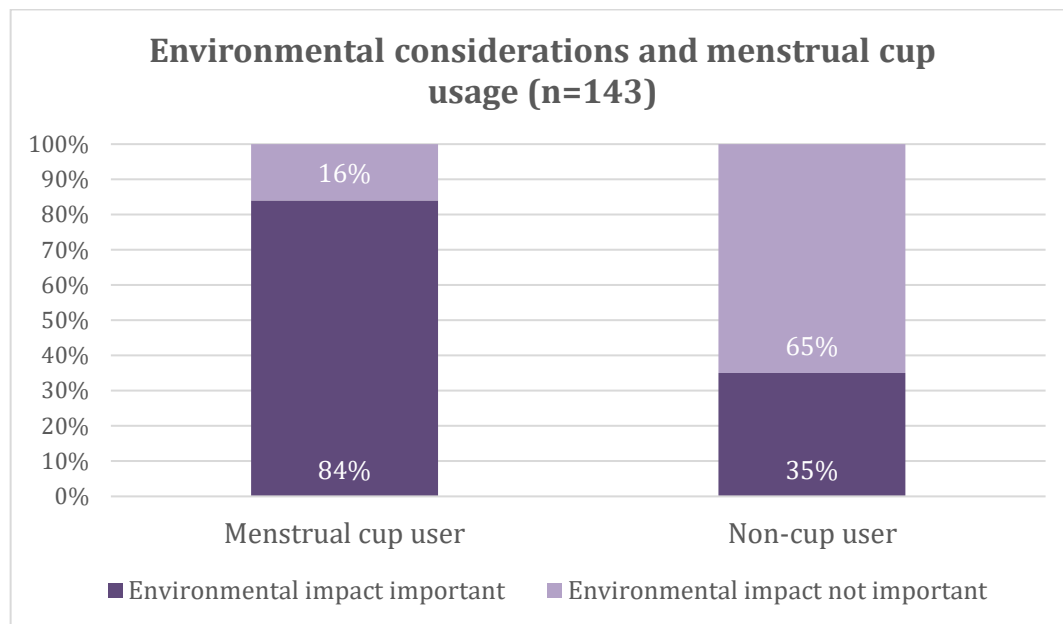


Figure 22: Effect of environmental consideration on menstrual cup usage
Source: Constructed by the author

Those respondents who search for information about menstrual products (Figure 12) are more likely to be menstrual cup users (Figure 23), The relationship is supported by a p-value of 0.0073.

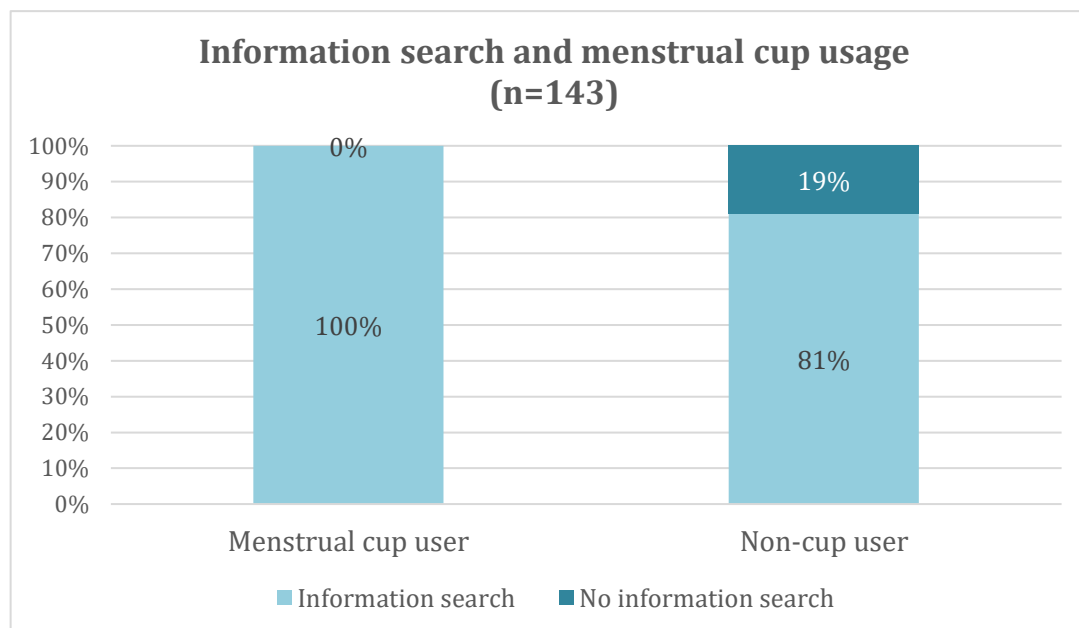


Figure 23: Relationship of information search and menstrual cup usage
Source: Constructed by the author

Although there is a higher number of women who use menstrual cups among those who claim to have a positive relationship with menstruation (indicated by Likert values above 4 on Figure 14), the correlation analysis reveals that there is no significant correlation between menstrual cup usage and the respondents' relationship with menstruation (p-value: 0.2162). Figure 24 provides a visual representation of this relationship.

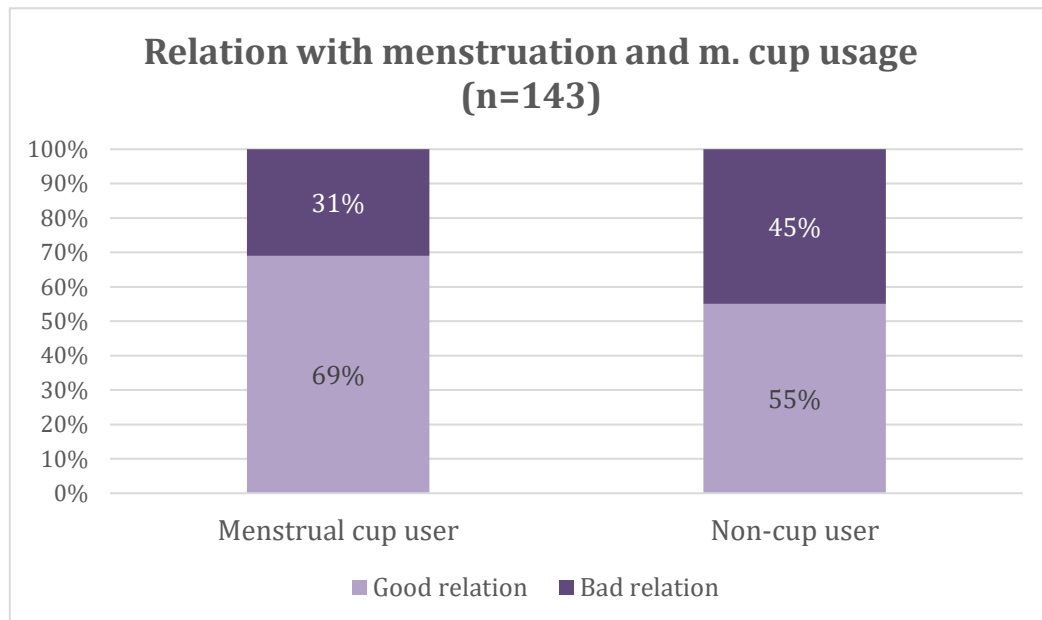


Figure 24: Relationship of relation to menstruation and menstrual cup usage
Source: Constructed by the author

Based on Figure 15, it can be observed that women between the ages of 26-33 exhibit the highest level of environmental consciousness (Figure 25). This was assessed by calculating the average of the 12 questions from the Green Consumption Values. Using a threshold of 3.5 as an indicator, all age groups demonstrate a certain degree of environmental consciousness, with women aged 26-33 showing the highest average value of 3.80. However, it is important to note that the results are not completely predictive, as the distribution of age groups is not symmetrical.

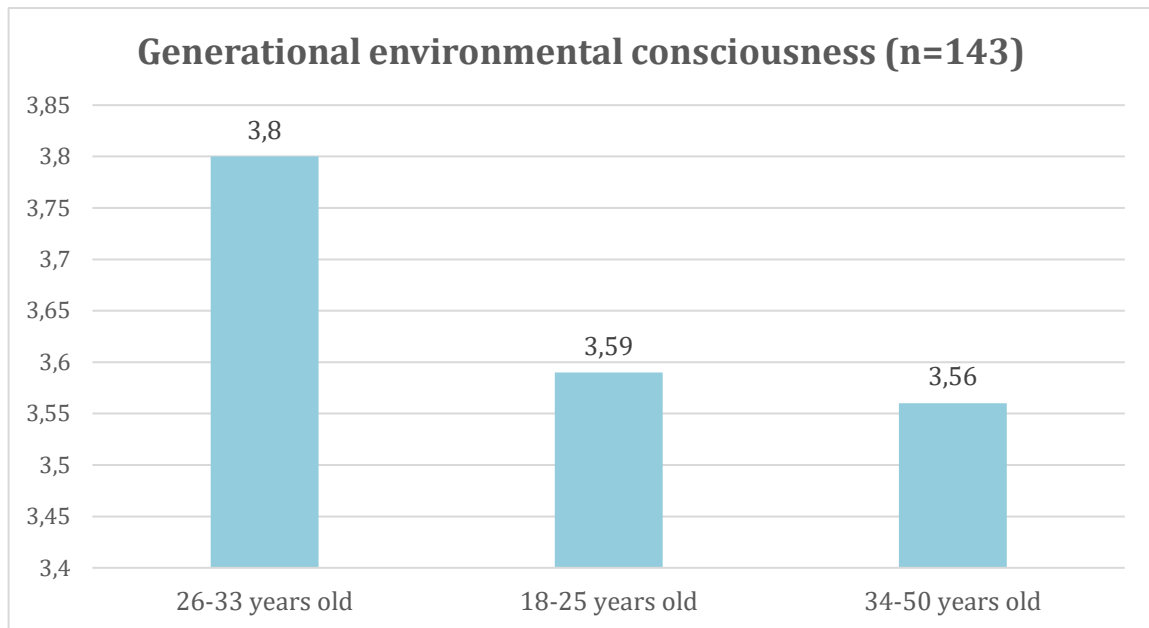


Figure 25: Environmental consciousness of the age groups
Source: Constructed by the author

An ANOVA test was conducted to examine the presence of a significant difference between the alternative and traditional groups in terms of their engagement in environmentally conscious shopping habits (Table 3). The ANOVA analysis enabled the identification and control of variability and other potential confounding factors. The means of questions 6, 7 and 10 from the Green Consumption Values were compared between the two groups. The obtained high p-value of 0.5911 suggests that there is no significant difference in the means between the alternative and traditional groups. Consequently, there is no correlation between exhibiting environmentally conscious behavior during shopping and menstrual product usage.

Table 6: ANOVA test

	Groups	Obs.number	Sum	Mean	Variance	
	alternative	72	241.6666667	3.356481481	0.986937054	
	traditional	71	244.3333333	3.441314554	0.786586184	
Factors	SS	df	MS	F	p-value	F crit,
Between groups	0.257267663	1	0.257267663	0.289888175	0.591141151	3.908258111
Within groups	125.1335637	141	0.887472083			
Total	125.3908314	142				

Source: Constructed by the author

3.7.6. Regression and decision tree model

A logistic regression model was developed to explain the usage of menstrual cups based on questionnaire responses, incorporating dummy variables for categorical variables. The model included all explanatory variables and utilized a total of 143 observations. The Multiple R-squared value was 0.6681, indicating that approximately 66.81% of the variance in menstrual cup usage was explained, while the Adjusted R-squared was 0.5596. The p-value for the global F-test was 1.591e-13, signifying that the overall model is statistically significant. The values and significance of the coefficients for each variable can be found in Figure 26.

The beta parameters provide insights into the impact of a one-unit change in the predictor variable on the log-odds of the outcome. A positive β_1 suggests a positive relationship, indicating that an increase in x_1 leads to an increase in the log-odds of the outcome. Conversely, a negative β_1 suggests a negative relationship, indicating that an increase in x_1 leads to a decrease in the log-odds of the outcome.

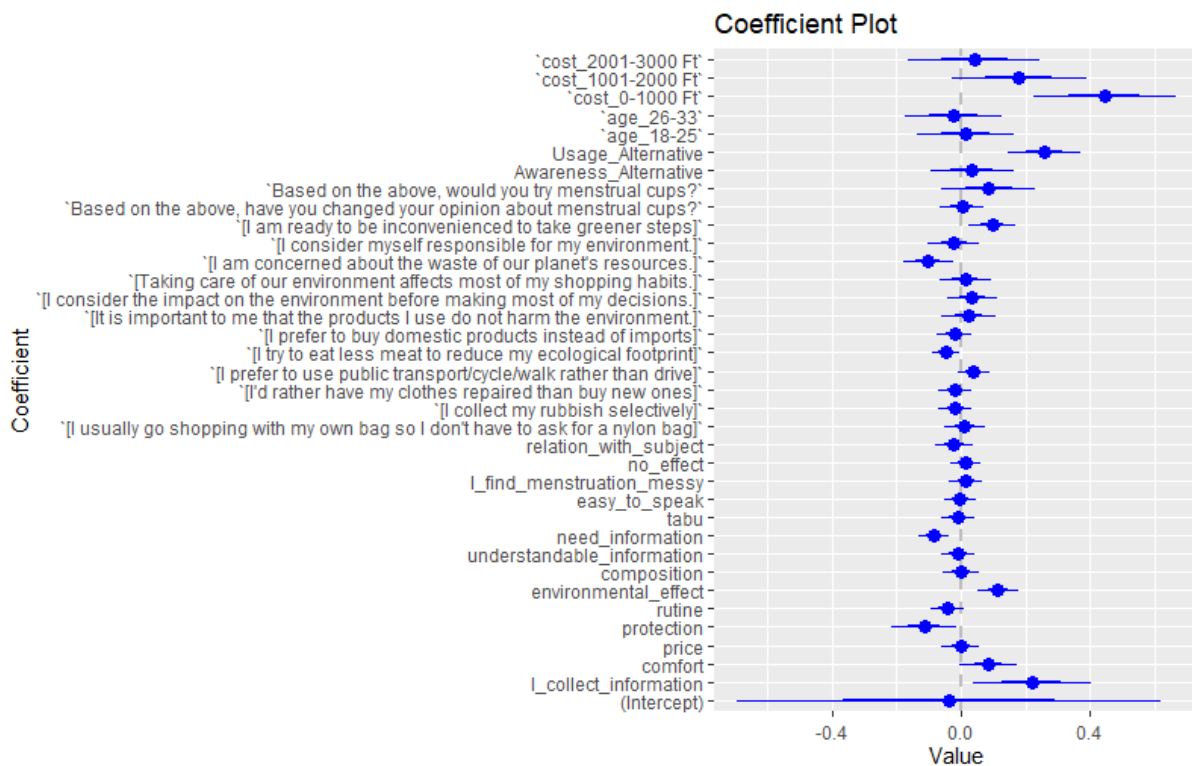


Figure 26: Regression for menstrual cup usage
Source: Constructed by the author

The analysis reveals that the use of alternative products, low monthly expenditure, and a willingness to gather information exhibit a statistically significant strong positive association with menstrual cup usage. On the other hand, belonging to the age group of 26-33 shows a weak

negative association, while a moderate negative association is observed for the preference of adequate protection. The model was not tested for OLS assumptions, and it might be necessary to remove variables with high multicollinearity to meet these assumptions. However, this could potentially reduce the explanatory power of the final model.

Similarly, a decision tree model was constructed using the same variables to explore potential non-linear relationships, which can capture interactions and non-linear patterns overlooked by logistic regression. The model hierarchy provides information on variable importance and cutoff points for predictions. By comparing the decision tree model with logistic regression, it offers insights into the factors influencing menstrual cup usage and enhance prediction accuracy.

The non-linear model yielded slightly different results compared to the regression model (Figure 27). In this model as well, low monthly expenditure emerged as the most significant variable. For instance, according to the decision tree, a person with a menstruation expenditure of 800 HUF might be predicted to fall into the "Usage" class, whereas someone with an expenditure of 1200 HUF might be predicted to fall into the "Not Usage" class. Notably, the non-linear model highlighted the significance of environmental factors as the most influential factors in identifying potential cup users.

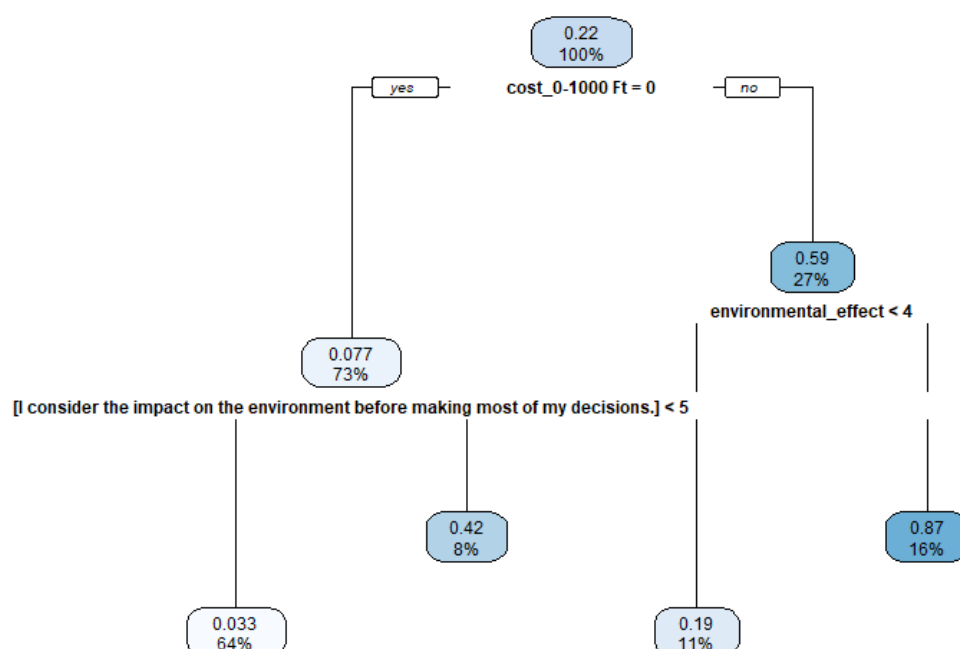


Figure 27: Decision tree model for menstrual cup usage
Source: Constructed by the author

4. Discussion on findings

This chapter presents a systematic analysis of the research findings, aligning them with the study's primary questions and key hypotheses. It initiates with an examination of the conclusions drawn from the hypotheses, followed by the presentation of recommendations and prospective insights. The aim of the discussion is to address the conjectures proposed in this research, addressing topics such as the knowledge gap, the taboo surrounding menstruation and menstrual cups, the environmental considerations of consumers, and the role of knowledge in influencing product choices. These findings are further contextualized within the framework of the Diffusion of Innovation theory, which has been a central theme throughout this work. The insights derived from the awareness stage are expected to contribute to advancing menstrual cups to the consideration phase, and expanding the awareness to a broader audience. Finally, the chapter concludes with an examination of the study's limitations.

4.1. Conclusion of the conjectures and original problem proposition

This section provides a summary and evaluation of the study's findings, considering their relevance to the research question. Recommendations are presented based on the results, and the limitations of the study are discussed. This information can provide valuable insights into consumer behavior and preferences, particularly for companies involved in the sale of menstrual cups.

The research question aimed to investigate the reasons behind the lack of popularity of menstrual cups, despite their comparative advantages and potential cost and waste reduction benefits in the context of menstruation. To explore this phenomenon, four conjectures were formulated:

1) The lack of purchase and usage can be linked to uncertainty about the product, unanswered fears and a sense of shame due to the still existing treatment of menstrual products as a taboo.

2) A significant barrier for women using menstrual cups is the lack of knowledge about the product (comfort, applicability, health concerns, cost effectiveness).

3) Individuals with a stronger environmental consciousness exhibit greater receptiveness towards menstrual cups.

4) Consumers are more likely to use disposable menstrual products if they don't know about their harmful effects on the environment.

To address the formulated conjectures, a mixed methods study was undertaken, utilizing in-depth interviews with a sample size of five participants and expert interviews with two menstrual cup company representatives, as well as an online questionnaire completed by 143 respondents. The combination of these research methods enabled a comprehensive analysis of the research question.

In addition to mapping the investigated factors, the added value of this research lies in the complexity of the primary research conducted in the examination of the awareness stage of the adoption of menstrual cups. The qualitative interviews with two distinct sets of stakeholders, combined with the quantitative survey, allowed for a versatile exploration of the issue. Consequently, the problem was analyzed from both the consumers' and suppliers' perspectives in an area where the perception of menstrual cups is currently underrepresented. Most research on the topic has been conducted in developing countries, while first world countries, especially Central Europe has been neglected.

Uncertainty and taboos

The findings from both qualitative and quantitative research reveal significant concerns associated with the usage of menstrual cups, the most prevalent concerns being the fear of unhygienic conditions and the perception of the product as scary and painful (Figure 18).

The findings clearly indicate that consumers tend to rely on traditional menstrual products, often inheriting these practices from their mothers. Consequently, the prospect of considering alternative menstrual products may appear unnecessary. In the absence of information regarding the comparative advantages of these alternatives, the idea of transitioning to them does not even cross their minds. Traditional products remain the prevalent choice, and as a result, there is minimal societal pressure to embrace alternatives; in fact, the traditional menstrual product companies continue to run extensive advertising campaigns, significantly shaping societal perceptions. Meanwhile, uncertainties surrounding alternative products persist.

These negative perceptions and the resulting uncertainties inhibit consumer adoption of this innovation. In interviews, company representatives suggested that these fears could be alleviated through educational initiatives conducted via their social media platforms and the

establishment of a community where women can engage in open discussions about their concerns, experiences, and challenges.

The results obtained from the online questionnaire indicate that women generally do not view menstruation as a taboo topic in their personal lives, implying that this factor is unlikely to be the primary cause of low menstrual cup adoption (Figure 13). Similarly, there is no significant correlation between the use of menstrual cups and women's attitudes toward menstruation (Figure 24). Consequently, the relatively low adoption rate of menstrual cups cannot be directly attributed to the perception of menstruation as a taboo subject. The analysis of these figures suggests that factors other than societal taboos surrounding menstruation are responsible for the limited adoption of menstrual cups.

Although it must be noted that in the case of analyzing the taboo factor, potential bias that may have emerged. It's possible that women who are more open to discussing the topic were more willing to complete the questionnaire, while those who feel a stronger impact from social stigma might have been less inclined to participate in the survey. All interview respondents unanimously agreed that menstruation remains a social taboo (even if they don't consider it a taboo in their personal lives), which is confirmed by the reviewed literature (Carneiro, 2021; Kowalski & Chapple, 2000). To address the issue of bias, a randomized sampling method is recommended.

Knowledge gap

The findings of the research highlight several key insights regarding the knowledge gap in the context of menstrual cup adoption. Firstly, it was observed that many consumers, while being aware of menstrual cups, had imprecise or incomplete knowledge about them. This lack of precise information often led to uncertainties and fears about the product. To address this gap in knowledge, it is crucial to focus on increasing awareness among consumers.

Furthermore, the research revealed that there are different types of knowledge gaps among consumers. Some individuals were unaware of the existence of menstrual cups, and for them, the primary goal should be to provide basic information about the product and its advantages. On the other hand, some consumers were aware of the product but did not fully understand its benefits, such as its cost-effectiveness, sustainability, safety, hygiene, and comfort. For this group, in addition to information dissemination, building trust and emphasizing the sustainability aspect of menstrual cups is essential (Owen, 2022; Steinkogler, 2021).

The quantitative research demonstrated that providing a product description positively influences consumers' opinions about menstrual cups (Figure 19). This change in opinion may potentially lead to a willingness to try the product. The willingness to gather information also showed a significant positive association with the usage of menstrual cups (Figure 20), indicating that addressing the knowledge gap can lead to increased product adoption. These findings are consistent with the research conducted by Grose and Gabe (2014) and Peberdy et al. (2019), who concluded that women with prior knowledge are more open towards using alternative period products, therefore education about the topic could and should be improved.

Another factor identified as a barrier to product adoption is the negative perception of menstrual cups. This negative opinion is not solely due to a lack of knowledge but also influenced by personal perceptions. It is essential to distinguish between experience and perception. Research has shown that personal experience with menstrual cups tends to have a positive impact on one's perception of the product (Owen, 2022; Steinkogler, 2021). In contrast, a negative opinion of the product often stems from the experiences and opinions of individuals within one's immediate social circle. Both qualitative and quantitative research revealed that the views of one's immediate social environment can have a significant influence (see Figure 12). For instance, a negative experience reported by a friend can strongly affect a consumer's perception and willingness to try the product.

Environmentalism

Weir (2015) originally argued that there is no clear correlation between concerns about the environmental impact of period products and product choice. This argument was supported by the findings supported by the created ANOVA table, which indicated no correlation between exhibiting environmentally conscious behavior while shopping and menstrual product usage. However, the analysis of the responses of the online questionnaire provides an opposing perspective. It shows that the primary motivation for using menstrual cups is environmental reasons (Figure 17), suggesting a clear link between environmental concerns and cup usage. Additionally, a significant relationship is demonstrated between environmental considerations and menstrual cup usage (Figure 22). Furthermore, the decision tree model reinforces this finding by highlighting the influential role of environmental factors in identifying potential cup users, emphasizing their significance as the most influential factors in the non-linear model.

Thus, it can be concluded that there is indeed a correlation between environmentalism and menstrual cup usage. These findings are also consistent with the work of Peberdy et al.

(2019), who found a correlation between environmental awareness and product choice. However, it is important to note that this correlation cannot be solely determined based on consumers' shopping behaviors. Other factors and variables need to be considered to obtain a comprehensive understanding of the relationship.

Improvident product choice

The conducted in-depth interviews clearly indicated that consumers are more inclined to use disposable menstrual products when they are unaware of the harmful effects on the environment. However, it is important to note that conclusions based solely on non-representative in-depth interviews are limited. Therefore, additional factors were analyzed to gain a comprehensive understanding.

Rosas (2021) and Shure (2016) argued that menstrual cups have begun to become more popular historically when women started to explore the advantages of the products. This research delved deeper into this question by examining the effect of offering information to consumers. Respondents of the online questionnaire displayed a positive shift in opinion when provided with a product description highlighting both the product itself and its environmental advantages (Figure 19). As the two aspects were presented together, it is difficult to determine which type of information caused a greater impact. Further research is necessary to investigate and ascertain the relative influence of each factor.

In summary, while the in-depth interviews highlighted the significance of consumers' lack of awareness regarding the environmental consequences of disposable menstrual products, the conducted quantitative research suggests that a combined product description emphasizing both the product and its environmental benefits has the potential to drive positive opinion changes. However, more extensive research is required to discern the specific impact of each information type on consumer behavior.

Diffusion of innovation

When examining the adoption of menstrual cups from the perspective of the Diffusion of Innovation theory, the product's history reveals that these products tend to diffuse into the mainstream market rather slowly, facing various adoption challenges. One of the primary factors impeding their adoption is the intimate nature of the product, which is greatly influenced by the societal stigma and taboo associated with menstruation. Furthermore, menstrual cups, despite being an environmentally-friendly alternative to disposable products, encounter

adoption challenges related to factors such as availability, high costs, and perceived effectiveness.

Although menstrual cups appear to be gaining popularity on the market, their adoption still encounters several challenges. Currently, the adoption of the innovation process is still at a relatively early stage, it is primarily the innovators and some early adopters who have embraced menstrual cups. Their primary function is to serve as ambassadors for the product, collaborating with proactive alternative period product companies to build consumer trust, facilitate information dissemination, and ultimately help the adoption process towards reaching the early majority.

There are five primary factors influencing the adoption of a product, namely relative advantage, compatibility, complexity, trialability, and observability (Rogers, 2003, pp. 213–232). To summarize the research findings, the perceived relative advantage depends on the currently used solutions and to what extent consumers perceive menstrual cups as having relative advantages. Consumers who are already using menstrual cups or considering switching to them mentioned environmental reasons, comfort, and cost-efficiency as their main motivations for using these products. However, it's essential to note that consumers lacking information about the product or having negative perceptions might expect the opposite features. They reported concerns about the product's hygiene, finding it scary and painful.

Interviews with company representatives revealed that, in their opinion, women who are already tampon users might be the most compatible with adopting menstrual cups. This group may also include women with heavy flows who struggle to find suitable solutions. Representatives argued that the design of menstrual cups is the most similar to tampons, as both need to be inserted and operate based on the same blood-collection methodology, while offering undeniable comparative advantages.

The compatibility factor of a product also depends on alignment with the values and beliefs of the consumer (Rogers, 2003, p. 223). Personal values and beliefs influenced by social norms significantly impact adoption. Women with lower body acceptance and awareness or greater body shame tend to be less open to alternative solutions. Conversely, women valuing sustainability and cost-effective solutions find menstrual cups favorable and are more open to adoption. Compatibility also depends on how well the innovation aligns with one's lifestyle and needs, which can change over time due to shifts in beliefs or external influences.

The complexity of menstrual cups can present challenges for individuals unaccustomed to this technology, as their usage entails a learning curve. The time and effort necessary to become proficient in the correct and most effective application of these products can vary among consumers. Interviews and online surveys revealed instances where consumers tried the product but gave up due to uncertainty about the correct usage. Given the intimate nature of menstruation and menstrual products, women may give up early because they're hesitant to discuss such matters, especially if no one in their immediate environment uses the same products.

As emerged in the in-depth interviews, the inability to try the product can also be a barrier to innovation adoption. Initial costs for menstrual cups are relatively high compared to a pack of tampons. The fact that consumers cannot try the product before purchasing it may deter them. Similarly, menstrual cups are of an intimate nature, and women often do not discuss the products they use outside their close circles, this can also hinder innovation adoption, as these products cannot be observed. Even if someone likes the product, it may not become known to the public, as they may not state it due to the taboo factor.

In summary, the adoption of menstrual cups is influenced by several motivating and hindering factors, as viewed through the lens of the Diffusion of Innovation theory. Societal stigma and the intimate nature of the product act as significant barriers, impeding its acceptance, despite the advantages it offers in terms of the environment and cost-effectiveness. Motivating factors include the presence of innovators and early adopters who embrace the product, driven by their willingness to take risks and reduce uncertainty among their social circles. The five primary adoption factors can be categorized accordingly: relative advantage motivates adoption, as users perceive benefits such as comfort and cost-efficiency. Compatibility is influenced by personal values, body acceptance, and sustainability preferences, further driving adoption. However, complexity and the inability to trial the product are hindering factors, often leading to user abandonment. The initial costs of menstrual cups pose additional barriers. Moreover, the taboo surrounding menstruation further restricts the product's visibility. Addressing these challenges is vital to promote the widespread adoption of menstrual cups.

4.2. Recommendations, future insights and limitations

The present research provides valuable insights into consumer behavior and shopping preferences, including the most effective channels to reach consumers, generational differences,

and the main motivations and barriers influencing product choice and usage. The regression and decision tree models highlight a strong correlation between monthly menstrual product spending and cup usage, suggesting that a strategic approach for promoting these products could focus on their cost-effectiveness, particularly by emphasizing their environmental advantages.

Concerning menstrual products, consumers prioritize comfort and protection. Environmental considerations, along with comfort and cost-effectiveness, drive the adoption of menstrual cups. To address existing concerns around menstrual cup usage, it is crucial to prioritize educational efforts aimed at providing knowledge about menstrual cups and promoting their proper usage. Educational materials should focus on destigmatizing menstruation, particularly for young girls and adolescents, by presenting it as a natural and socially accepted process. Increasing body acceptance could lead to greater openness to alternative solutions and innovative products.

Given the public interest in sustainability and breaking taboos, governmental organizations can play a crucial role. This could involve improving school education, training healthcare workers for information dissemination, and organizing community events related to women's health. Companies can organize interactive workshops to bring women closer to the product, establish connections, and make menstrual cups feel less distant.

Reaching different generations effectively depends on using the communication platforms they commonly use for information search. For younger generations, a strong social media presence is essential. Platforms like Instagram and TikTok can serve as sources of both educational and entertaining content. Involving influencers can also be a successful strategy, creating familiarity and closeness with consumers, particularly when discussing intimate topics. Another option is creating a social media community on Facebook, for example, where women can share their experiences and openly discuss concerns.

From a marketing perspective, it is recommended to emphasize the product's environmental aspects. This could involve designing eco-friendly packaging that attracts attention on the shelves. Selling the product in stores with a sustainable profile is also beneficial, as the target audience is likely to shop there and be more open to innovation. Advertising on public transportation, car-sharing apps, and bike-sharing stations can also enhance outreach, as according to the quantitative research, respondents engaging in sustainable habits are very likely to choose public transportation. Personalization can also be an important element of

advertising, bringing experiences up close, and sharing personal stories can be an excellent tool for this.

By keeping these factors in mind, an effective marketing strategy can be developed to reach consumers, build trust, and enhance the popularity of reusable menstrual products, especially menstrual cups.

To gain deeper insights, future research may explore the differentiation between shifts in opinion and actual purchase intentions, exploring the key elements contributing to the conversion between the two. Furthermore, examining the effects of different treatments, such as the impact of education on purchase intention or the influence of various types of advertising (information-focused vs. emotion-focused), could offer valuable insights. Another potential research path is investigating how the quantity of menstrual flow relates to the choice of product. Company representatives mentioned focusing on consumers with heavy flows, as traditional practices are less convenient for these women. Additionally, there is potential for further research to investigate individuals who have either rejected or embraced menstrual cups. Presently, the adoption process is in its early stages, which is why focusing on the initial awareness and early adoption phases has been the most pragmatic approach. However, as the adoption of this innovation progresses, exploring the other consumer segments becomes increasingly valuable.

The study has certain limitations that should be acknowledged. Firstly, the results are not representative, even within the context of Hungarian women, due to the use of convenience sampling and an uneven distribution of age groups, such as the overrepresentation of the 18-25 age group. The mentioned limitations call for cautious interpretation of the conclusions. Secondly, the data rely on self-reported answers, which may be subject to misunderstanding or biased responses due to the taboo nature of the topic. Finally, the presented recommendations are based on personal opinion and further research on a larger scale is necessary to obtain more reliable data. Nonetheless, the current findings provide important insights on the topic at hand.

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Appendices

The following appendices contain the guide for the interviews conducted with the target group and the questionnaire of the survey.

Appendix 1: Guide for the in-depth interviews with consumers

Interjúalany:

Kérdezés módja:

Időpont:

Helyszín:

Bemutakozás, bevezetés (kb. 5 perc)

A nevem Czire Ráhel Orsolya, az ELTE Kereskedelem és Marketing szakjának harmadéves tanulója vagyok. A jelen beszélgetésünk a szakdolgozatom kutatási kérdésének megválaszolását segíti, melynek célja a menstruációs kelyhek megítélésének vizsgálata a 18-50 éves nők körében, a fogyasztást motiváló és akadályozó tényezők elemzésén keresztül.

Meg szeretném köszönni, hogy elvállalta a beszélgetést, és ezáltal hozzájárul a szakdolgozatom sikeres kimeneteléhez. Biztosítom, hogy az itt elhangzottakat bizalmasan fogom kezelni, valamint az itt gyűjtött adatok kizárólag anonim módon fognak megjelenni. A beszélgetésről, későbbi elemzés céljából, hangfelvétel készül.

A mélyinterjú során nincsenek jó vagy rossz válaszok, legkökeppen a véleményére és tapasztalataira vagyok kíváncsi, amelyek értékes információt nyújtanak nekem a további kutatásomhoz. Ugyanakkor, érzékeny kérdés esetén megtagadhatja a válaszadást, és csak olyan mértékben kell elmélyülnünk egyes témákban, amennyire az Önnek komfortos.

Első körben arra szeretném kérni, hogy mutakozzon be, és meséljen magáról néhány mondatban: hány éves, tanuló/dolgozik, családi állapot stb.

Bevezetés a témába – menstruációs szokások, menstruáció megítélése (kb. 25 perc)

- Milyen menstruációs termékeket használ jelenleg?
- Mennyit költ havonta átlagosan menstruációs termékekre?

- Milyen fő szempontok alapján választ menstruációs termékeket? (pl. kényelem, ár, védelem stb.)
- Mennyire tartja magát tudatos fogyasztónak? Mennyire veszi figyelembe a termékek környezetre gyakorolt hatását vásárláskor, és ez miben nyilvánul meg?
- Honnan szokott informálódni, ha informálódik, menstruációs termékekkel kapcsolatban?
- Szeretne több információhoz jutni? Milyen típusúhoz? (fejtse ki) Hol látná a legszívesebben ezeket?
- Látott-e az utóbbi 1 hónapban reklámot menstruációs termékekről? Ha igen, milyen terméket mutatott be, és miről szólt a reklám?
- Mennyire része a menstruáció a mindennapi beszélgetéseinek? Mennyire szokott szabadon beszélni erről? (Tabunak érzi?)
- Kivel szokott erről beszélni? Kivel beszélt életében először erről? Ez milyen élmény volt?
- Milyen viszonya van a menstruációval? (pl. undorítónak találja, szégyelli magát ilyenkor, semleges, pozitív stb.)

Általános tájékozottság, menstruációs kelyhek (kb. 25 perc)

- Mit gondol, mekkora a műanyagtartalma egy egyszer használatos tamponnak? Ön szerint évente hány darabra van szüksége egy nőnek?
- Mit gondol, mennyi idő, amíg lebomlik egy egyszer használatos menstruációs termék?
- Hallott-e már a fenntartható menstruációs eszközökről? Ha igen, melyekről?
- Hallott-e már a menstruációs kelyhekről? Ismer ilyen márkákat?
- Ha az előző kérdésre igennel válaszolt, használ menstruációs kelyhet? Milyen gyakran? Mióta? Milyen tapasztalatai vannak?
- Ha nem használ menstruációs kelyhet, gondolkodott, hogy használja? Miért nem használja?
- Ha abbahagyta a termék használatát, miért? Mi volt a tapasztalata?
- Van-e bármilyen fenntartása a menstruációs kelyhekkel kapcsolatban?

- Tudja, hogy miből készülnek ezek? Mit gondol, egy menstruációs kehely mennyi ideig használható?

Összegzés (kb. 5 perc)

- A beszélgetésünkön elhangzottak során, és annak fényében, amit megtudott, kipróbálná a menstruációs kehelyt?
- Változott-e a viszonya a termék iránt az interjú által? Ha igen, minek a hatására, és milyen irányba?

Befejezés, köszönetnyilvánítás (kb. 5 perc)

- Van még bármi, ami az interjú során felmerült Önben, és eddig nem tértünk ki rá? Van az elhangzottakkal kapcsolatban még valami, amiről beszélni szeretne?

Köszönöm a mélyinterjúban való részvételt és a bizalmát! További szép napot kívánok!

Appendix 2: Guide for the in-depth interviews with company representatives

Interjúalany:

Kérdezés módja:

Időpont:

Helyszín:

Bemutatkozás, bevezetés

A nevem Czire Ráhel Orsolya, az ELTE Kereskedelem és Marketing szakjának végzős tanulója vagyok. A jelen beszélgetésünk a szakdolgozatom és kutatásom kérdésének megválaszolását segíti, melynek célja a menstruációs kelyhek megítélésének vizsgálata a 18-50 éves nők körében, a fogyasztást motiváló és akadályozó tényezők elemzésén keresztül.

Meg szeretném köszönni, hogy elvállalta a beszélgetést, és ezáltal hozzájárul a szakdolgozatom sikeres kimeneteléhez. Biztosítom, hogy az itt elhangzottakat bizalmasan fogom kezelni, valamint az itt gyűjtött adatok kizárólag anonim módon fognak megjelenni. A beszélgetésről, későbbi elemzés céljából, hangfelvétel készül.

- figyelmeztetés: nem lehet titkosítani?

Elsőkörben arra szeretném kérni, hogy mutakozzon be, és meséljen magáról, illetve a vállalatról néhány mondatban: mióta dolgozik a Biointimonál, milyen pozícióban/pozíciókat töltött be a cégnél az évek során.

Vállalat bemutatása, versenytársak

- Mikor kezdtek el alternatív menstruációs termékekkel foglalkozni? Miért?
- Mit gondol, miben másak az Önök termékeik, mint a versenytársak kínálata? (mindenképpen beszéljen a m. kehelyről) Mik a legfőbb termékelőnyök?
- Mi a fő elv a termékfejlesztés mentén? (pl. perszonalizálják-e a termékeket?)
- Kiket tart a legfőbb versenytársaknak? Melyek azok a márkák, amelyek a legnagyobb fenyegetést jelentik a vállalat számára? Miért?

- Mi miatt jelentenek ezek a márkák fenyegetést?
- Van olyan terület, ahol az Önök márkája teljesít jobban? Mik azok az egyedi termékjellemzők, amelyek megkülönböztetik az Önök márkáját a többi versenytárustól?
- Vannak olyan területek, ahol a konkurencia jobban teljesít? Mit gondol, áthidalhatóak ezek a különbségek?

Fogyasztók és jellemzőik

- Hogyan jellemezné a cég vevőkörét? Kik azok, akik alternatív menstruációs termékeket vásárolnak? (Ettől eltér bármiben is a kelyhet vásárlók köre?)
- Mit gondol, Magyarországon más az újrahasználató menstruációs termékek megítélése, mint más országokban? Miben más?
- Milyen célcsoportra/célcsoportokra koncentrálsz elsősorban a vállalat? Miért pont őket célozza a márka? Milyen tulajdonságokkal rendelkeznek ezek a fogyasztók?
- Milyen tapasztalataik vannak, melyek azok a tényezők, szempontok, amik segítik, hogy a vevők kipróbálják az alt. mens. termékeket? Melyek azok, amelyek leginkább gátjai a terjedésnek?
- Milyen feltételeknek kell teljesülnie? Volt-e esetleg olyan, amiről azt gondolták, hogy érték lesz a fogyasztónak, és végül más visszajelzés érkezett a részükről?
- Hogyan válaszoltak a vásárlók különböző ingerekre, kampányokra? Tudna erről mesélni?
- Milyen visszajelzéseket kapnak a vevőktől a termékekkel kapcsolatosan? Szoktak vevői felméréseket készíteni a témában?
- Érkezett-e olyan visszajelzés, aminek hatására változtattak a terméken, kommunikációs stratégián stb.?

Kommunikáció

- Melyek azok a médiumok, tömegkommunikációs csatornák, (marketingkommunikációs mix elemei), amelyeket a vállalat beépít a marketingkommunikációs stratégiájába?
- Melyikre fektetnek a legnagyobb hangsúlyt?

- Mik bizonyultak a leghatékonyabb eszközöknek, csatornáknak?
- Van-e olyan, amin változtattak? Ez milyen szinten volt befolyásolt a célcsoport által?
- Mi jellemzi a menstruációs termékek piacát? Hogyan változott, ha változott, a menstruációs termékek piaca, mióta piacra léptek?
- Növekszik-e a piac? Növekszik a termékek eladottsága?
- Mi bizonyult a leghatékonyabb módnak arra, hogy eljutassák a márka üzenetét a fogyasztókhoz, és mi ez az üzenet?
- Mik a legfőbb kihívások? (ha nem ő hozza fel, rákérdezni: knowledge gap, taboo)
- A dolgozatomban többek között azt is vizsgáltam, hogy milyen szintű a véleményváltozás az információátadás hatására. Láttam, hogy a vállalat is vezet egy blogot, ahol informatív tartalmakat osztanak meg az egyszer használható megoldások környezeti hatásáról, a kelyhek és egyéb újrahasználatos termékek jellemzőiről stb. Ez mennyire készült tudatosan (a knowledge gap áthidalása céljából?). Érzékelték a blog bevezetésének hatását (pl. eladás, ismertség, termékelfogadás stb.)?
- Hogyan próbálják, ha próbálják, megcélozni azokat, akik jelenleg még nem használók?
- Van-e olyan terület, amin fejlesztené a jövőben a cég piaci pozíciójának emelése céljából? Mi ez?

Befejezés, köszönetnyilvánítás

- Van-e esetleg olyan kérdés, téma, amire úgy érzi, hogy nem tértünk ki az interjú során, és szívesen megemlítené?
- Köszönöm a mélyinterjúban való részvételt, a nyitottságát és a bizalmát! További szép napot kívánok!

Appendix 3. Online questionnaire

A menstruációs kelyhek megítélését alakító tényezők

Kedves Kitöltő!

Czire Ráhel Orsolya vagyok, az Eötvös Loránd Tudományegyetem Gazdaságtudományi Karának hallgatója. Szakdolgozatom keretében a menstruációs kelyhek megítélését vizsgálom a 18-50 éves nők körében, a fogyasztást motiváló és akadályozó tényezők elemzésén keresztül, melyhez ezzel a kérdőívvel kívánok adatokat gyűjteni. A kérdőív anonim. Kérem, ha teheti, töltse ki, ezzel hozzájárulva szakdolgozatom sikerességéhez. A kérdőív kitöltése körülbelül 5 percet vesz igénybe.

Köszönöm, hogy válaszaival hozzájárul kutatásom eredményességéhez!

Demográfiai kérdések

1. Az Ön neme:

- nő
- férfi (kizáró ok – kérdőív vége)

2. Az Ön életkora:

- 18 év alatt (kizáró ok – kérdőív vége)
- 18-25
- 26-33
- 34-50
- 50 felett (kizáró ok – kérdőív vége)

3. Az Ön foglalkozása

- tanuló
- egyetemi hallgató
- dolgozom
- nem dolgozom
- egyéb

Menstruáció megítélése, menstruációs termékpreferenciák

4. Ön menstruál?

- igen
- nem (kizáró ok – kérdőív vége)

5. Az alábbi menstruációs termékek közül melyeket ismeri? (Kérem, jelölje be az összes Önre jellemző állítást!)

- (Tisztasági) betét
- tampon
- mosható betét
- menstruációs kehely
- menstruációs bugyi
- egyéb (nevezze meg)

6. Az alábbi menstruációs termékek közül melyeket használta legalább egyszer élete során? (Kérem, jelölje be az összes Önre jellemző állítást!)

- (Tisztasági) betét
- tampon
- mosható betét
- menstruációs kehely
- menstruációs bugyi
- egyéb (nevezze meg)

7. Mennyit költ havonta átlagosan menstruációs termékekre?

- 0-1000 Ft
- 1001-2000 Ft
- 2001-3000 Ft
- 3001 Ft felett

8. Mennyire fontosak az alábbi szempontok termékválasztáskor (Likert: 1 – egyáltalán nem fontos, 5 – nagyon fontos):

- kényelem
- ár
- védelem
- megszokás, rutin
- környezetre gyakorolt hatás

- összetétel

9. Honnan szokott informálódni menstruációs termékekkel kapcsolatban? (Kérem, jelölje be az összes Önre jellemző állítást!)

- az interneten rákeresek
- közösségi média
- édesanyámtól
- barátoktól
- nem szoktam
- egyéb (nevezze meg)

10. Mennyire ért egyet az alábbi állításokkal (Likert: 1 – egyáltalán nem értek egyet, 5 – teljes mértékben egyetértek)

- könnyen elérhetőnek érzem az információkat a menstruációs termékekkel kapcsolatban
- szeretnék több információhoz jutni
- a menstruáció egy tabu téma, amelyről nem szívesen beszélek másokkal
- könnyen beszélek a menstruációról, része akár a mindennapi beszélgetéseimnek is
- Amikor menstruálok, tisztátalannak érzem magam
- Amikor menstruálok, az semmilyen szinten nem befolyásolja a mindennapjaim

11. Milyen a viszonya a menstruáció témájával? (1 – negatív, 5 – pozitív)

Fogyasztói tudatosság, környezetvédelem

12. Mennyire jellemzőek Önre az alábbi állítások? (Likert: 1 – strongly disagree, 7 – strongly agree)

- vásárolni saját szatyorral szoktam járni, hogy ne kelljen nejlonzacskót kérnem
- a szemetet szelektíven gyűjtöm
- inkább javíttatom meg ruháimat, mint újat vásárolok
- inkább járok tömegközlekedéssel/biciklivel/gyalog, mint autóval
- igyekszem kevesebb húst enni, hogy csökkentsem az ökológiai lábnyomom
- import helyett inkább hazai termékeket vásárolok

13. (Green consumer values – mennyire tartja magát tudatos fogyasztónak)

Mennyire jellemzőek Önre az alábbi állítások? (Likert: 1 – strongly disagree, 5 – strongly agree)

- (It is important to me that the products I use do not harm the environment.)

Fontos számomra, hogy a termékek, amiket használok, ne ártsanak a környezetnek.

- (I consider the potential environmental impact of my actions when making many of my decisions.)

A legtöbb döntésem meghozatala előtt figyelembe veszem annak a környezetre gyakorolt hatását.

- (My purchase habits are affected by my concern for our environment.)

A környezetünkre való odafigyelés hatással van a legtöbb vásárlási szokásomra.

- (I am concerned about wasting the resources of our planet.)

Aggódok bolygónk erőforrásainak pazarlása miatt.

- (I would describe myself as environmentally responsible.)

A környezetemért felelősnek tartom magam.

- (I am willing to be inconvenienced in order to take actions that are more environmentally friendly.)

Kész vagyok a kellemetlenségekre, hogy környezetbarátabb lépéseket tegyek

Menstruációs kelyhek

14. Melyik állítás jellemző Önre? (Kérem, jelölje be az összes Önre jellemző állítást!)

- ismerem és használok menstruációs kelyhet
- ismerem, de nem használok menstruációs kelyhet
- ismerem, használtam, de már nem használok menstruációs kelyhet
- ismerem, eddig nem használtam, de szívesen kipróbálnám
- nem ismerem, de szívesen kipróbálnám
- nem szeretném kipróbálni a menstruációs kelyhet

15. Amennyiben használ (vagy szívesen használna) menstruációs kelyhet, mik lennének a fő motivációi? (Kérem, jelölje be az összes Önre jellemző állítást!)

- költségmegtakarítás
- környezetvédelmi okok
- kényelmi okok
- egészségügyi okok
- egyéb (írja be)

16. Amennyiben nem használ menstruációs kelyhet, miért nem? (Kérem, jelölje be az összes Önre jellemző állítást!)

- nem ismerem a terméket
- egyik ismerősöm sem használ
- ijesztőnek tartom
- túl drágának tartom
- nem tartom higiénikusnak
- nem tudom, hol lehetne venni
- egyéb (írja be)

Rövid ismertető a termékről

Kérem, olvassa el az alábbi rövid ismertetőt a menstruációs kelyhekről:

A menstruációs kelyhek újrahasználatos orvosi szilikonból készülnek, amelyek 10-38 ml folyadékot képesek megtartani, és akár 10 évig is használhatóak. Összehasonlításként, egy átlagos tampon kapacitása 3-12 ml, és egy nőnek évente nagyjából 170 darabra van szüksége. Ez világszinten összesen évi 4.6 millió tonna szemetet jelent, ami az eldobható női higiéniai termékekből származik.

A menstruációs kelyheket (a kehely méretétől és a vérzés erősségétől függően) elegendő 12 óránként cserélni, és a kutatások szerint minden higiéniai elvárásnak eleget tesznek: könnyen tisztíthatóak, megfelelő használat mellett nem szivárognak, és légmentesen zárva gyűjti a folyadékot, így a bakteriális fertőzés veszélye is alacsonyabb, mint például a tamponok esetében.

Véleményváltozás

17. A fent ismertetettek alapján, megváltozott a véleménye a menstruációs kelyhekről?

(1 – negatív irányba változott, 3 – semleges, 5 – pozitív irányba változott)

18. A fent ismertetettek alapján, kipróbálná a menstruációs kelyheket?

- igen
- nem

Nagyon köszönöm, hogy kitöltötte a kérdőívet, és ezáltal hozzájárult a kutatásomhoz!
További szép napot kívánok!